

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF WYOMING

DECLARATION OF JOHN STITH
Submitted In Support of Environmental Defense Fund

I, John Stith, declare as follows:

1. I am Director of Database Marketing and Analytics at the Environmental Defense Fund (EDF). I have had this position for more than ten years.

2. My duties include maintaining an accurate list of members. My colleagues and I provide information to members, acknowledge gifts and volunteer actions and manage the organization's member databases. My work requires me to be familiar with EDF's purposes, staffing, activities, and membership.

3. EDF is a membership organization incorporated under the laws of the State of New York. It is recognized as a not-for-profit corporation under section 501(c)(3) of the United States Internal Revenue Code.

4. EDF relies on science, economics and law to protect and restore the quality of our air, water and other natural resources. EDF employs more than 150 scientists, economists, engineers, business school graduates and lawyers to help solve challenging environmental problems in a scientifically sound and cost-effective way.

5. It is my understanding that the Bureau of Land Management (BLM) has recently finalized waste prevention standards for oil and natural gas production on federal and tribal lands (“waste prevention standards”). These standards are crucial to minimizing the waste of publically-owned natural gas and will also reduce emissions of volatile organic compounds (VOCs), which form smog; methane, a potent greenhouse gas; and hazardous air pollutants, including benzene, a known human carcinogen.

6. EDF has a strong organizational interest, an interest that is based in its members’ recreational, aesthetic, professional, educational, public health, environmental, and economic interests, in protecting public lands and reducing harmful air pollution from the oil and gas sector, including the sources addressed by BLM’s waste prevention standards.

7. Through its programs aimed at protecting human health and the environment, EDF has long pursued initiatives at the state and national levels designed to reduce emissions of health-harming and climate-altering air pollutants from all major sources, including the oil and natural gas sector. This work has addressed emissions of methane, as well as VOCs and other harmful pollutants. EDF participated as a stakeholder during the public comment period for BLM’s waste prevention standards, filing comments on the proposed rule.¹ EDF also

¹ Comments of Environmental Defense Fund on BLM Proposed Rule: Waste Prevention, Production Subject to Royalties, and Resource Conservation rule, 81 Fed. Reg. 6,616 (April 22, 2016), Document ID No. BLM-2016-0001-8857.

participated in BLM's Forums on Venting and Flaring of Gas Produced on Public Lands in 2014.²

8. When an individual becomes a member of EDF, his or her current residential address is recorded in our membership database. The database entry reflecting the member's residential address is verified or updated as needed. The database is maintained in the regular course of business and each entry reflecting a member's residential address and membership status is promptly updated to reflect changes. I obtained the information about our membership discussed below from our membership database.

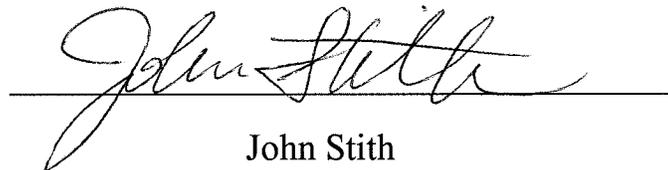
9. EDF currently has over 350,000 members in the United States, and we have members in all 50 states and the District of Columbia. These members likewise have a strong interest in protecting human health and the environment from air pollution. Many live on and near public lands affected by air pollution from oil and gas production. EDF currently has over 100,000 members in the 13 states with significant proportions of BLM-managed lands (Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, Utah, Washington, and Wyoming), with over 18,000 members in the six states that account for approximately 75% of acres leased for oil and gas

² See Comments of Environmental Defense Fund on BLM Forum on Venting and Flaring from Oil and Gas Operations on Public and Indian Trust Lands (May 30, 2014), *available at* https://www.blm.gov/style/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION/energy/oil_and_gas.Par.31165.File.dat/BLM_VF_CommentsAll.pdf.

production on federal and tribal lands: Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming.³

10. If the present challenges to weaken or overturn the waste prevention standards are successful, EDF's members will be harmed both by the continued waste of public resources, as well as the continued emission of health-harming air pollutants from oil and gas production on federal and tribal lands and the detrimental effects of climate change that this rule will help to address.

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


John Stith

Dated: November 30, 2016

³ BLM, Total Number of Acres Under Lease As of the Last Day of the Fiscal Year, FY2015, available at https://www.blm.gov/style/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/energy/oil__gas_statistics/data_sets.Par.67327.File.dat/numberofacresleasedlastday.pdf.

DECLARATION OF MELEAH A. GEERTSMA

I, Meleah A. Geertsma, declare as follows:

1. I am a senior attorney at the Natural Resources Defense Council (“NRDC”), where I work on NRDC’s campaign to control greenhouse gases from and address other impacts of oil and gas development. I have been an attorney with NRDC since 2010.
2. NRDC is a non-profit environmental membership organization that uses law, science, and the support of more than two million members and activists throughout the United States to protect wildlife and wild places and to ensure a safe and healthy environment for all living things. NRDC has a long-established history of working to protect public lands and clean air in states including Wyoming, Montana, Colorado, New Mexico, Utah, Ohio, Alabama, Virginia, Mississippi, Florida, and more. These actions help protect NRDC’s members, who use and enjoy public lands across the country for a variety of purposes, including recreation, solitude, scientific study, and conservation of natural resources. In particular, NRDC has worked for decades to protect public lands, nearby communities, wildlife habitat and air quality from the threats posed by oil and gas development. To these ends, NRDC has engaged and continues to engage in advocacy activities related to resource and land management planning, oil and gas leasing, and federal policies at the U.S. Department of the Interior and U.S. Forest Service, including, in addition to the rule at issue in this case, the Bureau of Land Management’s (BLM)

hydraulic fracturing rule, the Colorado River Valley resource management plan, and the George Washington National Forest land management plan.

3. My own duties with respect to public and tribal lands include reviewing and commenting on federal rulemakings pertaining to the control of air pollution from the oil and gas sector on such lands. As part of these responsibilities, I have analyzed BLM's 2016 proposed and final rules to address methane emissions and waste of natural gas on public and tribal lands at issue in this case. Specifically, I contributed to joint comments on the rules submitted by NRDC and other partner organizations in April 2016. Attach.

A. I also coordinated the input of NRDC's technical expert on BLM's proposed methane and waste rule, which the team incorporated into our joint comments.

4. Prior to my involvement with BLM's methane and waste rulemaking, other NRDC attorneys and policy and technical staff advocated for BLM to update and strengthen its regulations regarding prevention of waste, culminating in the rule at issue in this case. Their work is reflected in several sets of comments submitted in 2014.

Attaches. B, C. In addition, NRDC submitted comments in 2012 asking the U.S.

Environmental Protection Agency to strengthen its proposed Federal Implementation

Plan governing oil and gas emissions on the Ft. Berthold Reservation, a precursor to the

current BLM methane and waste rule. Attach. D.

5. The BLM methane and waste rule will reduce harmful air pollutants from oil and gas operations on public lands, pollutants that cause ozone-smog, are associated with

cancer and other health impacts, and contribute to climate change. These reductions will benefit NRDC members living near these operations, as well as members feeling the impacts of climate change. The rule will also result in additional royalty revenue going to benefit local communities, including communities in which NRDC members live.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief. Executed on December 1, 2016.

A handwritten signature in black ink, appearing to read "Meleah A. Geertsma", written over a horizontal line.

Meleah A. Geertsma

DECLARATION OF MICHAEL A. SAUL

I, Michael A. Saul, hereby declare as follows:

1. I submit this declaration in support of conservation groups' Motion to Intervene in the matter of Western Energy Alliance v. Jewell. I have personal knowledge of the matters stated herein and, if called as a witness, could and would competently testify thereto.

2. I have been a member of the Center for Biological Diversity ("Center") since 2014. I am currently employed as Senior Attorney for the Center's Public Lands Program. In this role, I engage in administrative and legal advocacy to protect wildlife and wildlife habitat on public lands and work towards mitigating adverse impacts of public lands fossil fuel development.

3. The Center is a membership based 501(c)(3) non-profit corporation incorporated in California, whose primary mission is to protect threatened and endangered species and their habitats both in the United States and abroad. The Center relies upon the voluntary contributions of members, supporters, and donors to support its operations and its members and supporters rely on the Center to advocate for them on behalf of the Center's organizational mission.

4. The Center also works to reduce greenhouse gas emissions and other air pollution to protect biological diversity, our environment, and public health. The Center has over 48,500 members, including many who live in the areas affected by oil and gas development on Bureau of Land Management ("BLM")-managed lands. Center members have visited these public lands for recreational, scientific, educational, and other pursuits and intend to continue to do so in the future, and are particularly interested in protecting the many native, imperiled, and sensitive

species and their habitats that may be affected by oil and gas development, and in protecting the quality of the air we breathe.

5. In September 2012, the Center, along with Clean Air Task Force and the Western Environmental Law Center, petitioned the Secretary of the Interior update BLM regulations, notices to lessees (NTLs), and orders governing oil and natural gas leases on federal leases to minimize the significant leakage of methane that currently occurs during oil and natural gas activities on federal oil and gas leases.

6. In 2016, the BLM finalized its updated rules on waste prevention, production subject to royalties, and resource conservation, adopting in part although not in total certain rule changes requested in the 2012 Petition.

7. On April 20, 2016, the Center, along with Friends of the Earth, submitted written comments on the BLM's then-proposed regulations to reduce waste of natural gas from venting, flaring and leaks during oil and natural gas production, attached as Exhibit A.

8. The Center also participated in joint technical comments on the proposed rule submitted on behalf of numerous conservation groups by the Western Environmental Law Center.

9. Although the Bureau of Land Management's (BLM) new methane waste prevention rule is not perfect, it represents a significant step forward in addressing the rampant waste of methane from oil and gas operations on public and tribal lands. The rule is a much-needed update to waste guidance that was adopted 36 years ago.

10. The Center's members have diverse interests including natural history, ecology, conservation, wildlife and native plant observation, nature photography, hiking, camping, backpacking, quiet and solitude in nature, dark skies, fishing, and a love of public lands and

natural landscapes. The Center's members, as well as myself, enjoy and use BLM-managed federal land, including in Colorado, New Mexico, and Wyoming, as places to pursue these activities now and into the future. The Center's members expect and rely upon the BLM to protect the species, habitats, viewsheds, and air and water quality of these lands.

11. The updated waste rule will better protect the interests of the Center and its members. Center members live in states, including but not limited to California, Colorado, Montana, New Mexico and Wyoming where oil and gas is currently being developed, or may be developed in the future on federal public lands and/or minerals.

12. Numerous Center members, including myself, recreate, observe wildlife, conduct scientific research, and take photographs on public lands near where oil and gas development is occurring or has been proposed. Other members reside on "split estate" lands where the federal government owns the minerals underlying the property, or live in close proximity to federal lands where oil and gas development has been proposed.

13. In addition to the Center's institutional interest in public lands, I personally for many years have hiked, taken photographs, and observed wildlife on BLM lands affected by oil and gas development. Since 2002, I have regularly visited the Atlantic Rim area of Southern Wyoming, an area of public land administered by the BLM's Rawlins Field Office. In the Atlantic Rim area, I have personally observed and photographed wildlife including Greater Sage-Grouse, pronghorn, and mule deer. I intend to return to visit Atlantic Rim again in the future, and to share this area with my children. My aesthetic enjoyment of the area has been impaired by vegetation removal, noise, light, odor, and loss of natural character due to BLM-administered oil and gas development in the area.

14. BLM's new methane waste rule will require or incentivize oil and gas operators to take measures to reduce natural gas waste from BLM-administered mineral leases. The Rule's reductions in venting, leaking, and flaring will decrease volatile organic compound emissions that contribute to the formation of ozone. Ozone contributes to asthma, emergency room visits, and premature mortality, and its reduction will improve the health of the Center's members.

15. I personally reside within the Denver metro/northern Front Range ozone nonattainment area for Colorado. Ozone levels above national air quality standards, caused in significant part by Front Range oil and gas development, contribute to unhealthy levels of atmospheric ozone. Based on the Denver area's elevated ozone, I have substantial concern for the respiratory health of my family and children.

16. In addition to reducing the risk to the health of our members, the Rule will also protect and enhance plant life. Ozone also inhibits vegetation growth. Reduced ozone levels as a result of the Rule's limits and incentives will benefit Center members who farm, ranch, and observe and study native plants, as well as protect local ecosystems that our members enjoy for hiking, camping, and other recreation.

17. The Rule will also decrease emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing additional health benefits to Center members and local ecosystems.

18. The Rule would also have additional co-benefits, including preventing the emission of volatile organic compounds ("VOCs"), which make up about 3.5 percent of the volume of natural gas emissions, and include the particularly harmful BTEX compounds—benzene, toluene, ethyl benzene, and xylene. VOCs cause a wide range of harms, including

damage to the brain and nervous system. Thus, the Rule would provide substantial environmental, health, and economic benefits to Center members.

19. Reduced venting and flaring as a result of the Rule will also improve visibility by reducing ozone, nitrogen oxides, and particulate matter emissions, improving recreational opportunities for the Center's members. Likewise, flaring reductions will benefit the Center's members who experience noisy and unsightly flares throughout the day and night near their homes or in the areas where they enjoy recreating.

20. If the Rule is struck down, the aforementioned benefits will be lost. Center members would face increased health risks posed by ozone, hazardous air pollutants, and particulate matter. Damage from these pollutants to the landscape and the environment also would diminish those members' enjoyment from recreating on federal public lands. The Center's members will lose the increased royalties paid under the Rule that would benefit their communities.

21. If the Rule is struck down, I will also suffer personal harm due to increased health risks to myself and my family due to BLM-administered oil and gas operations affecting ozone levels within the Denver/Northern Front Range ozone nonattainment area.

22. While the Rule is an improvement over the status quo, it does have significant shortcomings, as noted in our comments of April 20, 2016. Therefore, the Center does not believe that BLM can adequately represent the interests of our members. For example, the rule permits flaring across a wide range of oil and gas operations, even though flaring contributes to climate change and acid rain and is an unsightly source of noise and light pollution. The Rule also fails to include consideration of social costs in the benefit-cost test that appears throughout the Rule that provides alternative limits to waste prevention measures. This is despite the fact

that the oil and gas resource is a public trust resource managed for the benefit of all Americans. The Rule also fails to adopt reasonable measures requested by the Center in its Petition and comments on the proposed rule, including charging royalties on all flared gas and/or integrating consideration of potential flaring into BLM planning and leasing processes.

23. Another shortcoming is that the Rule allows BLM to issue variances exempting oil and gas operations on federal leases across an entire state or tribal reservation from specific provisions of the Rule. This provision creates the potential for abuse and the dilution of the Rule's protections. If abuse of the variance provision occurs, it would undercut the Rule's benefit to our members.

24. I am aware that several States and industry trade groups have sued BLM, seeking to have the Waste Prevention Rule vacated by a court. I am also aware that the industry trade groups are asking the court to enjoin (i.e., prohibit the enforcement of) the Rule pending the outcome of their lawsuit. An injunction prohibiting the enforcement of the Rule would be contrary to the public interest.

25. The benefits to the public of reducing methane emissions through compliance with the Rule can and have been monetized. These monetary benefits are based on estimates of the social cost of carbon and methane that have been developed by the Interagency Working Group on Social Cost of Carbon and recent work on the social cost of methane. Given limitations in the models used to derive these estimates, such as underestimating the warming potential of methane, the exclusion of catastrophic impacts and other unqualified damages, and lack of consideration of feedback effects, these models are likely to substantially underestimate the benefits of avoiding methane emissions. On the basis of the social cost of methane and other (overly) conservative assumptions, the BLM estimates that the Rule's net benefits could range

from \$46 to \$204 million per year. These figures incorporate both the social benefits of reducing methane emissions and additional revenues for operators from sale of recovered natural gas. If the Waste Prevention Rule is enjoined, these benefits, including significant social benefits, would be lost.

26. The Rule has numerous other social benefits in addition to the social benefits of reducing climate change impacts, such as the reduction of volatile organic compounds and therefore the reduction of ozone. Ozone reductions provide numerous public health benefits. For example, a 2012 study found that annual numbers of avoided ozone-related premature deaths would range from 1,410 to 2,480 at 75 ppb to 2,450 to 4,130 at 70 ppb, and 5,210 to 7,990 at 60 ppb.

27. In October of 2015, EPA revised the health-based ambient air quality standard for ozone pollution to 70 parts per billion. I personally live in an area that has ozone levels well above 70 parts per billion, and above even the earlier standard of 75 parts per billion. Acute respiratory symptoms could have been reduced by 3 million cases and school-loss days by 1 million cases annually if only the then-current 75-ppb standard had been attained. If the Waste Prevention Rule is enjoined, public health benefits of reduced ozone formation, including within the Denver/Northern Front Range Ozone Nonattainment area, will be lost.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed in Denver, Colorado on November 30, 2016.

A handwritten signature in black ink that reads "Michael A. Saul". The signature is written in a cursive style with a horizontal line underneath the name.

Michael A. Saul

Senior Attorney, Center for Biological Diversity

Denver, Colorado

DECLARATION OF MINDI SCHMITZ

I, Mindi Schmitz, declare as follows:

1. I am employed by the Environmental Law & Policy Center (“ELPC”) as a Government Relations Specialist in Jamestown, North Dakota. I have held this position since 2007.
2. ELPC’s work in North Dakota includes two main program areas. The first is working to minimize negative environmental impacts from oil and gas development, in particular the wasteful and polluting practice of venting and flaring natural gas. The second is protecting special natural places in the state.
3. ELPC has, for years, taken numerous actions aimed at minimizing wasteful and harmful flaring and venting at oil wells in North Dakota. I personally have set up, and taken part in, myriad meetings with grassroots groups, “grass-tops” groups, and key state and federal lawmakers – including North Dakota Senator Heidi Heitkamp, with whom I have a close relationship – focused on reducing venting and flaring in the state. I testified at a U.S. Department of Energy (“DOE”) “Quadrennial Energy Review” hearing in 2014, in which I urged DOE to take action to minimize the wasteful practices of venting and flaring of gas from oil wells. My colleagues at ELPC and I have also submitted numerous sets of comments to the DOE, the North Dakota Industrial Commission, and the U.S. Environmental Protection Agency, urging them to adopt or strengthen regulations limiting flaring and venting of natural gas from oil wells and other oil- and gas-related infrastructure.
4. ELPC has been advocating for the Bureau of Land Management (“BLM”) to adopt venting and flaring standards for oil and gas production infrastructure since well before the current standards were proposed. In May 2014, I testified at a BLM hearing in Dickinson, North Dakota, urging BLM to adopt strong, common-sense standards to minimize the unnecessary waste of gas from flaring and venting. I underscored that this waste not only costs Americans the resource itself, but also millions of dollars in lost revenue from uncollected royalties. I also expressed concern about the huge amounts of

climate-warming and dangerous air pollutants released by venting and flaring. Later that month, my ELPC colleagues and I submitted extensive written comments to the BLM making the same points in more detail. Finally, after the venting and flaring standards were proposed earlier this year, ELPC – together with many other organizations – submitted extensive legal and technical comments which largely supported the rule, but also provided numerous recommendations for how it could better protect against needless waste and air pollution.

5. ELPC strongly supports BLM's venting and flaring standards, but there remain a number of areas in which we believe the standards could, and should, be more stringent. For example, the standards still allow a considerable amount of flaring, which, though better than venting, amounts to more wasted natural gas and more climate-warming and harmful air pollution. We do not believe BLM will adequately represent our interests in defending the rule, especially with a new federal administration entering office which, by all indications, will not make pollution reduction a high priority.

6. I also am personally affected by BLM's venting and flaring standards. I am on the Board of the Friends of the Theodore Roosevelt National Park, an organization dedicated to preserving the tranquility and beauty of that Park, and I visit the Park about three times per year. The Park is located in western North Dakota, in the immediate vicinity of oil wells to which the BLM venting and flaring standards will apply, and is impacted by both the air pollution and light pollution resulting from gas venting and flaring at those wells. The BLM standards will cut down on flaring and, even more so, on venting of natural gas near the Park, allowing me to better enjoy my visits there. If the standards were vacated, my experience would be diminished and I would not visit the Park as frequently.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 28, 2016.



Mindi Schmitz

DECLARATION OF LENA MOFFITT

I, Lena Moffitt, hereby declare as follows:

1. Since April 2015, I have served as the director of Sierra Club's Beyond Dirty Fuels Campaign. In this capacity, I oversee the Club's advocacy and supply side-efforts in moving beyond fossil fuels to a clean energy economy. I hold a B.A. in Environmental Biology from Columbia University and a Masters of Environmental Science and Management from the Donald Bren School of the Environment at the University of California, Santa Barbara.
2. From 2010 through 2013, I served as the Washington Representative for Sierra Club's Beyond Oil program, which shared similar goals to the Dirty Fuels Campaign. More recently, I led the National Wildlife Federation's Climate and Energy Program, and have also worked for the Union of Concerned Scientists, the Clean Energy Works campaign, and Voices for Progress. In addition, I previously served as board member of Sierra Club's Washington, D.C. Chapter and chaired that organization's Energy Committee, where I helped to advance local clean energy efforts.
3. Founded in 1892, Sierra Club is the nation's oldest and largest grassroots environmental organization. The Sierra Club's mission is to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and

restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives. In addition to helping people from all backgrounds explore nature and our outdoor heritage, the Sierra Club works to promote clean energy, safeguard the health of our communities, protect wildlife, and preserve our remaining wild places through grassroots activism, public education, lobbying, and legal action. The Sierra Club currently has more than 640,000 members nationwide.

4. The Beyond Dirty Fuels Campaign is a top priority for the Sierra Club and is a key initiative in its Our Wild America program. Our Wild America carries on Sierra Club's long legacy of protecting America's beautiful wildlands. Through this campaign, Sierra Club seeks to preserve our nation's wild heritage in the face of threats from mining, drilling, and climate disruption.

5. The Beyond Dirty Fuels Campaign works to reduce and mitigate the risks and harms that result from fossil fuel extraction. Much of our advocacy focuses on procuring robust standards for the oil and gas industry at both state and federal levels, including limitations on methane, a powerful greenhouse gas, from oil and gas sources.

6. Sierra Club members work to protect our federal public lands from all forms of commercial exploitation and to protect rare wildlife, habitat, and biodiversity. Oil and gas development on these public lands threatens Sierra Club members' use

and enjoyment of these areas. In addition, Sierra Club has members who reside in communities that are threatened by drilling and fracking activities on federal land, including air and water pollution associated with these activities.

7. Flaring, venting, and leaks on federal and tribal leases contribute to climate change, smog pollution, toxic air pollution and other environmental problems. I am aware that between 2009 and 2015, oil and gas producers on public and tribal lands vented, flared and leaked approximately 462 billion cubic feet of natural gas. I grew up in New Mexico and have personally witnessed the devastating impacts of unchecked oil and gas development on public lands in our state.

8. Sierra Club has been actively engaged in procuring strong and effective methane standards from the Bureau of Land Management (“BLM”), and has devoted significant resources toward that effort.

9. On April 22, 2016, the Sierra Club, along with other environmental groups, submitted comprehensive legal and technical comments on BLM’s proposed Waste Prevention, Production Subject to Royalties, and Resource Conservation rule (“BLM methane rule”), 81 Fed. Reg. 6,616 (Feb. 8, 2016). In those comments, the Sierra Club and other environmental commenters expressed support for BLM’s proposed rule but also recommended improvements to ensure that the rule would meet critical objectives such as minimizing waste, protecting the public health and welfare, and reducing emissions of greenhouse gases and other air pollutants.

10. The Sierra Club has chapters and members in the states with federal public lands that would be most impacted by the BLM methane rule (and therefore by litigation challenging the rule). For example, the Sierra Club currently has approximately 7,432 members in New Mexico; 2,294 members in Montana; 944 members in Wyoming; 4,266 members in Utah; and 17,263 members in Colorado. These members use public lands that could be impacted by this litigation for a variety of recreational, business, scientific, environmental, and spiritual activities, including camping, hiking, backpacking, climbing, fishing, hunting, canoeing, kayaking, birdwatching, wildlife viewing, photography, and other pursuits.

11. Sierra Club members and supporters were active in commenting on the BLM methane rule. For example, more than 50,000 Sierra Club members and supporters submitted written comments to BLM regarding the rule. Many Sierra Club members also testified regarding the rule at the public hearings held by BLM in New Mexico, Oklahoma, Colorado, and North Dakota.

12. I am aware that BLM promulgated the final Methane and Waste Prevention Rule on November 16, 2016, and that this rule requires oil and gas producers to take cost-effective measures to reduce the waste of natural gas from venting, flaring, and leaks from oil and gas development on federal and tribal lands. I am aware that, according to BLM, the rule will reduce flaring by approximately 49 percent and venting and leaks by approximately 35 percent (as compared to 2014

rates). Moreover, according to BLM, the rule could avoid approximately 175,000-180,000 tons of methane emissions per year.

13. Litigation challenging the rule, if successful, would adversely affect the interests of the Sierra Club and its members. For example, eliminating the new methane standards for oil and gas operations on federal lands would harm Sierra Club members who use and enjoy those lands.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.

This 30 day of November, 2016.


Lena Moffitt

DECLARATION OF NADA CULVER

I, Nada Culver, declare as follows:

1. I reside in Evergreen, Colorado. I have personal knowledge of each of the facts set forth below. I submit this declaration on behalf of myself and The Wilderness Society (TWS).
2. I am currently the Senior Director for Agency Policy and Planning at the Wilderness Society. I am also a member of TWS. I also oversee the BLM Action Center and National Forest Action Center at TWS; these centers are focused on engaging the public in planning and management of our public lands and advocating for responsible management.
3. TWS has a long-standing interest in the management of Bureau of Land Management (BLM) and Forest Service lands across the West, and engages frequently in the decision-making processes for land use planning and project proposals that could potentially affect wilderness-quality lands, wildlife habitat, and other natural resources managed by the BLM and Forest Service, as well as the health, safety and quality of life of surrounding communities.
4. TWS also has a long-standing interest in the use of our public and tribal lands for energy development, including supporting a transition to renewable energy, and ensuring that oil and gas and other energy development are focused in suitable locations and completed in a manner that does not harm other values. TWS actively engages in all aspects of oil and gas development, including land use planning, lease sales, rulemakings and other policy initiatives.
5. TWS members and staff enjoy a myriad of recreation opportunities on public lands, including hiking, biking, nature-viewing, photography, hunting, birdwatching and quiet contemplation in the solitude offered by wild places. Founded in 1935, our mission is to protect wilderness and inspire Americans to care for our wild places. We have more than 500,000 members and supporters around the West, including in Colorado, Utah, New Mexico, Wyoming, California, Montana and Alaska - states where substantial oil and gas development occurs on federal lands, "split estate" lands with federal minerals and tribal lands. Numerous TWS members use and enjoy public lands near where oil and gas development is occurring or has been proposed, including areas on and around public lands likely to be affected by air pollution and other impacts from such development. In addition, TWS has offices in each of the states listed, such that TWS staff also use and enjoy public lands near where oil and gas development is

occurring or has been proposed, including areas on and around public lands likely to be affected by oil and gas development impacts on air quality. TWS staff and members also benefit from the distribution of royalties from development of federal minerals to states and counties. TWS has a continuing interest in ensuring the protection of wild lands and the responsible use of public and tribal lands and minerals for energy development.

I. The Wilderness Society's Engagement in BLM's Waste Prevention, Production Subject to Royalties, and Resource Conservation Rule ("Waste Prevention Rule")

6. TWS has been actively engaged in the BLM's rulemaking related to its Waste Prevention Rule published November 15, 2016, including:

- a. TWS advocated for issuance of a BLM rule governing methane emissions, including venting, flaring and leaks of natural gas, since the BLM announced its intention to issue new regulations in January, 2015.
- b. In March, 2015, TWS released a report prepared by Stratus Consulting that demonstrated the need for the federal government to address the contributions to climate change coming from fossil fuel production from public lands and minerals; including, especially, the importance of regulation methane emissions (*See*, Greenhouse Gas Emissions from Fossil Energy Extracted from Federal Lands and Waters: An Update, available at <http://wilderness.org/sites/default/files/Stratus-Report.pdf>).
- c. TWS submitted extensive comments on the proposed rule released in March, 2016.
- d. TWS members and supporters, responding to wild alerts, have submitted thousands of comments on the proposed rule and urged the BLM to adopt a comprehensive rule.
- e. Throughout the rulemaking process, TWS submitted additional recommendations, met with federal and state representatives, and worked with members of the conservation community and other stakeholders to advocate for completion of a strong rule to manage venting, flaring and other leakage of natural gas.

II. Harm from Interference with the BLM's Waste Prevention Rule

7. The BLM's Waste Prevention Rule sets out a structure that will significantly reduce emissions of natural gas, including methane, by imposing restrictions on venting and flaring and requiring monitoring and prevention of leaks. These measures will ensure that taxpayers are provided with a fair return on natural gas that is produced, through payment of royalties. In

addition, the rule will protect users of public and tribal lands and residents in areas affected by oil and gas development by reducing impacts to air quality caused by the release of natural gas. Further, the rule will reduce the contribution from fossil fuel operations on federal and tribal lands and minerals to climate change, especially from methane emissions.

8. Invalidating or otherwise interfering with the implementation of the BLM's rule will deprive American taxpayers of a fair return on the leasing and development of federal lands and minerals, because companies producing oil will not pay royalties on the natural gas that is vented, flared or leaked. Because royalties are shared with states in which development occurs, and then further allocated to counties, TWS members and staff benefit (through funding of public schools, infrastructure and other local and regional projects) from these revenues and will be harmed by losing the opportunities to benefit from increased revenue collected from oil development under the BLM's Waste Prevention and Methane Rule.

9. Further, the health of TWS members and staff will continue to be harmed by the release of toxic pollutants and degradation of air quality. The use and enjoyment of public lands by TWS members will also be at risk. Further, without these rules, the contribution to climate change from oil development on federal and tribal lands and minerals, especially the release of methane into the atmosphere, will not be reduced.

10. TWS also has an interest in the BLM maintaining its authority to regulate oil and gas development across the public lands. TWS has dedicated significant staff resources to supporting oil and gas leasing and development policies that minimize impacts to the resources of our public lands, to our climate and to citizens who use and enjoy these lands or live around them. Interference with this rule will undermine the discretion and authority of the BLM to regulate oil and gas development and to ensure a fair return from development; proactive management of oil and gas development is consistent with acknowledging that this is only one of the uses the agency is required to manage as part of its multiple use and sustained yield management.

11. TWS and its members have advocated for the Waste Prevention Rule and participated throughout the rulemaking process. As an organization and on behalf of its individual members and staffers, TWS has a substantial interest in the outcome of this legal challenge.

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

Executed on this 30th day of November, 2016, in Denver, Colorado.

A handwritten signature in black ink, appearing to read "Nada Culver", written in a cursive style.

Nada Culver

DECLARATION OF SARA KENDALL

I, Sara Kendall, declare as follows:

1. I am the Washington, DC Office Director and Campaign Director for the Western Organization of Resource Councils (WORC), a nonprofit organization that works to advance the vision of a democratic, sustainable, and just society through community action. WORC is committed to building sustainable environmental and economic communities that balance economic growth with the health of people and stewardship of their land, water, and air resources.
2. While the Bureau of Land Management's (BLM) new rules governing methane waste have serious limitations, they represent a significant improvement over the agency's previous rules. The new rules are a much-needed update because BLM had not revised its rules in 36 years despite significant changes in oil and gas industry development practices and technologies.
3. The updated rules will better protect the interests of WORC and its 12,200 members, many of whom live in states where significant federal and Indian oil and gas development occurs. For example, WORC has 1495 members in Colorado, 5455 in Montana, 884 in North Dakota and 726 in WY.
4. Numerous WORC members live on split estate lands, where the federal government owns the minerals underlying their property, while others live in close proximity to federal or tribal lands and/or federal or Indian minerals where oil and gas development occurs or has been proposed.

5. BLM's new rules benefit WORC members in a variety of ways. The rules will significantly reduce natural gas venting by 35% and flaring by 49%, and result in the capture and use of 41 billion cubic feet of natural gas each year. Minimizing this waste significantly reduces emissions of climate-destabilizing methane, smog-forming volatile organic compounds and air toxics, limiting local residents' exposure to these pollutants and the harmful health effects associated with them.

6. WORC members also have an economic interest in the new rules as taxpayers of states that receive a share of oil and gas royalties, which are expected to increase by \$2 billion under the new rules. Also, because some of our members' homes are in close proximity to federal oil and gas development, flaring and other emissions can directly impact their property values. The new rules should reduce those impacts.

7. If the industry trade associations and the States of Wyoming, Montana and North Dakota succeed in striking down the new rules, all of these benefits to WORC members will be lost.

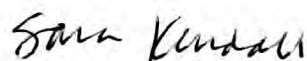
8. WORC and its members have worked for several years to persuade the BLM to update its rules. For example, dozens of WORC members attended and spoke in support of stronger new rules at the BLM's May, 2014 stakeholder meeting in Dickinson, North Dakota and the hearings on the proposed rule in Dickinson, North Dakota and Lakewood, Colorado in March, 2016. WORC also submitted written comments with other public interest organizations in May, 2014, as well as comments on the proposed rules in April, 2016.

9. WORC also researched and published a report, *Flaring Boom*, in 2014, which documented the need for national rules setting uniform limits on flaring. For this report, WORC surveyed state regulations and documented considerable variation among six states with substantial oil and gas development – Alaska, Colorado, Montana, North Dakota, Texas and Wyoming. In 2016, we released an updated and expanded report, *Falling Short*, with the Western Environmental Law Center, which reviewed state rules in Colorado, Montana, New Mexico, North Dakota, Utah and Wyoming. According to our research for these reports, while some states have rules that require some of the measures mandated by the BLM rules, other states do not and no state has regulations that meet or exceed the protections of the BLM rules across the board.

10. The BLM rules provide a minimum standard that establishes a basic level of protection against waste of federal oil and gas. In order to prevent waste, federal minerals should be subject to national standards that are not subject to state politics, enforcement budgets and varying levels of expertise. BLM's rules set that standard while providing certainty and consistency for operators. If the petitioners succeed in their arguments that BLM lacks authority to promulgate rules, these benefits will be lost.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 30, 2016



Sara Kendall

DECLARATION OF CHRISTOPHER MERRILL

I, Christopher Merrill, declare as follows:

1. I am a member of the Wyoming Outdoor Council and its Associate Director. Founded in 1967, the Wyoming Outdoor Council is the state's oldest independent conservation organization. Our mission is to protect Wyoming's environment and quality of life for future generations. We are dedicated to developing productive and lasting solutions to conflicts that threaten Wyoming's citizens and environmental health. And we understand that a healthy environment is crucial to public health and quality of life.

2. The Bureau of Land Management's (BLM) new methane waste prevention rule is a significant step forward in addressing the rampant waste of methane—a non-renewable resource and potent greenhouse gas—from oil and gas operations on public lands. The rule is a much-needed update to the current waste guidance the BLM adopted 36 years ago.

3. The updated rule will better protect the interests of the Wyoming Outdoor Council and its nearly 2,000 members. Most of our members live in Wyoming, where oil and gas is currently being developed, or may be developed in the future on federal public lands.

4. Many of our members recreate on public lands near where oil and gas development is occurring or has been proposed. The public lands in Wyoming provide sanctuaries for our members to hike, camp, hunt, fish, bike, ride, and generally explore and enjoy. They provide inspiration and opportunities for solitude, wonder and adventure. Other members reside on "split estate" lands where the federal government owns the minerals underlying the property, or they live in close proximity to federal lands where oil and gas development has been proposed.

5. Public lands provide recreational, spiritual, aesthetic and other cherished experiences for our members. These experiences can be harmed in situations of poorly regulated oil and gas development on our public lands. Whether it is an otherwise beautiful view marred by an actively

flaring oil well in the distance, or the smog produced from a large gas field that degrades visibility, or detrimental effects to sensitive wildlife habitat that is occurring in part as a result of a warming climate, our members will benefit from and support the BLM's Rule.

6. The Wyoming Outdoor Council has a long history of in-depth engagement with the BLM and its management of public lands and federal minerals. We advocate responsible oil and gas leasing, and often remind the BLM of its mandate to ensure our public lands are managed for an array of multiple uses—including wildlife, wilderness, recreation, cultural resources, and aesthetics—not only for energy development. We support many of the common sense and environmentally sound standards the BLM currently requires of lessees who operate on public land. We also advocate updated standards, like those set out in this Rule, that we believe can and should be required of 21st century operators to reduce waste and to protect air quality, scenic views, and landscapes vulnerable to the effects of climate change.

7. A ruling from this court that the BLM does not have the authority to promulgate this Rule is of great concern to the Wyoming Outdoor Council and its members. The success of our advocacy on behalf of our members who value public lands, intact wildlife habitats, clear skies, and public health is incumbent on the BLM having a significant amount of discretion to modernize and improve its rules for managing public lands and minerals.

8. The Rule will ensure that air pollution resulting from the often-unnecessary practices of venting, flaring, and leaking will be reduced. This will benefit visibility by reducing the haze that is caused by these emissions, improving recreational opportunities on public lands, and increasing our members' enjoyment of the clear skies and sweeping mountain vistas we value in Wyoming.

9. Emissions from flaring and venting include several ozone precursors such as nitrogen oxides and volatile organic compounds. Ozone pollution has been a threat to public health in several small communities in Sublette County, Wyoming near large oil and gas fields where a number of our members reside. The Rule's reduction of these emissions will help protect the health of our members,

particularly the young, the elderly, and those with compromised respiratory systems who live in areas adjacent to public land that host significant oil and gas development.

10. Methane is a potent greenhouse gas. Greenhouse gas emissions that are released in the processes of venting, flaring, and leaking contribute to global climate change. Scientists and federal land managers are already documenting adverse impacts of a warming climate on our public lands and resources. For example, a warmer, drier climate increases wildfire frequency and intensity, harms cold-water fisheries habitats, and threatens the viability of certain sensitive plant and animal species. The members of the Wyoming Outdoor Council appreciate intact public lands, sweeping and clear viewsheds, thriving wildlife habitats, and unimpaired recreational waters. For these reasons, they have a strong desire to see BLM's Rule implemented.

11. The BLM's new methane waste rule will require or incentivize oil and gas operators to take measures to reduce natural gas waste from BLM-administered mineral leases. The Rule's goals of reducing venting, leaking, and flaring would, if implemented, decrease waste of a valuable and finite natural resource.

12. The Wyoming Outdoor Council has a long history of deep engagement with the oil and gas industry and state regulators to reduce waste and incentivize gas capture in Wyoming, including extensive efforts to improve leak detection and repair at oil and gas extraction operations in Wyoming. Currently, there are no statewide regulations in Wyoming that require routine leak detection and repair at oil and gas production facilities. The only requirements for leak detection and repair apply to one geographic area in the western part of Wyoming that was found to be in non-attainment with the National Ambient Air Quality Standards for ozone. We are currently advocating Wyoming's Department of Environmental Quality require quarterly leak detection and repair across the entire state.

13. In 2015 the Wyoming Outdoor Council advocated updates to Wyoming's flaring rules as promulgated by the Wyoming Oil and Gas Conservation Commission. We supported some of the

changes the Commission implemented. The final rule, however, did not contain nearly the number of improvements we sought. For example, we advocated the Commission: a) impose a complete prohibition on venting; b) require operators to perform quarterly leak detection and repair; c) require a permit for any amount of flaring, not only at levels above 60 mcf/day; and d) prohibit indefinite flaring. The Commission declined to adopt these recommendations. We were pleased that the BLM's Rule addresses some of these recommendations, particularly a requirement that operators conduct routine leak detection and repair services on their facilities.

14. The Rule would result in more of the non-renewable natural gas being captured and brought to market, which, in a time of budget cuts in the Wyoming State Government, would benefit our state wildlife and environmental quality agencies. Ensuring these agencies have adequate financial resources to manage wildlife and to ensure clean air and water is of great interest to our members.

15. The Wyoming Outdoor Council has promoted draft legislation during the past three state legislative sessions that would have lifted the current severance tax exemption for flared natural gas. Just this month a Wyoming Outdoor Council staff member testified at an interim revenue committee meeting in Cheyenne to discuss the fiscal benefits of lifting this exemption, which would also create incentives to reduce flaring, and better protect air quality in our state. We will continue to lobby for this change during the 2017 legislative session.

16. While the Rule is an improvement over the status quo, it does have shortcomings, and therefore the Wyoming Outdoor Council does not believe the BLM can adequately represent the interests of our members. For example, the rule permits non-safety-related flaring across a wide range of oil and gas operations, even though flaring contributes to waste, climate change, and acid rain, and is an unsightly source of noise and light pollution. The Rule also fails to include consideration of social costs in the benefit-cost test that appears throughout the Rule that provides

alternative limits to waste prevention measures. This is despite the fact that the oil and gas resource is a public trust resource managed for the benefit of all Americans.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 30, 2016.



Christopher Merrill

Associate Director, Wyoming Outdoor Council

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF WYOMING

DECLARATION OF FRANCIS DON SCHREIBER
Submitted In Support of Environmental Defense Fund

I, Francis Don Schreiber, declare as follows:

1. I am currently a member of the Environmental Defense Fund (“EDF”). I am a rancher and landowner in Gobernador, New Mexico. My wife, Jane, and I own the Devil’s Spring Ranch (“Ranch”) on 480 deeded acres in Rio Arriba County, and have a permit to graze cattle, sheep and horses for approximately 3,000 additional acres of Bureau of Land Management (“BLM”) land adjacent to the Ranch.
2. My ranch is located in the San Juan Basin, one of the most active areas in the country for oil and gas production. I have a split estate, meaning I own the surface rights to my land, and the mineral rights are owned by the federal government and managed by the BLM. I currently lease some of my grazing rights to other ranchers, who run cattle on the land.
3. Because there are oil and gas operations on my property, I closely follow regulatory developments concerning federal oil and gas regulations, including through communications that I receive from EDF. I have advocated for the adoption of measures that would reduce waste and limit emissions from oil and gas development on public lands.

4. I am aware that BLM finalized waste prevention standards for oil and natural gas production on federal and tribal lands in November 2016 (“waste prevention rule”). These standards will help ensure reductions in emissions and minimization of waste from oil and gas production through equipment and performance requirements, including periodic monitoring and prompt repair of equipment leaks, a prohibition on routine venting, and gas capture in lieu of flaring.

5. There are currently 122 oil and gas wells on and immediately adjacent to the Ranch, all managed by BLM and all of which will be subject to BLM’s recent waste prevention rule.

6. Jane and I bought our land in 1999, with the goal of developing a model for sustainable agriculture with cattle, and passing the Ranch down to our children and grandchildren. At that time there were about 75 wells operating or in construction on the land. We have since curtailed our ranch activities, focusing instead on mitigating the environmental impacts this development has had on our land.

7. Through our negotiations with oil and gas producers and the BLM, we were able to develop better siting practices, so that new wells would be drilled on existing well pads, limiting the amount of necessary ancillary equipment, and minimizing the land that would be affected by oil and gas operations. These

agreements, however, do not encompass the emissions control practices that the BLM rule will now address, including, for example, minimizing the venting of natural gas through practices like leak detection and repair and regular equipment maintenance.

8. I am aware that oil and natural gas facilities emit significant amounts of harmful air pollution, both through designed releases and unintentionally leaking equipment. I understand that these pollutants include methane, volatile organic compounds (VOCs), carcinogenic air toxics such as benzene and toluene, and other harmful air pollutants. I understand that methane is a highly potent greenhouse gas, capable of warming the climate at a rate over 80 times that of carbon dioxide over a 20-year period. I also understand that VOCs contribute to the formation of ground-level ozone, or smog, which is hazardous to human health and can cause respiratory disease and premature death. I am aware that the best practices that reduce methane and VOC emissions also help mitigate other harmful air pollutants.

9. I have personally experienced air emissions associated with venting, flaring, and leaking wells on the Ranch. As I ride, walk and drive around the ranch, I can often see vapors escaping from leaking wells distorting the air and creating shadows on the ground. I have had horses spook violently under me when

they were startled by the roar of a nearby well suddenly venting, which sounds like a jet engine.

10. Most noticeable is the near-constant smell from leaking wells, which can be extremely strong when we are driving, riding, and walking around areas with oil and gas development on the Ranch. These odors make breathing uncomfortable and often cause us to leave affected areas as quickly as possible, as I am concerned that we are breathing harmful hydrocarbons, such as benzene, toluene, ethylbenzene, and xylenes (these toxic components of natural gas are sometimes referred to as BTEX).

11. Jane and I have five grown children, and eight grandchildren. Although we had hoped the Ranch would be a place we would share with our grandkids, the oil and gas operations on our land limit our ability to enjoy it with them. We worry about their exposure to air pollutants from oil and gas development on the property, and always are careful to keep them away from the wells and above ground pipeline equipment. Protecting our grandchildren from the negative health effects of oil and gas emissions is a constant concern when they come to visit us.

12. There is a group of several wells located less than a third of a mile from the Ranch house. On three separate occasions over the past few years, we have visited these wells with infrared cameras. On all three occasions, we

observed leaks at these wells. When we observe leaking wells we report them to the well operator, but we do not have the resources or ability to monitor all of the wells on the Ranch.

13. The impacts of climate change caused by greenhouse gases such as methane are evident on the Ranch. Changes in temperature and weather patterns, including drought, increased wind, severity of rainstorms, and increased erosion, have required a shift in the timing of ranch operations, such as when cows should be bred. Other conventional wisdom that has informed practices for generations is no longer applicable. For example, when I first started ranching in 1999, my neighbor, whose family has been ranching in Rio Arriba for nearly a century, taught me that on September 28th of each year, I would need to begin breaking the ice on our cows' water sources in the mornings. Otherwise the water would freeze deeply and the cows would not be able to drink. However, this date, passed down for decades, has become obsolete—in recent years, we have not had to break ice until much later in the season. It is late November, and we still have not had to worry about breaking ice.

14. I anticipate that BLM's waste prevention standards will reduce harmful air pollution near my home and in the state where my family and I live, work, and recreate: there are over 100 active oil and gas wells on my land and more than 30,000 active oil and gas wells, compressors, and processors on public

lands in New Mexico. Protective emission standards for oil and gas facilities on public lands will help reduce harmful pollution throughout Rio Arriba County and the surrounding San Juan Basin region, which is currently disproportionately impacted by dangerous air pollution from methane, VOCs, air toxics and other airborne contaminants.

15. If the recent emission standards for the oil and gas sector issued by BLM are weakened or overturned, I am concerned that sources in the sector will continue to emit high levels of harmful pollution and that the resulting emissions from the oil and gas operations on my land will continue to threaten my health and well-being and that of my family.

16. As an American and as a New Mexican, my interests as a taxpayer would also be harmed if the rule is weakened or overturned. The rule requires an increase in the capture and containment of natural gas, enabling the sale of gas that otherwise would be lost. When natural gas from federal lands, a public resource, is wasted through leaks, venting, and flaring, production companies do not have to make royalty payments on that wasted gas to the federal and state governments. BLM estimates that an additional 41 billion cubic feet of natural gas per year will be saved and used due to the rule, resulting in additional royalties of up to \$14 million per year. These additional royalties will help fund important public services for my community.

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



Francis Don Schreiber

Dated November 26, 2016

DECLARATION OF JUDITH J. FOX-PERRY

JUDITH J. FOX-PERRY states as follows:

1. I am rancher in western Colorado who lives and work adjacent to BLM lands which accommodate natural gas pipeline right of ways and a large compressor station that operates year round. I write in support of BLM 43 CFR Parts 3100, 3160, and 3170 [15X.LLWO300000.L13100000.NB0000] RIN 1004-AE14 Waste Prevention, Production Subject to Royalties, and Resource Conservation which I will refer to as the "BLM Methane Rule " throughout this Declaration. I am also a retired high school librarian, taught art, and led outdoor wilderness trips on federal lands. I worked as a range scientist mapping vegetation on Bureau of Land Management ("BLM") lands in SW Montana for 3 years. I have great respect for the Bureau of Land Management. I continue to hike, graze cattle, camp, kayak, cross-country ski, watch birds and wildlife, and many other pleasurable pastimes on the BLM-managed public lands affected by the BLM Methane Rule locally and throughout the West. I look forward to introducing my grandchildren to the wonders and responsibilities of becoming stewards of our public lands.
2. As neighbors to the BLM land upon which the Crystal Compressor Station lease near Carbondale, CO resides, our house sits approximately one mile west of this site. Our eastern property boundary is close to 1/4 mile from the compressor site. The natural gas pipelines and right of way run directly through our property and the Crystal Compression Station sits in our view plane to the east. We have lived here since 1979, prior to the construction of the 8" pipeline and compressor station approx. 26 years ago. In 1989 the new 8" gas pipeline was being constructed and the compressor station was to be moved from it's long time location at the Wolf Creek storage field for the convenience of year around vehicle access. Initial plans for relocation of the compressor station were directly on our property boundary with BLM lands. For many reasons we did not want the station so close to our home citing objections of noise, lighting, and off-gassing. Through petitions and letter writing we were able to have the BLM reconsider and move the location up and almost over a ridge where we still hear, see, and smell the station but not as directly as initially proposed. In our rural area the presence of the compressor station is very obvious with little else to mask its effects. For 26 years we have been well aware of the compressor station and how it is running, when it is flaring, when it is off-gassing, or when it is doing something that causes lots of loud bangs and pops.
3. The presence of this industrial use of public lands has impacted us in a number of ways. Our family has ranched on this property for over 60 years and have ranched in the Roaring Fork Valley for over 100 years. We don't know how the presence of the compressor station will impact our property values as we have no intention of selling out in the foreseeable future. We were able to add a natural gas farm tap to the pipeline when it first crossed our property in the 1960's and we use gas for heating and cooking.

We do know that there are impacts to the land where the pipeline crosses our property and the neighboring BLM lands. On hill sides there is tremendous erosion and lack of revegetation a quarter of a century later. On our more level hayfields and pastures where we reseeded and irrigate there is ongoing weed infestations that are unique to the pipeline and require continual work and vigilance to control. The neighboring BLM lands do not control invasive weeds effectively which contribute to our problems.

4. The compressor stations emits a continual rumble which is most audible in our eastern fields closest to the station. The noise level changes with the seasons when more vegetation muffles the sound or snow cover carries the sound further. There is little or no other background noise to mask the compressor noise, wind being the only noise buffer. A very well used public trailhead is near the compressor station and all who hike there hear the compressor.

5. On occasion when the compressor station is cleaning or repairing lines we have heard loud pops, bangs, and screeches followed by the smell of gas (or the mercaptan additive in the gas) at our house a mile away. We have witnessed the flaring of gas at the compressor station from our front window. When these events are happening we do not want to expose ourselves or our children to the off-gassing. These events have not been so prolonged or excessive as to have immediate health effects, but no one wants to expose themselves or their families or their animals to breathing volatile organic compounds from gas products. People who regularly use the hiking trails near the compressor station stay away when the smell of gas is in the air. I stay away from the fields nearest the compressor. Wildlife in the area does not have the benefit of knowing to when seek cleaner air. I have observed how gas emission directly effect vegetation during the construction of the infusion station on the 8" pipeline at the bottom of Sweet Hill on County Road 106 before it crosses the Crystal River. Soon after the station was build (1990) all the juniper trees surrounding the fence of the enclosure suddenly died. These were large, mature, trees in their natural habitat. The dead trees were then quickly removed.

6. We may only see flaring and smell gas occasionally, but the more we learn about climate change and the impacts of methane emissions on the atmosphere, we would like for the oil and gas industry to control ALL methane emissions as soon as possible. Methane is an especially potent greenhouse gas whose emissions are like CO₂ on steroids as it's effect is 25 times greater. Living near the Piceance Basin in western Colorado, it is very common to see a gas well flaring for days. At night the hills are dotted with flares and those are only the visual emissions. To think about similar off-gassing from venting, flaring and leaking infrastructure on a regional and national scale, let alone on a world scale, is beyond comprehension and terribly frightening. Methane must be controlled and that is why I am in favor of updating the 30 year old regulations with the new BLM Methane Rule. To start controlling the release of methane at one compressor station on BLM lands in my "backyard" would be a good first step. It needs to start right here and right now.

7. Our property mineral rights are intact and I do not collect gas royalties and have never wanted to have gas drilling occur anywhere near our property, our water springs, or the headwaters of our drinking and irrigation sources. Where drilling does occur it must be done to the highest level of responsibility. Leaking facilities, aging infrastructure, flaring and off-gassing for any number of reasons needs to be contained. Gas is a valuable and precious resource and needs to be treated with great respect. As a taxpayer and user of public lands and public funded roads, bridges, schools, hospitals, fire departments supported by revenue dollars, I do not want to see gas produced and then not used efficiently, especially from public lands. I know I speak for those throughout my community who want to maximize the potential for collecting and using gas revenue dollars. It is estimated that in the U.S. in 2013 nearly \$330 Million in revenue was lost in gas leaks, venting, and flaring. This is literally money disappearing into thin air.

8. I have been a member of Wilderness Workshop for many years and have volunteered on efforts to preserve unique federal lands from oil and gas drilling. These efforts address the potential for methane releases before it comes out of the ground. Wilderness Workshop has been on the front line of engagement in following rule making on public lands, such as the BLM Methane Rule, and others that I care about very much. Their expertise and hard work to fight for the public interest on public lands is endless. The scope of their watch keeps me informed about issues that affect me that I might not otherwise know about in a timely manner. I am honored to add my voice to the work of Wilderness Workshop in asking that the BLM Methane Rule be upheld.

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

DATED: November 28, 2016


Judith J. Fox-Perry

DECLARATION OF WADE SIKORSKI

I, Wade Sikorski, PH.D., hereby state as follows:

1. I am over eighteen years of age and a citizen of the United States. The facts and opinions set forth in this declaration are based on my personal knowledge and experience. If called as a witness in these proceedings, I could and would testify competently to these facts and opinions.
2. I live on my family's ranch approximately 20 miles south of Baker, Montana. My great-grandfather homesteaded the land where I live in 1911. I have lived on the ranch for my entire life, except my years spent in college and graduate school and one year working in New Mexico. I expect to live in Montana the rest of my life.
3. I am a member of Montana Environmental Information Center ("MEIC"). I have been a member of MEIC since the early 1990s. I first became involved with MEIC because of concerns I had about a PCB incinerator moving to my community and the risks it posed to human health and the environment.
4. I have an undergraduate degree from the Montana State University at Bozeman and a Ph.D. in political science from the University of Massachusetts at Amherst. My academic specialty is in contemporary political theory and political ecology, subjects on which I have published books and articles.
5. I work on my family's ranch from spring to fall, and write books and articles during the winter. We raise wheat, lentils, safflower, corn, canola, and peas on our farmland. And we raise several hundred head of cattle on our pastures.
6. The earth-sheltered house that I built as I was finishing my dissertation is just below a hill that is the highest point between Baker and Ekalaka. From my house, as a result, I can

see to the Ekalaka Hills, about 15 miles to the south. To the west, I can see the pine covered hills outside of Miles City—perhaps 50 miles away. To the southwest, I can also see a good part of the distance to Broadus. I have no idea how far away the horizon is, but I imagine that if I went to the last ridge that I can see, I might be looking down into the valley where Broadus is. To the northeast, I can see the Diamond Willow wind farm outside of Baker. At night I can see the lights flashing on the wind farms near Rhame in North Dakota. Much of this land is managed by BLM and is open to oil and gas development.

7. There is a long history of oil development in our area. My family ranch has about half a section of BLM land. When I was a child, an oil well was drilled on our property, and several others were drilled in our immediate area, though none of them were ever put into production. Since then, we have had different seismograph crews on our place, trying to find oil. We are about 10 miles south of where a substantial oil field near Baker is producing oil, and which I have been told was one of the first fields to use horizontal drilling and fracking.
8. Given the long history of oil development in our area, and the still-undeveloped oil reserves nearby, I am concerned about the impacts of oil and gas development on my family's land and my community. Drilling and fracking continues north of our place, and I hear talk from people working in the oilfield about exploring a deeper formation than the one producing oil now, and I see from maps that it might extend beneath our land. There are also leases near me in Custer and Carter counties that impact the area I live in.
9. I travel throughout Fallon, Custer, and Carter Counties on an almost daily basis and will do so well into the future, sometimes for work, sometimes just to meditate on the shifting

seasons, the wandering wildlife, the shape and contour of the land. Seeing vast areas of undisturbed BLM land in my area is one of the greater joys in my life. They are also an opening into philosophical and spiritual meditation for me.

10. Although my family ranch does not have any operating oil wells, I live close enough to the Baker oil field to know what the consequences of fossil fuel development are—noise, pollution, harm to the land, disruption of wildlife behavior, and economic cost.
11. The BLM's recently-promulgated waste prevention and resource conservation rule, 81 Fed. Reg. 83,008 (Nov. 18, 2016), will reduce the harmful impacts of oil and gas development to my family's land and my community.
12. For example, the Rule's waste prevention measures will decrease volatile organic compound emissions (VOCs), one of the primary components of natural gas, and thus will reduce ozone formation. The Rule benefits me because it will reduce ozone, and ozone has been shown to inhibit the growth of vegetation, including crops.
13. Through reductions in ozone, the Rule will also benefit my health. I typically run 15 to 20 miles a week on the gravel road leading to my house to protect my health. I do aerobic exercise because I have a chronic infection of Lyme disease that I caught when I was going to graduate school in Massachusetts. The bacteria, which scientists have proven can survive even massive doses of antibiotics, are anaerobic, so aerobic exercise, which increases the flow of oxygen through my body, helps keep my chronic Lyme infection under control. I know that ozone has long been recognized to cause adverse health effects. Exposure to ozone can cause or exacerbate respiratory health problems—including shortness of breath, asthma, chest pain and coughing—can decrease lung function, and can even lead to long-term lung damage. Short-term exposure to ozone

causes multiple adverse respiratory effects, from inflammation of airways to more serious respiratory effects that can lead to use of medication, hospital admissions, emergency room visits, and chronic obstructive pulmonary disease (“COPD”). According to a recent report by the National Research Council (“NRC”), short-term exposure to current levels of ozone in many areas is likely to contribute to premature deaths. Long-term exposure may also increase risk of death from respiratory problems. Short- and long-term exposure to elevated levels of ozone can also harm people’s hearts and cardiovascular systems. By helping me breathe easier when I exercise, lower levels of ozone help me keep my chronic Lyme disease infection under control.

14. The Rule will also decrease emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing additional health benefits to me.
15. The Rule will also reduce venting and flaring, which will improve visibility by reducing ozone, nitrogen oxides, and particulate matter emissions, improving my opportunity to see and enjoy the landscape that surrounds my family’s ranch.
16. The Rule will also provide additional royalties which will be allocated to Montana and other states to spend in areas impacted by mineral development for planning, public facility construction and maintenance, and public service provision. I will benefit from these expenditures in my community.
17. By reducing the release of methane, a potent greenhouse gas, the Rule will also ameliorate the global warming that is threatening my family’s farm and ranch operation. As a result of my experiences with changing weather patterns and hydrological cycles on my family’s ranch, I am increasingly alarmed by the impact that global warming is

having on our ecosystems, our economy, our political system, our health, and our spiritual well-being. As climate scientists have long been warning us, global warming is happening, is human caused, and will threaten our civilization if we continue using fossil fuels as we have.

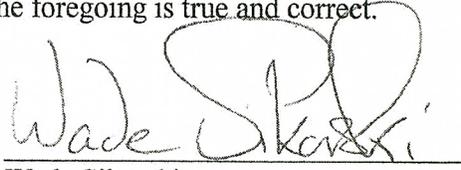
18. As a farmer, I have the deepest reservations about my family's ability to operate our ranch, producing the food we all need, unless BLM continues to take the sort of action that it has taken in the Rule to reduce greenhouse gas emissions. I am 60 years old now, and well enough experienced with how drought, heat, and extreme weather events like hail can impact crop production to know how global warming is going to turn out. I know how insects like grasshoppers thrive when it is hot and dry, and how extreme weather events like drought, heat waves, tornadoes, and hail storms are becoming more common and disruptive. And I know that we just cannot continue as we have if the children of today are going to have the life they deserve to have.

19. I am aware that several states and industry trade groups have sued BLM, seeking to have the Waste Prevention Rule vacated by a court. I am also aware that the industry trade groups are asking the court to enjoin (i.e., prohibit the enforcement of) the Rule pending the outcome of their lawsuit. If the Waste Prevention Rule is vacated and/or enjoined, that would eliminate the protections provided therein for Federal public lands, including the BLM-managed lands on and near my ranch. These protections include requirements for oil and gas operators to take low-cost, proven measures to reduce natural gas waste from venting, flaring, and leaks. My health, recreational, and aesthetic interests will be directly affected and irreparably harmed by a decision of the court to vacate or enjoin the Waste Prevention Rule.

20. Vacating and/or enjoining the Waste Prevention Rule would harm my health, recreational, and aesthetic interests by allowing oil and gas operators to continue to vent, flare, and leak large amounts of natural gas, which degrades my local air quality as well as contributes to climate change that affects my farming and ranching operations. On the other hand, these harms will be redressed (or avoided) by a decision of the court to reject the states' and industry groups' respective lawsuits and affirm the Waste Prevention Rule.

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

DATED: 11/28/2016


Wade Sikorski

DECLARATION OF PETER HART

I, Peter Hart, declare as follows:

1. I am the Staff Attorney at Wilderness Workshop (“WW”). WW is a 501(c)(3) dedicated to preservation and conservation of the wilderness and natural resources of the White River National Forest and adjacent public lands, including those within the Bureau of Land Management’s (BLM) Colorado River Valley, Uncompahgre, Gunnison and the Grand Junction Field Offices. WW engages in research, education, legal advocacy and grassroots organizing to protect the ecological integrity of local landscapes and public lands. WW focuses on the monitoring and conservation of air and water quality, wildlife species and habitat, natural communities and lands of wilderness quality. WW was founded in 1967 and has approximately 800 members. Many of our members live, work, and recreate in and around, and otherwise use and enjoy lands managed by the BLM. All members have a great interest in the protection and enhancement of natural values in the area. Numerous WW members live in Western Colorado because of the area’s unique climate, and they are concerned about the impacts that human caused climate change is having on local public lands and local communities. Many of our members are also concerned about how public land managers regulate fossil fuel development on public lands and the economic, social, and environmental impacts of development of federal minerals in our area.

2. While the BLM’s new methane waste prevention rule is not perfect, it represents a significant step forward in addressing the rampant waste of methane from oil and gas operations on public and tribal lands. The rule is a much-needed update to waste guidance that was adopted 36 years ago.

3. The updated rule will better protect the interests of WW and its members. Our members live in and around the Piceance Basin, which is one of the largest natural gas reservoirs in the country. Natural gas is currently being developed in the area and will continue to be developed on federal public lands for the foreseeable future. Nearly all of our 800 members live, work, or recreate in areas where natural gas development is having an impact. Some of our members reside on “split estate” lands where the federal government owns the minerals underlying the property, or they live in close proximity to federal lands where oil and gas development has been proposed.

4. BLM’s new methane waste rule will require or incentivize oil and gas operators to take measures to reduce natural gas waste from BLM-administered mineral leases. The Rule’s reductions in venting, leaking, and flaring will decrease volatile organic compound emissions that contribute to the formation of ozone. Ozone contributes to asthma, emergency room visits, and premature mortality, and its reduction will improve the health of WW’s members.

6. In addition to reducing the risk to the health of our members, the Rule will also protect and enhance plant life. Ozone also inhibits vegetation growth. Reduced ozone levels as a result of the Rule’s limits and incentives will benefit WW’s members who farm and ranch, as well as protect local ecosystems that our members enjoy for hiking, camping, and other recreation.

7. The Rule will also decrease emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing additional health benefits to WW’s members, wildlife, and local ecosystems—including high alpine lakes where we have monitored atmospheric deposition for decades.

8. Reduced venting and flaring as a result of the Rule will also improve visibility by reducing ozone, nitrogen oxides, and particulate matter emissions, improving recreational

opportunities for WW's members. Likewise, flaring reductions will benefit WW members who experience noisy and unsightly flares throughout the day and night near their homes, while traveling through the Piceance Basin, or in the areas where they enjoy recreating. Wilderness Workshop's members enjoy some of the nation's most scenic lands in our working area, including iconic natural areas like the Roan Plateau and the Maroon Bells. Air degradation resulting from oil and gas development is occurring in these areas and it remains an ongoing concern of our members.

9. The Rule will also provide royalties, some of which are allocated to states to spend in areas economically impacted by mineral development. WW's members live in areas that are impacted by oil and gas development and will benefit from these expenditures in their communities. For example, many of our members reside in Garfield County, where much of the existing oil and gas development has occurred in Western Colorado. Royalties associated with natural gas development on local public lands support local libraries, public schools, nonprofits, emergency services, and infrastructural improvements.

10. If the Rule is struck down, the aforementioned benefits will be lost. WW's members would face increased health risks posed by ozone, hazardous air pollutants, and particulate matter. Damage from these pollutants to the landscape and the environment also would diminish our members' use and enjoyment of local federal lands. WW's members will lose the increased royalties paid under the Rule that would benefit their communities.

11. While the Rule is an improvement over the status quo, it does have shortcomings, and therefore Wilderness Workshop does not believe that BLM can adequately represent the interests of our members. For example, the rule permits flaring across a wide range of oil and gas operations, even though flaring contributes to climate change and acid rain and is an unsightly

source of noise and light pollution. The Rule also fails to include consideration of social costs in the benefit-cost test that appears throughout the Rule that provides alternative limits to waste prevention measures. This is despite the fact that the oil and gas resource is a public trust resource managed for the benefit of all Americans.

12. Another shortcoming is that the Rule allows BLM to issue variances exempting oil and gas operations on federal leases across an entire state or tribal reservation from specific provisions of the Rule. This provision creates the potential for abuse and the dilution of the Rule's protections. If abuse of the variance provision occurs, it would undercut the Rule's benefit to our members.

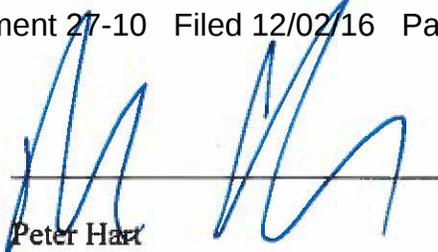
13. I am aware that several states and industry trade groups have sued BLM, seeking to have the Waste Prevention Rule vacated by a court. I am also aware that the industry trade groups are asking the court to enjoin (i.e., prohibit the enforcement of) the Rule pending the outcome of their lawsuit. An injunction prohibiting the enforcement of the Rule would be contrary to the interests of Wilderness Workshop members and to the public interest more generally. The benefits to the public of reducing methane emissions through compliance with the Rule can be monetized. These monetary benefits are based on estimates of the social cost of carbon and methane that have been developed by the Interagency Working Group on Social Cost of Carbon and recent work on the social cost of methane. Given limitations in the models used to derive these estimates, such as the exclusion of catastrophic impacts and other unqualified damages, these models are likely to underestimate the benefits of avoiding methane emissions. Nonetheless, on the basis of the social cost of methane and other conservative assumptions, the BLM estimates that the Rule's net benefits could range from \$46 to \$204 million per year. These figures incorporate both the social benefits of reducing methane emissions and additional

revenues for operators from sale of recovered natural gas. If the Waste Prevention Rule is enjoined, these benefits, including significant social benefits, would be lost. Wilderness Workshop members and the public would be harmed.

14. The Rule has numerous other social benefits in addition to the social benefits of reducing climate change impacts, such as the reduction of volatile organic compounds and therefore the reduction of ozone. Ozone reductions provide numerous public health benefits. For example, a 2012 study found that annual numbers of avoided ozone-related premature deaths would range from 1,410 to 2,480 at 75 ppb to 2,450 to 4,130 at 70 ppb, and 5,210 to 7,990 at 60 ppb. Jesse D. Berman et al., Health Benefits from Large-Scale Ozone Reduction in the United States. *Environ Health Perspect* 120:1404–1410. In October of 2015, EPA revised the health-based ambient air quality standard for ozone pollution to 70 parts per billion. Some Wilderness Workshop members live in areas where ozone levels approach or exceed 70 parts per billion. The Berman study also found that in the data years of 2005, 2006, and 2007, acute respiratory symptoms would have been reduced by 3 million cases and school-loss days by 1 million cases annually if only the then-current 75-ppb standard had been attained. *Id.* If the Waste Prevention Rule is enjoined, public health benefits of reduced ozone formation will be lost.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 30th, 2016.



Peter Hart

Staff Attorney, Wilderness Workshop

DECLARATION OF MICHAEL EISENFELD

I, Michael Eisenfeld, declare as follows:

1. My name is Michael Eisenfeld. I am more than 18 years of age and a citizen of the United States. I have lived in Farmington, New Mexico since 1996. I work for San Juan Citizens Alliance (SJCA) as the Energy and Climate Program Manager. I am also a member of SJCA. SJCA is a grassroots organization dedicated to social, economic, and environmental justice in the San Juan Basin. SJCA advocates for clean air, pure water, and healthy lands – the foundations of resilient communities, ecosystems and economies in the San Juan Basin. SJCA has 800 members, including approximately 50 members in New Mexico.

2. In my position as Energy and Climate Program Manager at SJCA, I work on issues related to energy, water quality, air quality, public lands, and public health. I have participated in projects overseen by the U.S. Department of the Interior, Bureau of Land Management (BLM) since 2007. These projects include participation in oil and gas lease sales and specific oil and gas projects, including commenting on Environmental Assessments prepared by BLM in the Farmington Field Office in New Mexico and in the Tres Rios Field Office in Colorado. It has been reported that 94% of the public (federal) lands in the BLM Farmington Field Office are open for oil and gas leasing.¹ The BLM has already leased 85-90% of public lands in the Farmington Field Office for oil and gas historically.

3. While the BLM's new methane waste prevention rule is not perfect, it represents a significant step forward in addressing the rampant waste of methane from oil and gas operations

¹ http://wilderness.org/sites/default/files/TWS%20DataMapInsert_0.pdf

on public and tribal lands. The rule is a much-needed update to waste guidance that was adopted 36 years ago.

4. According to studies by the National Aeronautics and Space Administration (NASA), the largest concentration of methane hovers over the Four Corners Region where I live. This large concentration has been referred as a “methane hotspot” where the largest methane emitters are natural gas facilities. There are over 40,000 oil and gas wells in the Four Corners Region. There also gas processing plants and storage facilities throughout the Four Corners Region. Many of these wells are on federal land and are permitted and managed by the BLM. I am aware that methane is a greenhouse gas, approximately 86 times as potent as carbon dioxide. I am concerned that methane emissions in the Four Corners Region are adversely impacting the health of my family and SJCA members.

5. The updated rule will better protect the interests of SJCA and its members. SJCA members live in the states where oil and gas is currently being developed, or may be developed in the future on federal public lands, including approximately 750 members in Colorado, and 50 members in New Mexico.

6. Numerous SJCA members recreate on public lands near where oil and gas development is occurring or has been proposed. Other members reside on “split estate” lands where the federal government owns the minerals underlying the property, or they live in close proximity to federal lands where oil and gas development has been proposed.

7. BLM’s new methane waste rule will require or incentivize oil and gas operators to take measures to reduce natural gas waste from BLM-administered mineral leases. The Rule’s reductions in venting, leaking, and flaring will decrease volatile organic compound emissions

that contribute to the formation of ozone. Ozone contributes to asthma, emergency room visits, and premature mortality, and its reduction will improve the health of SJCA's members.

8. In addition to reducing the risk to the health of our members, the Rule will also protect and enhance plant life. Ozone also inhibits vegetation growth. Reduced ozone levels as a result of the Rule's limits and incentives will benefit SJCA's members who farm and ranch, as well as protect local ecosystems that our members enjoy for hiking, camping, and other recreation.

9. The Rule will also decrease emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing additional health benefits to SJCA's members and local ecosystems.

10. Reduced venting and flaring as a result of the Rule will also improve visibility by reducing ozone, nitrogen oxides, and particulate matter emissions, improving recreational opportunities for SJCA's members. Likewise, flaring reductions will benefit SJCA's members who experience noisy and unsightly flares throughout the day and night near their homes or in the areas where they enjoy recreating.

11. The Rule will also provide royalties, some of which are allocated to states to spend in areas economically impacted by mineral development. SJCA's members live in areas that are impacted by oil and gas development and will benefit from these expenditures in their communities.

12. If the Rule is struck down, the aforementioned benefits will be lost. SJCA's members would face increased health risks posed by ozone, hazardous air pollutants, and particulate matter. Damage from these pollutants to the landscape and the environment also would diminish those members' enjoyment from recreating on federal public lands. SJCA's members will lose the increased royalties paid under the Rule that would benefit their communities.

13. While the Rule is an improvement over the status quo, it does have shortcomings, and therefore SJCA does not believe that BLM can adequately represent the interests of our members. For example, the rule permits flaring across a wide range of oil and gas operations, even though flaring contributes to climate change and acid rain and is an unsightly source of noise and light pollution. The Rule also fails to include consideration of social costs in the benefit-cost test that appears throughout the Rule that provides alternative limits to waste prevention measures. This is despite the fact that the oil and gas resource is a public trust resource managed for the benefit of all Americans.

14. Another shortcoming is that the Rule allows BLM to issue variances exempting oil and gas operations on federal leases across an entire state or tribal reservation from specific provisions of the Rule. This provision creates the potential for abuse and the dilution of the Rule's protections. If abuse of the variance provision occurs, it would undercut the Rule's benefit to our members.

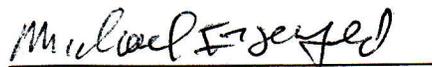
15. I am aware that several states and industry trade groups have sued BLM, seeking to have the Waste Prevention Rule vacated by a court. I am also aware that the industry trade groups are asking the court to enjoin (i.e., prohibit the enforcement of) the Rule pending the outcome of their lawsuit. An injunction prohibiting the enforcement of the Rule would be contrary to the public interest. The benefits to the public of reducing methane emissions through compliance with the Rule can be monetized. These monetary benefits are based on estimates of the social cost of carbon and methane that have been developed by the Interagency Working Group on Social Cost of Carbon and recent work on the social cost of methane. Given limitations in the models used to derive these estimates, such as the exclusion of catastrophic impacts and other unqualified damages, these models are likely to underestimate the benefits of avoiding

methane emissions. On the basis of the social cost of methane and other conservative assumptions, the BLM estimates that the Rule's net benefits could range from \$46 to \$204 million per year. These figures incorporate both the social benefits of reducing methane emissions and additional revenues for operators from sale of recovered natural gas. If the Waste Prevention Rule is enjoined, these benefits, including significant social benefits, would be lost.

16. The Rule has numerous other social benefits in addition to the social benefits of reducing climate change impacts, such as the reduction of volatile organic compounds and therefore the reduction of ozone. Ozone reductions provide numerous public health benefits. For example, a 2012 study found that annual numbers of avoided ozone-related premature deaths would range from 1,410 to 2,480 at 75 ppb to 2,450 to 4,130 at 70 ppb, and 5,210 to 7,990 at 60 ppb. Jesse D. Berman et al., *Health Benefits from Large-Scale Ozone Reduction in the United States*. *Environ Health Perspect* 120:1404–1410. In October of 2015, EPA revised the health-based ambient air quality standard for ozone pollution to 70 parts per billion. Many SJCA members live in areas that have ozone levels near and above 70 parts per billion. The Berman study also found that in the data years of 2005, 2006, and 2007, acute respiratory symptoms would have been reduced by 3 million cases and school-loss days by 1 million cases annually if only the then-current 75-ppb standard had been attained. *Id.* If the Waste Prevention Rule is enjoined, public health benefits of reduced ozone formation will be lost.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 29, 2016.

A handwritten signature in cursive script, reading "Michael Eisenfeld", is written over a horizontal line.

Michael Eisenfeld

Energy and Climate Program Manager, SJCA

DECLARATION OF JAMES MURPHY

I, James Murphy, declare as follows:

1. I am Senior Counsel for the National Wildlife Federation's Climate and Energy Program. The National Wildlife Federation is one of America's leading conservation organizations, working to inspire Americans to protect wildlife in a rapidly changing world. The National Wildlife Federation has affiliates in fifty states and territories, including affiliates in many states that have public and tribal lands where oil and gas development occurs. The National Wildlife Federation and its affiliates have a long-standing history working to protect wildlife on public lands and to protect public lands for use, enjoyment and recreation by our members, including working to protect these interests from threats posed by energy development on public lands.

2. The Bureau of Land Management's (BLM) new methane waste prevention rule represents a significant step forward in addressing the rampant waste of methane from oil and gas operations on public and tribal lands. The rule is a much-needed update to waste guidance that was adopted 36 years ago.

3. The updated rule will better protect the interests of National Wildlife Federation and its members, as well as the interests of our affiliates and their members, who frequently use and rely on public lands to enjoy wildlife, outdoor recreation and similar activities. The National Wildlife Federation has members that live in the states where oil and gas is currently being developed, or may be developed in the future on federal public lands, including 13,709 members in Colorado, 4,944 members in New Mexico, 1,327 members in Wyoming, 2,629 members in Montana, and 1,003 members in North Dakota.

4. Numerous members of the National Wildlife Federation and our affiliates recreate on public lands near where oil and gas development is occurring or has been proposed or reside in close proximity to federal lands where oil and gas development has been proposed.

5. BLM's new methane waste rule will require or incentivize oil and gas operators to take measures to reduce natural gas waste from BLM-administered mineral leases. The Rule's reductions in venting, leaking, and flaring will decrease volatile organic compound emissions that contribute to the formation of ozone. Ozone contributes to asthma, emergency room visits, and premature mortality, and its reduction will improve the health of the National Wildlife Federation's and our affiliates' members and also likely improve the health and vitality of the wildlife that our members hunt, watch, observe and enjoy.

6. In addition to reducing the risk to the health of our members, the Rule will also protect and enhance plant life. Ozone also inhibits vegetation growth. Healthy vegetation is essential for healthy wildlife and for healthy ecosystems that our members enjoy for hiking, hunting, camping, wildlife observation and other recreation.

7. The Rule will also decrease emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing additional health benefits to the National Wildlife Federation's and its affiliates' members, wildlife and local ecosystems.

8. Reduced venting and flaring as a result of the Rule will also improve visibility by reducing ozone, nitrogen oxides, and particulate matter emissions, improving recreational opportunities for the National Wildlife Federation's and its affiliates' members. Likewise, flaring reductions will benefit the National Wildlife Federation's and its affiliates' members who

experience noisy and unsightly flares throughout the day and night near their homes or in the areas where they enjoy recreating or wildlife based activities.

9. The Rule will also provide royalties, some of which are allocated to states to spend in areas economically impacted by mineral development or to help enhance wildlife habitat and ecosystem health. The National Wildlife Federation's and its affiliates' members live in areas that are impacted by oil and gas development and will benefit from these expenditures in their communities.

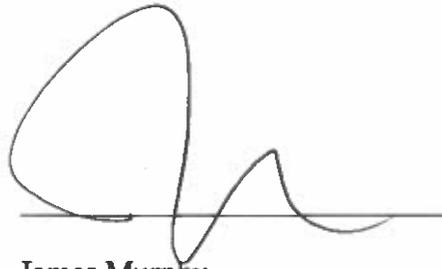
10. If the Rule is struck down, the aforementioned benefits will be lost. The National Wildlife Federation's and its affiliates' members would face increased health risks posed by ozone, hazardous air pollutants, and particulate matter. Damage from these pollutants to the landscape and the environment also would harm wildlife and would diminish those members' enjoyment from wildlife related activities and recreating on federal public lands. The National Wildlife Federation's and its affiliates' members will lose the increased royalties paid under the Rule that would benefit their communities and wildlife.

11. While the Rule is an improvement over the status quo, it does have shortcomings, and therefore the National Wildlife Federation does not believe that BLM can adequately represent the interests of our and our affiliates' members. For example, the rule permits flaring across a wide range of oil and gas operations, even though flaring contributes to climate change and acid rain and is an unsightly source of noise and light pollution. The Rule also fails to include consideration of social costs in the benefit-cost test that appears throughout the Rule that provides alternative limits to waste prevention measures. This is despite the fact that the oil and gas resource is a public trust resource managed for the benefit of all Americans.

12. Another shortcoming is that the Rule allows BLM to issue variances exempting oil and gas operations on federal leases across an entire state or tribal reservation from specific provisions of the Rule. This provision creates the potential for abuse and the dilution of the Rule's protections. If abuse of the variance provision occurs, it would undercut the Rule's benefit to our members.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 30, 2016.

A handwritten signature in black ink, consisting of a large, stylized loop followed by a smaller loop and a horizontal line extending to the right.

James Murphy
Senior Counsel
The National Wildlife Federation

DECLARATION OF ANNE HEDGES

I, Anne Hedges, declare as follows:

1. I am Deputy Director for the Montana Environmental Information Center (MEIC).
2. While the Bureau of Land Management's (BLM) new methane waste prevention rule is not perfect, it represents a significant step forward in addressing the rampant waste of methane from oil and gas operations on public and tribal lands. The rule is a much-needed update to waste guidance that was adopted 36 years ago.
3. Montana Environmental Information Center (MEIC) is a nonprofit organization founded in 1973 with approximately 5,000 members and supporters throughout the United States and the State of Montana. MEIC is dedicated to the preservation and enhancement of the natural resources and natural environment of Montana and to the gathering and disseminating of information concerning the protection and preservation of the human environment through education of its members and the general public concerning their rights and obligations under local, state, and federal environmental protection laws and regulations. MEIC is also dedicated to assuring that federal officials comply with and fully uphold the laws of the United States that are designed to protect the environment from pollution. MEIC and its members have intensive, long-standing recreational, aesthetic, scientific, professional, and spiritual interests in the responsible production and use of energy, the reduction of GHG pollution as a means to ameliorate our climate crisis, and the land, air, water, and communities impacted by fossil fuel

development. The updated rule will better protect the interests of MEIC and its members. MEIC members live where oil and gas is currently being developed, or may be developed in the future on federal public lands. MEIC brings this action on its own behalf and on behalf of its members.

4. Numerous MEIC members recreate on public lands near where oil and gas development is occurring or has been proposed. Other members reside on “split estate” lands where the federal government owns the minerals underlying the property, or they live in close proximity to federal lands where oil and gas development has been proposed.
5. BLM’s new methane waste rule will require or incentivize oil and gas operators to take measures to reduce natural gas waste from BLM-administered mineral leases. The Rule’s reductions in venting, leaking, and flaring will decrease volatile organic compound emissions that contribute to the formation of ozone. Ozone contributes to asthma, emergency room visits, and premature mortality, and its reduction will improve the health of MEIC’s members.
6. In addition to reducing the risk to the health of our members, the Rule will also protect and enhance plant life. Ozone also inhibits vegetation growth. Reduced ozone levels as a result of the Rule’s limits and incentives will benefit MEIC’s members who farm and ranch, as well as protect local ecosystems that our members enjoy for hiking, camping, and other recreation.
7. The Rule will also decrease emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing additional health benefits to MEIC’s members and local ecosystems.

8. Reduced venting and flaring as a result of the Rule will also improve visibility by reducing ozone, nitrogen oxides, and particulate matter emissions, improving recreational opportunities for MEIC's members. Likewise, flaring reductions will benefit MEIC's members who experience noisy and unsightly flares throughout the day and night near their homes or in the areas where they enjoy recreating.
9. The Rule will also provide royalties, some of which are allocated to states to spend in areas economically impacted by mineral development. MEIC's members live in areas that are impacted by oil and gas development and will benefit from these expenditures in their communities.
10. If the Rule is struck down, the aforementioned benefits will be lost. MEIC's members would face increased health risks posed by ozone, hazardous air pollutants, and particulate matter. Damage from these pollutants to the landscape and the environment also would diminish those members' enjoyment from recreating on federal public lands. MEIC's members will lose the increased royalties paid under the Rule that would benefit their communities.
11. While the Rule is an improvement over the status quo, it does have shortcomings, and therefore MEIC's does not believe that BLM can adequately represent the interests of our members. For example, the rule permits flaring across a wide range of oil and gas operations, even though flaring contributes to climate change and acid rain and is an unsightly source of noise and light pollution. The Rule also fails to include consideration of social costs in the benefit-cost test that appears throughout the Rule that provides alternative limits to waste prevention measures.

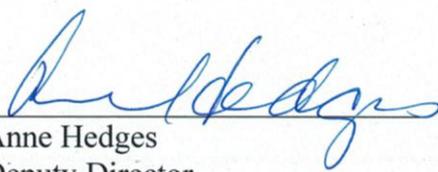
This is despite the fact that the oil and gas resource is a public trust resource managed for the benefit of all Americans.

12. Another shortcoming is that the Rule allows BLM to issue variances exempting oil and gas operations on federal leases across an entire state or tribal reservation from specific provisions of the Rule. This provision creates the potential for abuse and the dilution of the Rule's protections. If abuse of the variance provision occurs, it would undercut the Rule's benefit to our members.
13. I am aware that several states and industry trade groups have sued BLM, seeking to have the Waste Prevention Rule vacated by a court. I am also aware that the industry trade groups are asking the court to enjoin (i.e., prohibit the enforcement of) the Rule pending the outcome of their lawsuit. An injunction prohibiting the enforcement of the Rule would be contrary to the public interest. The benefits to the public of reducing methane emissions through compliance with the rule can be monetized. These monetary benefits are based on estimates of the social cost of carbon and methane that have been developed by the Interagency Working Group on Social Cost of Carbon and recent work on the social cost of methane. Given limitations in the models used to derive these estimates, such as the exclusion of catastrophic impacts and other unqualified damages, these model are likely to underestimate the benefits of avoiding methane emissions. On the basis of the social cost of methane and other conservative assumptions, the BLM estimates that the rule's net benefits could range from \$46 to \$204 million per year. These figures incorporate both the social benefits of reducing methane emissions and additional revenues for operators from sale of recovered natural gas. If the Waste

Prevention Rule is enjoined, these benefits, including significant social benefits, would be lost.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 28, 2016.


Anne Hedges
Deputy Director
Montana Environmental Information Center

DECLARATION OF NATASHA LEGER

I, Natasha Leger, declare as follows:

1. I am Interim Executive Director for Citizens for a Healthy Community (CHC), a grassroots 501(c)(3) nonprofit organization of more than 450 members dedicated to protecting the Delta County region of Southwest Colorado from the impacts of oil and gas development.
2. While the Bureau of Land Management's (BLM) new methane waste prevention rule is not perfect, it represents a significant step forward in addressing the rampant waste of methane from oil and gas operations on public and tribal lands. The rule is a much-needed update to waste guidance that was adopted 36 years ago.
3. The updated rule will better protect the interests of CHC and its members. CHC members live in, or have second homes in Delta County, Colorado where oil and gas is currently being developed, or may be developed in the future on federal public lands within the County or surrounding it. CHC's members include 294 members in Colorado, 4 members in New Mexico, 1 member in Utah, and 1 member in Wyoming.
4. Numerous CHC members recreate on public lands near where oil and gas development is occurring or has been proposed. Other members reside on "split estate" lands where the federal government owns the minerals underlying the property, or they live in close proximity to federal lands where oil and gas development has been proposed. Hundreds of proposed wells on existing BLM leases near where CHC members live or recreate are at various application permit stages.
5. BLM's new methane waste rule will require or incentivize oil and gas operators to take measures to reduce natural gas waste from BLM-administered mineral leases. The Rule's

reductions in venting, leaking, and flaring will decrease volatile organic compound emissions that contribute to the formation of ozone. Ozone contributes to asthma, emergency room visits, and premature mortality, and its reduction will improve the health of CHC's members.

6. In addition to reducing the risk to the health of our members, the Rule will also protect and enhance plant life. Delta County's economy is primarily based on agriculture, tourism, and recreation. Ozone inhibits vegetation growth. Reduced ozone levels as a result of the Rule's limits and incentives will benefit CHC's members who farm, ranch, and hunt, as well as protect local ecosystems that our members enjoy for hiking, camping, and other recreation.
7. The Rule will also decrease emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing additional health benefits to CHC's members and local ecosystems.
8. Reduced venting and flaring as a result of the Rule will also improve visibility by reducing ozone, nitrogen oxides, and particulate matter emissions, improving recreational opportunities for CHC members. Likewise, flaring reductions will benefit CHC members who experience noisy and unsightly flares throughout the day and night near their homes or in the areas where they enjoy recreating.
9. The Rule will also provide royalties, some of which are allocated to states to spend in areas economically impacted by mineral development. CHC members live in areas that are or will be impacted by oil and gas development and will benefit from these expenditures in their communities.

10. If the Rule is struck down, the aforementioned benefits will be lost. CHC's members would face increased health risks posed by ozone, hazardous air pollutants, and particulate matter. Damage from these pollutants to the landscape and the environment also would diminish those members' enjoyment from recreating on federal public lands. CHC members will lose the increased royalties paid under the Rule that would benefit their communities. In addition, CHC members who are farmers and ranchers would have their livelihoods adversely impacted due to reduced vegetative growth of crops and vegetation for cattle, goats, and sheep grazing on pasture, and grazing allotments.
11. While the Rule is an improvement over the status quo, it does have shortcomings, and therefore CHC does not believe that BLM can adequately represent the interests of our members. For example, the rule permits flaring across a wide range of oil and gas operations, even though flaring contributes to climate change and acid rain and is an unsightly source of noise and light pollution. The Rule does not consider pipeline safety and integrity management to prevent pipeline leaks, especially on unregulated rural gas gathering pipelines. The Rule also fails to include consideration of social costs in the benefit-cost test that appears throughout the Rule that provides alternative limits to waste prevention measures. This is despite the fact that the oil and gas resource is a public trust resource managed for the benefit of all Americans.
12. Another shortcoming is that the Rule allows BLM to issue variances exempting oil and gas operations on federal leases across an entire state or tribal reservation from specific provisions of the Rule. This provision creates the potential for abuse and the dilution of the Rule's protections. If abuse of the variance provision occurs, it would undercut the Rule's benefit to our members.

13. I am aware that several states and industry trade groups have sued BLM, seeking to have the Waste Prevention Rule vacated by a court. I am also aware that the industry trade groups are asking the court to enjoin (i.e., prohibit the enforcement of) the Rule pending the outcome of their lawsuit. An injunction prohibiting the enforcement of the Rule would be contrary to the public interest. The benefits to the public of reducing methane emissions through compliance with the Rule can be monetized. These monetary benefits are based on estimates of the social cost of carbon and methane that have been developed by the Interagency Working Group on Social Cost of Carbon and recent work on the social cost of methane. Given limitations in the models used to derive these estimates, such as the exclusion of catastrophic impacts and other unqualified damages, these models are likely to underestimate the benefits of avoiding methane emissions. On the basis of the social cost of methane and other conservative assumptions, the BLM estimates that the Rule's net benefits could range from \$46 to \$204 million per year. These figures incorporate both the social benefits of reducing methane emissions and additional revenues for operators from sale of recovered natural gas. If the Waste Prevention Rule is enjoined, these benefits, including significant social benefits stemming from methane waste capture from the 146 wells contemplated by the Bull Mountain Master Development Plan, would be lost.
14. The Rule has numerous other social benefits in addition to the social benefits of reducing climate change impacts, such as the reduction of volatile organic compounds and therefore the reduction of ozone. Ozone reductions provide numerous public health benefits. For example, a 2012 study found that annual numbers of avoided ozone-related premature deaths would range from 1,410 to 2,480 at 75 ppb to 2,450 to 4,130 at 70 ppb, and 5,210

to 7,990 at 60 ppb. Jesse D. Berman et al., Health Benefits from Large-Scale Ozone Reduction in the United States. *Environ Health Perspect* 120:1404–1410. In October of 2015, EPA revised the health-based ambient air quality standard for ozone pollution to 70 parts per billion. Many CHC members recreate in areas that have ozone levels above 70 parts per billion, for example near the Bull Mountain project area in Gunnison County, where the BLM acknowledges areas with ozone concentrations in the range of 70-76 ppb. The Berman study also found that in the data years of 2005, 2006, and 2007, acute respiratory symptoms would have been reduced by 3 million cases and school-loss days by 1 million cases annually if only the then-current 75-ppb standard had been attained. *Id.* If the Waste Prevention Rule is enjoined, public health benefits of reduced ozone formation, including to farmers and ranchers, will be lost.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 29, 2016.



Natasha Léger

Interim Executive Director, Citizens for a Healthy

Community

DECLARATION OF MARY JURSIKOVIC

I, Mary Jursinovic, hereby state as follows:

1. I am over eighteen years of age and a citizen of the United States. The facts and opinions set forth in this declaration are based on my personal knowledge and experience. If called as a witness in these proceedings, I could and would testify competently to these facts and opinions.
2. In 2000, my husband and I purchased 41 acres of agricultural land on Bone Mesa between Paonia and Hotchkiss, in the North Fork Valley, as a retirement investment. In 2008, we closed our successful businesses in Crested Butte, purchased an RV as living quarters, and spent the next two years building a new home. We now supplement our Social Security income with sale of hay and leasing pasture for grazing. We produce a large percentage of the food we consume in our organic garden.
3. I am a member of Citizens for a Healthy Community (“CHC”). I have been a member of CHC for many years. CHC is a grass-roots organization with more than 450 members formed in 2010 for the purpose of protecting communities (people and their environment) within the air-, water- and food-sheds of Delta County, Colorado from the impacts of oil and gas development. CHC’s members and supporters include organic farmers, ranchers, vineyard and winery owners, sportsmen, realtors, and other concerned citizens impacted by oil and gas development. CHC members have been actively involved in commenting on BLM’s oil and gas actions and decisions.
4. Delta County is part of the Uncompahgre Resource Management Plan (“Uncompahgre RMP”). The Draft Uncompahgre RMP proposes to make over

100,000 acres open to oil and gas leasing, or over 94.5% of the total oil and gas mineral acreage in the planning area, including areas in the heart of the North Fork Valley.

5. The BLM's recently-promulgated waste prevention and resource conservation rule, 81 Fed. Reg. 83,008 (Nov. 18, 2016), will reduce the harmful impacts of oil and gas development to me and my community.
6. For example, the Rule's waste prevention measures will decrease volatile organic compound emissions (VOCs), one of the primary components of natural gas, and thus will reduce ozone formation caused by oil and gas operations. The Rule benefits me because it will reduce ozone, and ozone has been shown to inhibit the growth of vegetation, which would affect our garden and hay crops.
7. By controlling ozone, the rule will also protect my health and my husband's health. My husband underwent major heart surgery in 2013. His heart health is already compromised. Ozone has long been recognized to cause adverse health effects. Exposure to ozone can cause or exacerbate respiratory health problems—including shortness of breath, asthma, chest pain and coughing—can decrease lung function, and can even lead to long-term lung damage. Short term exposure to ozone causes multiple negative respiratory effects, from inflammation of airways to more serious respiratory effects that can lead to use of medication, hospital admissions, emergency room visits, and chronic obstructive pulmonary disease (“COPD”). According to a recent report by the National Research Council (“NRC”), short-term exposure to current levels of ozone in many areas is likely to contribute to premature deaths. Long-term exposure may also increase risk of death from respiratory problems. Short-

and long-term exposure to elevated levels of ozone can also harm people's hearts and cardiovascular systems.

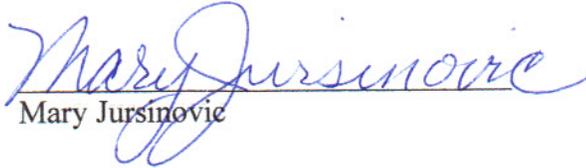
8. The Rule will also control emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing health protections to my husband and me, and reducing the air pollution from drilling activity that could settle on the hay crop and garden.
9. We have unobstructed 360 degree views of mountains and mesas from our property. The Rule will control venting and flaring, which will protect our visibility by reducing ozone, nitrogen oxides, and particulate matter emissions, ensuring our continued ability to see and enjoy the landscape that surrounds our land.
10. The Rule will also provide additional royalties which will be allocated to Colorado and other states to spend in areas impacted by mineral development for planning, public facility construction and maintenance, and public service provision. To the extent that drilling impacts our community, that impact will be addressed to some extent by these royalties spent in our community.
11. My husband and I are in our late 60s and are too old to start over if we lose the value of our home and property. Uncontrolled oil and gas development in the North Fork Valley would drastically affect the value of our property and our lives.
12. I am aware that several states and industry trade groups have sued BLM, seeking to have the Waste Prevention Rule vacated by a court. I am also aware that the industry trade groups are asking the court to enjoin (i.e., prohibit the enforcement of) the Rule pending the outcome of their lawsuit. If the Waste Prevention Rule is

vacated and/or enjoined, that would eliminate the protections provided therein for Federal public lands, including the BLM-managed lands near my property. These protections include requirements for oil and gas operators to take low-cost, proven measures to reduce natural gas waste from venting, flaring, and leaks. My health, recreational, and aesthetic interests will be directly affected and irreparably harmed by a decision of the court to vacate or enjoin the Waste Prevention Rule.

13. Vacating and/or enjoining the Waste Prevention Rule would harm my health, recreational, and aesthetic interests by allowing oil and gas operators to continue to vent, flare, and leak large amounts of natural gas, which degrades my quality of life. On the other hand, these harms will be redressed (or avoided) by a decision of the court to reject the states' and industry groups' respective lawsuits and affirm the Waste Prevention Rule.

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

DATED: 11/26/2016


Mary Jursinovic

DECLARATION OF MICHAEL L. DRAKE

I, Michael L. Drake, hereby state as follows:

1. I am over eighteen years of age and a citizen of the United States. The facts and opinions set forth in this declaration are based on my personal knowledge and experience. If called as a witness in these proceedings, I could and would testify competently to these facts and opinions.
2. In 1977 I started my almost annual trip from Ohio to Colorado to hunt. In 2000, my job moved me from Dayton, Ohio to Ogden, Utah, which greatly reduced my trip to hunt in Colorado. In 2001, my wife and I started evaluating where in the West we were going to live when we retired. We investigated and visited multiple places in Idaho, Wyoming, Montana, and Colorado. We decided that Colorado was the best place for us to live. We looked across Colorado and in late 2002, we found Paonia, which is in the NFV.

It was 2004 before we found and closed on our home. We became permanent residents in February 2008. We live on a 7-acre mini-farm where we have an organic home garden. We also have been improving much of our property to allow organic grazing for sheep and goats, and expect to start the grazing operation in 2017.

We chose the NFV because of the following:

- The abundant organic animal, vegetable, and fruit farms
- The organic wineries

- The traditional farms and ranches
- The year-round outdoor activities such as hiking, biking, fishing, hunting, camping and cross-country skiing
- The clean air and water
- The small town and rural environment
- The brilliant night sky

Both the indigenous Ute Indians and the US immigrant population that settled this area were in the NFV because of the valley's abundant wildlife, clean water, fertile soil, and climate. At the 1893 World Fair in Chicago, all six NFV fruits entered in that Fair won the Gold Medal for their category. The NFV continues to be known for the fruits, vegetables and livestock grown here. The wildlife is still abundant and there is a significant economic impact from the local and out-of-state hunters that come to the valley.

My wife and I started hiking, camping, and fishing in the NFV in 2003. In 2006 we started archery hunting in the NFV. I have killed two elk. My wife and I both have killed two deer.

3. I am a member of Citizens for a Healthy Community ("CHC"). I have been a member of CHC since 2010. CHC is a grass-roots organization with more than 450 members formed in 2010 for the purpose of protecting communities (people and their environment) within the air-, water- and food-sheds of Delta County, Colorado from the impacts of oil and gas development. CHC's members and supporters include organic farmers, ranchers, vineyard and winery owners,

sportsmen, realtors, and other concerned citizens impacted by oil and gas development. CHC members have been actively involved in commenting on BLM's oil and gas actions and decisions.

4. Delta County is part of the Uncompahgre Resource Management Plan ("Uncompahgre RMP"). The Draft Uncompahgre RMP proposes to make over 100,000 acres open to oil and gas leasing, or over 94.5% of the total oil and gas mineral acreage in the planning area, including areas in the heart of the North Fork Valley.
5. The BLM's recently-promulgated waste prevention and resource conservation rule (WPRC), 81 Fed. Reg. 83,008 (Nov. 18, 2016), will reduce the harmful impacts of oil and gas development to me and my community.
6. **Farm Operations** – My farm, like most in the valley, exists because of my irrigation water rights. Clean irrigation water is a key to successful farming in the NFV.

Two irrigation water facts combine to prove that the WPRC will have positive impacts on my farm and farming in general within the NFV. The first fact is that all irrigation water in the NFV will be impacted directly by any surface water contamination. The second fact is that reports from all O&G development sites document a variety of methane leaks that result in surface water contamination.

Therefore, the reduction of methane leaks will reduce significantly the potential of surface water contamination. The only mitigation plan for a contaminated open dirt ditch irrigation system is the remediation of the contaminated ditch dirt and all the contaminated farms served by that ditch, including the on-farm irrigation

systems such as sprinkler systems. I should note that my particular irrigation company used sections of naturally occurring creeks, in conjunction with both dirt ditches and piped ditches, to deliver irrigation water to the farms served.

Methane leaks and the resulting ozone air pollution from O&G development provide a significant risk to both organic and traditional farming operations in the NFV, including my farm. The connection between methane leaks and ozone increase is well documented. Please see the multiple references at the end of this letter.

USDA data presented in Figure 1 is from the following website – <https://www.ars.usda.gov/southeast-area/raleigh-nc/plant-science-research/docs/climate-changeair-quality-laboratory/ozone-effects-on-plants/>.

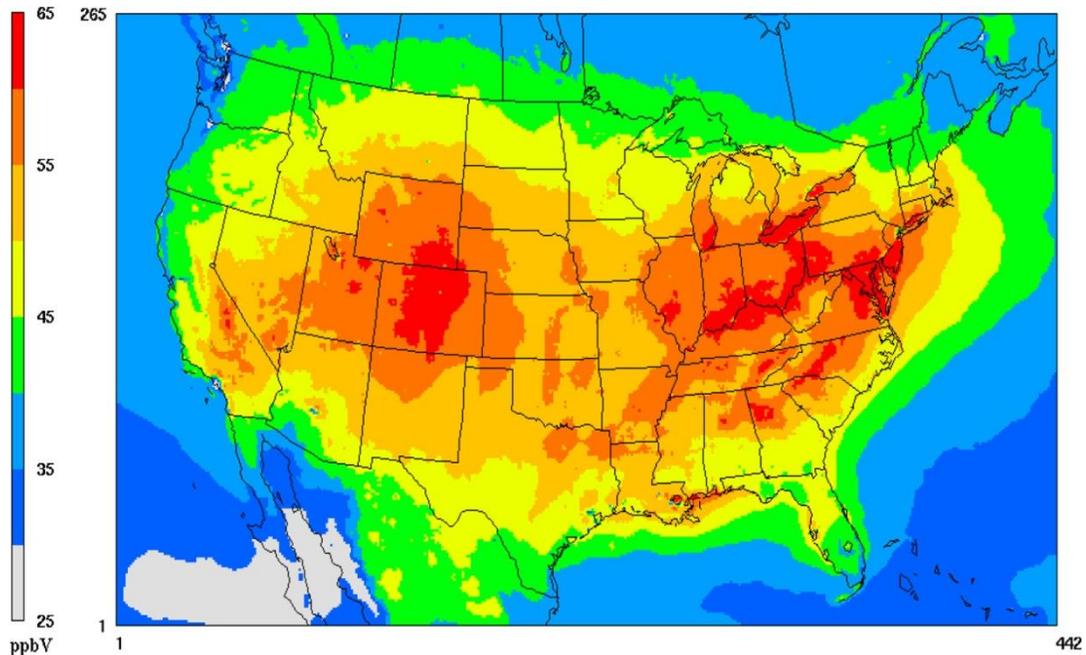


Figure 1 – Seasonal mean of ambient ozone concentrations between 09:00 and 16:00 h over the continental United States from 1 July to 31 September 2005 (Tong et al. 2007 *Atmos. Environ.* 41:8772). Areas shown in brown, orange and red can experience significant crop yield loss and damage to ecosystem function from ambient ozone.

Figure 1 demonstrates that most of the Rocky Mountain region is suffering from ozone levels that greatly reduce crop yield, which leads to reduced farm production. Reduced farm production means less tonnage of cash crops and reduced hay production, which is both a cash crop and a necessity for cattle, sheep, and other stock ranchers.

The WPRC should directly reduce the ozone levels in the Rocky Mountain region and have a strong vegetation impact on both public and private lands.

- 7. Home Life** – We use irrigation water for our home organic garden. Therefore, all the comments above about irrigation water contamination from O&G methane leaks apply to our organic garden.

Our home drinking water comes from springs in the mountains close to Paonia. O&G methane leaks pose a direct threat to our drinking water source. If contaminated, the entire water system from the source, raw water storage, purification system, treated water storage, and water delivery will require decontamination. Not only will there be a large loss of water from the contamination event, but there also will be a large amount of water lost through the decontamination process. Water wasted in Colorado should be a crime because of the limited amount of water available and the predicted up to a 50% water shortage by 2050.

Most of the drinking water in the NFV could be directly impacted by O&G methane leaks that contaminate surface water. The town of Somerset and the three coal mines in the area get their drinking water directly from the North Fork of the Gunnison River, with the mines also getting their industrial water for mining operations directly from the North Fork River. All creeks in the NFV Mountains flow into this river. Again, the cost of remediation of the town and coal mine water systems would be large.

- 8. Life Activities** – This first paragraph details a very personal impact of O&G methane pollution.

As the Executive Director of Painted Sky Resource Conservation and Development, I had the opportunity to observe a demonstration of a new technology for handling O&G produced water. The demonstration was being conducted at a Vernal, Utah outdoor O&G evaporation pond facility. My wife and a co-worker accompanied me on the trip to see the demonstration. The tech demo was on the far side of the facility. Within a couple of minutes of us driving through this large multi-pond facility, my wife started feeling lightheaded and sick to her stomach. The people running the demonstration told her to stay inside the office trailer, which had an air conditioner in a couple of the windows and all the rest of the windows were closed. They told us that other folks have had the same reaction. My co-worker and I had no problem. Our demonstration and tour lasted about 30 minutes. About an hour after leaving the facility, my wife's symptoms remained and we stopped in Rangely, Colorado to get something to settle her stomach. The rapid onset of my wife's symptoms demonstrated my

wife's susceptibility to O&G methane air pollution. Obviously, we cannot go hiking, biking, fishing, hunting, camping or cross-country skiing in an area where there is O&G development.

The earlier section on Farm Life discussed crop yield reduction on farm and ranch lands. The same basic discussion applies directly to federal lands. All wildlife require habitat that provides safety zones for rest and the raising of the young, feeding areas, and migration corridors. Reduction in crop yield on federal lands equals reduced critical vegetation on BLM and National Forest lands for both critical wildlife habitat and critical wildlife food sources. Wildlife, from small birds and rodents, to large birds including sage grouse and golden eagles, and all large game animals depend on the abundance of vegetation food sources. Prey animals and birds use the vegetation as their direct food sources, while predators feed on the prey animals and birds. Therefore all wildlife is directly or indirectly dependent on healthy vegetation. Reduction in crop yield will directly negatively impact the population numbers of all wildlife.

In addition to the wildlife that lives in our public lands, there also must be consideration for the ranchers who own grazing rights on our public lands. All the rancher's animals are grazing animals that totally depend on the production of the grazeable vegetation. Reduction in crop yield will directly negatively impact the value of the grazing rights owned by the ranchers.

The WPRC will directly reduce the ozone levels in the Rocky Mountain region and have a strong increase in the crop yield for the vegetation on public lands that will enhance all the public uses of these lands.

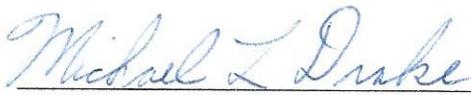
The WPRC will directly reduce the impact on hunting and fishing by reducing O&G methane leaks. This impact will enable my wife and me to continue hunting 45 minutes from the house instead of driving 3 to 7 hours to get to a place with no O&G development to hunt.

In addition to impacting crop yield, methane/ozone impacts humans, wildlife, and farm animals. Exposure to ozone at levels commonly encountered in many of our own communities permanently scars the lungs of experimental animals, causing long-term impairment of lung capacity for the experimental animals. Ozone may have similar effects on human lungs. The National Institute of Environmental Health Sciences (NIEHS) at the National Institutes of Health reports that in controlled tests, a 5 to 10 percent reduction in lung capacity occurred in volunteers engaged in moderate exercise for 6.5 hours at just 80 ppb. Studies in animals also suggest that ozone may reduce the human immune system's ability to fight bacterial infections in the respiratory system. Typical signs include shortness of breath, dry cough or pain when taking a deep breath, tightness of the chest, wheezing, and sometimes even nausea. See Reference 5 at the end of this letter for more details on ozone impacts.

It seems quite reasonable to assume that similar impacts will occur in the wildlife and ranch animals that are on public lands and exposed to the methane/ozone that is currently occurring in oil and gas development areas.

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

DATED: 11/27/16


Michael L. Drake

Additional references

1. http://www.betseylewis.com/Methane_Gas_Theory.html
2. <https://www.sciencedaily.com/releases/2002/10/021010065923.htm>
3. <http://www.pbs.org/newshour/updates/california-natural-gas-leak-just-one-of-thousands-across-country/>
4. <https://www.sciencenews.org/blog/science-ticker/california-gas-leak-spewed-massive-amounts-methane>
5. http://www.earthobservatory.nasa.gov/Features/OzoneWeBreathe/ozone_we_breathe2.php

DECLARATION OF TRECIAFAYE (TWEETI) BLANCETT

I, Tweeti Blancett, declare as follows:

1. My name is Tweeti Blancett. I am 71 years old. The information in this declaration is based on my personal experience and my review of publicly available information.
2. My primary residence is County Road 2125, #36, Aztec, New Mexico. I have lived at my current address since 1971.
3. I am self-employed. I am a rancher and I have a small hotel in Aztec. The ranch is in the County of San Juan. The ranch headquarters are located on the Animas River, and are surrounded by natural gas wells, pipelines and roads. There is no oil and gas infrastructure on our property; our business is in livestock and agriculture.
4. I have been a member of the Sierra Club since 2004. Although I didn't agree with the Sierra Club on every issue, I joined because we were in total agreement regarding the degradation of air, water, and other resources by oil and gas activities.
5. My property where I work borders oil and gas infrastructure. It is surrounded by the Animas River on three sides, and directly adjacent to a bluff on the east side that is part of BLM land. We are surrounded by oil and gas

- infrastructure. We sold our BLM allotment adjacent to the ranch in 2010 because of contamination resulting from oil and gas development.
6. There is much more oil and gas development on the reservations. Our ranch borders the Ute reservation, and the ranch that we used to own south of town bordered the Navajo reservation. Oil and gas infrastructure can be found all over the Ute reservation.
 7. My husband and I are the sixth generation on the ranch. Our family has been here for parts of three centuries. Our ancestry was here before New Mexico was a territory, making them pioneers. My son is seventh generation, and our grandchildren—in college now—are eighth generation. Our son is a consultant for oil and gas wells. He grew up at the ranch headquarters on the river.
 8. We enjoy working outdoors, farming and working cattle. We work on conservation of the land and improvements to the land, primarily dealing with agriculture and livestock. We are fascinated by the history of the western United States, and we enjoy exploring the land in our state and nearby states. We used to work on the BLM land, and we would venture out occasionally to hunt.
 9. Much of the land where we live and work has been destroyed environmentally. It was the largest natural gas producing location in North

America, and was over-drilled. It's a high desert area, and problems caused by erosion and watershed pollution are compounded daily. The grounds have been fragmented and the roads are not well maintained by the oil and gas industry. Noxious weeds grow, and they don't hold the subsoil.

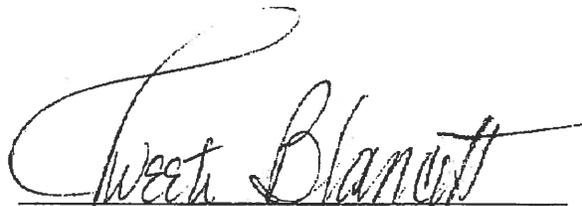
10. The combination of erosion, pipelines, and roads make the amount of draining in the area overwhelming. The watershed drains off of the mesas and into the San Juan and Animas rivers.
11. I am very concerned by leaking well heads, pipes, and storage compressors. The wildlife and livestock get into the contaminated areas. Though we have attempted to make some progress in getting industry to clean things up, for many areas it is too late.
12. The oil and gas industry started exploring in our area in the 1950s. When the methane leaks started, the situation seemed impossible. It seems like all of the wells leak.
13. There used to be a lot of flaring around our ranch headquarters, but industry drilled everything up and moved on. We had the title to some BLM land and private state land, but we sold it because of the contamination from oil and gas development.
14. When we had our title my husband and I would visit BLM land at least three times a week. These days, we usually visit BLM land for one week every

spring, summer, fall and winter, helping our neighbor move cattle. I visit the tribal lands as well because I have been helping them collect documentation on contamination from oil and gas operations near the Chaco World Heritage Center. Methane affects the air quality in Shiprock, Bloomington and Aztec (where I live) in addition to other places in the San Juan Basin. I am concerned about the effects of these emissions on my health, as well as on the health of the children in the schools and public places that the infrastructure surrounds. I understand that children and the elderly are more vulnerable.

15. I understand that Sierra Club is intervening defensively to help defend BLM's methane rule. I support regulation to reduce the pollution and harms caused by venting, leaking, and flaring gas. This will improve air quality in the basin. I also know that methane is affecting the climate, and I am concerned by the effects of global warming. In addition, the people of America deserve the royalties from that gas.

I declare under penalty of perjury that, to the best of my knowledge, the foregoing is true and correct.

Executed this 30 day of November, 2016.



Tweeti Blancett

DECLARATION OF GINA TRUJILLO

I, Gina Trujillo, declare as follows:

1. I am the director of Membership at the Natural Resources Defense Council, Inc. (“NRDC”). I have been the director of membership since January 1, 2015 and have worked at NRDC in the membership department for more than 22 years.
2. My duties include supervising the preparation of materials that NRDC distributes to members and prospective members. Those materials describe NRDC and identify its mission.
3. NRDC is a membership organization incorporated under the laws of the State of New York. It is recognized as a not-for-profit corporation under section 501(c)(3) of the United States Internal Revenue Code.
4. NRDC’s mission statement declares that “The Natural Resources Defense Council’s purpose is to safeguard the Earth: its people, its plants and animals, and the natural systems on which all life depends.” The mission statement goes on to declare that NRDC works “to restore the integrity of the elements that sustain life – air, land, and water – and to defend endangered natural places.” NRDC’s mission includes the prevention and mitigation of global warming in order to protect and maintain NRDC’s members’ use and enjoyment of natural resources threatened by climate change, as well as members’ own health and safety.
5. Through its Climate and Clean Air Program, NRDC pursues federal and state policies to curb air pollution, particularly the pollutants that are causing climate change. NRDC seeks to reduce emissions of methane from the oil and gas sector, which is responsible for over a third of the nation’s methane pollution.
6. Through its Land and Wildlife Program, NRDC also seeks to limit the impacts on communities, wildlife and ecosystems from oil and gas development.

7. When an individual becomes a member of NRDC, his or her current residential address is recorded in NRDC's membership database. When a member renews his or her membership or otherwise makes a contribution to NRDC, the database entry reflecting the member's residential address is verified or updated.

8. NRDC currently has more than 298,200 members. There are NRDC members residing in each of the fifty United States and in the District of Columbia, including in states with significant oil and gas operations and development on public and tribal lands, with 344 members in North Dakota, 1,548 in Montana, 635 in Wyoming, 8,762 in Colorado, 3,334 in New Mexico, 1,932 in Utah, 54,209 in California, and 1,540 in Oklahoma.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief. Executed on 11/30/16.


Gina Trujillo

DECLARATION OF JEREMY NICHOLS

I, Jeremy Nichols, declare as follows:

1. The facts set forth in this declaration are based on my personal knowledge. If called as a witness in this proceeding, I could and would testify competently to these facts.

2. I currently reside in Golden, Colorado.

3. I am an employee and member of WildEarth Guardians. I am the Climate and Energy Program Director for the organization. WildEarth Guardians is a nonprofit environmental advocacy organization founded 27 years ago in Santa Fe, New Mexico.

WildEarth Guardians' mission is to protect and restore the wildlife, wild places, wild rivers, and health of the American West. The organization currently has more than 120,000 members and supporters.

4. Over the years, Guardians advocacy work has expanded to address conservation and environmental protection concerns throughout the western United States. Nine years ago, Guardians began a Climate and Energy Program. Through its Climate and Energy Program, Guardians works to confront the negative environmental and public health impacts of fossil fuel development and consumption, and to advance cleaner energy and fuels in order to make the west and the world a healthier, happier place to live. Key concerns of the Climate and Energy Program are the impacts of oil, gas, and coal development in the western United States to our global climate. The production, processing, distribution, and consumption of fossil fuels releases large amounts of greenhouse gas emissions that are contributing to global climate change. Guardians' Climate and Energy Program works to curtail these emissions and help foster a transition away from being reliant on fossil fuels.

5. A major campaign of WildEarth Guardians' Climate and Energy Program is to spur the U.S. Department of the Interior's Bureau of Land Management to be more transparent in disclosing the greenhouse gas emissions associated with its oil and gas leasing approvals, and to compel action from the agency to limit these emissions. The agency manages vast amounts of publicly owned oil and gas reserves, most of which are located in the western United States. Recent reports have found that the agency's management of these oil and gas resources, and in particular the leasing of oil and gas, poses tremendous impacts to the climate in the form of added greenhouse gas emissions.

6. I am aware of the Bureau of Land Management's ("BLM's") methane waste prevention rule, which was announced on November 15, 2016. While the rule is not perfect, it represents a significant step forward in addressing the rampant waste of methane from oil and gas operations on public and Tribal lands. The rule is a much-needed update to waste guidance that was adopted 36 years ago. WildEarth Guardians joined in commenting on the proposed rules.

7. WildEarth Guardians strongly supports regulations that better control methane emissions associated with oil and gas operations on public and Tribal lands. Methane is a potent greenhouse gas that contributes to global climate change. Controlling methane emissions helps to reduce greenhouse gases and contribute to addressing the impacts of global climate change. Methane is also often released from oil and gas operations together with other harmful gases, including volatile organic compounds ("VOCs") that are often toxic and contribute to ground-level ozone pollution and fine particulate pollution. Both ozone and fine particulates are known to be harmful to public health. Limiting methane emissions has the effect of limiting VOC emissions and reducing other harmful air pollutants.

8. The updated rule will better protect the interests of WildEarth Guardians and its members. Guardians members live in the states where oil and gas is currently being developed, or may be developed in the future, on public and Tribal lands, including in Colorado, Montana, New Mexico, Utah, and Wyoming.

9. Guardians also has members who regularly recreate on public lands near where oil and gas development is occurring or has been proposed. Other members reside on “split estate” lands where the federal government owns the minerals underlying the property, or they live in close proximity to federal lands where oil and gas development has been proposed.

10. For example, Guardians has members who regularly recreate on the Pawnee National Grassland in northeastern Colorado, where a surge in public lands oil and gas development has occurred in recent years. Guardians also has members who live in Farmington, New Mexico, where extensive public lands oil and gas development has occurred, even within neighborhoods of the town. Guardians has members who live within the Navajo Nation near the towns of Lybrook and Counselor, New Mexico, an area of Tribal lands that has also experienced extensive oil and gas development recently. Guardians also has members who regularly recreate in the Uinta Basin of northeastern Utah, an area that has experienced intensive public lands oil and gas development over the years. Guardians also has members who regularly recreate on the Thunder Basin National Grassland in northeastern Wyoming and in the Red Desert of southern Wyoming, both areas that have recently experienced extensive public lands oil and gas development. Guardians also has members who regularly recreate on public lands in eastern Montana, particularly along the Missouri and Yellowstone Rivers, where extensive public lands oil and gas development has occurred.

11. Oil and gas development on public and Tribal lands throughout the states of Colorado, Montana, New Mexico, Utah, and Wyoming harms WildEarth Guardians' members. It contributes to air pollution that reduces quality of life and the ability of members to recreate outdoors, it causes health concerns among members and their families, and it interferes with recreational enjoyment of public lands. The practices of venting, flaring, and leaking pose particularly visible and distressful harms to WildEarth Guardians' members use and enjoyment of public lands. Seeing and/or hearing such emissions and activities detracts from Guardians' members' enjoyment of natural scenery and wildlife and raises significant concerns over the public health impacts of such activities.

12. As a member of WildEarth Guardians, I have frequently been harmed by the impacts of venting, flaring, and leaking from oil and gas operations on public lands. For example, in my regular visits to the Pawnee National Grassland, I have increasingly observed and experienced the sights of flaring in the area. This flaring detracts from the natural scenery of the area and interferes with my ability to view wildlife and enjoy the public lands of this area. In my recent recreational outing to public lands in the Uinta Basin of northeast Utah, I have also increasingly observed and experienced the sights of oil and gas operations flaring, venting, and leaking in this area, particularly when I am recreating on public lands managed by the BLM in the area and on the Ouray National Wildlife Refuge. I also regularly recreate on public lands in other parts of Colorado, Montana, New Mexico, Utah, and Wyoming, and have regularly observed and been harmed by oil and gas operations and the practice of venting, flaring, and leaking. Below are images of flaring that I have observed in my recreational outings.



**Oil and Gas Well Site on Pawnee National Grassland of Colorado and Flaring Activity.
Photo Taken October 2015.**



**Oil and Gas Wells in Uinta Basin of Utah near Ouray National Wildlife Refuge. Photo
Taken January 2015.**

13. BLM's new methane waste rule will require or incentivize oil and gas operators to take measures to reduce natural gas waste from BLM-administered mineral leases. In doing so, the rule will reduce incidences of venting, leaking, and flaring, in turn limiting methane

emissions and associated VOC emissions. The rule will invariably limit emissions that interfere with Guardians' members' quality of life, their use and enjoyment of public and Tribal lands, and their health and happiness.

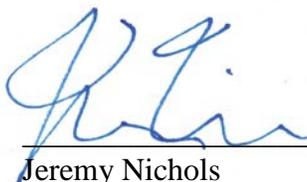
14. If the Rule is struck down, the aforementioned benefits will be lost. Guardians' members would face increased health risks posed by toxic VOCs, ozone, and particulate matter. Damage from these pollutants to the landscape and the environment also would diminish those members' enjoyment on recreating on federal public lands.

15. While the rule is an improvement over the status quo, it does have shortcomings, and therefore WildEarth Guardians does not believe that BLM can adequately represent the interests of our members. For example, the rule permits flaring across a wide range of oil and gas operations, even though flaring contributes to climate change and is an unsightly source of noise and light pollution. The rule also fails to include consideration of social costs in the benefit-cost test that appears throughout the rule. This is despite the fact that the oil and gas resource is a public trust resource managed for the benefit of all Americans.

16. Another shortcoming is that the Rule allows BLM to issue variances exempting oil and gas operations on federal leases across an entire state or Tribal reservation from specific provisions of the Rule. This provision creates the potential for abuse and the dilution of the Rule's protections. If abuse of the variance provision occurs, it would undercut the Rule's benefit to our members.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 30, 2016.



Jeremy Nichols
Climate and Energy Program Director
WildEarth Guardians

DECLARATION OF KENDRA PINTO

I, Kendra Pinto, declare as follows:

1. I grew up in Twin Pines, New Mexico. I have lived here for a majority of my life. It is a small community located in the valley near Chaco Canyon National Historical Park; a site well known for its history and architecture. People from all over the world travel to these ruins to witness its beauty and wonder.

2. I am a member of Dine' Citizens Against Ruining our Environment (Dine' CARE). Dine' CARE, formed in 1988, is a community-based environmental justice organization operating within the Navajo Nation. Dine' CARE's mission is to support local community activists who seek to defend their communities from the adverse effects of unchecked energy exploration and development. For 25 years, Dine' CARE has been the foremost defender of local community people on a wide variety of issues affecting their land, health, and advocating a course of development that is in harmony with the traditional Navajo philosophy of "*Hozhoji*" path to live in harmony.

3. While the Bureau of Land Management's (BLM) new methane waste prevention rule is not perfect, it represents a significant step forward in addressing the rampant waste of methane from oil and gas operations on public and tribal lands. The rule is a much-needed update to waste guidance that was adopted 36 years ago.

4. I have seen the physical changes in the landscape. It became more rushed and evident in 2013. Traffic on Highway 550 began to increase with semi-trucks while cedar and pine trees were torn down to make way for equipment used in hydraulic fracturing.

5. With the increase in truck traffic on the highway there has been many safety violations committed by oil industry truck drivers. The incidents of safety issues are felt throughout the community by locals who live in the area and must share the road to commute to work and back home. Such unsafe driving conditions are a daily stress for community members.

6. I have quite a few relatives who are impacted by the oil and gas activity. Many relatives reside on “split estate” lands where the federal government owns the minerals underlying the property, or they live in close proximity to federal lands where oil and gas development has been proposed. The unique layout of the area is known as the checkerboard. It is a mix of several different types of land ownership. With the uniqueness of the land, many homes are located near public BLM lands that are being leased for oil and gas. As a result of these leases being approved, well sites can be established very near in proximity to homes.

7. BLM’s new methane waste rule will require or incentivize oil and gas operators to take measures to reduce natural gas waste from BLM-administered mineral leases. The Rule’s reductions in venting, leaking, and flaring will decrease volatile organic compound emissions that contribute to the formation of ozone. Ozone contributes to asthma, emergency room visits, and premature mortality, and its reduction will improve the health of Dine’ CARE’s members.

8. I have a natural concern for the safety of the children who attend Lybrook Elementary School as it is located near several well sites. These sites can be seen in clear view from the school. In the summer of 2015 I witnessed four flares going simultaneously within a mile of the school.

9. In addition to reducing the risk to the health of our members, the Rule will also protect and enhance plant life. Ozone also inhibits vegetation growth. Reduced ozone levels as a result of the Rule’s limits and incentives will benefit local natives who plant and garden, as well as protect local ecosystems that are enjoyed for hiking, camping, and other recreation.

10. The Rule will also decrease emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing additional health benefits to community members and local ecosystems.

11. Reduced venting and flaring as a result of the Rule will also improve visibility by reducing ozone, nitrogen oxides, and particulate matter emissions, improving recreational opportunities for visitors to Chaco Canyon park. Likewise, flaring reductions will benefit those live in the Lybrook/Counselor area who experience noisy and unsightly flares throughout the day and night near their homes or in the areas where they enjoy recreating.

12. The Rule will also provide royalties, some of which are allocated to states to spend in areas economically impacted by mineral development. Community members live in areas that are impacted by oil and gas development and will benefit from these expenditures in their communities.

13. If the Rule is struck down, the aforementioned benefits will be lost. Community members would face increased health risks posed by ozone, hazardous air pollutants, and particulate matter. Damage from these pollutants to the landscape and the environment also would diminish those members' enjoyment from recreating on federal public lands.

14. While the Rule is an improvement over the status quo, it does have shortcomings, and therefore I do not believe that BLM can adequately represent the interests of our members. For example, the rule permits flaring across a wide range of oil and gas operations, even though flaring contributes to climate change and acid rain and is an unsightly source of noise and light pollution. The Rule also fails to include consideration of social costs in the benefit-cost test that appears throughout the Rule that provides alternative limits to waste prevention measures. This is

despite the fact that the oil and gas resource is a public trust resource managed for the benefit of all Americans.

15. Another shortcoming is that the Rule allows BLM to issue variances exempting oil and gas operations on federal leases across an entire state or tribal reservation from specific provisions of the Rule. This provision creates the potential for abuse and the dilution of the Rule's protections. If abuse of the variance provision occurs, it would undercut the Rule's benefit to our members.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 30, 2016.

A handwritten signature in black ink, reading "Kendra Pinto", written over a horizontal line.

Kendra Pinto

DECLARATION OF JIM BRETT

I, Jim Brett, hereby state as follows:

1. I am over eighteen years of age and a citizen of the United States. The facts and opinions set forth in this declaration are based on my personal knowledge and experience. If called as a witness in these proceedings, I could and would testify competently to these facts and opinions.
2. I am a retired Department of Defense employee and have lived in the North Fork Valley since May 2008. I have been actively involved with a number of nonprofits that focus on local food, such as Slow Food Western Slope, Valley Organic Growers Association (VOGA) and Kids' Pasta Project. I volunteer for the Paonia Chamber of Commerce that promotes tourism and agri-tourism in the North Fork Valley. I am also a web site developer, who develops and maintains the websites for the above organizations plus other local producers and restaurants and the West Elks AVA wineries. The comments below reflect the impact oil and gas development has on these organizations and their members.
3. I am a member of Citizens for a Healthy Community ("CHC"). I have been a member of CHC since October 2010. CHC is a grass-roots organization with more than 450 members formed in 2010 for the purpose of protecting communities (people and their environment) within the air-, water- and food-sheds of Delta County, Colorado from the impacts of oil and gas development. CHC's members and supporters include organic farmers, ranchers, vineyard and

winery owners, sportsmen, realtors, and other concerned citizens impacted by oil and gas development. CHC members have been actively involved in commenting on BLM's oil and gas actions and decisions.

4. Delta County is part of the Uncompahgre Resource Management Plan ("Uncompahgre RMP"). The Draft Uncompahgre RMP proposes to make over 100,000 acres open to oil and gas leasing, or over 94.5% of the total oil and gas mineral acreage in the planning area, including areas in the heart of the North Fork Valley.
5. The BLM's recently-promulgated waste prevention and resource conservation rule (WPRC), 81 Fed. Reg. 83,008 (Nov. 18, 2016), will reduce the harmful impacts of oil and gas development to me and my community.
6. Slow Food Western Slope functions as a chapter of Slow Food USA, which is a 501(c)3 non-profit organization. Slow Food USA and its chapters' mission is to create a dramatic and lasting change in the food system. We envision a world in which all people can eat food that is good for them, good for the people who grow it and good for the planet: good, clean and fair food for all.
7. Valley Organic Growers Association was established in 1992 and has a membership of over 70 organic farms, ranches, orchards and agricultural-related businesses and advocates, representing a vibrant and sustainable local economy. Our guiding principles include the maintenance of healthy soil, air and water for the production of nutritious food, free from synthetic inputs.

8. For nearly half a century those involved with viticulture have crafted a vibrant wine industry from sagebrush, pastureland and failing orchards. Beginning in the early 1970s with university-sponsored test plots, through recognition by the then Federal Bureau of Alcohol, Tobacco and Firearms that the region warranted the special status of American Viticultural Area (AVA), to today's vibrant local wine and food culture, the vineyards and wineries surrounding Hotchkiss, Paonia and Crawford have been steadfastly crafting a sustainable, locally-based industry relying on premium quality wine crafted from premium quality grapes, diverse, nearby recreational opportunities set amid sweeping views, and a pastoral, bucolic local ambience. North Fork Valley farmers, ranchers, orchardists and winemakers are building the economy of the Valley by using its resources wisely, conserving its soil and valuing its water and clean air.

9. The North Fork Valley's scenic beauty and temperate growing season have attracted the largest concentration of organic and chemical-free growers in the state of Colorado. According to the 2007 Agricultural Census, in Colorado Delta County ranks first in apple production, second for fruits, nuts, and berries and third for bee colonies. Our region has a long history of producing quality high-country, chemical-free food, with a well-deserved reputation that extends around the state and nationally.

This history, coupled with the emerging consumer trend for organically crafted

products has made this region increasingly known and marketable. The North Fork Valley has a forcefully developing market for agri-tourism, farm-stays and agriculture-based education. Products from the area supply markets and top restaurants in towns around western Colorado, including Aspen, Telluride and Crested Butte, and serves many Front Range communities, including Colorado Springs, Golden, Denver, Boulder, Longmont and Fort Collins.

10. Our producers' commitment to quality and the stewardship of clean soil, water and air are crucial to consumers and their perception and choice to buy clean, organic food. The potential for soil, air and water contamination as a result of methane venting, flaring and leaks could destroy the producers' ability to market their products as organic and safe - thereby losing their livelihood. Local producers will not benefit from increased methane production, which could damage their reputation as a pristine place with clean air, clean water and some of the best produce and grapes available anywhere. A boom in oil and gas development with its increased methane threatens the success many of them have worked for years to achieve.

11. Producers are concerned about existing and proposed development surrounding the North Fork Valley, in particular development and operations upriver from the Valley.

12. **Estimated Damages and Impact.** Unconstrained and unregulated methane venting, flaring and leaks have harmful effects. They can:

- impact one's health by inducing asthma.
- reduce vegetation growth - methane contributes to ozone and increased ozone reduces vegetative growth.
- produce hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides.

Decreased air quality, with associated increased light pollution and hillside scarring from oil and gas operations, can reduce the attraction for visitors of the area by impacting the viewshed visible from several of the farms and wineries and from the primary and secondary access roads. Crops are susceptible to damage due to elevated ozone concentrations, which interfere with photosynthesis, resulting in an inferior product.

13. VOGA and Slow Food Western Slope represent a significant number of organic farms, ranches, orchards and other agricultural entrepreneurs comprising a sustainable local economy. This economy depends on our member farms' ability

to produce high-quality, chemical-free fruit, vegetables, meat, cheese, wine, and farm-based products and experiences. Visitors seek out our farms to deepen their relationship with the food and land that nourishes them.

- 14.** Our citizens and visitors value access to public land, majestic views, clean mountain air, a safe and close-knit community, and nutritious and chemical-free food produced on local farms, wineries and ranches.

The impacts associated with oil and gas operations' methane emissions to irrigation and domestic water, soil, recreation, air quality, community, contiguous farmland and viewshed threaten the livelihoods of North Fork Valley producers. They would bear a severe financial burden and loss of their customer base when oil and gas operations result in environmental damage.

- 15.

The nine wineries in this AVA now account for approximately \$1.5 million annually in direct sales and an additional \$5 to 10 million in indirect sales. One winery member notes that of the 3500 visitors it receives each year, more than 80% are given restaurant recommendations, and over half receive lodging recommendations. The wines and wineries of the area routinely receive accolades from prestigious local, regional and national sources. Wines produced by West Elks Wineries have regularly won "Best of the Festival" status at the annual

Colorado Wine Festival in Palisade. West Elks wines have been honored at the Colorado Governor's mansion and in prestigious restaurants regionally and nationally. The area and its wines have been reviewed on multiple occasions in Sunset Magazine, Forbes Magazine, Practical Vineyard and Winery, USA Today, The Denver Post, Edible

Front Range, Edible Aspen, and internationally in Gilbert and Gaillard, to name just a few. The West Elks area and its wineries are featured prominently in books such as, At Mesa's Edge, Mycophilia, Four Corners Vineyards and Wineries, Guide to Colorado Wines and more recently, An American Provence. In the past several years a "critical mass" has been reached.

16. The number of wineries and the reputation of those wineries, together with the burgeoning organic, local food culture of the Valley, in combination with the abundant recreational opportunity afforded by nearby private and public lands, joined with the pastoral, bucolic setting in which these exist, unite to offer visitors a unique set of experiences for which they are willing to spend significant time and money. Methane venting, flaring, and leaks threaten all of this.

17. The viability of the wine industry in the North Fork Valley rests upon our ability to reliably produce premium quality wines from Colorado-grown produce, our ability to offer those wines, together with locally-grown food, in a pastoral setting, and our ability to enhance our visitor's experience with abundant, nearby

recreational activities.

18. The production of high quality wine depends upon the sufficient and timely availability of irrigation water free from pollutants. It further depends upon air free of dust, ozone and other pollutants. Offering these wines in a restful, pastoral setting requires a viewshed that is unspoiled by oil and gas operations, light pollution and air pollution. To be able to enhance our guest's visit we rely on plentiful and un-harried wildlife, accessible camping, hiking, biking, foraging and jogging in areas unhindered by traffic, noise, dust or pollution, pure water for fishing and boating and vistas untrammelled by industrial activity and its attendant air, water, noise and light pollution.
19. Methane venting, flaring, and leaks from oil and gas operations, even when conducted in accordance with recognized standard operating procedures as evidenced in other areas of the West, is not compatible with the vibrant wine industry that has been developing for the last half century.
20. For an analysis of the costs involved with the wine industry see The Costs of Growing Wine Grapes in Western Colorado 2010, Colorado State University <http://webdoc.agsci.colostate.edu/aes/werc/techbulletins/costofgrowinggrapes10%5B1%5D.pdf>
21. The cost to establish a vineyard (without a winery) and operate it until it becomes profitable costs about \$11,000/acre and, assuming no frost/winter damage, takes

nearly 10 years to attain profitability. Additionally, the CSU analysis suggests that an expenditure of approximately \$90,000 is needed for irrigation equipment, tractor, implements, etc. for any vineyard from 1 acre to 10 acre in size. They also assume that some portion of this investment would need to be replaced between 10 and 20 years out. This analysis ignores that plus the cost of purchasing the land.

22. The vineyard sizes in the area are estimated below:

Vineyard	Acreage
Terror Creek	10 ac.
Stone Cottage (including Steve Rhodes)	10 ac.
Alfred Eames	7 ac.
Mesa Winds	7 ac.
Black Bridge (incl. Bowie Pinot)	15 ac.
5680	1 ac.
Peony Lane	3 ac.
Leroux Creek	5 ac.
New vineyard across from Black Bridge	5 ac.
Stoney Mesa (Delta Co. only)	10 ac.

23. A defensible average commercially viable vineyard size for the wineries in Delta County would be 10 acres. Further, it is reasonable to assume that virtually all vineyards are associated directly with a winery. With establishment costs and equipment costs, 10 acre vineyards will never achieve profitability without a winery to add value to the grape production. So, on average a vineyard in Delta County requires (10 x \$11,000) plus \$90,000 to establish and sustain losses for 10 years, or \$200,000 total, plus land acquisition costs. Nearly all of the wineries in the County are at least 10 years old.

24. A winery sized to accept the production of a 10 acre Delta County vineyard devoted to 1/2 white and 1/2 red would require the following:

Equipment	Cost
Barrels: 45 @ \$1000 ea	\$45,000
Tanks: 6 - 1000L tanks @ \$3000 ea.	18,000
Crusher	5,000
Pumps, hoses, etc.	5,000
Filter	5,000

Press	8,000
Filler	5,000
Corker	8,000
Capsuler, labeler, etc.	10,000
Material handling (lugs, fermenters, forklift, etc.)	10,000
Misc.	15,000
Total Winery Equipment	\$134,000
Winery building	\$250,000
Cellar/warehouse	\$125,000
Brand establishment (this is not a trivial task)	\$100,000
Finished goods investment prior to first sale (bottles, labels, corks, capsules, etc.)	\$77,000
Total Winery Investment Prior to First Sale (Does not include labor, licensing, legal, etc.)	\$686,000

25. On average, each successful winery in Delta County has about \$900,000 of investment excluding expenditures for land and winery labor. On average a winery of average size needs one full time equivalent in the vineyard, approx. \$10,000 of seasonal help in the vineyard, 1 full time equivalent in the tasting room for 6 months, 1 full time winemaker/cellar rat, and 1 full time sales/mktg./bus. admin. person. This results in an average of \$146,000 per year in labor costs.

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

DATED: 29 Nov 2016



Jim Brett

DECLARATION OF ROSALIE CHILCOAT

I, Rosalie Chilcoat, do hereby affirm and state:

1. I am currently a member of the Natural Resources Defense Council (NRDC). I have been a member since 2002.

2. I have lived at 2914 Junction St., Durango, Colorado since 1993. I originally moved to this area in 1980 for a job with the United States Forest Service and to escape the congestion and urban pollution of the Baltimore-Washington metro area where I grew up. I have raised my two sons at this address. I live here because it's the best place in the world: as a dedicated naturalist attracted to public lands conservation and management my whole life, I love living in Durango because of the access to public lands and wilderness, and the intersection of ecosystems and cultural resources available in this unique area.

3. I support NRDC's work to protect health and the environment from air pollution and other impacts associated with oil and gas development.

4. My family and I are naturalists and interpretative specialists; we spend significant amounts of time exploring the environment around Durango, getting out on public lands. Specifically, we hike, backpack, river raft, ski, explore for cultural resources and evidences of prehistoric civilizations, birdwatch, wildlife watch, botanize, and study the geology on public lands near where we live. Some of our favorite areas for exploring are lower elevation remote Bureau of Land Management (BLM) lands in southern Colorado and northern New Mexico in the winter months. San Juan National Forest lands are our choice for winter skiing and hiking and exploring in the summer. Chaco Culture National Historical Park, Mesa Verde National Park, Canyons of the Ancients National Monument and all the public lands in between these designated areas provide us with rich recreational experiences. We are blessed to live in a

community surrounded by abundant public lands. It has been tragic and disheartening to me to watch the industrialization by the oil and gas industry of what used to be more pristine public lands. I am concerned that there is now so much oil and gas development in public lands that I can't get away from it. It makes me wonder if the lands are truly public, and I believe that it destroys the very attributes that I value and treasure. My family did camping trips for my sons' birthdays. One year we found a great campsite on BLM lands northwest of Cedar Hill, New Mexico and had a wonderful time hiking and exploring around the site. We went back five years later, and had a difficult time recognizing the campsite due to the maze of oil development roads and the fact that the campsite was under an oil pad. Because of oil and gas development, I and my family can no longer get away from congestion and pollution by seeking out undeveloped areas on public lands. We've also found cultural artifacts such as points and other tools adjacent to and even on oil and gas roads and pads. The integrity of the landscape has been irrevocably changed. We want to enjoy camping with a dark, pristine sky, but instead we've experienced huge glaring lights from flaring at oil and gas sites. It's the antithesis of what we're trying to do.

5. I am also very concerned about the oil and gas industry's contribution to air pollution where I live. Both of our sons had asthma as children, despite living in what we thought was a relatively pristine environment. I researched contributors to air pollution in our area and discovered that both coal-fired power plants and oil and gas development were likely polluting our air. And as someone working in the environmental community, I am generally aware of flaring and leaking of gas from oil and gas development. I can smell the leakage when I hike by oil and gas operations on public lands, such as BLM lands south of Durango along the New Mexico/Colorado border northwest of Cedar Hill, New Mexico or adjacent to Navajo Lake State Park, also in New Mexico or within Canyons of the Ancients National Monument in

Colorado; the air close to these developments smells and feels like a chemical stew. I worry that this oil and gas pollution contributed to my sons' asthma and may have had or is having other negative effects on my and my family's health.

6. I also know that methane is a potent greenhouse gas, and I am familiar with the National Aeronautics and Space Administration's study that identified leakage from oil and gas as a major contributor to the methane hotspot above the Four Corners area where I live. I am worried about this greenhouse gas pollution from oil and gas operations, including those on public lands, and the impacts that climate change is already having on my life. The weather has been uncharacteristically hotter and drier in recent years, along with more extreme weather events. Spring comes early, with premature melting of snowpack. Added to this impact of climate warming on snowpack, disturbance of soils on our public lands by energy companies development of roads and infrastructure has contributed to "dust events" that blanket our reduced snowpack, accelerating snowmelt and causing spring runoff to happen weeks earlier than it historically did. There currently is little snow pack in my area, in contrast to this time of year when I first moved to Durango, impacting my ability to ski and snowshoe. The recreational seasons are all mixed up; it is difficult to predict the river runoff to acquire river permits. This all is connected and the methane leakage and waste simply makes a bad situation worse. I support the Bureau of Land Management's standards for waste of natural gas from the oil and gas industry, and regulations for this industry in general. This is what good government is about: protecting the basic human rights to clean air and water, and ensuring habitat that we can live in for all species. The industry has shown through its behavior that it does not care about a clean environment and that self-regulation does not work. I support BLM and other agencies putting in place reasonable regulations that require companies to do what is common sense: preventing

waste and leakage for better air quality and to address climate change. I believe that if we are going to consume fossil fuels, the industry shouldn't be releasing them to the air.

7. If the court upholds BLM's waste rule, I and my family will have more protections from harmful air pollution and the other negative impacts of oil and gas development on public lands.

8. I fully support NRDC in this action.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.



Rosalie Chilcoat

11/30/2016
Date

DECLARATION OF CAMILLA FEIBELMAN

I, Camilla Feibelman, hereby state as follows:

1. I am of legal age and am competent to give this declaration. All information herein is based on my own personal knowledge unless otherwise indicated. I give this declaration for use by the Sierra Club concerning the Bureau of Land Management (BLM) Final Methane and Waste Prevention Rule and the Sierra Club's motion to intervene.
2. I am an employee of the Sierra Club and act as Director of the Rio Grande Chapter which is comprised of about 7,000 members across New Mexico and West Texas. I have been in this position for approximately three years, although I've worked for the Sierra Club as a full time employee in different capacities since 2000. I worked as the Director of the Sierra Club's student arm nationally. I served in the Sierra Club Media and Partnerships departments working on environmental justice issues. And I helped to found a new chapter of the Sierra Club in Puerto Rico. My involvement with the Sierra Club began, however, while I was attending Columbia University as an undergraduate. I was a member of a campus environmental group which became affiliated with the Sierra Student Coalition in 1996. After graduating college in 1998, I held an internship with the Sierra Club.
3. Beginning in these college years I realized that the Sierra Club was a national organization but was also active at the local level. Having grown up in New Mexico and witnessed a lot of damage from drought and suppression of natural forest fire, I felt that the Sierra Club was a good place to try to do something about those and other environmental issues.

4. I currently reside at 524 Dartmouth Place Southeast in Albuquerque, NM 87106. I have resided here since July 2013.
5. I live with my husband, my stepdaughter, and my son. Both of my parents, my aunt, uncle, and cousin also live in Albuquerque. I was born and raised here.
6. As an outings leader trained and certified with the Sierra Club, I both participate in and lead outings to public lands in New Mexico. I help train new outings leaders throughout New Mexico and West Texas. I help our volunteer leaders plan, publicize and carry out their outings to nature for members of the public.
7. I also enjoy hiking and camping on public lands with my family. We sometimes stay at a friend's cabin that abuts the Santa Fe National Forest, where some oil and gas leasing is being proposed.
8. The BLM methane and waste prevention rule tries to limit the waste of natural gas, a publicly held natural resource, and the release of methane that results from leaking, venting, and flaring on public lands by private oil and gas interests. This waste is of particular concern for New Mexico because the state is losing out on royalties from lost natural gas, so we have both an environmental interest and a monetary interest in the rule.
9. I have served as the Rio Grande Chapter Director for three years. The oil and gas industry, and its impacts on our public lands and our communities, has always been of particular concern in this region. I became aware of this particular rule when news came out that New Mexico is home to the country's largest methane hotspot. I wanted to understand what the source of such a large concentration of this potent greenhouse gas was.

10. A little over two years ago, coinciding with the news of the methane cloud, I attended a meeting of a coalition of environmental groups that gathered to discuss the the BLM and the EPA methane rules-- and became more involved. I was then asked by a coalition member to form and facilitate the New Mexico Methane Table which includes people who are concerned about the environmental, health, and cultural impacts of methane and other gases released during oil and gas industry activities, and are working on how to mitigate these impacts, such as supporting the proposed rule.
11. In my role as Director of the Rio Grande Chapter of the Sierra Club, I have convened our New Mexico Methane Table for a little over a year. This group of nonprofit organizations from around the state advocate in favor of both the EPA and BLM methane rules. The participating organizations include environmental, community, and sportsmen groups. We put on events all over New Mexico to help educate the public. We convene weekly to discuss the status of the rules and discuss actions we might take to see them implemented. We communicate to the public about the rules and with our elected officials to seek their support for implementation.
12. While there is not a lot of flaring or venting currently where I live in Albuquerque, there have been proposals just over the river in Sandoval County. Our members there are deeply concerned about the expansion of oil and gas and the related environmental quality issues. I also represent members all throughout the state. Our members in the Four Corners area are currently impacted by venting, flaring, and leaking. I am here to provide them with tools to deal with the environmental, cultural, and health impacts to their community, including promoting rules and regulations that might benefit them in their proximity to drill sites.

13. Our chapter has dozens of outings leaders who lead several hundred outings per year to public lands throughout New Mexico. There are visual, climate, and health impacts to those public lands from oil and gas extraction. Specifically, for example, we take trips to the Chaco Culture National Park, adjacent to where BLM has leased over 300 new fracked wells in the last several years. We are concerned about leasing new wells when existing wells are venting, flaring, and leaking methane, the primary component of natural gas – the very substance industry seeks to capture and sell. Continued leasing of wells impacts the quality of the Chaco Culture National Park and thus our members' enjoyment of these trips and their visits to other impacted public lands. The BLM methane rule would help reduce visual impacts of flaring so that all users of public lands can better enjoy them.
14. Throughout New Mexico the oil and gas industry has asked for ever increasing permits and leases to drill, and at the same time they are known to be venting and flaring, wasting a natural resource that belongs to all Americans. The BLM's methane rule would benefit me but more importantly the members of my chapter by helping the industry to reduce its waste and capture escaping methane, which can be sold on the market by industry, and would also be subject to royalties which would benefit the state. The state government had to have a special session over the summer to deal with budgetary short falls; royalties would increase the amount of money coming into the state budget at a time when it is sorely needed.
15. Oil and gas operations, in both southeast New Mexico and the Four Corners area, are not just wasting resources, but are also impacting community health. There are oil and gas facilities within short distances of schools and neighborhoods. Methane is leaked,

vented, and flared from these facilities, but volatile organic compounds (VOCs) are also emitted. VOCs are one of the key components of smog, which can lead to respiratory disease and is associated with other health impacts including cancer. The technology that captures methane also captures VOCs and could thus improve public health in these communities.

16. It is my understanding that the Sierra Club is filing a motion to intervene on behalf of the defendant BLM. I strongly support that action. The oil and gas industry has supported similar rules at the state level in Colorado and could easily implement the rules in the rest of the country, especially in New Mexico where many Colorado companies are also operating. There is overwhelming public support for these rules, especially here in New Mexico, and the government has an obligation to all Americans to take care of their natural resources. I believe that if the rule is implemented, my community and members of the Rio Grande Chapter of the Sierra Club will benefit greatly from improvement of public health and the environment.

I declare under the penalty of perjury under the laws of the United States that, to the best of my knowledge, the foregoing is true and correct.

Dated this 30 day of November, 2016.


Camilla Feibelman

DECLARATION OF LISA DEVILLE

I, Lisa DeVille, declare as follows:

1. I am an active member of the Western Organization of Resource Councils (WORC). I have served on WORC's board of directors as a representative of its North Dakota member group, Dakota Resource Council (DRC), for the past year. I have been a DRC and WORC member since 2014, and I have been an active member of WORC's Oil and Gas Campaign Team during most of that time. I give this declaration in support of and for the use by WORC in the litigation concerning the Bureau of Land Management's (BLM) methane waste rules.
2. I am an enrolled member of the Mandan, Hidatsa and Arikara Nation, and I live in Mandaree, North Dakota on the Fort Berthold Reservation with my husband, Walter, and our five children. I have lived my whole life in Mandaree, and I have witnessed the rapid increase of oil and gas industrialization over the past eight years, along with environmental impact.
3. There are currently approximately 1,500 oil and gas wells on the Fort Berthold Reservation, with thousands more planned. The BLM manages these minerals and wells, held in trust on behalf of tribes and individual mineral owners, and the BLM methane waste rule applies to these wells.
4. Many of the wells on Fort Berthold flare natural gas. The Clean Air Task Force found that 46% of natural gas produced on Fort Berthold was flared off in 2013, much higher than the state average of 32% or the national average of 2%. Of the flared gas, over 57% was from wells

that were connected to a pipeline.¹ One well flared gas for 21 months under existing state and the previous BLM rules. Another flared for seven years. This is gas that could be used to heat thousands of homes. Instead, it is wasted and pollutes the air, endangers the health of my family and other local residents, contributes to climate change, and harms the local economy.

5. The flaring has totally changed our way of life. The closest flare to our home is approximately one-quarter mile away. You can see gas flares in every direction you look. They sound like the roaring of jet engines, and they can light up the night sky as bright as day. The waste and air pollution is visible.

6. In September of 2015, my husband, Walter, and I had the opportunity to work with ShaleTest to use a thermal camera to detect emissions from natural gas venting and leaks at a well pad near our house. The emissions were invisible to the naked eye but, through the camera, we saw dark grey clouds streaming off the equipment. We had difficulty breathing, and my husband had a headache and felt nauseous. Unfortunately, these emissions are not a violation of existing rules because North Dakota does not currently require companies to monitor and repair leaks like these.

7. From my research, I know that oil and gas emissions contain volatile organic compounds like benzene, which is a known carcinogen. I know that long-term exposure to methane emissions can result in things like headaches, asthma, neurological damage, or cancer. The risks to my family and other tribal members are immeasurable. We value our health. We value our lands. As Native Americans, this is the only land we have left. We as Native Americans are connected to the Earth because the story of our creation brings us from the Earth. I was told this

¹ "Flaring in Focus: A Close Look at Natural Gas Flaring in North Dakota," Clean Air Task Force, June 2014.

as a child and taught that the Earth is our Mother so we must protect it. It is our human right to have clean air to breathe, clean water to drink and clean land to grow food.

8. We need stronger rules to prevent this waste, and for those rules to be enforced. The BLM's rule would reduce flaring further than North Dakota's rules over time. The rules also prohibit venting of natural gas and require oil and gas companies to monitor for leaks twice a year, which our state and tribal governments do not require. Any leaks must be repaired within 30 days.

9. I am aware that several industry trade associations and western states have sued to have BLM's methane waste rule vacated by a court, and are asking the court to enjoin the methane waste rule pending the outcome of their lawsuit. If the BLM methane waste rule is vacated and/or enjoined, the protections provided by the rule would be lost, and the gas will continue to be wasted.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on November 30, 2016

A handwritten signature in cursive script that reads "Lisa DeVille". The signature is written in black ink and is positioned above a horizontal line.

Lisa DeVille

DECLARATION OF MATTHEW HAMILTON

I, Matthew Hamilton, declare as follows:

1. I am over eighteen years of age and a citizen of the United States. The facts and opinions set forth in this declaration are based on my personal knowledge and experience. If called as a witness in these proceedings, I could and would testify competently to these facts and opinions.
2. I am an 11 year resident of Carbondale, CO. My wife and I are parents to two boys, age 12 and 8. I serve on the Roaring Fork School District Board of Education. I am the Sustainability Director for Aspen Skiing Company. I am the Executive Director for the Environment Foundation and I am a member of Wilderness Workshop.
3. I grew up on Long Island Sound and my family has owned a home in Belmont, VT that was purchased by my grandparents. From writing about the impacts of PCBs in the Hudson, to being awed by an old growth forest outside Middlebury, VT while in college, to cherishing my time in the outdoors whether on a mountain bike or skis, my connection to our environment runs deep.
4. As a resident of rural Colorado, I was attracted to the region for its plentiful outdoor opportunities. A changing climate means those opportunities could become more limited or nonexistent. In addition, changes in our climate threaten my livelihood and lifestyle.
5. I live in a community and region that is highly dependent upon the outdoor recreation economy. Aspen Skiing Company employs 3,500 directly in the winter and the resulting ancillary businesses thrive due to the success of our region as an attractive recreation area. Winter sports of all sorts are the engine of success for our region. In Colorado, 48,000 people work in the snowsports industry with a \$4.8 billion contribution to our

economy. The outdoor industry contributes \$646 billion to the U.S. economy each year, employing 6.1 million people. In short, outdoor recreation is big business.

6. A changing climate represents a significant threat to the local and national outdoor recreation economy. Aspen has warmed 2 degrees C (3.6 F) in the last 25 years. There are 30 more frost-free days today than there were in 1980. This means there are 30 fewer days where man-made snow can be created, placing increased pressure on our businesses' ability to open and close as planned. As a destination resort economy visitors are less likely to book their stays if they can't feel confident winter will be here upon arrival.
7. U.S. skiers and snowboarders account for 0.7% of global carbon dioxide emissions annually. The real opportunity is reducing emissions in our energy sector. The BLM's recently-promulgated waste prevention and resource conservation rule, 81 Fed. Reg. 83,008 (Nov. 18, 2016), will tighten the entire methane supply chain and has the ability to reduce emissions by 4.2 million metric tons per year of carbon dioxide, equivalent to removing 890,000 vehicles. Capturing fugitive methane emissions throughout the supply chain is critical to the longevity of the winter sports economy.
8. Aspen Skiing Company is the proud owner of a 3MW coal mine methane electricity generating station in Somerset, CO. We know firsthand the opportunity that lies in fugitive methane emissions. In fact, our plant captures only a small portion of the methane emitted from a single mine. The methane we do capture generates the equivalent amount of electricity we use annually while eliminating more than three times our annual carbon dioxide emissions. A coal mine operator partnered with us to make this project a reality, not because we agree that climate change is a real and present threat, but

because the coal mining company understood that blowing off excess methane to the environment was wasting a resource that could power our economy and support American energy independence. If a coal mine operator sees the opportunity how is it that oil and gas operators can turn a blind eye to efficiently using a resource that is not theirs, but rather belongs to the American public.

9. As a skier and outdoor enthusiast, reducing fugitive methane emissions is beneficial for our environment in more ways than one. Beyond climate change, these emissions are a burden on my health and that of my children. For example, the Rule's waste prevention measures will decrease volatile organic compound emissions (VOCs), one of the primary components of natural gas, and thus will reduce ozone formation. Ozone has long been recognized to cause adverse health effects. Exposure to ozone can cause or exacerbate respiratory health problems—including shortness of breath, asthma, chest pain and coughing—can decrease lung function, and can even lead to long-term lung damage. Short-term exposure to ozone causes multiple adverse respiratory effects, from inflammation of airways to more serious respiratory effects that can lead to use of medication, hospital admissions, emergency room visits, and chronic obstructive pulmonary disease (“COPD”). By reducing ozone, the Rule will benefit my health and the health of my children. The Rule will also decrease emissions of hazardous air pollutants, including carcinogens like benzene, and particulate matter and nitrogen oxides, providing additional health benefits to me.
10. I direct the Environment Foundation. Over a period of 19 years, the Foundation has donated close to \$3 million to almost 500 projects to protect the local environment. The Foundation is governed by its donors and driven by the priorities of its members, close to 50% of Aspen Skiing Company's workforce. Time after time, our members have stated

that reducing climate change impacts is a high priority. The BLM rulemaking is very much aligned with our membership's goals of protecting the regional environment and winter sports that attracted them to the area in the first place.

11. I am a member of the Roaring Fork School District Board of Education. Colorado's schools are grossly underfunded but one of the ways we've been able to make ends meet is through mineral lease revenues that are shared with our district. Rather than throwing money out into the atmosphere this rulemaking has the potential to contribute in real and positive ways toward educating our state's young people.
12. I am a member of Wilderness Workshop. I support their work because they have a proven track record of success in advocating for the outdoor recreation economy and lifestyle. Their staff has the capacity to weigh in on rulemakings and other procedural processes that have a direct impact on my ability to do the things I cherish, ski with my family and friends and enjoy a moment of serenity in the woods as snow glistens falling from the trees.
13. I am aware that several states and industry trade groups have sued BLM, seeking to have the Waste Prevention Rule vacated by a court. I am also aware that the industry trade groups are asking the court to enjoin the Rule pending the outcome of their lawsuit. If the Waste Prevention Rule is vacated and/or enjoined, that would eliminate the protections provided for BLM-managed lands. These protections include requirements for oil and gas operators to take low-cost, widely-available measures to reduce natural gas waste from venting, flaring, and leaks. My livelihood, lifestyle, and health will be directly affected and irreparably harmed by a decision of the court to vacate or enjoin the Waste Prevention Rule.

14. Vacating and/or enjoining the Waste Prevention Rule would harm my health, recreational, and economic interests by allowing oil and gas operators to continue to vent, flare, and leak large amounts of natural gas. As business as usual approach degrades my local air quality as well as contributes to climate change impacting the winter sports economy that I rely on for my livelihood and that supports my community.

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

DATED: 11/29/16

A handwritten signature in black ink that reads "Matthew Hamilton". The signature is written in a cursive style with a large initial "M".

Matthew Hamilton