

Chairman Stauber, Ranking Member Ocasio-Cortez, thank you for the opportunity to testify.

My name is Barbara Vasquez. After earning a Ph.D. in biochemistry, I pursued two distinct careers, biomedical research at the National Institutes of Health for 7 years followed by a longer tenure in the semiconductor industry. Working in research and development led to senior management positions in that industry in 4 different countries over a 23year career. As I approached retirement, I looked for a new home with more 4-footed than two-footed residents and discovered Jackson County, Colorado.

Jackson County is a rural county in north central Colorado covering approximately 1600 square miles with ~65% public lands. With less than 1 person per square mile, we beat the threshold for a 'frontier' county 6-fold. The central part of the basin is a sagebrush sea at 8000 feet with the USFWS Arapaho National Wildlife Refuge in the center. The basin is ringed by mountains which include several wilderness areas and is immediately adjacent to Rocky Mountain National Park. These mountains form the headwaters of the North Platte River and create the boundaries of our county, also known as "North Park".

The incredible landscapes, the diverse plant and animal life and large swaths of public lands in both the basin and surrounding mountains are what drew me to make this my new and final home. Viewing wildlife every time I drive or recreate in North Park brings me amazing joy! I frequently see raptors like bald and golden eagles, many species of hawks and the occasional osprey as well as many members of our large and diverse populations of wildlife including bear, moose, deer, pronghorn and elk. These as well as the keystone species in the sagebrush sea, the Greater Sage Grouse, are common visitors to my property. Recently, a growing pack of endangered wolves established themselves in the area. The opportunities to hike, backpack, snowshoe and cross-country ski on public lands up and down this basin and in the mountains surrounding it are treasured experiences. The economic base includes high mountain hay and cattle ranching, outdoor recreation (hiking, hunting, fishing, birding, etc) and increasingly, oil and gas development.

When I retired in 2005, I had the goal of retiring TO work for which I have a passion, helping to ensure clean air, clean water and contiguous healthy wildlife habitat, rather than FROM my two professional careers. I have lived that intention without compensation for the past 17 years. As examples, I have served as the environmental representative to the North Platte Basin Roundtable since 2006 and served on the Bureau of Land Management's Resource Advisory Council for Northwest Colorado from 2011-2017. I am currently serving as Vice Chair of the new Greater Rocky Mountain Advisory Committee for the US Forest Service which covers all the forests in Colorado and Wyoming. I was recently appointed to the Colorado Water Conservation Board which, among other water issues, is dealing with the long-standing drought in the state and the Colorado River Crisis.

I have worked as a citizen scientist on oil and gas issues since 2006 and in the past 7 years that work has been amplified through my participation in Western Colorado Alliance's (WCA) oil and

gas campaign team and my role as Chair of the oil/gas campaign team for Western Organization of Resource Council (WORC). It is that work that brings me before you today.

WORC is a regional network of nine grassroots community organizations with 19,935 members and 39 local chapters and affiliates in seven states, including Colorado, Idaho, Montana, North Dakota, Oregon, South Dakota, and Wyoming. Many of our members live on lands overlying and neighboring federal, state, tribal, and privately owned oil and gas deposits, and experience numerous impacts due to oil and gas production. WORC and its member groups have a longstanding interest in federal oil and gas policy, and for over 35 years have actively engaged in advocacy in this area.

Oil and gas companies have profited from public minerals for more than a century, often leaving leaking wells and infrastructure behind and shifting the costs of cleanup to taxpayers. Many of us live on or near these littered landscapes and leaking wells which can emit methane, a gas with a global warming impact over 80 times greater than CO₂. The Bureau of Land Management (BLM) has issued draft rules to modernize their Onshore Oil and Gas Program. Drawing on the title of this hearing (Examining the Biden Administration's Mismanagement of the Federal On-Shore Oil and Gas Program), the primary element of mismanagement by the BLM in my opinion has been the decades of delay in updating the financial elements of the on-shore oil/gas program. One long overdue change is an increase in the reclamation bonding levels required from operators to ensure complete and timely reclamation of leases, as required by the Mineral Leasing Act. Increased bonding levels for operators, to ensure that sufficient funds will be available to clean up at the end of their well's useful life, is just a basic cost of doing business and an issue of taxpayer fairness.

Look at it like this. If you were a landlord, would you rent a house or an apartment without a cleaning and damage deposit? Would you charge the same amount today that you charged in 1960? I don't think so. This deposit ensures that you, the landlord, have funds to clean up any mess the tenant leaves behind when they move out. If it's left in good condition, you don't need to use that deposit. It's just that simple.

Oil and gas development of federal minerals in North Park started in the late 1920s in what is known as the McCallum field situated on BLM surface and minerals in the northeast quadrant of the county. This legacy field is home to a high density of shallow, vertical 'stripper wells' with aging infrastructure. Most of the wells are no longer in operation. The remaining 60 or so operating wells are currently owned by a single company, KP Kaufmann (KPK). Their business model involves buying fields of low producing wells, with only a small percentage of the wells in the field producing enough oil to eke out a profit. In Colorado, a "stripper well" is one that produces less than 5 barrels of oil (BOE) per day. In the McCallum field, many of these remaining wells produce less than 2 BOE per day. It is unlikely that these "zombie wells" generate sufficient revenue to cover routine costs for safety and maintenance, let alone the costs of plugging the well and reclaiming the site.

To add to this picture, KPK is a troubled operator here in Colorado. They also own many low producing wells in the Front Range near Denver. They have been operating for more than a year under a compliance plan with oversight by Colorado Energy and Carbon Management Commission - ECMC (formerly Colorado Oil and Gas Conservation Commission - COGCC) because of their persistent and egregious failures to abide by Colorado's oil and gas rules and regulations. In January, the ECMC voted to suspend KPK's operations in the state until they completed cleanup of multiple spills and paid fines that had been assessed. KPK then sued the ECMC, preventing the Commission from exercising their legislatively mandated regulatory authority until the court case is resolved. This means KPK is continuing business as usual on both federal and private minerals with flagrant disregard for the rules meant to protect people and the environment from contamination from oil/gas operations. The lack of a sufficient federal bond means that if this marginal company fails or just walks away, wells likely won't be reclaimed for years while BLM attempts to get any prior lessees to pay for reclamation costs. Failing that, taxpayers may be unfairly charged to pay for this fundamental cost of KPK's business. In the meantime, the wells will continue to pose risks to air and water quality as well as the health and safety of local residents.

Thankfully, BLM's proposed Onshore Oil & Gas Leasing Rule, released in July of this year, is a common sense and long overdue set of updates that will help ensure that all operators provide a sufficient backstop to ensure funds are available for complete and timely reclamation. This puts the costs of cleanup where they belong, not on taxpayers and communities. According to GAO's analysis, at least 99.5% of all federal wells carry bonds that are insufficient to cover the cost of plugging the wells and reclaiming the land. Inflation has gone up over 900% since the BLM's bonding minimums were put into place over 60 years ago. Under current rules, the minimum reclamation bond amounts are just \$10,000 for all wells on a single lease, \$25,000 for all wells in one state, or \$150,000 to cover all wells nationwide. Grossly insufficient bonds have meant that cleanup is delayed indefinitely when operators leave wells inactive. Note I didn't say "orphaned" wells. That special category is reserved for wells for which BLM cannot find a financially responsible party, a search through chains of custody that can take years. Unplugged inactive wells can leak methane and volatile organic chemicals into the air, endangering public health and the environment and accelerating climate change. Throughout the United States, there are almost 4 million unplugged wells.

BLM's own research found that insufficient bonds are costing taxpayers up to \$4 million dollars per year to clean up orphaned wells, spending that should be a routine cost of doing business for oil and gas companies who are profiting from this nonrenewable public resource. The updated rule increases the minimum lease bond amount to \$150,000 and the minimum statewide bond to \$500,000 while eliminating nationwide and unit bonds. BLM's research also found that the impacts on smaller operators will not be significant. The annual costs of the additional surety bonds will cost small operators about 1% of the bond value, which is a tiny amount when considering the long-term benefits of protecting communities, taxpayers and the environment. The bottom line is that this rule is not meant to put oil and gas operators out of business, it is meant to create a predictable regulatory system that can help ensure the industry is economically viable as long as there is demand, providing benefits for taxpayers, operators, and the federal government.

A second oil play has been under development in North Park since 2006 that is quite different from the McCallum field. The wells in that older legacy field are shallow vertical wells with a single, small pumpjack and very low volume production. In contrast, the new shale oil wells are deep (>1 mile), horizontally drilled (up to 3 miles) and hydraulically fractured (fracked). The landscape has been transformed by large multi-well pads that cover multiple acres, towering pumpjacks, flare chimneys and enormous tank farms on both private and public minerals in this field in the southwest quadrant of our county. The wells produce not only large volumes of oil but also large quantities of co-produced methane gas and produced water.

Taking the variability of oil and gas wells across the state into account, the ECOM recently finalized new financial assurance (FA) rules for Colorado which have been widely touted as “best-in-the-nation”. However, the praise isn’t supported by the implementation, in spite of the good intentions of the Commission. The rules are extraordinarily complicated with six different tiered bonding cost levels based on the operator’s average production per well. The highest producing operators qualify for low-cost blanket bonds based on the assumption that they are less likely to leave wells unplugged when production ends. The lowest average production operators have to post “single well financial assurance” which sounds great because it is supposed to represent the full cost of plugging and reclaiming each well. Unfortunately, the rules allow the operators to opt for using estimated “demonstrated costs”, a “choose your own adventure” option. This has led to an avalanche of proposals by low-producing operators claiming they can both plug and reclaim a well for as low as \$8,000. Yet the State estimates that the cost per well is \$110,000-\$140,000. (The total is the combination of average plugging costs estimated at \$10,000 - \$40,000 per well, dependent on depth, and average reclamation costs estimated at \$100,000 per pad.) The reviews by staff and commission of each of these “demonstrated cost” proposals have already taken six months and is expected to continue into 2024. The Commission has already approved plans for several very low-producing operators with bonding levels to plug and reclaim wells set as low as \$11,000/well, less than 10% of the cost estimated by the State. This will inevitably lead to thousands of more abandoned and orphaned wells in Colorado, leaving taxpayers to pay for the plugging and reclamation of those sites. We hope the BLM will do better in its final rule and provide a financial assurance structure that is simple, effective, easy to administer with bonding levels that are sufficiently protective.

Split-estate landowners, those private landowners whose property is situated above public minerals, frequently see their lands destroyed by oil and gas development. They are often impacted by operators that simply walk away from their responsibility for plugging and reclamation because current bonding levels make it a financially advantageous decision. Many of our members who live on split-estate land are ranchers or farmers, and in general, people who rely on the land around them to preserve their livelihood. We are pleased to note BLM’s inclusion of Surface Owner Protection Bonds, which provide a separate bond for damages to private surface above federal minerals. It is a nod to these landowners who deserve compensation for the impacts that occur to their agricultural operations and land and water resources. However, we urge the BLM to increase the minimum surface bonds to \$10,000 since \$1,000 doesn’t begin to

cover the damage that can be done to private lands during oil and gas development.

It's important that the BLM lead the way in establishing robust bonding requirements that cover the cost of plugging wells and reclaiming sites (well pads and roads). BLM should also use this opportunity to work with Bureau of Indian Affairs (BIA) to update their bonding program which cross-references BLM's minimum bond amounts. Using BLM's proposed rulemaking as a framework for BIA will ensure that tribal minerals are managed equitably and that Indigenous communities are also protected by bonds sufficient to ensure that reclamation is complete and timely. This will give industry certainty about the cost of doing business across the country, and protect the taxpayers from the terrible costs to clean up messes left behind (a long-standing subsidy to the industry).

And if sufficiently robust, these BLM bonding rules will de-risk the future liabilities to taxpayers. Last week, the International Energy Agency (IEA) projected peak fossil fuel production will occur much sooner than previously predicted, no later than 2030, due to the accelerating transition to renewables for power generation and transportation to reduce greenhouse gas (GHG) emissions. As demand declines, oil/gas companies will experience declining revenues, increasing the risk of a tsunami of abandoned wells with the cleanup costs shifted onto taxpayers unless adequate bonds are in place. If states follow the lead of the BLM, they will also de-risk these future liabilities for wells on private and state mineral.

Another very positive development from BLM is their release of a draft supplemental environmental impact statement (SEIS) for two resource management plans in Colorado. This SEIS is designed to guide the management of over 3.5 million acres of public lands and minerals covering much of the West Slope in Colorado, home to Western Colorado Alliance's members. The draft SEIS gives us growing confidence that BLM will engage in a more balanced approach to managing the federal mineral estate and the overlying surface, strengthening protections for the environment and wildlife habitat. This would not only help protect the biodiversity, treasured landscapes and heritage sites in the region but would ensure that communities will benefit from cleaner air, water, and soil.

It is crucial that our public lands and minerals are leased in a well-considered manner, which is why BLM's proposed Conservation and Land Health rule is so crucial. Our public lands and minerals are exactly that—public. And the public depends on the BLM to make balanced decisions based on their multiple use mandate with the interests of many future generations at top of mind. The BLM's Conservation and Land Health rule puts conservation on equal footing with extractive uses, promotes restoration, provides for responsible development, and conserves intact healthy landscapes. Management decisions by the BLM for our public lands should not be influenced by potential revenue and that is exactly what BLM's public lands rule seeks to operationalize.

In the shale oil field in North Park, almost one hundred percent of the co-produced gas has been flared since the first well was drilled. Flaring does not completely combust the co-produced gas, with variable percentages of the methane, volatile organic chemicals (VOCs) and hazardous air pollutants (HAPs) that escape combustion being emitted into the atmosphere. We know air

pollutants like these are associated with risks to public health, and we know these emissions can contribute to regional pollution and climate change. And no royalty is currently paid on the flared or vented gas. The ECMC finalized rules in late 2020 that forbade routine venting and flaring, commencing on Jan. 15, 2022. But the shutdown has not been complete, with loopholes in the rules allowing for venting and flaring.

There is no question that the short-term focus for mitigation of human caused climate change must be on dramatic reduction in methane emissions. Methane has over 80 times the global warming potential of CO₂ over 20 years. The BLM's Methane Waste Prevention Rule is expected to be finalized soon. In the best case, this framework can provide a model for states to also generate revenue from all the gas that is produced and minimize the waste of this resource. However, I urge BLM and this Committee to consider the extreme harms that are caused by routine venting and flaring and to see how they can incorporate the elimination of this practice into their rules to protect communities and environments like mine from further damage.

Climate change is personal for me, as I imagine it is for many of you. It is driving long term drought and aridification across the West and spawning wildfires of increasing size and ferocity. In 2020 we experienced record breaking wildfires in Colorado including the Troublesome, a wind-driven fire that tore across private and public lands, eventually penetrating the western side of Rocky Mountain National Park and the southern boundary of North Park. Two other large wind-driven fires burned at the same time, the Cameron Peak fire on the southeast edge of North Park and the Mullen fire that raced south out of Wyoming down the North Platte River corridor at 7 miles an hour, forcing me out of my home with little notice. This was the second time I was forcibly evacuated, the first in 2016 when the Beaver Creek fire came within 100 yards of my house. But I consider myself lucky...the house still stands thanks to the amazing wildland firefighters. As you know, these types of events are occurring with increasing frequency across the West and the globe, including Canada, across northern Russia and Arctic tundra and the tropics. In addition to being traumatic in and of themselves, the increasing size and frequency of wildfire is a health concern for all who are exposed to the smoke. But these impacts of climate change aren't limited to fires. "Global weirding" of our climate is felt everywhere and none of us are immune.

Thank you for this opportunity to speak to you today and to share my story.

Resources

- https://www.taxpayer.net/wp-content/uploads/2023/08/TCS_Losing-on-Leasing-II_Final.pdf
- <https://accountable.us/wp-content/uploads/2023/08/20230628-Research-BLM-Leasing-Programming-Benefiting-Big-Oil-Royalty-Cheats.pdf>
- https://coloradosun.com/2023/08/24/blm-oil-and-gas-public-land-protection-plan/?mc_cid=ee03c6d3c5&mc_eid=15280ffece
- <https://www.cnbc.com/2023/09/12/demand-for-oil-gas-coal-will-peak-by-2030-says-iea-chief.html#:~:text=The%20surge%20in%20adoption%20of%20peak%20oil%20Birol%20said.>
- <https://carbontracker.org/reports/billion-dollar-orphans/>
- <https://www.regulations.gov/document/BLM-2023-0005-0003>
- <https://www.usgs.gov/news/featured-story/plugging-gaps-how-usgs-working-fill-data-gaps-orphaned-oil-and-gas-wells#data>