

**Written Testimony of John Putnam  
Environmental Programs Director  
Colorado Department of Public Health and Environment  
Energy and Mineral Resources Subcommittee  
Methane Waste Prevention Act of 2019**

**September 24, 2019**

**Intro**

Good morning Chairman Lowenthal and members of the Energy and Mineral Resources Subcommittee. My name is John Putnam, and I am the Environmental Programs Director for the Colorado Department of Public Health and Environment (CDPHE). I am here today to provide testimony in support of the Methane Waste Prevention Act (or Act). In order to confront the climate crisis and conserve our valuable natural resources, our nation cannot afford to allow large amounts of the nation's methane to be wasted during oil and gas development, where it becomes a potent greenhouse gas (GHG). Because energy production on public lands plays a large role in our nation's overall GHG emissions inventory, the Methane Waste Prevention Act's cost-effective and commonsense strategies to reduce emissions from such lands are essential to any climate solution. Not only will the Act's prohibition on venting and its restriction on flaring preserve more revenue for taxpayers, such measures are crucial in order for our country to avoid the devastating impacts of climate change.

Colorado's experience shows that reductions in venting, flaring and associated emissions can be achieved alongside strong growth in the oil and gas industry. Colorado is a national leader in protecting public health and the environment during oil and natural gas development. We are continually advancing innovative solutions to reduce methane emissions and associated ozone precursors to protect local air quality and combat climate change. We have worked closely with Colorado's oil and gas industry, environmental groups, local governments, and the U.S. Environmental Protection Agency (EPA) to develop the most robust program in the country for controlling emissions from new and existing oil and gas production sites in our state. Our experience shows it is possible nationwide.

We continue to work diligently to improve emission inventories, drive equipment and design improvements, encourage cost-effective monitoring methodology development and deployment, and minimize emissions. Colorado's program has reduced emissions

of methane and volatile organic compounds (VOCs) from the oil and gas industry by hundreds of thousands of tons per year, while still allowing for growth in this economic sector. In fact, since the passage of our emissions rules in 2014, methane releases have decreased while oil and gas permit requests increased. The rules we passed in 2014 applied both to new and existing sources, requiring oil and gas upstream and midstream facilities to take common sense steps such as using tanks that do not routinely vent to the atmosphere and conducting periodic inspections to find and fix leaks. Our experience has demonstrated that the nation's most protective rules do not affect the health of the oil and gas industry.

A bill signed by Governor Jared Polis in Colorado's 2019 legislative session is building on this success. Senate Bill 19-181 (SB19-181) includes direction to minimize emissions, including methane, hydrocarbons, VOCs, hazardous air pollutants (HAPs), and NO<sub>x</sub> emissions from oil and gas development - all along the fuel cycle from pre production activities to the downstream compressor stations. State agencies will be closely engaging our diverse stakeholders across Colorado to analyze avenues to further reduce emissions, and protect community health and environmental resources. This work extends to our public and federal lands.

While the federal government continues to pursue harmful and unnecessary rollbacks of federal air quality protections, Colorado is taking bold steps forward to ensure that all Coloradans have clean air to breathe and that future generations have a livable climate. Our commitment to minimizing methane emissions and ensuring that oil and gas development in the state is conducted in an environmentally responsible manner will not waver. Unfortunately, methane and associated hydrocarbon emissions do not stop at state lines and our State is particularly susceptible to the impacts of climate change. Colorado is vulnerable to drought, wildfires, flooding, ozone exacerbation and other effects of a changing climate. Given the international, cumulative nature of climate change, Colorado has a fundamental interest in regulating methane and other GHG emissions on a national level.

## **Background**

The Methane Waste Prevention Act will reinstate and strengthen two rules that were finalized under the previous administration in 2016 - the Bureau of Land Management's (BLM) Waste Prevention, Production Subject to Royalties, and Resource Conservation Rule (Methane Waste Prevention Rule) and EPA's New Source Performance Standards for Crude Oil and Natural Gas Production, Transmission and Distribution (NSPS 0000/0000a). BLM's Methane Waste Prevention Rule limited the amount of methane that oil and gas producers could waste on tribal and federal lands. EPA's NSPS 0000/0000a set similar limits that apply to any new or modified oil gas wells on private lands in the United States. Both rules were modeled after Colorado's regulations.



Colorado was the first state in the nation to enact regulations requiring oil and gas companies to detect and reduce methane emissions. Specifically, the Air Quality Control Commission (AQCC) within CDPHE adopted the nation’s strongest monitoring and repair requirements for equipment leaks at well production facilities and natural gas compressor stations.<sup>1</sup> These regulations target both VOC and methane emissions (i.e. hydrocarbon emissions) and they require periodic leak detection and repair (LDAR) inspections using EPA approved methods or infrared cameras. The largest sources of emissions (storage tanks and natural gas compressor stations with VOC emissions greater than 50 tons per year) are required to conduct monthly LDAR inspections and smaller sources of emissions are required to conduct either annual or quarterly inspections, depending on how many tons of VOCs they emit per year. The regulations also require companies to develop Storage Tank Emissions Management plans, and implement these plans to prevent routine releases from storage tanks.

As part of this rulemaking effort, Colorado adopted statewide requirements to target emissions from previously under-regulated but significant sources of emissions, including well maintenance activities such as “liquids unloading,” where producing wells are cleared of water and other liquids inhibiting the flow of gas.<sup>2</sup> Additionally, Colorado adopted new requirements to capture gas coming off of production separators and implemented requirements for the use of low-bleed and no-bleed pneumatic controllers in certain circumstances.<sup>3</sup>

Many of the requirements adopted by Colorado in 2014 were predicated on the need to address emerging and rapid development of oil and gas resources in the Denver-Julesburg basin, which is located northeast of Denver and largely inside the state’s ozone nonattainment area. Colorado has been diligent in developing emissions control requirements that go above and beyond many states. In many cases, our regulations have become a national model and served as the basis for regulations adopted by other states, BLM, and EPA.

As a testament to the efficacy of Colorado’s regulations, reported data indicate there has been a continued year-over-year reduction in the number of leaking components identified since the rules were enacted in 2014. The most recent LDAR Annual Report Summary prepared by CDPHE’s Air Pollution Control Division (APCD) demonstrated that the number of leaks has dropped by over 50% from 2015 to 2017 (36,044 in 2015 to 17,254 in 2017), even while large increases in production continue.<sup>4</sup> In addition to the reduction in the absolute number of reported leaks, Colorado continues to see a decline in the rate of observations of emissions through APCD’s optical gas imaging

---

<sup>1</sup> AQCC Regulation 7, Section XVII.F. Available here: <https://www.colorado.gov/pacific/cdphe/aqcc-regs>

<sup>2</sup> AQCC Regulation 7, Section XVII.H

<sup>3</sup> AQCC Regulation 7, Section XVII.G and AQCC Regulation 7, Section XVIII

<sup>4</sup> APCD, LDAR Annual Report Summary (2018), Page 3. Available here: <https://drive.google.com/file/d/0B75r4rvnOWbcRUUpUdWxRWEZrZXdHcnpERE9mVUM5Wm9XQUVZ/view>



(OGI) infrared (IR) camera inspection program. Total emissions issues identified by the IR camera program have decreased by 70% from 2014 to 2018 (1,142 in 2014 to 343 in 2018).<sup>5</sup> Moreover, ambient monitoring data from oil and gas producing regions has shown a significant reduction in oil- and gas-related hydrocarbons since 2012 (21.3% methane reduction<sup>6</sup> and 55% non-methane organic compounds reduction<sup>7</sup> from 2012 to 2018 at the Platteville monitor in Weld County; Colorado's largest oil and gas producing county). This significant decline in overall VOC emissions<sup>8</sup> has occurred while oil and gas production has more than tripled in the state.<sup>9</sup>

Colorado's experience is an example of the kind of progress that is possible when regulators and leaders from industry, the environmental community and local governments come together around strong, common-sense policy to protect the air we all share.

However, our work is not done. Governor Polis and S.B. 19-181 have made it a top priority to further minimize waste and emissions from the oil and gas sector. The oil and gas sector is the largest source of VOCs contributing to Denver's ozone nonattainment, soon to be downgraded to serious status. Oil and gas VOCs also drive ozone levels in western Colorado that are just barely below the federal ozone standards. Methane emissions from the sector are also a large portion of our GHG inventory and must be reduced in order for the State and country to meet GHG reduction targets. At the same time, though, advances in technology have made it cost effective to further reduce waste.

### **Comments on Methane Waste Prevention Act**

Colorado supports the Methane Waste Prevention Act's bold yet achievable goals to capture 85% of all gas produced on public lands within three years of enactment, and 99% of all gas produced on such lands within five years of enactment. We are also encouraged to see elements of our own regulatory program incorporated into the Act (namely, low- or no-bleed pneumatic controllers, regularly scheduled leak detection and prompt repair of leaks).

The waste of natural gas on public and tribal lands is an urgent and widely documented problem. According to a recent report by the U.S. Geological Survey (USGS), GHG emissions from energy production on federal lands are a significant

---

<sup>5</sup> APCD, Colorado OGI IR Inspection Program: Updated Assessment (2019). Available here: <https://drive.google.com/file/d/10aSgd3RAv5AeDJ7gh0Zjm2jyvZbT9nJ1/view>

<sup>6</sup> See Exhibit A: Total Methane Reductions in Downtown Denver (Denver - CAMP) and Weld County (Platteville).

<sup>7</sup> See Exhibit B: Total Non-Methane Organic Compounds Reductions in Downtown Denver (Denver - CAMP) and Weld County (Platteville)

<sup>8</sup> See Exhibit C: VOC Emissions Reductions in the Denver Metro/North Front Range Nonattainment Area.

<sup>9</sup> See Exhibit D: Weld County Oil and Gas Production



source of total U.S. GHG emissions; Colorado and neighboring states are among the highest sources of emissions.<sup>10</sup> These emissions contribute to climate change, which poses an existential threat to our environment, our health, our economy and our very way of life. Moreover, between 2009 and 2015, oil and gas operations on federal lands wasted 462 billion cubic feet (Bcf) of natural gas—enough to serve 6.2 million households for a year.<sup>11</sup> At a time when the nation faces historic deficits, our country needs actions that will reduce methane waste, and ensure taxpayers are adequately compensated for the resources we own.

By prohibiting venting and restricting flaring on federal lands, the Methane Waste Prevention Act will generate revenue for taxpayers and ensure that our nation regains leadership in global efforts to confront climate change. These ambitious goals cannot be accomplished without a demonstration that sufficient infrastructure and capacity is in place before commencing production, as required by the Act. Moreover, operators must be held accountable for excessive emissions. The Act provides this accountability by requiring gas capture plans for operators who routinely flare gas.

Further, reducing emissions of all hydrocarbons from the oil and gas sector is necessary for Colorado to achieve ozone attainment in the Denver area and maintain it in western Colorado. This requires minimizing leaking and venting of natural gas on federal lands in and outside of Colorado.

Reducing emissions of hydrocarbons is also essential to maintaining the social license of the oil and gas industry to operate. Residents of Colorado and many other states are demanding action to protect air quality and preserve our climate, and the oil and gas industry will not be able to thrive if it is not contributing to these goals.

In closing, Colorado appreciates this opportunity to lend our support to the bold and cost-effective measures outlined in the Methane Waste Prevention Act. We respectfully urge this body to move forward thoughtfully and expeditiously to enact this urgent and desperately needed legislation.

Thank you Chairman Lowenthal and members of the House Natural Resources Committee. I'm happy to answer any questions you have.

---

<sup>10</sup> USGS, Federal Lands Greenhouse Gas Emissions and Sequestration in the United States: Estimates for 2005-14 (2018), Page 9, and Table 4-3.

<sup>11</sup> BLM, Methane Waste Prevention Rule, 81 Fed. Reg. 83,008, 83009 (Nov. 18, 2016).



Exhibit A: Total Methane Reductions in Downtown Denver (Denver - CAMP) and Weld County (Platteville)

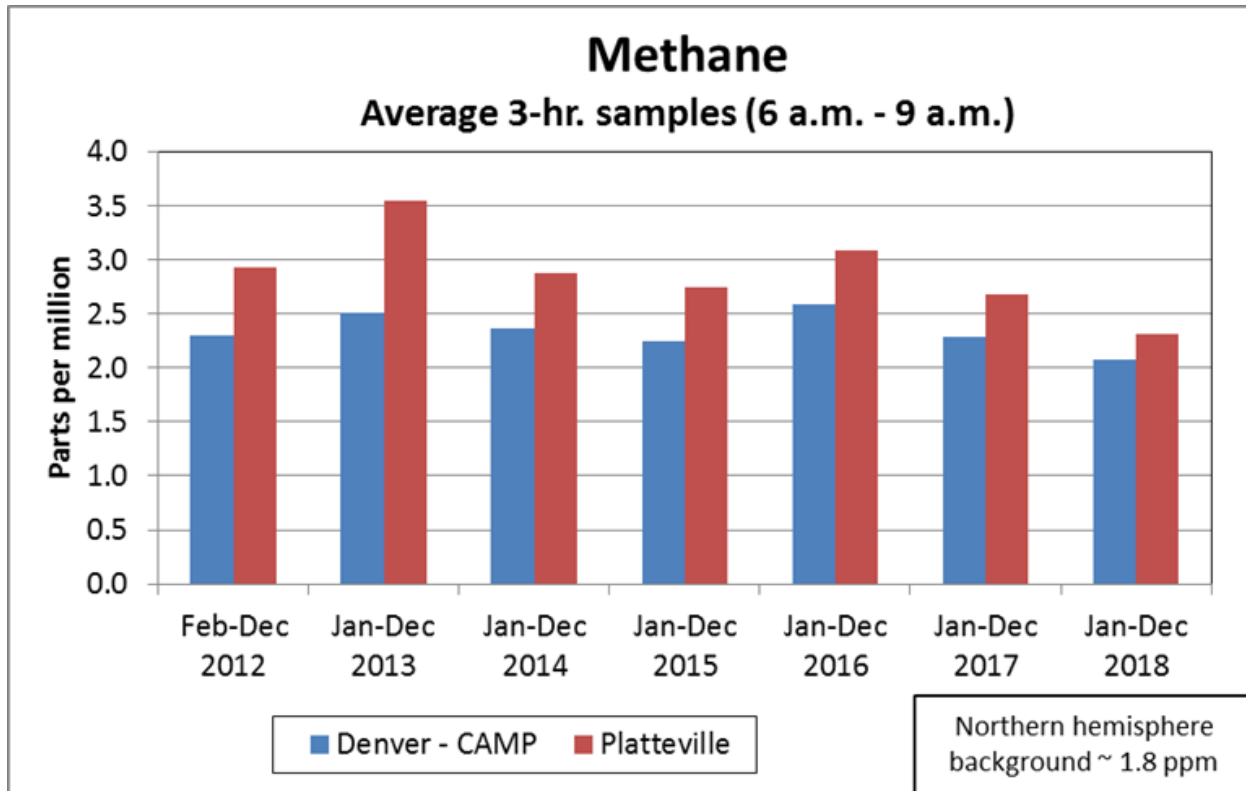
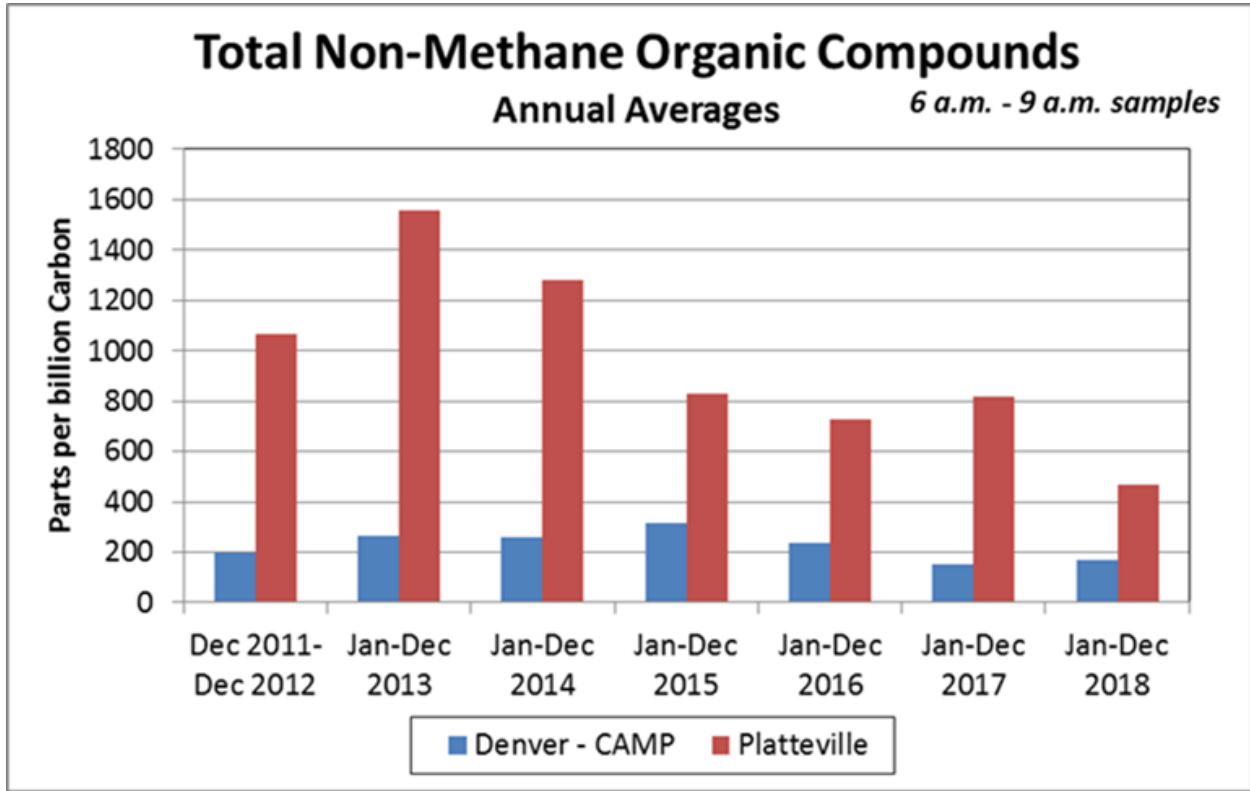


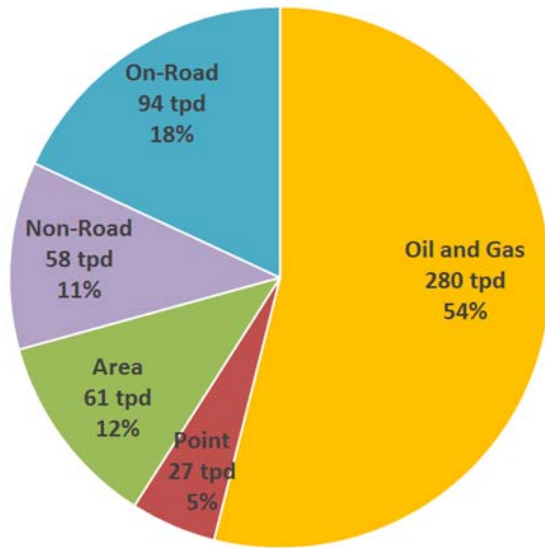
Exhibit B: Total Non-Methane Organic Compounds Reductions in Downtown Denver (Denver - CAMP) and Weld County (Platteville)





**Exhibit C: VOC Emissions Reductions in the Denver Metro/North Front Range Nonattainment Area**

2011  
518.8 tons/day



2017  
368.2 tons/day

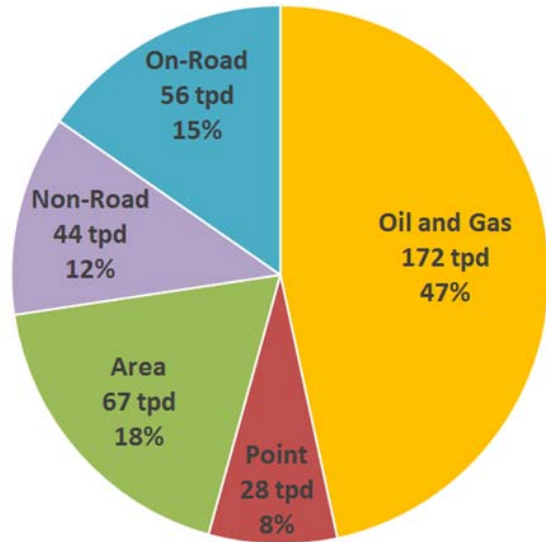




Exhibit D: Weld County Annual Oil and Gas Production

