

THE OZONE AND COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

THE PROBLEM

CDPHE has made progress to address ozone pollution through aggressive policies; however, ground-level ozone pollution persists – and at-risk communities often experience the most impact. Vehicles, consumer products, diesel trucks, construction equipment, and industry operations – like utilities, oil and gas operations – all contribute to the formation of ground-level ozone pollution.

THE SOLUTION

Right-sizing to meet today's needs.

Because of the General Assembly's commitment to clean

air, the department continues to increase staff capacity to help address air pollution. Since April 2022, CDPHE has hired 185 new employees to assist with compliance enforcement, regulatory development, air toxics and ozone precursor monitoring, permitting, and more.

Advancing innovative strategies.

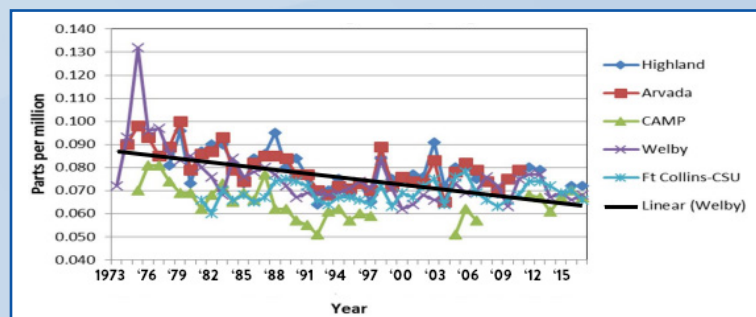
- Strengthen permitting and control requirements.
- Create new emission standards for vehicles.
- Increase electric vehicle fleets and charging stations.
- Improve gas and diesel fuel inspection and maintenance.
- Produce electricity from renewable sources.
- Enhance monitoring of utilities, oil and gas industry, and other major sources.
- Continue extensive public engagement.
- Implement the most stringent minor source modeling requirements in nation.

Developing and implementing strong and effective rules.

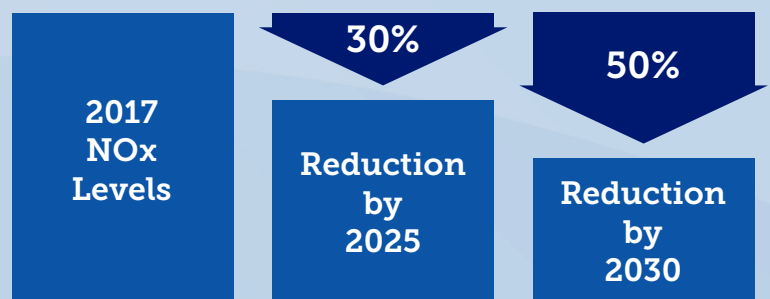
- Promote access to zero-emission and low emission trucks (Advanced Clean Trucks and Low NOx Omnibus Rule).
- Strengthen permitting requirements for communities experiencing high levels of pollution (Disproportionately Impacted Community Permitting Rule).
- Verify and reduce the level at which oil and gas sites are emitting greenhouse gasses (Greenhouse Gas Intensity and Verification Rule).
- Make buildings more energy efficient (Building Performance Standards Rule).
- Reduce greenhouse gasses to meet state targets while also reducing ozone forming co-pollutants (Greenhouse Gas Emissions and Energy Management Rule).
- Use new tools to enforce robust air quality policies (Ozone SIP Revision Rule).
- Require auto manufacturers to sell 80% electric vehicles by 2032 (Colorado Clean Cars Rule).
- Moving to electric lawn and garden equipment (SIP revision).

Ozone concentrations have decreased.

Even though there are more people, cars, oil and gas operations, and other factors in the Northern Front Range area, ozone concentrations have gone down since 1973.



NOx emissions reduction goals from the Oil and Gas Sector:



In the presence of sunlight, volatile organic compounds (VOCs) and nitrogen oxides (NOx) react to form ozone. Contributions of VOCs and NOx come from emissions from motor vehicles, oil and gas production, industry, and consumer activities.



CUMULATIVE IMPACTS

ENERGY AND CARBON MANAGEMENT COMMISSION

Since 2021, the Colorado Energy and Carbon Management Commission has implemented a comprehensive oil and gas permitting system that leads the nation in protecting public health, safety, welfare, the environment, and wildlife resources. This system includes the collection of air emission estimates for stationary and mobile sources of emissions before production occurs and for the first year of production based on all proposed wells and equipment. The commission works in partnership with CDPHE to implement rules that reduce emissions from the oil and gas sector.

EXISTING EFFORTS

Responding to the Governor's directive

- Rulemaking to incorporate NO_x reductions into the commission's permitting process.
- Rulemaking on best management practices to address ozone pollution from the oil and gas sector.
- Environmental best management practices program to incentivize and reward operators that are leaders in greenhouse gas and local air pollution mitigation.

Strong and effective rules

- Ensure the health and safety of the public located near flowlines (Flowline Rule).
- Establish protective setbacks for oil and gas locations near a school or child care center (School Setback Rule).
- Make flowline locations in Colorado available for public disclosure (Flowline Rulemaking).
- Amend requirements for pooling, drilling, and spacing unit applications (SB19-181 Hearings Process Rule).
- Ensure protection and isolation of groundwater from producing oil and gas formations (Wellbore Integrity Rule).
- Modernize the agency's mission to regulate oil and gas operations in a manner that is protective of public health, safety, welfare, the environment, and wildlife resources (Mission Change Rule).
- Ensure oil and gas operators have the resources to plug and abandon their wells (Financial Assurance Rule).
- Require operators to pay a fee to help address orphaned wells (Orphan Well Enterprise Mitigation Fee).
- Adopt Colorado Parks and Wildlife's high-priority habitat rules (High Priority Habitat Map Rule).
- Geothermal Permitting Process and Cumulative Impacts Rulemakings are underway.

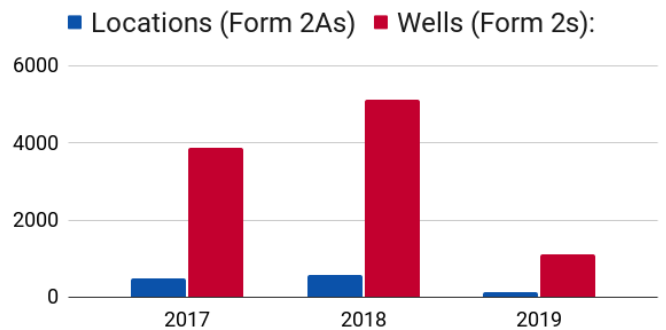
Department growth

With support from the General Assembly, ECMC continues to increase staff capacity to help address ozone pollution. Since March 31, 2019 – before SB19-181 became law – the department had 115 FTE. As of October 2023, the department has 199 FTE.

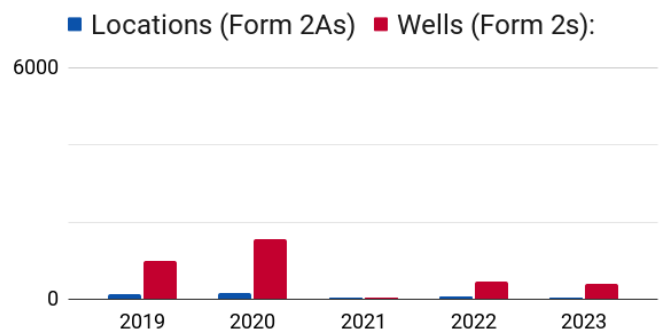
The orphan well mitigation fee raised nearly \$19M. We raised almost \$9.5M in FY22 and FY23, and we expect to collect approximately \$9.5M in FY24 and FY25.

THE RESULTS

Pre-SB19-181:



Post-SB19-181:



Oil and gas well permits have decreased over time.

