COGCC: One Year After Mission Change

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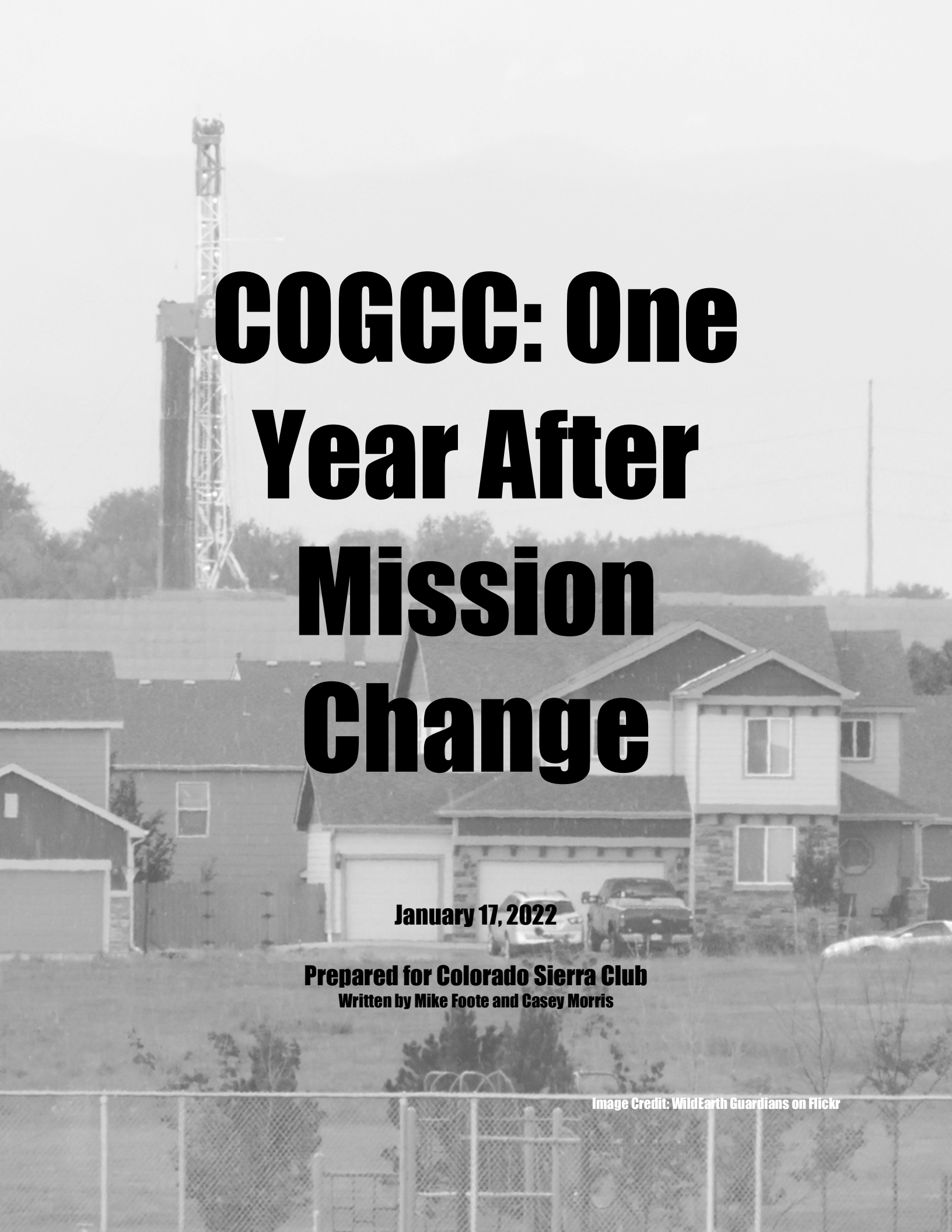
Prepared for Colorado Sierra Club

Written by Mike Foote and Casey Morris



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List of Abbreviations

AOC	Administrative Order by Consent
AQCC	Air Quality Control Commission
CAP	Comprehensive Area Plan
CDPHE	Colorado Department of Public Health and Environment
CEO	Colorado Energy Office
CIDER	Cumulative Impacts Data Evaluation Repository
COGCC	Colorado Oil and Gas Conservation Commission
FRNBES	Front Range Nesting Bald Eagle Studies
GHG	Greenhouse Gases
KPK	KP Kauffman Company
MIT	Mechanical Integrity Test
NEPA	National Environmental Protection Act
NOAV	Notice of Alleged Violation
OGDP	Oil and Gas Development Plan
OFV	Order Finding Violation
PHSWEW	Public Health, Safety, Welfare, the Environment, and Wildlife
SB 181	Senate Bill 19-181
SBP	Statement of Basis and Purpose

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Executive Summary

Senate Bill 19-181 (SB 181) mandated a new path for oil and gas regulation in Colorado. It required stronger air quality protections, created co-equal local government permitting authority for the siting or denial of development, and changed the Colorado Oil and Gas Conservation Commission (COGCC) to an agency focused on regulating the industry in a manner protective of people, the environment, and wildlife. It also put into place full-time Commissioners charged with overseeing and implementing the transition.

The agency has undoubtedly made changes as a result of SB 181. It has conducted five rulemakings since the passage of the bill, the most significant being the "Mission Change" rulemaking that changed dozens of rules and administrative procedures. The new rules from the Mission Change rulemaking went into effect on January 15, 2021.

This report was prepared for the Colorado Sierra Club to summarize the COGCC's activities since the Mission Change rules went into effect. The authors observed Commissioner meetings and studied documents related to permitting, enforcement, and the financial assurances rulemaking occurring since Mission Change. Our charge was to determine how the COGCC was implementing SB 181 since the new rules went into effect.

Our answer is that it is too early to tell for certain, but the prospects do not look promising. Reforms in response to SB 181 have so far led to many changes in process but few changes in outcome. The oil and gas industry still largely gets its way with the agency and residents near oil and gas facilities are still suffering from negative effects to their health, safety, and welfare. The COGCC still operates from an outlook that presumes permitting of new facilities and the continued operation of existing facilities rather than first determining whether those activities are truly protective of people, the environment, and wildlife.

Three specific areas should be of particular concern to the Colorado Sierra Club. The first is the agency's presumptive permitting philosophy described in the preceding paragraph. Truly protective permitting is more than a confirmation of whether an operator checks all the boxes of a permit application. Second, the agency's implementation of its "substantially equivalent protection" exception to the 2000-foot presumptive setback has created an exception that swallows the rule and has encouraged some operators to locate in residential areas just as they did prior to the passage of SB 181. Third, residents living near wellpads approved before the passage of SB 181 but constructed afterwards continue to suffer the same health and welfare problems related to

noise and emissions as they did before. Either the current COGCC rules are inadequate to address the problems, or effective enforcement of the rules is lacking, or both.

It is not too late for the COGCC to change course. The Commissioners are diligent and committed to implementing the COGCC's new mission but have no blueprint to draw upon. They face a culture of industry deference and a history of regulatory capture, and troubling precedents created over the last year show those traditions are difficult to overcome. SB 181 gave Commissioners the means to chart a new regulatory paradigm. It will ultimately be their choice whether to use their authority to build a new road or merely create a speedbump on the way to business-as-usual.

Introduction and Overall Summary

Senate Bill 19-181 (SB 181) represented the most comprehensive legislative change in Colorado oil and gas regulation since the initial passage of the Oil and Gas Act (the Act) in 1951. SB 181 made several major changes to the regulation of oil and gas operations in Colorado. The bill:

- Directed the Air Quality Control Commission (AQCC) to adopt new, more protective emissions rules related to oil and gas production;
- Gave local governments clear co-equal regulatory authority over the surface impacts of oil and gas development, including permitting, inspections, and enforcement;
- Changed the mission of the Colorado Oil and Gas Conservation Commission from an agency that fostered the responsible, balanced development of oil and gas resources consistent with the protection of public health, safety, welfare, the environment, and wildlife[1] to an agency tasked only with regulating oil and gas development in a manner that is protective;
- Amended the definition of "waste" as applied to oil and gas operations to exclude the nonproduction of the resource if necessary to protect people, the environment, or wildlife;
- Required a minimum of forty-five percent mineral rights owner consent before the operator may file a forced pooling application for nonconsenting mineral rights owners and increased the nonconsenting mineral rights owners' royalty rates;
- Changed the Commission from a 9-person (7 voting) volunteer board to a 7-member (5 voting) full-time Commission; and
- Directed the Commission to undertake numerous rulemakings to protect people, the environment, and wildlife including a rulemaking to revise its financial assurances rules.[2]

[1] This report will abbreviate "public health, safety, welfare, the environment, and wildlife" as PHSWEW or generally refer to the protection of people, the environment, and wildlife.
[2] The final version of SB 181 can be viewed here.

Prior to 2019, the Act was amended several times over the preceding seventy years, most notably in 2007 when the General Assembly first included environmental and wildlife protection considerations in the COGCC mission and reduced oil and gas representation in favor of environmental and other non-industry expertise on the Commission.[3] However, the subsequent boom in hydraulic fracturing in Colorado revealed significant environmental, land use, residential proximity, and representation challenges related to the regulation of the oil and gas industry. The General Assembly passed SB 181 in an effort to address those issues. SB 181 was described as a "sea change" by the bill sponsors,[4] a "major shift" by media outlets,[5] a bill that "fundamentally alters the natural gas and oil industry's future in the State of Colorado" by the Colorado Petroleum Council,[6] and a bill that would hopefully "end the oil and gas wars that have enveloped our state" by Governor Polis.[7]

Rhetoric aside, none of that has actually happened to date. The oil and gas industry continues to operate in Colorado much as it did before SB 181. Its permitting applications are more comprehensive and the rules it must follow are more protective in some areas, but its ability to get and keep permits to operate remains largely unchanged. Residents near oil and gas operations still suffer from harmful effects, particularly with excessive noise and emissions from the sites.

The Colorado Sierra Club tasked the authors with examining whether the COGCC has complied with SB 181 since its new Mission Change rules took effect on January 15, 2021. The answer to that question is not a straight yes or no at this point. On the one hand, the agency has begun operating under its new rules, some of which have more environmentally protective standards than the prior rules. Procedures are more complicated for the industry, regulatory review is more comprehensive on paper, and requirements for the submission of new location permit applications are more strenuous. On the other hand, the relatively small sample of permitting, enforcement, variance, and petition decisions thus far show the industry still gets the results it seeks. Industry still typically prevails when contested matters come before the Commission. New COGCC procedures allow for more public comment opportunities than before Mission Change,

[3] House Bill 07-1298 is available here and House Bill 07-1341 is here.
[4] Sponsors' written statement to Commission, August 14, 2020. See note 9, *supra*.
[5] *See e.g.* Jesse Paul, "Gov. Polis signs Democrats' sweeping oil and gas bill into law, marking major shift in regulatory authority over drilling" Colorado Sun, April 16, 2019. Available at https://coloradosun.com/2019/04/16/senate-bill-181-oil-gas-law-colorado-signed/
[6] "Colorado Petroleum Council Responds to Senate Bill 181 Being Signed Into Law," available at https://www.api.org/news-policy-and-issues/news/2019/04/16/cpc-responds-to-sb181-signed-into-law
[7] Judith Kohler, "Gov. Jared Polis ushers in a new era of drilling regulation, but are 'oil and gas wars' over?" April 16, 2019. Available at https://www.denverpost.com/2019/04/16/colorado-oil-gas-bill-signed-gov-jared-polis/

but public sentiments critical of the industry have been largely ignored. Resident complaints about the negative effects of oil and gas production continue to go unaddressed. Oil and gas companies are still playing with a home field advantage, even if SB 181 initially tilted the field a little less in favor of the industry.

While the examination of an agency's actions a year after major reform would often constitute a sufficient timeframe, it is still too early to pass a definitive judgment on the COGCC's compliance with SB 181 after its Mission Change. The first six months of the Commission's docket were mainly consumed with informational sessions and the ongoing financial assurance rulemaking. The Commission approved just seven Oil and Gas Development Plans (OGDPs) and conducted one contested enforcement hearing over the latter six months of the 2021. That does not mean business halted at the staff level, however. The COGCC Director approved 682 Form 2 permits allowing for new wells on existing locations without public scrutiny, discussion by the Commission, or notice to the local governments or residents (none of which are not required by its present rules). Staff also issued 150 Notices of Alleged Violation complaints against operators but only six of those have resulted in final enforcement orders at the time of this report.

Even though the sample size of its actions are still relatively small, the way the agency has operated since Mission Change, so far, creates troubling implications for the future. The first few years after major reform typically have formal and informal precedential value for an agency going forward, and the precedent created up to this point can best be described as 'business-as-usual with additional best management practices.'[8] In other words, the agency still does not consider denying permits but the conditions of approving those permits are a little tougher.

SB 181 bill sponsors viewed the COGCC as categorically deferential to the industry prior to the passage of the bill and sought to change that dynamic by transforming the mission of the agency. That mission transformation on paper has thus far not resulted in the intended transformation in practice. Now, while not quite as deferential, the agency still behaves as if its

[8] COGCC staff and Commissioners generally call regulatory conditions attached to permit approvals "Best Management Practices" or "BMPs" but these authors find that term overly broad, non-descriptive, and often misleading. So-called "best management practices" usually describe any safety, environmental protection, or nuisance abatement feature employed by an operator. They do not describe a generally accepted industry-leading "best" practice because no such standard exists. For example, one operator may describe a 24-foot sound wall as a "best management practice" while another may use the same term for a 32-foot sound wall. One operator may describe a certain type of odor masking agent as a "best management practice" while another may say a different type of odor masking agent is its "best management practice." Numerous other examples exist. The extensive use of the "best management practice" term is misleading to the layperson because it implies a proposed facility is truly employing the best safety or mitigation strategy available. That is often not the case. Therefore, the authors use the term "conditions" throughout this study rather than "best management practices."

mission is to assist the industry achieve its goals in Colorado as long as it can claim oil and gas operations minimize impacts to the extent practicable. This change is not inconsequential, particularly given the difficulty of implementing change to a large organization with an ingrained philosophy, but it also is not nearly as comprehensive as the SB 181 sponsors intended.

One way to juxtapose the SB 181 sponsors' intent with the agency's current outlook is comparing two statements separated by approximately fourteen months. The first statement is quoted from a letter the sponsors submitted to the Commission at the beginning of its Mission Change rulemaking in August 2020, otherwise known as a "510 statement" because it was a public comment made pursuant to COGCC Rule 510 as it existed at the time. According to the sponsors:

> It is important to note that SB 181, like many pieces of legislation, was not introduced in a vacuum. Many Coloradans recognized the system for permitting and monitoring oil and gas operations in our state needed major reform. Since the fracking boom began in earnest at the beginning of the 2010's, oil and gas operations quickly multiplied, grew in footprint, and moved much more into densely populated areas. Public health, safety, and welfare concerns quickly ensued given the dangerous and industrial nature of oil and gas extraction. The General Assembly attempted to address some of these concerns through a series of unsuccessful bills from 2011 through 2018. Some of those bills sought to address issues like setbacks, local authority over oil and gas siting, forced pooling, the COGCC's mission, and pipeline safety.
>
> During that same period of time, we watched as more major oil and gas facilities were approved and began operating dangerously close to homes and schools. The operators followed siting rules that existed at that time; for example, they adhered to the 500-foot setback rule. But that was the problem. The COGCC rules were not enough to protect public health and safety, and most local governments that attempted to put into place more protective rules were sued by the COGCC, industry parties, or both. So, the COGCC had the final word on whether an oil and gas operation would go forward and the final word was never "no." The question before the COGCC – practically speaking – was not *whether* the oil and gas operation would be approved, but *under what conditions* it would proceed. Changing that dynamic was one of our main priorities in passing SB 181.
>
> Under the new rules, we believe the overriding question should first be whether the proposed oil and gas operation should proceed, and if so, what are the best ways to avoid or minimize the adverse impacts that accompany every oil and gas operation. Section 6 of the Act changed the COGCC's mission from a directive to "foster the responsible, balanced development" to "regulating the development" of oil and gas resources. ***Put another way, oil and gas development should not be presumed under SB 181. If the proposed oil and gas development cannot occur in a manner that protects public health and safety it simply must not be approved.*** Section 7

of the Act made this point even more clear by specifically prioritizing public health over resource waste considerations, and section 12 eliminated the requirement to consider cost-effectiveness and technical feasibility as part of the COGCC's health and safety analysis.

We recognize this shift in thinking represents a major change in how the COGCC has operated since its inception. ***It must be viewed as a sea change rather than merely a course correction. Some places are just too dangerous and/or too impactful to conduct an oil and gas operation given the current extraction processes. Permit approval should not be a question of whether the operator checks all of the boxes in its permit application***; it should be a question of whether COGCC staff and Commissioners believe (for example) a proposed 30 well pad just 520 feet from the nearest home and less than 1000 feet away from dozens of others is truly protective of public health and welfare. Or whether the cumulative impacts of proposing a dozen new and largely simultaneous multi-well operations within a small city prove a step too far for public health and safety. We can't imagine a scenario where those types of operations would be consistent with the intent of SB 181.[9]

(emphasis added)

Compare the sponsors' 510 statement to a verbal statement made by Commission Chair Jeff Robbins to the State Land Board on November 10, 2021:[10]

Chair Robbins: [00:15:50] There were significant changes in outcomes from this [Mission Change] rulemaking. There was this emphasis on increasing protections for public health, safety, welfare, wildlife and environmental resources. But one of the things I wanted to convey to this State Land Board is we are we were and we remain a regulator of oil and gas. And that means that our new regulations that we've created allow for the opportunity for operators within this state to come in and seek oil and gas development plan permits. That's the new term, OGDP, Oil and Gas Development Plan. Seek that from the commission. The Commission is now the entity that's in charge of issuing permits. ***And if the boxes are checked, if the protections are available, if they are being used, then the mission of the commission is to issue permits.*** We continue in that vein that we are a regulator of oil and gas in a manner that's protective.

…

State Land Board Commissioner: [00:29:45] What does development of oil and gas look like in Colorado for the future?

…

[9] The entire 510 statement can be found here.
[10] Video of the remarks available here.

> **Chair Robbins:** [00:32:24] As I mentioned, you know, from the Governor's perspective, from my perspective as the Chair of the Commission, we want to move forward with oil and gas development, move forward with protective permitting. ***If you tick all the boxes, if you meet our robust regulatory regime, you're deserving of a permit approval.*** So it's that balance and we're striving to seek that balance as we move forward at the Colorado Oil and Gas Conservation Commission.
>
> (emphasis added)

Those statements made by Chair Robbins to the State Land Board are consistent with our general observation of the agency since Mission Change, and in particular how the Commissioners have approached new location permitting decisions. Questioning and deliberation during public hearings to date have not called into question whether the permit applications were sufficiently protective of public health, safety, welfare, the environment and wildlife (PHSWEW) or created any impression that Commissioners would consider voting against an application. It was not a question of whether to issue the permit, but instead what additional conditions (if any) to put on the permit. In several instances during questioning and deliberation, Commissioners referenced to a three-tier hierarchy encompassing their charge to (1) avoid impacts of oil and gas development; but (2) if the impacts can't be avoided, then minimize those impacts; but (3) if the impacts cannot be minimized, then mitigate them. Sometimes the Commissioners spoke about (2) and (3) together, i.e. avoid impacts, but if they can't be avoided then minimize and mitigate those impacts.

This approach is not without a statutory basis, but it represents an inappropriately narrow reading of the statute. Section 7 of SB 181, which amended C.R.S § 34-60-103(5.5), redefined "minimize adverse impacts" in the context of the COGCC's duties that could, if read in isolation, fully define the scope of the COGCC's duty to protect people, the environment, and wildlife (capital letters are additions and strikethroughs are deletions from the previous statute):

> (5.5) "Minimize adverse impacts" means, to ~~wherever reasonably practicable~~ THE EXTENT NECESSARY AND REASONABLE TO PROTECT PUBLIC HEALTH, SAFETY, AND WELFARE, THE ENVIRONMENT, AND WILDLIFE-RESOURCES, TO:
>
> (a) Avoid adverse impacts from oil and gas operations; ~~on wildlife resources~~; AND
>
> (b) Minimize AND MITIGATE the extent and severity of those impacts that cannot be avoided.

~~(c) Mitigate the effects of unavoidable remaining impacts, and~~

~~(d) Take into consideration cost-effectiveness and technical feasibility with regard to actions and decisions taken to minimize adverse impacts to wildlife resources~~[11]

However, SB 181 placed the protection of people, the environment, and wildlife as the primary duty of the COGCC in its regulatory activities, not a standard fully defined by simply minimizing adverse impacts. Revisions from Section 6 of SB 181 show the protection of people, the environment, and wildlife must be the antecedent – not simply a condition – of its regulatory actions:

> 34-60-102. Legislative declaration. (1) (a) It is declared to be in the public interest AND THE COMMISSION IS DIRECTED to:
>
> (I) ~~Foster~~ REGULATE the ~~responsible, balanced~~ development AND production ~~and utilization~~ of the natural resources of oil and gas in the state of Colorado in a manner ~~consistent with protection of~~ THAT PROTECTS public health, safety, and welfare, including protection of the environment and wildlife resources;[12]

Additionally, SB 181 added C.R.S. § 30-60-106(2.5)(a) to the Act, which reads:

> In exercising the authority granted by this article 60, the Commission shall regulate oil and gas operations in a reasonable manner ***to protect and*** minimize adverse impacts to public health, safety, and welfare, the environment, and wildlife resources ***and shall protect*** against adverse environmental impacts on air, water, soil, or biological resource resulting from oil and gas operations.[13]
>
> (emphasis added)

SB 181 mandated the primary consideration for any decision by the agency is whether the decision protects people, the environment, and wildlife in a reasonable manner. Minimizing adverse impacts is one way the agency can protect those things, but it is not the only way. Circumstances could exist by which adverse impacts are minimized, yet the oil and gas operation is still not sufficiently protective of people, the environment, and wildlife. The same may occur even if the operator "checks all the boxes" and submits an application with all of the required impact studies and suggested mitigation measures. The COGCC possesses the discretion to deny an oil and gas application as insufficiently protective of people, the environment, and wildlife

[11] SB 181 at 7-8.
[12] *Id.* at 6-7.
[13] *Id.* at 18.

regardless of the number of checked boxes, but so far it has acted as if such discretion does not exist.

A. Summary of specific findings

The Colorado Sierra Club asked us to focus on permitting, cumulative impacts analyses, enforcement, and any other significant regulatory actions in the year since Mission Change was enacted. Part I of this report includes summaries and analyses of those areas divided into three sections: permitting, enforcement, and rulemakings. This part of the report does not cover every action taken by the COGCC in the previous year, but it does identify and analyze those actions with the greatest implications for the future of Mission Change. We will subsequently release Part II of this report and include legal, regulatory, and legislative recommendations the Sierra Club may want to pursue.

Permitting. The Commission began its new Oil and Gas Development Plan (OGDP) process for new permit locations in 2021. Its Form 2 new well permit process has remained mostly unchanged; 682 Form 2 permits for new wells on existing locations were approved between January 15, 2021 and the date of this report. Thirty-three OGDPs have been submitted since January 15, 2021 and seven have been approved. Thirteen OGDPs have been deemed complete by Director and are pending. An additional thirteen OGDPs have been submitted but not yet deemed complete by the Director. The approved OGDPs represent a mixed bag of applications: three were for isolated single or double well operations, three proposed operations within 2000 feet of residences, and one was for a large operation far away from residences but close to a wildlife High Priority Habitat. The most concerning trends observed with the OGDP deliberations were the agency's application of an apparently standardless "substantially equivalent protections" setback that allows new locations within 2000 feet of a residence and the lack of a "none of the above" possibility to its alternative location analyses. The 2000-foot presumptive setback and alternative location analysis requirement were two positive improvements to COGCC rules from the Mission Change rulemaking; however, the application of both of those new rules has proven far less than rigorous to date.

Cumulative impacts. The agency made very little progress on evaluating and addressing cumulative impacts of oil and gas operations as mandated under SB 181. The Mission Change rulemaking put into place a data collection tool known as the Cumulative Impacts Data Evaluation Repository (CIDER) and the requirement that operators requesting new locations submit impact data ranging from emissions to water usage for each specific proposal. The agency claims new requirements on impacts such as noise, odor, dust, and lighting are designed to address cumulative impacts, but more protective regulations still fall short of addressing the full effects of additional oil and gas operations, particularly those in populated areas or areas with heavy concentrations of oil and gas and/or other industrial operations. Commissioners have acknowledged much additional work remains on cumulative impacts and have taken steps to make sense of the cumulative impacts data it is now collecting. The agency has not attempted to analyze or account for any climate effects of its new permitting, however. It is not required to do so by existing statute, although it is not prohibited either. It has taken the position that its role is to "inform" other state agencies of the technical aspects of oil and gas permitting but has thus far failed to consider the climate implications of further permitting.

Enforcement. We have observed increased enforcement actions by the agency since Mission Change went into effect, but problems still remain in both execution and lack of execution. The agency's enforcement staff spent much of 2021 clearing a backlog of enforcement cases, issuing a total of 146 Notices of Alleged Violation (NOAVs) for actions after the effective date of the Mission Change rules. All but one of the final enforcement orders issued by the agency in 2021 were for violations that predated Mission Change. The Commission did adjudicate a contested multi-day violation hearing against one operator, found a pattern of violations occurred, and imposed a $2 million fine. However, that fine was cut by more than half based upon a subsequent compliance plan and the operator's argument that it could not afford to pay the full amount. Just a few months later COGCC staff outlined predictable concerns about the operator's compliance with the aforementioned plan, yet the plan was not modified and the operator was allowed to continue business-as-usual. Additionally, the Commission rejected on procedural grounds two efforts by environmental groups to compel stricter enforcement of noise and well integrity testing, and has left in place a nearly impossible standard for outside groups to prevail in enforcement matters. Finally, residents living near oil and gas facilities continue to complain about health, welfare, and

nuisance issues. The vast majority of those complaints do not result in any kind of enforcement or corrective action. Residents near existing operations continue to experience problems just as they did before Mission Change.

Rulemakings. The Commission has initiated two rulemakings since Mission Change, neither of which have concluded at the time of this report. The agency has conducted an informational docket and subsequent rulemaking regarding financial assurances for most of the prior year and has shown a tendency to work around industry objections in a series of three rule drafts. That rulemaking is set to conclude in February of 2022. The agency noticed another rulemaking and released draft rules regarding revisions to its High Priority Habitat maps at the end of December but that process is still at the beginning stage.

Oil and Gas Permitting: Still Focused on Getting to Yes

A. Oil and Gas Development Plans Approved in 2021

While well permitting is just one function of the COGCC, it is one of the most consequential. Permitting of new locations and expansion of existing locations is an important indicator of the priorities of the agency. The COGCC has continued approving the expansion of existing facilities with 682 Form 2 permits granted since January 15, 2021. Form 2 permits approve new wells at an existing location or the "re-fracking" of existing wells. They do not cover new wells at new locations. COGCC rules do not require notice to the public or public comment when the operator files a Form 2 permit.

New location permits, formerly classified as Form 2A applications, were renamed Oil and Gas Development Plans (OGDPs) during the Mission Change rulemaking. A Form 2A application is still part of the OGDP application but is just one of the submission requirements. Others include a drilling and spacing unit application and the completion of a Form 2B (cumulative impacts assessment). OGDPs serve essentially the same function as Form 2A applications did before Mission Change. Commission approval of the OGDP gives the applicant permission to begin operations from an entirely new site.

Therefore, we spent considerable time reviewing and analyzing the Commission's seven OGDP approvals to date. While it is difficult to draw definitive conclusions from a relatively small sample size, what we have seen so far has created concerning and unfavorable precedent for future OGDP application processes.

The Commission approved seven OGDPs since Mission Change. A summary of the basic information in the OGDPs follows:

Table 1: Approved OGDPs (as of January 17, 2022)					
OGDP Name	**Operator**	**County**	**# of Wells**	**Residential Building Units within 2000 ft.**	**Residential Building Units within 2001-5280 ft.**
DB Farms 40-12HZ	Kerr McGee Oil & Gas Onshore	Weld	12	4	59
Red Rocks	Twin Bridges Resources	Las Animas	2	0	0
Enterprise State 16-1 (2962)	BNL Enterprise	Las Animas	1	0	2
Spinney 3N66W9 1-8	PDC Energy	Weld	8	2	4
Blehm 18-I Pad	Bayswater Exploration & Production	Weld	24	10	79
Federal WMC 24-17	TEP Rocky Mountain	Garfield	17	0	0
Long View Farm	Alpha Oil & Gas	Lincoln	1	0	0
Totals			**65**	**16**	**144**

More detailed specifics of the seven OGDPs approved since Mission Change, including a summary of their proximity to buildings and expected impacts, are attached as Appendix A. The Commission approved its first OGDP, the Alpha Oil and Gas "Long View Farm" OGDP, on September 1, 2021. The Long View Farm OGDP called for a single well operation relatively far from residences in Lincoln County.[14] Also approved on September 1 was the TEP Rocky Mountain

[14] The Long View Farm OGDP hearing starts at 11:33 here and the transcript is available here.

"Federal WMC 24-17" OGDP, which allowed 17 new wells on land far from residences but within a High Priority Habitat already stressed from existing oil and gas development.[15]

Bayswater Exploration and Production's "Blehm 18-I" OGDP was approved on October 6, 2021 and was the first time the Commission addressed a proposed project within 2000 feet of residences. The Blehm pad is closer than 2000 feet from 10 residences, including one just 557 feet away, yet the Commission found the conditions attached to the application provided "substantially equivalent" protections to a facility theoretically located 2000 feet away. It is not clear from application documents and the hearing which conditions attached to the approval gave the location "substantially equivalent" protections, however it appears higher sound walls and an extra air monitoring system between the facility and the closest residence convinced the staff and Commissioners that those features made the facility the same as if it were 2000 feet or more away.[16]

The Commission also approved the PDC Energy "Spinney" OGDP for 8 new wells in Weld County on October 6, 2021. The Spinney operation is within 2000 feet of two residences, however for the first time the applicant presented informed consent waivers obtained by the residents. The Spinney OGDP was also notable in that it was the first time the Commission confronted an example of negative cumulative impacts in the area. Ambient noise levels in the area were already higher than the Commission rules allowed due to an existing midstream compression station owned by a different operator. The Spinney OGDP would add noise to that already-high level, which would be an example of a harmful cumulative impact, yet aside from one Commissioner's questioning about the subject did not result in any meaningful analysis. This was a missed opportunity to further explore the negative cumulative impacts on nearby residents.[17]

The next two OGDPs approved – BNL Enterprises "Enterprise State 16-I"[18] and the Twin Bridges Resources "Red Rocks"[19] – involved one or two-well locations designed to extract helium from remote areas of Las Animas County. Helium is an inert, non-hydrocarbon gas and does not present the same types of health, safety, and welfare risks as the typical OGDP. Regardless, the proposed locations were farther than 2000 feet from any residence and also were projected to cause minor emissions and traffic impacts.

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[15] The Federal WMC 24-17 OGDP hearing starts at 47:20 here and the transcript is available here.
[16] The Blehm OGDP hearing starts at 1:35:00 here and the transcript is available here.
[17] The Spinney OGDP hearing starts at 3:28:49 here and the transcript is available here.
[18] The Enterprise State OGDP hearing starts at 14:02 here and the transcript is available here.
[19] The Red Rocks OGDP hearing starts at 35:35 here and the transcript is available here.

The final OGDP of 2021, Kerr-McGee's "DB Farms" OGDP, was the most concerning of those approved so far, not just because it was close to residences (although it was within 2000 feet of four residences), but also because the analysis put forth by the COGCC staff and Commissioners in approving the OGDP has significant future implications. For example, while praising the alternative location analysis process conducted by Kerr-McGee, no staff member or Commissioner ever mentioned the possibility that *none* of the sites, including the proposed one, was appropriately protective of public health, safety, welfare, the environment and wildlife. Alternative location analyses are not supposed to choose the "least bad" location but instead find if there is a location that fits squarely within the Commission's mission to protect people, the environment, and wildlife. If no location is sufficiently protective, the Commission should deny the permit application. Additionally, while there was Commission discussion about relocating the tenant closest to the operation and the relative ease the tenant could move away should the impacts become too great, there was never an acknowledgement that forcing any kind of resident to move for health, safety, or welfare reasons violates the Commission's primary duty of protecting that tenant from oil and gas development.[20]

It should be noted none of the three approved OGDPs within 2000 feet of residences drew any protests or negative public comment from any of the affected residents, and that was an important factor for several Commissioners in their remarks preceding approval of those OGDPs. However, one reason for the lack of public comment from nearby residents could have been published notices of incorrect hearing dates. The notice sent to residences and published in newspapers for the Bayswater Blehm OGDP indicated the Commission hearing would occur on September 22, 2021. The hearing actually happened on October 6, 2021. The notice sent to residences and published in newspapers for the Kerr McGee DB Farms OGDP was for November 23, 2021 but that hearing actually occurred on December 1, 2021. In fact, the published notices for the OGDP hearing dates were incorrect for four of the seven OGDPs heard in 2021. The majority of published notices for upcoming 2022 OGDPs appear to be fictional dates as well. Publishing correct hearing date notices is typically a predicate to a transparent and fair public commenting process.

[20] The DB Farms OGDP hearing starts at 1:13:54 here and the transcript is available here.

B. Forthcoming Oil and Gas Development Plans: It Gets Worse

Concerns about the implications of the 2021 analysis patterns come into even clearer focus as we look ahead to the second year of Mission Change. As shown by the graph below, there are thirteen OGDPs currently pending with the Commission, three of which (Longs Peak, Nelson Family, and Lone Tree North) would cause substantial negative impacts to nearby residents. If the analysis of the staff and Commissioners related to location and setbacks remain unchanged, in all likelihood all of the pending OGDPs will be approved. There are also thirteen additional submitted OGDPs that have not yet been deemed complete and an unknown number of additional OGDPs operators are planning to submit.

Table 2: Pending OGDPs (as of January 17, 2022)

OGDP Name	Operator	County	# of Wells	Residential Building Units within 2000 ft.	Residential Building Units within 2001-5280 ft.	Child Care Facilities within 2001-5280 ft.
Nelson Family	Kerr McGee Oil & Gas	Weld	24	12*	308*	-
State Antelope B-2 Pad	Bonanza Creek	Weld	11	-	-	-
Elder North	Mallard Exploration	Weld	7	-	-	-
Pitcher's Mound	TEP Rocky Mountain	Rio Blanco	0	-	-	-
Vaquero	St. Croix Operating	Washington	1	-	-	-
2021 Cascade Creek Oil and Gas DP	Laramie Energy	Garfield	64	-	-	-
Gadwall Pad	Mallard Exploration	Weld	8	-	2	-
Broe FD Pad	Great Western Operating	Weld	31	-	6	-
Harlequin South Pad	Mallard Exploration	Weld	8	-	-	-
Peanut Fed 3403	Verdad Resources	Weld	5	-	-	-
Sammons Ranch	Vecta Oil & Gas	Las Animas	4	-	-	-

Longs Peak	Kerr McGee Oil & Gas	Weld	33	87*	1,667*	2
Lone Tree North	Crestone Peak Resources Operating	Arapahoe	15	2	-	-
TOTAL			**211**	**101**	**1,983**	**2**

** The Longs Peak OGDP includes two proposed locations named McGavin and Columbine. The McGavin Form 2B indicates its proposed pad is within 2000 feet of 87 residences and one mile of 1,667 residences. The Columbine Form 2B indicates its proposed pad is within 2000 feet of 7 residences and one mile of 1,175 residences. Similarly, the Nelson Family OGDP includes two proposed locations named Charlene Nelson and Paul Nelson. The Paul Nelson Form 2B indicates the location is within 2000 feet of 8 residences and one mile of 36 residences. The Charlene Nelson Form 2B indicates the location is within 2000 feet of 4 residences and within one mile of 272 residences. There is likely an overlap of affected residences between the pads in each OGDP but it is not clear from the 2B disclosures how many residences are duplicative and how many are unique.*

Three of those pending OGDPs bear highlighting here even though they could change or be withdrawn before the Commission considers them. On the top of the list is Kerr McGee's Longs Peak OGDP in Weld County. The application contains two separate locations, the McGavin and Columbine locations. The McGavin location proposes 26 wells and would be within 2000 feet of 87 residences, the closest being 763 feet away, and within one mile of 1667 buildings and two child care centers. It also would be located within 2000 feet of a public access trail and two golf courses. 58 oil and gas wells on 41 separate facilities already exist within one mile of the proposed McGavin location. The Columbine location proposes 7 wells within 2000 feet of 7 residences, the closest one being 1089 feet away. The Longs Peak OGDP represents precisely the kind of neighborhood drilling that preceded SB 181 and contributed to the bill's introduction and passage.

Through its Rule 309 consultation the CDPHE has recommended denial of the McGavin location unless the operator incorporates conditions designed to further minimize the adverse impacts of the location. The CDPHE consultation equates its suggested conditions to those employed by another operator in three Broomfield locations. Unfortunately, the use of those conditions in Broomfield has not quelled noise and emissions complaints around those locations, nor would they likely have a similar effect for residents near the McGavin pad. Just as we observed during the 2021 OGDP deliberations, the presumption even for this proposed location is to approve the application with conditions rather than to deny it because it doesn't protect people, the environment, and wildlife.

The pending Kerr McGee Nelson Family OGDP provides another example of a large facility located close to residences. The OGDP consists of two locations. The first will have 17

new wells and is located 938 feet from the closest residence. The second will have 7 new wells and would be located just 843 feet from the closest residence. Altogether both of the pads will be within 2000 feet of 12 residences and within a mile of 308 residences.

Crestone Peak's pending Lone Tree North OGDP in Aurora is also noteworthy. The Lone Tree North location is not as notable for locating close to a large number of residents, but instead for how it would impact a few residents already surrounded by oil and gas and living in a disproportionately impacted community. The application calls for 15 new wells to be located 1,108 feet from a home that includes two young children. The access road to the new site would be within 100 feet of the home. This is on top of two existing producing wells located within 2000 feet from the home and another 5-well producing facility just outside of 2000 feet from the home. On top of all of that, Crestone also submitted yet another OGDP (Sky Ranch) for 12 wells just over 2000 feet in a different direction from the home. One house will be completely surrounded by oil and gas development should all of the pending applications be approved.

The Commission's OGDP deliberation in this case may reveal to what extent the agency is willing to sacrifice one family's welfare in pursuit of oil and gas development in a particular area. The CDPHE recommended pausing the approval process to conduct a further alternative location analysis and consider the location among Crestone's currently pending Comprehensive Area Plan (CAP) instead. Similar to the Longs Peak OGDP consultation, the CDPHE recommended adding several additional conditions to the application if it was approved.

C. Comprehensive Area Plans: New in '22

The Commissioners substantially revised the previous Comprehensive Development Plan Rule during Mission Change and renamed multiple location submissions a "Comprehensive Area Plan."[21] The CAP encompasses several proposed locations within a large geographic area. The CAP does not substitute for the requirement to submit separate OGDPs, but the approval of a CAP does convey a presumption of approval to the subsequent submission of OGDPs within that area. The Commission's intent when creating CAPs was outlined in the Mission Change SBP:[22]

[21] COGCC Rule 314.
[22] 200-600 Series SBP at 103.

> CAPs are intended to facilitate the evaluation of the cumulative impacts of oil and gas development over a broad geographic area, and to address those cumulative impacts by developing infrastructure and other planning tools throughout the area in a way that minimizes surface disturbance and other adverse impacts. Second, because CAPs are voluntary, they are intended to provide incentives for operators to conduct broad, landscape-scale planning by awarding exclusive operatorship rights over a large area to the operator (or operators) who propose a CAP.

Operators have submitted three CAPs to the COGCC as of the date of this report. Each of those CAPs are still under review by the staff. None has been set for a hearing yet, but it is likely hearings will occur sometime in 2022. They include:

Table 3: Submitted Comprehensive Area Plans (CAPs) as of January 17, 2022					
Operator	**CAP Name**	**Location**	**Docket No.**	**Number of Sites**	**Time**
Crestone Peak Resources Operating	Box Elder	Aurora; Arapahoe County	210700116	16	6 years
PDC Energy	Guanella	Weld County	210200012	25	10 years
Kerr McGee Oil & Gas Onshore	Bronco	Weld County	211200237	11	6 years

Commission approval of a CAP gives an operator several advantages:

- The exclusive right to develop the oil and gas formation within the CAP's geographic boundaries;
- Doubling of the expiration period for permit approvals of facilities within the CAP from 3 years to at least 6 years;
- No need for operators to submit a Form 2B cumulative impacts analysis for every OGDP within the CAP;
- OGDPs associated with a CAP will receive expedited Commission review; and
- Preliminary siting approval for subsequent OGDP applications under some circumstances.[23]

[23] COGCC Rule 314.b; 200-600 series SBP at 104.

It is the last bullet point that should cause the most concern for anyone opposed to a particular OGDP within a CAP. While the Commission indicated the approval of the CAP does not guarantee subsequent approval of the OGDP, given the Commission's current permitting approval practices it is hard to imagine how a subsequent OGDP filed within the approved CAP would not also be approved regardless of the objections brought up at that time.

D. Setbacks – "Same As It Ever Was"[24]

The location of oil and gas development, particularly when located near residential areas, was a primary focus of the General Assembly in SB 181. As indicated in the bill sponsors' 510 statement submitted to the COGCC at the beginning of the Mission Change Rulemaking:

> During that same period of time [2011-2018], we watched as more major oil and gas facilities were approved and began operating dangerously close to homes and schools. The operators followed siting rules that existed at that time; for example, they adhered to the 500-foot setback rule. But that was the problem. The COGCC rules were not enough to protect public health and safety, and most local governments that attempted to put into place more protective rules were sued by the COGCC, industry parties, or both. So, the COGCC had the final word on whether an oil and gas operation would go forward and the final word was never "no." The question before the COGCC – practically speaking – was not *whether* the oil and gas operation would be approved, but *under what conditions* it would proceed. Changing that dynamic was one of our main priorities in passing SB 181.[25]
>
> (italics in original)

The sponsors specifically focused on the inadequate protections of locating oil and gas facilities close to residences in that same 510 statement:

> We did not mandate specific setback distances in statute through SB 181, but that should not be misinterpreted to indicate our approval for the current COGCC setback distances. We believe them to be severely insufficient and not protective of public health and safety. We did not think the bill would be an appropriate place for such a technical discussion, however. Any setback distance involves an exercise in line-drawing, but we note most of the available studies, investigative reports, and anecdotal evidence from residents close to oil and gas operations confirms the current 500-foot minimum is not nearly enough to protect health and safety as envisioned by SB 181.

[24] Talking Heads, "Once in a Lifetime" available at: https://youtu.be/5IsSpAOD6K8
[25] Sponsors' 510 statement at 1.

. . .

> Oil and gas operators should not be allowed to build an industrial operation that close to a residence because the operator claims it is the only way – or the only cost-effective way – to get minerals with existing technology. Public health and safety is the paramount concern under SB 181, even if that means some minerals are inaccessible until technology improves.[26]

Bill sponsor Representative Yadira Caraveo addressed setbacks even more directly during an oral statement to the Commission at the beginning of the Mission Change rulemaking:

> This bill was really a response to a decade's worth of calls to protect communities from the industrial and dangerous nature of oil and gas extraction. The COGCC had in previous years had hundreds of complaints about things like coughing, nosebleeds, breathing problems and other symptoms in localities near oil and gas operations. And the state's most recent study substantiate these concerns. The study demonstrated that people can experience negative short term health conditions after exposure to release chemicals such as benzene anywhere from 300 to 2000 feet away from the site.[27]
>
> . . .
>
> More stringent setbacks may be difficult for the industry and may disrupt the harmony between stakeholders in this process. ***Yet our primary mission as a state is no longer to foster oil and gas development. We're looking after the health of the families who live near current and proposed operations, and that should be who we consider first and foremost when we establish statewide standards for setbacks.*** While most people in this virtual room understand the complexities of the issue, very few know what it's like to see children who come into your clinic unable to breathe because of conditions exacerbated by air pollution and nearby oil and gas operations. Considering the crises that our state faces, it's time that we truly prioritize health and safety, and fortunately, this is what SB 181 put into law.[28]
>
> (emphasis added)

Additionally, Chairman Robbins acknowledged the valid health and welfare concerns of people living near oil and gas operations in remarks supporting a presumptive 2000-foot setback distance during the Mission Change rulemaking:

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[26] *Id.* at 2-3.
[27] ICF International, "Final Report: Human Health Risk Assessment for Oil and Gas Operations in Colorado," October 17, 2019, available here.
[28] August 24, 2020 statement by Rep. Caraveo to COGCC at 49:56. Video available here.

> **Chair Robbins:** [01:27:09] I do find credence in the CDPHE study. It does find that there can be exceedances to the health guideline values up to 2000 feet. And that those acute exposures can be associated with headaches, nosebleeds, fatigue, dizziness, depending upon the chemical, the intensity of exposure and the sensitivity of the individual. And what really hearkens home for me is that science and what CDPHE said the complaints should be line up precisely with what the complaints have been.
>
> **Chair Robbins:** [01:27:49] If we look at our complaint logs at CDPHE and COGCC and there's evidence in the record, I think some of the environmental groups have this evidence. But 60 percent of the health concerns reported to the Oil and Gas Health Information Response Program had these kinds of complaints. More than seven hundred and fifty reported health concerns that included these short term health effects. And what really drives it home for me is the testimony from people that have presented to us that have taken, you know, time out of their schedules. The Dr. Speece's of the world, the Butterfield's of the world, the neighbors at the Anthem Ranch, these folks that have complained about the same things that the CDPHE said those complaints would be.
>
> **Chair Robbins:** [01:28:41] I also look at our statement in basis and purpose that our staff put together, and they put together, I think, a very eloquent, thoughtful, reasonable, science based statement and basis of purpose for a 2000 setback to schools. And they also noted in the statement on basis that from a nuisance perspective, at two thousand feet, noise dissipates to the point where it is no longer disruptive. They also in the statement Basis and Purpose said at two thousand feet, there are more protections relative to traffic dust, odor, light.[29]

However, what started as a promising expansion of the buffer zone between people and oil and gas operations is now in danger of becoming a hollow standard. Rule 604.b allows for four exceptions to the 2000-foot setback presumption. The most problematic of those exceptions has been Rule 604.b.(4), which allows for locations as little as 500 feet from the nearest residence as long as the location provides "substantially equivalent protections" to a location placed at least 2000 feet away.

Rule 604.b.(4) outlines eight elements to consider in whether a location less than 2000 feet offers "substantially equivalent protections," but the Commission did not systematically apply those elements to the two OGDPs it approved in 2021 proceeding under the substantially equivalent protections exception (Blehm and DB Farms). The Director's Recommendation for approval of those two OGDPs similarly did not indicate what about those applications provided

[29] September 10, 2020 COGCC hearing at 1:22.30, available here. Transcript of remarks by Chairman Robbins available here.

substantially equivalent protections. The only substantive public discussion about substantially equivalent protections occurred during the Bayswater Blehm application hearing:

> **Commissioner Messner:** [02:23:31] Thank you for that, I would go a little further then understanding that we do have to make a determination of whether this is substantially equivalent. What are the different actions that you're choosing to take in this particular operation that would be over and above what you would typically do on an oil and gas location that would provide substantially equivalent protections in this in this particular situation?
>
> **Bayswater representative:** [02:24:02] I think again, going back to our best management practices in general, the robust nature of what we've thought of here, what we need to do and how we implement those in the field will satisfy that or substantially equivalent hurdle. I think from the the air side, the continuous air monitoring that we'll be doing and the BMPs associated with there, that and the design factors in our facilities to capture all those vapors and compress them and back into the sales line is, you know, an avenue that has presented itself and and is protective of of the the residents. ***Quite honestly, I mean all of our sites are at the same level. I mean, whether it's one that's with nine or 10 building units surrounding it or it's a site that's without any building units, our design and our operations and our practices are still going to be the same.***
>
> . . .
>
> **Commissioner Messner:** [02:27:04] So I think of particular concern to me is the tenant that is the closest to the site, and I think that there's been some communication with that tenant. Is there any particular BMP that you're taking for those that are the closest to this particular site specific to them to create substantial equivalent protections versus those that may be seventeen hundred feet or further away?
>
> **Bayswater representative:** [02:27:41] ***And that came up because of that receptor, that's just to the southeast of us, there is the additional we will have additional, I would say, temporary 16 foot sound wall panels on the interior of the site*** that will be placed near the point source of the noise being the drilling rig shakers and the gen sets those kind of things where to help mitigate that closest receptor.
>
> **Commissioner Messner:** [02:28:21] And any other BMPs associated to air emissions for this particular location and the closest receptors?
>
> **Bayswater representative:** [02:28:32] We, if you can pull up the slide on the air BMPs, but as far as the also the air monitoring based on the plan that was submitted, ***we will have an air monitor between that receptor and the in the production site as well.*** So we can take that to consideration. Some other things we're looking at. It's a use of electrification on our facilities that will help eliminate use of natural

gas engines where possible. So we are working with our local utilities now to see what type of power capabilities we will have. But you know, it's anticipated we will have power to run our required vapor recovery and gas lift units using electric motor, so that will reduce noise and emissions associated with that as well. So I think that's a one that goes above and beyond. Also with our storage tank vapor collection unit, collecting vapors off our storage tanks and routing those back into our sales line is also above and beyond this point where we eliminate a storage tank emissions to have further degree than just using a combustion unit. So that will be a significant decrease in emissions associated with those as well. Some of the others looking at instrument air, it's taking pneumatic devices that are typically run off natural gas using instrument air so we don't have the natural gas fugitive emissions associated with those as well.

Commissioner Messner: [02:30:24] Thank you for that. Question for staff, I think Director Murphy had indicated that there was sufficient substantial equivalent protections and staff's opinion between seventeen hundred and two thousand feet. I guess I just wanted to confirm or understand whether or not staff feels like they're substantially equivalent protections for the closest receptors in this particular situation.

Director Murphy: [02:30:58] Commissioner, I'll take a first cut, and I think the answer is yes. If the answer was anything else, you wouldn't see a director's recommendation for approval. I think that the operator responded to the request from that specific resident, but I would be happy to defer more specific to staff for a more specific answer.

Commissioner McGowan: [02:31:23] That'd be great for me, if you would be willing, I'm just trying to fully understand as I have to determine that there is a substantially equivalent protection here. I'm trying to understand from staff's perspective what what are the elements that that they believe meets that requirement?

. . .

COGCC staff: [02:35:21] Thank you. I appreciate being here. And thank you for the questions, commissioners. I did want to clarify that staff does believe that the BMPs proposed in this application will sufficiently protect those nearest building unit owners, not just the the 1700 to 2000 feet building unit owners. We have reviewed these BMPs very thoroughly. We've worked with Bayswater in revising and upgrading some of the language in the BMPs. ***One thing in particular, I do want to note is the the takeaway capacity pipeline for for to minimize truck traffic. I think that that will be and minimize emissions.*** That is a really big component that we were hoping to see in this application and we do have it. So that was I think that's a win for Bayswater and for us and for the local residents in this area.

Chair Robbins: [02:36:28] Commissioner Messner, did you have any follow up?

> **Commissioner Messner:** [02:36:31] Thank you, Mr. Chair. Just one follow up and just helping me understand the analysis process as you looked at this application and looked at substantially equivalent protections, are there expectations that you have in an application for receptors that are as close as just over 500 feet versus some that are further away and specific modifications that you request in those particular situations that this application has met?
>
> **COGCC staff:** [02:37:05] Yeah, we do. Thank you for that question. I think one of the most important components that we wanted to see in this application and we feel that we did see was was communication. Bayswater repeatedly reached out to all the all the residential building unit owners, particularly those closest. They did make modifications to their plans, modifications to their to their operations and their BMPs based on feedback from these nearby residents. And so for us, that is a sort of a critical piece. Although they didn't get informed consent, we didn't feel that the rule required informed consent. This certainly is 604.b.4 is the commission's decision. ***But staff does feel that the communication efforts, the continued outreach, the invitations to the residential building unit owners to participate in this process have been adequate and have been sufficient for us to anticipate that these that these operations will be protective.***
>
> (emphasis added).

Based upon the above colloquy, it appears having a pipeline instead of some truck traffic, an additional air monitoring unit, sound walls sixteen feet higher than usual, and repeated communications with affected individuals may qualify as "substantially equivalent protections." However, the operator's representative also indicated all of those things were standard procedure for the company and not additional conditions added for the benefit of residents within 2000 feet of the operation. Either way, the agency is aware of the numerous noise and emissions complaints filed by residents closer than 2000 feet from an operation regardless of the conditions attached to that particular operation. Despite those continued complaints, despite the stated recognition of the dangers associated with oil and gas development, and despite the statutory language and legislative intent otherwise, the agency continues to analyze permit applications based upon what conditions to attach to the application rather than whether to approve it in the first place.

The issue regarding substantially equivalent protections has far-reaching implications for future OGDPs, particularly those like the Longs Peak, Nelson Family, and Lone Tree OGDPs detailed above. If the substantially equivalent protections clause makes the 2000-foot setback mostly fictional, the agency will have completely reverted back to its pre-SB 181 practices, at least regarding setbacks. Given the intent of SB 181 and the evidence recognized at the Mission Change

rulemaking, the substantially equivalent protections should be an infrequently applied exception only after rigorous analysis and due consideration of permit denial.

E. Cumulative Impacts

One of the innovative features of SB 181 was its requirement that the COGCC evaluate and address cumulative impacts of oil and gas operations. Prior to SB 181, the COGCC was not required to consider any aspect of cumulative impacts in its decision making. The bill added the following statutory language: "[t]he Commission shall adopt rules that…in consultation with the Department of Public Health and Environment, evaluate and address the potential cumulative impacts of oil and gas development."[30]

At the federal level, the evaluation of cumulative effects has been part of National Environmental Protection Act (NEPA) regulations since 1987 and is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions."[31] Federal case law determining whether a cumulative effect analysis was sufficient for a proposed project is extensive.[32] However, there is no state precedent to draw upon when determining how to implement the cumulative impacts requirement, particularly as it relates to oil and gas development.

The implementation of SB 181's cumulative impacts requirements was subject to a fair amount of discussion during the Mission Change rulemaking. In its Mission Change Statement of Basis and Purpose (SBP), the Commission correctly noted SB 181 required both the evaluation *and* addressing of cumulative impacts, and indicated its belief the Mission Change rulemaking satisfied those dual objectives.

When evaluating cumulative impacts, the SBP summarized the following agency actions would occur subsequent to the Mission Change:

- Operators must submit a Form 2B with any Oil and Gas Development Plan which identifies the net effects of the proposed operations on air quality, water use, wildlife resources, soil, and public welfare (i.e. odor, noise, lighting, dust, and

[30] C.R.S. § 34-60-106(11)(c)(II).
[31] 40 C.F.R. § 1508.7
[32] *See e.g. Wyoming v. U.S. Dep't of Agriculture*, 661 F.3d 1209 (10th Cir. 2013), *Colorado Environmental Coalition v. Salazar*, 875 F. Supp. 2d 1233 (D. Colo. 2012).

recreation and scenic values), as well as existing oil and gas and other industrial activities within a one mile radius.[33]

- COGCC staff must compile and present a cumulative impacts annual report to the Commission, including updated CIDER data, oil and gas emissions inventories reported to the CDPHE, information about oil and gas effects upon air quality standards, relevant policy and regulatory updates from Colorado, and pertinent academic and government research.[34]

When addressing cumulative impacts, the SBP summarized the following agency actions that occurred as a result of Mission Change:

- Operators must attach a cumulative impacts plan to its permit application that "demonstrate their plans to address cumulative impacts of each proposed oil and gas location by avoiding, minimizing, and mitigating those impacts."[35]
- The creation of the Comprehensive Area Plan (CAP) process for large developments by a single operator, which is designed to "provide a tool for landscape-level planning that can be used to address cumulative impacts to various resources by facilitating consolidation of infrastructure, electrification, and intentionally phased timing of development."[36]
- "Rules 423, 424, 426, and 427 provide substantive standards to address cumulative noise, light, odor, and dust impacts, respectively."[37]

However, despite the SBP's claims otherwise, the authors believe the agency's evaluation and addressing of cumulative impacts are not yet in compliance with SB 181. As noted by the Commission in its SBP, and acknowledged by the authors, the Commission has stated its intent to implement further cumulative impact rules in the future. However, while the COGCC is gathering cumulative impacts data at this point, it has not yet shown much progress in evaluating or addressing those cumulative impacts in any meaningful way. Additionally, and most importantly, the COGCC has shown no propensity to use cumulative impacts information for anything other

[33] Rule 305.a.(5).
[34] Rule 904.a.
[35] Rule 304.c.(19).
[36] SBP at 60.
[37] *Id.*

than a tool to minimize those impacts if circumstances allow, rather than avoiding those impacts altogether by potentially delaying or denying new development permits.

1. Evaluation of cumulative impacts

The SBP noted:

> The Commission intends for its Staff to critically evaluate the information submitted both on the Form 2B pursuant to Rule 303.a.(5) and in cumulative impact plans pursuant to Rule 304.c.(19) to verify that operators are making robust and thorough efforts to meaningfully address cumulative impacts to relevant resources. This evaluation will inform the Director's recommendation pursuant to Rule 306. The Commission will evaluate the operator's cumulative impacts plan and the Director's recommendation about whether that plan is sufficient in the course of reviewing and determining whether to approve or deny each oil and gas development plan pursuant to Rule 307. [38]

COGCC staff may be meeting the SBP's stated intent for critical evaluation of cumulative impacts information when reviewing permit applications, but those processes are not publicly apparent. No comments or colloquy during the Commission's public proceedings have revealed more than a cursory glance through the predicted impacts data by COGCC staff. It has only resulted in conclusory statements in the Director's Recommendations claiming the cumulative impact plans submitted by the operator do indeed avoid, minimize, and mitigate any effects on people, the environment, and wildlife. This apparent lack of rigor threatens to marginalize the cumulative impacts process to the point of making it meaningless.

The Mission Change SBP also stated the intent for the Commission to evaluate cumulative impacts information when deciding to approve or deny an OGDP. There has been some discussion of cumulative impacts during OGDP hearings, although those discussions have been a small part of the overall Commissioner deliberations. For example:

- During the Long View Farm OGDP, a commissioner asked the operator why the operator's cumulative impacts analysis did not address the difference between piping water in versus trucking it to the site.
- During the Federal WMC OGDP, a commissioner indicated she wanted to see how the operator was planning to offset its emissions as part of a cumulative impacts analysis.

[38] SBP at 59.

- As a condition of approval of the Blehm OGDP, the Commission added a requirement for the operator to measure and disclose the emissions saved by its plugging and abandoning of two nearby wells connected with the issuance of the Blehm OGDP.
- During the Enterprise State OGDP hearing regarding an exploratory helium well in Las Animas County, a commissioner asked about how many wells the operator might later seek if its exploratory well was successful and another commissioner asked if any net emissions gains (e.g. plugging existing wells) would occur from the proposed operations.
- During the Spinney OGDP hearing, how to account for emissions savings for plugging nearby wells was discussed again. One commissioner also discussed cumulative noise impacts in the context of adding to the noise from an existing nearby facility that already exceeded the COGCC's ambient noise limits.
- The Kerr McGee DB Farms OGDP applicant presentation pitched the project as a positive net cumulative impacts project because the operator proposed to plug and abandon twenty-five existing wells within three thousand feet of the new DB Farms operation.[39] One commissioner later inquired about the type of engines the operator disclosed in its cumulative impacts plan.

Notably, two of the approved OGDP locations (Spinney and DB Farms) are in the North Front Range / Denver Metro ozone non-attainment area.[40] This means they are located in an area that exceeds the ozone National Ambient Air Quality Standards established by the federal Clean Air Act and the U.S. Environmental Protection Agency. Oil and gas production is a known major contributor to ozone non-compliance. However, aside from one Commissioner's stated preference (not asking to require it, just stating he preferred it) in the DB Farms OGDP of tankless production in facilities located in the ozone non-attainment area, there was no discussion in the Director's

[39] The approval of new locations is often a prerequisite to plugging old locations. Operators plug older wells within a close distance to its proposed new wellbores to avoid intercommunication between the old and new wells. An examination of COGCC data by Carbon Tracker revealed 95% of plugged wells (8,464 of 8,875) by three operators since 2000 have been within 1000 feet of those operators' existing or planned laterals. "They Only Fill When They Drill: The Economic Motives Behind Plugging Uneconomic Wells," July 2021 at 10-11. Available at https://docs.google.com/viewer?url=https%3A%2F%2Fcarbontracker.org%2Fwp-content%2Fuploads%2F2021%2F07%2FThey-Only-Fill-When-they-Drill-Analyst-Note_July_15.pdf

[40] Colorado Department of Public Health and Environment, "History of Ozone in Colorado" available at https://cdphe.colorado.gov/history-of-ozone-in-colorado

recommendations or the Commission deliberations about the implications of locating those new facilities in an existing ozone non-attainment area.[41]

2. Addressing cumulative impacts

Evaluating cumulative impacts is just half of the COGCC's cumulative impacts duty under SB 181. The Commission has acknowledged its statutory requirement to address those cumulative impacts as well. As noted in the SBP,

> Other Commission Rules adopted in the 200–600 Mission Change Rulemaking are intended to *address* cumulative impacts. These Rules include Rule 314, governing CAPs, which provide a tool for landscape-level planning that can be used to address cumulative impacts to various resources by facilitating consolidation of infrastructure, electrification, and intentionally phased timing of development. Rule 304.c.(19) requires operators to submit a cumulative impacts plan if the Director determines that doing so is necessary to address cumulative impacts of a proposed oil and gas development plan. Similarly, Rules 603.d and e, governing well consolidation and development from existing locations, set statewide standards for operators to consolidate new development onto multi-well pads and existing wellpads, which are key tools the Commission identified to address cumulative impacts caused by surface disturbance, such as habitat fragmentation. Additionally, Rules 423, 424, 426, and 427 provide substantive standards to address cumulative noise, light, odor, and dust impacts, respectively.
>
> (italics in original)

Thus far, the few questions and comments regarding cumulative impacts during the Commission hearings have mostly focused on how to measure emissions improvements from plugging wells near the new facility rather than the detrimental cumulative impacts caused by building the facility in the first place. Three of the approved OGDPs proposed to drill more than ten wells (Blehm, Federal WMC, and DB Farms), and three of the OGDPs proposed a wellpad closer than 2,000 feet from at least two residences (Blehm, Spinney, and DB Farms). Only one question during one OGDP deliberation – regarding the effect of more noise from a new operation on top of existing heavy noise in the Spinney application – went to the heart of the objective of addressing cumulative impacts.

[41] December 1, 2021 DB Farms hearing transcript at 40.

An examination of two cumulative impact plans from approved OGDPs – one for Bayswater Blehm and one for Kerr McGee DB Farms – reveals the operator's plan to use a combination of conditions already required by COGCC and/or CDPHE rules plus additional conditions not required by rule but referred to as "best management practices."[42] These cumulative impact plans focus on what the operator is doing to minimize impacts. As detailed in the introduction to this study, minimizing impacts is not always consistent with protecting people, the environment, and wildlife but so far the Commission has treated the former as meeting the latter standard. Cumulative impact plans submitted by the operators make the same assumption – as long as the impact can be minimized, it should be acceptable. However, the plans themselves and Commission discussion do not even ask the question about whether the minimizing of cumulative impacts, to the extent that minimization actually occurs, is still consistent with protecting people, the environment, and wildlife. A large facility located in the middle of a residential neighborhood may have many features minimizing its impact but still cause detrimental health and welfare effects.

3. Ignoring climate considerations

SB 181 did not contain any provisions specifically related to climate and the agency is not required to consider climate implications during its permitting analyses. Considerable public comment since Mission Change has focused on the climate implications of permitting new oil and gas development and the Commissioners, to the extent they have responded, have consistently indicated that they are not required by the Act to consider climate implications of their permitting decisions. In a November 10, 2021 appearance in front of the State Land Board, Chairman Robbins made the following statement following a question about climate:

> **State Land Board Commissioner:** [00:33:13] You briefly mentioned working with some of the sister agencies, such as Colorado Energy Office and CDPHE on meeting the state's climate goals, and I think I just want to give you a chance to hear a little more about kind of what that looks like and what that relationship for the COGCC is with the state's climate goals.
>
> **Chair Robbins:** [00:33:37] Yeah, thanks. Thanks for the question. So our agency has the subject matter experts that allow for us to inform CDPHE and COE about

[42] Calling a condition a "best management practice" does not necessarily mean it is the best or most protective practice available. *See* footnote 8, *supra*.

> what's doable. You know what, when you're talking about different types of equipment or different types of structures, or whatever it may be with regard to oil and gas development, our experts, our engineers are able to help inform those sister agencies as they are looking at what is the realm of possible in terms of greenhouse gas emissions. Our agency remains, I mean, factually a permitter of oil and gas, and we're tasked with doing that. We, our rules are not structured so much as emissions reductions as they are structured for protection of nearby residents nearby issues. There is some overlap there obviously. If you are wanting to be closer to people and other things, the less you emit, the better you're doing. So there is some overlap there. And we look at it from a safety perspective and from an environmental protection perspective. And then again, we help inform our sister agencies as they are looking toward the emissions goals of the administration. So again, it's a bit of a balance there in terms of how we go about our work and assisting sister agencies and working on permitting in a manner that's protective.

However, despite the absence of a specific mandate in SB 181 to consider climate in its permitting decisions, there is nothing in the Act prohibiting the agency from doing so, particularly in the context of cumulative impacts. The Air Quality Control Commission (AQCC) is mandated by House Bill 21-1266 to reduce statewide oil and gas emissions by 36% of the 2005 benchmark by 2030 and 60% by 2030; the diametrically opposed actions of the COGCC permitting new facilities while the AQCC promulgates rules intended to quickly reduce emissions has never been explored during any public COGCC deliberations. As a result of Mission Change, the COGCC already requires the disclosure of expected Greenhouse Gas (GHG) emissions information from each new proposed facility. As it continues to put into place a more comprehensive cumulative impacts process, it could and should merge that information with the state's emissions reductions goals to inform its permitting deliberations. Cumulative impacts offers the COGCC the context by which it can consider climate, but only if it chooses to do so.

4. Implications for the future

New oil and gas development creates considerable impacts. The disclosed impacts of the seven approved OGDPs and of the thirteen currently pending OGDPs are summarized below. Thus far, the implication of those impacts has not received appropriate consideration as envisioned by SB 181.

Table 4: Cumulative Impacts of Oil and Gas Development Plans (OGDPs)[43]			
Impacts	**Approved**	**Pending**	**Unit of Measure**
Wells	65	211	
Surface Water Use	2,337,463	27,259,555	Barrels
Ground Water Use	2,696,754	15,978,534	Barrels
Unspecified Source Water Use	10,372,000	0	Barrels
Total Water Use *	15,406,217	43,238,089	Barrels
Grassland Disturbance	9.2	1,459.26	Acres
Native Grassland Disturbance	2,986.90	49.86	Acres
Shrub Land Disturbance	6.39	33.84	Acres
Homes within 2,000 ft. *	16	101	
Homes within 2,001-5,280 ft. *	144	1,983	
Child Care Centers within 2,001-5,280 ft.	0	2	
Diesel Vehicle Use	2,176,009	6,615,901	Miles Travelled
NOx Emissions	463.96	888.99	Tons
CO Emissions	631.68	894.94	Tons
VOCs Emissions	206.59	451.19	Tons
Methane Emissions	861.10	1,680.97	Tons
Ethane Emissions	257.39	11,127.16	Tons
CO2 Emissions	73,218.06	183,158.28	Tons
N2O Emissions	1.25	10.08	Tons
Hazardous Air Pollutant Emissions	13,217.13	52,109.61	Lbs.

Emission figures include pre-production and production estimates
* *Total does not include specified recycled or produced water*
* *See the note regarding residences within 2000 feet of the Longs Peak OGDP locations on page 17*

Through its OGDP process in 2021, the COGCC approved:

- 73,244 tons of CO2 emissions, the equivalent of adding 15,922 cars to the road.[44]
- Nearly 15.5 million barrels of water use, the equivalent of 647,061,114 gallons or 980 Olympic sized swimming pools.[45]

[43] The breakdown of each individual OGDP's cumulative impacts can be found in Appendices B.
[44] According to EPA, the typical passenger vehicle emits 4.6 tons of CO2 annually. (*See* https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle)
[45] Olympic swimming pools hold 660,000 gallons of water. (*See* https://phinizycenter.org/olympic-swimming-pools/)

- Disturbance of approximately 2,987 acres of native grassland, totaling the size of 2,262 football fields.[46]
- Over 2 million miles of diesel vehicle travel, enough to circle the earth eighty-seven times.[47]

Putting a single well in a sparsely populated, lightly developed area creates much different impacts than a 24-well pad in a populated area and/or one that already contains significant industrial development. In plain English, cumulative impacts are really about how much development is too much in a particular area. COGCC cumulative impacts disclosures require relevant and important information but current COGCC practice is to not meaningfully consider it. This may change in the future. The COGCC has retained an independent contractor to advise it on implementing cumulative impacts procedures and will release its first annual cumulative impacts report in mid-January.[48] It will continue to collect data in CIDER and may conduct a subsequent rulemaking to improve how its cumulative impacts procedures. As of the date of this report, however, the agency has not made meaningful progress on evaluating and addressing the cumulative impacts of oil and gas operations. The agency has made even less progress in acknowledging the cumulative impacts of a proposed development may be too great to approve it in the first place.

Enforcement: Two Steps Forward, One Step Back

Chairman Jeff Robbins summed up the importance of COGCC enforcement in a recent Commission hearing, stating "our rules are only as good as the enforcement that we put behind them."[49] We agree with that statement. We have observed some upgrades in COGCC enforcement since Mission Change but we also see several areas ripe for improvement.

SB 181 did not mandate any specific changes to the COGCC's enforcement mechanisms but, like every other agency function, the COGCC's enforcement actions must protect people, the environment, and wildlife.[50] In the year following Mission Change, nearby resident complaints

[46] Football fields are 1.32 acres in size. (*See* https://www.reference.com/world-view/many-acres-football-field-a20196b5a2b4acc8)
[47] The earth's equatorial circumference is 24,901 miles. (*See* https://solarsystem.nasa.gov/planets/earth/by-the-numbers/)
[48] COGCC Commissioners' meeting, November 17, 2021 at 20:51. Video available here.
[49] July 7, 2021 Commission Hearing
[50] C.R.S. § 34-60-105(1)(a).

did not translate into enforcement actions, inspection rates slowed, penalties for a major violator were significantly rolled back by the Commission, and two citizen petitions requesting stronger enforcement were denied. At the same time, COGCC staff prioritized addressing its enforcement backlog and demonstrated a willingness to draw the line against operators in some cases. The Commission also provided meaningful safety and emissions monitoring improvements through its administration of the Martinez-Irwin Fund, created after the 2017 Firestone home explosion and subsequent penalties imposed by the agency.

The life cycle of enforcement actions from detection to eventual resolution and penalty issuance can often take years. As a result, all but one of the finalized enforcement actions reached in 2021 were for violations of rules that predate Mission Change. Despite this, some of the actions taken in 2021 utilized the increased capacity of a full-time Commission and reveal insight into the Commission's sense of its role in enforcement.

The Commission's role in enforcement is supervisory and sometimes adjudicatory. Its primary function is the finalization of enforcement actions through the entry of orders approving an agreement between the staff and the operator or by adopting recommended orders as final decisions of the Commission.[51] In certain situations, including patterns of violations or when an alleged violation resulted in a death or serious injury, COGCC rules require the enforcement action to be heard by an administrative law judge or hearing officer unless the Commission directs otherwise.[52] The Commission performs enforcement hearings *de novo*, meaning it hears the facts of the case from the parties and makes its decision based only on the evidence presented to it in the hearing.[53]

The COGCC Compliance Unit performs inspections and manages enforcement. Following Mission Change, the COGCC Reclamation Group moved from the Compliance Unit to the Environmental Unit, which is charged with managing environmental protection and reclamation.[54] COGCC staff learn of potential violations in three primary ways: inspections/audits, operator self-reporting, and complaints. Following Mission Change, the number of COGCC inspections resulting in corrective actions increased dramatically, suggesting an improvement in oversight.

[51] Rule 523.d.(1).
[52] Rule 523.d.(2).
[53] COGCC Enforcement Guidance (Jan. 2015), available at https://cogcc.state.co.us/documents/reg/Policies/EnforcementGuidance.pdf.
[54] September 22, 2021 Commission Weekly Hearing; Staff Presentation on Mission Change Implementation (Scott Cuthbertson, Deputy Director of Operations, presenting)

While the COGCC relies on its specialized staff to perform inspections and audits to identify compliance issues, staff has not satisfactorily engaged with resident complaints or solved the underlying issues leading to those complaints. Response times to complaints for noise and odors are often slow, meaning any potential violations have passed by the time an inspector arrives on site. The most complained about oil and gas locations did not see any enforcement actions initiated against their operators throughout 2021. This pattern is concerning as these complaints typically come from nearby residents and suggest current rules and/or practices are insufficiently protective of people, the environment, and wildlife.

The Commission views its responsibility as encouraging compliance rather than taking punitive action. This philosophy was particularly on display in its approval of a compliance plan for KP Kauffman Company, which will be further detailed below. The Commission's enforcement in the KP Kauffman case was nominal and overly responsive to the operator's ability to pay argument. This sends a message to operators that violations, even as part of a large pattern, will go relatively unpunished for operators large enough that their failure and abandonment of wells would burden the state with cleanup and remediation costs. Despite this issue, the Commission may be able to impose more robust penalties for large operators who show disregard for its rules if it approves sufficient improvements in its financial assurance rules and/or receives an influx of federal funding for orphaned well programs.[55]

Note, much the data utilized in this section are from the COGCC's publicly available datasets, particularly its Daily Activity Dashboard which is available for download here.

A. Inspections and Audits

COGCC staff's inspections and audits are the primary means of identifying compliance issues that result in corrective and enforcement actions. Rule 204 grants the Director the right to inspect any oil and gas location or facility and any associated records for the purposes of determining compliance at any time.

[55] Jan. 11, 2022 COGCC Operator Meeting (staff announcement). Funding is expected through the 2021 federal Infrastructure Investment and Jobs Act. Staff did not indicate the amount of funding the agency expects to receive.

The Mission Change rules adopted the first-ever periodic inspection protocols for operators of all oil and gas facilities.[56] Operators are required to periodically inspect tanks and process vessels and conduct audio, visual, olfactory inspections of all facilities under the new rules.[57] Operators are not required to conduct such inspections on out of service and process vessels.[58] In 2021, staff did not issue any Notices of Alleged Violation (NOAVs) relating to violations of these inspection requirements.[59]

Staff also conducts periodic audits of operators as part of the agency's regulatory compliance program. COGCC's failure to penalize operators for violations of monthly production reporting requirements was publicly criticized following a state audit published in early 2020.[60] That audit, conducted by the state auditor at the direction of the Legislative Audit Committee, found that "the COGCC does not ensure that oil and gas operators consistently report required information related to the amount of oil and gas produced and sold."[61] It determined that between 2016 and 2018, 316 operators would have been liable for up to $308 million in penalties for reporting requirement violations had the COGCC pursued enforcement action against them.[62] Following that critical audit, COGCC audits and enforcement of reporting violations increased dramatically from only 6 NOAVs in 2019 to 188 NOAVs by the end of 2020. However, that increase was short lived; the COGCC only issued 16 NOAVs regarding monthly operation reporting requirements in 2021.[63]

Table 5: NOAVs for Violations of Monthly Operation Reporting Requirements[64]

2018	2019	2020	2021
32 NOAVs	6 NOAVs	188 NOAVs	16 NOAVs

The majority of final enforcement orders the COGCC issued in 2021 arose from staff inspections. Historically, staff prioritized inspections through agency policies based on well status,

[56] COGCC, *Mission Change Rulemaking Series Fact Sheet*, available at https://cogcc.state.co.us/documents/media/Mission_Change_200_600_800_900_1200_Series_Fact_Sheet_20201202.pdf.
[57] Rules 609.b. and 609.d.
[58] Rule 609.c.
[59] *See* COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)
[60] *See* Benke Birkeland, *Audit Slaps Colorado For Sloppy Oil And Gas Tracking, Lost Tax Revenues*, Colorado Public Radio, (Jan. 28, 2020) https://www.cpr.org/2020/01/28/audit-slaps-colorado-for-sloppy-oil-and-gas-tracking-lost-tax-revenues/.
[61] http://leg.colorado.gov/sites/default/files/documents/audits/1928p_severance_taxes.pdf
[62] http://leg.colorado.gov/sites/default/files/documents/audits/1928p_severance_taxes.pdf
[63] COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)
[64] COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)

time since last inspection, notices of operator activity, conditions of approval, complaints, incidents, and institutional knowledge. This system was very informal and inspectors each created their own systems for inspection prioritization. Senate Bill 13-202 changed that approach, requiring a risk-based strategy for the determination of which inspections to prioritize. Risk factors include (1) population density and urbanization, (2) environment, (3) time since the last inspection, (4) years in service, (5) past reported spills at the site, and (6) past corrective actions at the site. Staff calculates a "risk factor score" based on these elements, resulting in scores ranging from 15 to 75 points; scores of 45 or higher are considered high risk.[65]

The number of COGCC inspections decreased in 2021 for reasons that remain unclear. Yet, despite the reduction in raw numbers, the number of those inspections that resulted in corrective action requirements dramatically increased during the same year.

Table 6: Annual Inspections[66]				
	2018	2019	2020	2021
Inspections Performed	31,171	38,574	50,231	36,600
Total Locations Inspected	12,768	15,120	17,368	13,057
Inspections Requiring Corrective Action	196	373	644	1,868

**Note, multiple inspections are often recorded in a single inspection document. The above data reflect the total number of inspections performed rather than the number of documents recording those inspections.*

B. Complaints

While residents living nearby oil and gas operations experience the most negative day-to-day impacts of the industry, their complaints virtually never result in enforcement action by the COGCC.

Under Rule 524, any person may make a complaint alleging a violation of any COGCC rule or permit. COGCC rules require staff to investigate all complaints "to the extent the Director believes sufficient grounds exist to warrant an investigation." COGCC guidance materials state

[65] September 8, 2021 Staff Presentation to Commission on Inspection Prioritization (Mike Leonard, Compliance Manager, presenting)
[66] COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)

"[t]he Commission's policy is to respond to all complaints within 48 hours; inspectors frequently respond in less than 12 hours."[67]

Any complainant who has filed a Form 18 written complaint may file for a Petition for review requesting the commission hear his or her objections a staff decision not to issue a NOAV for an alleged violation identified in the complaint.[68] If the COGCC staff issues a NOAV as a result of a specific complaint and pursue resolution in the form of an AOC, the complainant has 14 days to comment on the terms the agreement before it is signed and presented for final approval.[69]

The COGCC received a total of 374 complaints from 274 named complainants for issues occurring in 2021.[70] The complaints involved 48 operators and 125 oil and gas locations. By far the most complained-about operator was Great Western Operating Company, the subject of 123 complaints—over one third of the total complaints received by the COGCC in 2021. Great Western was followed by Kerr McGee (51 complaints), KP Kauffman (30 complaints), Cub Creek (25 complaints), and Extraction Oil and Gas (21 complaints). The COGCC issued *zero* NOAVs against Great Western in 2021[71] despite 28 inspections (recorded in 15 separate inspection documents) performed on its most complained-about location, the Ivey Pad, and 13 inspections (recorded in three separate inspection documents) of its second-most complained-about location, the Raindance Pad.[72]

Table 7: 2021 COGCC Complaints[73]

	Complaints	Percentage of Total Complaints	Top Complaints	Most Complained-About Locations	# of NOAVs Issued Against Operator in 2021	# of NOAVs Citing to a Complaint in 2021
Great Western	123	33.96%	Noise	Ivey Pad: 67 complaints	0	0

[67] https://cogcc.state.co.us/documents/about/TF_Summaries/GovTaskForceSummary_FieldInspectionUnit_Overview.pdf
[68] COGCC Rule 524.c.(1).
[69] COGCC Rule 524.b.(3).
[70] Data available at https://cogcc.state.co.us/data.html#/cogis (last visited Jan. 4, 2021).
[71] *See* COGCC 2021 Annual Violations and Penalties Report https://cogcc.state.co.us/documents/reg/Enforcement/2021%20EO%20D%202013-004%20Final%20Report%20-%20Supplement.pdf
[72] COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)
[73] Complaint data available at https://cogcc.state.co.us/data.html#/cogis (last visited Jan. 4, 2021). NOAV data available at COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard).

Operating Company				Raindance Pad: 48 complaints		
Kerr McGee	51	13.64%	Odor, Noise	Mae J Pad: 24 complaints	0	0
KP Kauffman	30	8.02%	Spills	Hladky O'gorman Well #3: 3 complaints Rocky Mountain 15-9: 3 complaints	2	1
Cub Creek	25	6.68%	Noise	Knight Pad: 23 complaints	0	0
Extraction Oil and Gas	21	5.61%	Noise	United Pad: 4 complaints, Northwest B Pad: 4 complaints	0	0

**Note, while the KPK Pattern of Violations OFV (issued in 2021) cites to two complaints, those complaints were received in 2020 and the associated NOAVs were issued to KPK in 2020. Of the two 2021 NOAVs issued against KPK and consolidated in that same Pattern of Violations OFV, only one cites to a complaint (from a landowner).*[74]

Kerr McGee's Mae J pad in Weld County was the subject of multiple complaints citing a concerning odor at residences. One complaint received from a nearby resident stated that four of the complainant's family members had experienced severe headaches and bloody noses for two weeks.[75] That complaint, submitted to the COGCC on February 26, 2021, received a concerningly delayed response. The COGCC did not contact the complainant until four days later.[76] When the COGCC inspector inspected the site, he recorded his conclusions simply: "I did not smell any unusual odors or noise in or around location. No violation of COGCC rules were observed at the time of the inspection."[77] Other complaints submitted that same week by nearby residents regarding the Mae J pad included statements such as:

[74] See order number 1V-772, Complaint Report, Document No. 200449220, NOAVs 402571143 and 402728456.
[75] https://cogcc.state.co.us/cogisdb/Incidents/reportDetail?report=comp&doc_num=200449451; complaint number 200449451
[76] https://cogcc.state.co.us/cogisdb/Incidents/reportDetail?report=comp&doc_num=200449451; Inspection Document number 693504616
[77] https://cogcc.state.co.us/cogisdb/Incidents/reportDetail?report=comp&doc_num=200449451; Inspection Document number 693504616

- "[O]ur air filter in our room shows poor air quality when we try and open the windows. The air makes our eyes water and it bothers my wife's asthma."[78]

- "It smells like rubbing alcohol or acetone. It also makes my eyes water and my throat hurt."[79]

- "There has been a noxious odor throughout the day."[80]

The COGCC responded to each of the above complaints with the same inspection report quoted above. No corrective actions or enforcement resulted.

The Colorado Department of Public Health and Environment receives reports of health and odor concerns related to oil and gas operations as well.[81] An open records request revealed the CDPHE received 133 health-related oil and gas complaints via its online submission form in 2021. See Appendix C for details of those complaints. CDPHE also released some complaint quotes recorded by its staff. The following are excerpts from some complaints:

- "After the fracking started, my family has been getting bloody noses, itchy/watery eyes and persistent headaches. As a Colorado native, this is not usual for us."[82]

- "We all noticed a strong smell they identified as potentially diesel. It is worsening as the day goes on. It's as if a vat of fluid is evaporating on the ground somewhere. It is instant headache and nausea to walk outside my sealed home. This smell has been intermittent yet consistent since the drilling started the beginning of February. I am unable to take my dog out for bathroom breaks."[83]

- "Constant noise throughout the night, which keeps me and my family awake, loud bangs and a gas-like odor flowing through our neighborhood, causing headaches, impacting the taste of our outside grilled food."[84]

- "I find myself sleeping in a curled up ball trying to avoid the noise and intrusion that this fracking site causes and the continual muscle tension being exposed to such noise and vibration. I live in a constant state of anxiety not knowing when [this] 70+ db noise will end or subside. I've tried ear plugs, breathing techniques, and leaving the property whenever possible. But working from home makes that virtually impossible. Putting all the pieces together concerning the symptoms, I think this never ending, never predictable site is taking a much bigger toll on my mental and physical health than I can handle. Right now I am assembling another

[78] Complaint number 200449462, submitted Mar. 1, 2021
[79] Complaint number 200449463; submitted Mar. 1, 2021
[80] Complaint number 200449457; submitted Mar. 1, 2021
[81] https://cdphe.colorado.gov/health/oil-and-gas-and-your-health
[82] Submitted to CDPHE on 2/24/2021 via email (zip code 80516)
[83] Submitted to CDPHE on 2/24/2021 via email (zip code 80504)
[84] Submitted to CDPHE on 3/3/2021 via phone (zip code 80602)

sleeping situation in my unfinished basement to see if I am able to alleviate even the smallest modicum of impact so I can get a few hours of rest where my muscles are not in a constant state of tension."[85]

- "The Knight Well Pad has begun to have daily vibrations coming from the site that interrupts the sleep of the neighborhood. Right now the vibrations are so strong and deep the walls are rattling and my ear drums hurt."[86]

CDPHE and COGCC staffs do discuss complaints and refer complainants to one another. COGCC has authority over light and noise violation enforcement; as a result, CDPHE is more likely to refer complainants with those concerns to the COGCC. As a CDPHE staff member explained to one complainant, "if you mention a health concern when you report to COGCC they will forward that to us as well."[87] That said, the contact between the agencies appears inconsistent and the resolution of the complainants' issues rarely occur.

C. Spills

The COGCC relies heavily on operator self-reporting. One important operator report is the Form 19 Spill/Release Report. Rule 912.b.(1) requires operators to file an initial report of a spill or release of exploration and production waste (E&P waste), natural gas, or produced fluids that meet certain criteria to the COGCC within 24 hours of discovery. In addition to the Form 19 – Initial, Rule 912.b.(4) requires operators to file a Form 19 – Supplemental no more than 10 days after discovery of the spill or release.

Under Rule 912.c., the COGCC Director has the option to require operators to submit a Form 27 Site Investigation and Remediation Workplan if the Director identifies any threatened or actual adverse impacts to any air, water, soil, wildlife, or other environmental resource from a spill or release.

According to COGCC Environmental Manager Greg Deranleau, Mission Change Rule 912 caused an increase in spill reporting. In a September 22, 2021 presentation to the Commission, Mr. Deranleau stated that from July 2020 to July 2021 there was a 109% increase in total Form 27s, a 403% increase in Form 27 Initials, a 30% increase in total Form 19s filed, and a 63% increase in Form 19 – Initials. According to Mr. Deranleau, there are approximately 20 wellhead spills per

[85] Submitted to CDPHE on 10/5/2021 via email (zip code 80504)
[86] Submitted to CDPHE on 11/28/2021 via email (zip code 80504)
[87] CDPHE follow-up email sent to a complainant in Adams County on 3/3/2021

month. In the past, he indicated, the operator would have simply excavated and removed the soil, but now the COGCC provides oversight, documentation, and soil analysis.[88]

The COGCC recorded 839 spills in its Daily Activity Dashboard in 2021. The COGCC did not record surface water impacts from any of the spills. Eighteen of those spills impacted groundwater. Notably, the time elapsed between the groundwater-affecting spill incidents and their eventual resolutions was consistently lengthy. In one case, the Chevron USA spill, the COGCC has not recorded any resolution date.[89]

Table 8: 2021 Spills with Groundwater Impacts[90]

Operator	Facility Type	Facility ID	County	Type (Reported by Operator)	Date of Discovery	Form 19 Submission	Final Resolution Date	Time Between Discovery and Resolution
PDC Energy Inc.	Tank Battery	479189	Weld	Historical Release	1/11/2021	1/11/2021	1/19/2021	8 days
PDC Energy Inc.	Off-Location Flowline	479269	Weld	Historical Release	1/26/2021	1/27/2021	2/5/2021	10 days
Noble Energy Inc.	Tank Battery	479275	Weld	Historical Release	1/27/2021	1/28/2021	4/15/2021	78 days
PDC Energy Inc.	(Not Recorded)	479281	Weld	Historical Release	1/29/2021	2/01/2021	2/8/2021	10 days
Crestone Peak Resources Operating LLC	Tank Battery	479403	Weld	Historical Release	2/16/2021	2/17/2021	2/17/2021	1 day
PDC Energy Inc.	Well	479438	Weld	Historical Release	2/25/2021	2/25/2021	3/5/2021	8 days
Great Western Operating Company LLC	Tank Battery	479525	Weld	Historical Release	2/26/2021	3/1/2021	3/11/2021	13 days
Great Western Operating Company LLC	(Not Recorded)	479539	Garfield	Historical Release	3/3/2021	3/3/2021	8/30/2021	180 days
Caerus Piceance LLC	Tank Battery	479547	Adams	Recent Spill	3/3/2021	3/3/2021	3/13/2021	12 days
Chevron USA Inc.	Flowline System	479701	Rio Blanco	Recent Spill	3/4/2021	3/5/2021	(None Listed)	-
Kerr McGee O&G Onshore LP	Well	479702	Weld	Historical Release	3/8/2021	3/9/2021	3/9/2021	1 day
Noble Energy Inc.	(Not Recorded)	479589	Weld	Historical Release	3/17/2021	3/17/2021	3/24/2021	7 days
PDC Energy Inc.	Tank Battery	479623	Adams	Historical Release	3/18/2021	3/18/2021	3/18/2021	0 days
Great Western Operating Company LLC	Well	479634	Weld	Potential Historical Release	3/18/2021	3/18/2021	3/23/2021	18 days
Kerr McGee O&G Onshore LP	Well	479745	Weld	Historical Release	4/1/2021	4/2/2021	4/2/2021	1 day

[88] September 22, 2021 Staff Presentation to Commission (Greg Deranleau, Environmental Manager, presenting)
[89] COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)
[90] COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)

Laramie Energy LLC	Gas Gathering Pipeline System	479751	Garfield	Recent Spill	4/5/2021	4/6/2021	4/27/2021	22 days
Bayswater Exploration & Production LLC	(Not Recorded)	479778	Weld	Historical Release	4/12/2021	4/12/2021	7/6/2021	2 days
Kerr McGee O&G Onshore LP	Pipeline	479830	Weld	Historical Release	4/15/2021	4/16/2021	4/16/2021	1 day

In 2021, the COGCC issued 43 NOAVs that covered 59 violations related to spills and releases. Rule descriptions assigned to the violations were general spills and releases (12 alleged violations); spill or release prevention (11 alleged violations); spill reporting (17 alleged violations); spill reporting to Director – threat of impact (8 alleged violations); spill or release remediation (10 alleged violations); and reporting spills or releases of E&P waste, gas, or produced fluids (6 alleged violations). None of those NOAVs have been closed and no penalties have been finalized.

Rule 912.b.(1).F., requires operators to submit an initial Form 19 within twenty-four hours of discovery of a spill or release that has impacted groundwater. PDC Energy and Great Western Operating Company each submitted a Form 19 for a spill with groundwater impacts more than twenty-four hours after the reported discovery date in 2021. Neither company received a NOAV related to late spill or release reporting in the past year.[91]

D. Notices of Alleged Violation

Under Rule 523, if the COGCC Director determines that reasonable cause exists to believe that a violation of the statute or any Commission rule, order, or permit has occurred, the Director may commence an enforcement action by issuing a Notice of Alleged Violation (NOAV). If certain criteria are met, the Director may resolve a NOAV without seeking a penalty.[92] However, the Director retains discretion to seek a penalty for such violations. If issued, a NOAV must identify the provisions, rules, orders, or permits allegedly violated and state the basic facts of the alleged violation. The NOAV may also propose corrective action and a required schedule for such action.

[91] *See* COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)
[92] COGCC Rule 523.b.(1) states that the Director *may* resolve the alleged violation without seeking a penalty if *all* of the following apply: (1) the rule allegedly violated is not a Class 3 rule and the degree of actual or threatened impact is minor or moderate pursuant to the Commission's Penalty Schedule, (2) the operator has not received a previous warning letter or corrective action required inspection report regarding the same violation, (3) the Director determines the alleged violation can be corrected without undue delay, and (4) the operator timely performs all corrective actions required by the Director and takes any other actions necessary to promptly return to compliance.

Operators are given 28 days to file an answer to the NOAV responding to each allegation and identifying any corrective actions taken.

The Commission can resolve NOAVs by approving a settlement-like agreement between the operator and the Director (known as an Administrative Order by Consent or AOC) or by issuing an Order Finding Violation (OFV). In 2021, the COGCC issued 150 NOAVs, seven of which it later dismissed.[93] The NOAVs covered 276 separate alleged violations against 90 operators.[94] Only six of the NOAVs issued in 2021 have resulted in a final enforcement order as of the date of this report. One of those NOAVs was issued against KP Kauffman Company as part of a larger enforcement action against the company three days before the Mission Change rules went into effect.[95] At the beginning of the 2021 calendar year, the COGCC issued three additional NOAVs prior to the mission change rules going into effect on January 15:

Table 9: NOAVs Issued in 2021 Prior to Mission Change Rule Implementation[96]

Date Issued	NOAV Number	Operator	Alleged Violations
1/4/2021	402565779	Javernick Oil	Rule 905: closure of pits and buried or partially buried produced water vessels Rule 912.b.: notice and prior approval required for venting or flaring of natural gas
1/7/2021	402569198	Crestone Peak Resources Operating, LLC	Rule 905: closure of pits and buried or partially buried produced water vessels
1/12/2021	402572706	Citation Oil & Gas	Rule 319.b.: temporary abandonment Rule 326.c.: Mechanical Integrity Testing for temporarily abandoned wells
1/12/2021	402571143	KP Kauffman Company, LLC	Rule 906.b.: Spill Reporting Rule 906.c.: Remediation of spills/releases

Over the course of 2021, the COGCC issued NOAVs against 87 operators under the new rules. The operators to receive the most NOAVs were Evergreen Natural Resources LLC (11), Magpie Operating Inc. (8), TEP Rocky Mountain LLC (7), Painted Pegasus Petroleum LLC (7),

[93] Reasons for dismissal included administrative errors (no locations provided in NOAVs and duplicate NOAVs) and, in one case, a determination that the subject line had been properly abandoned under the rules in place at the time of abandonment. COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)
[94] See COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard). Often, a single NOAV will cover numerous alleged violations committed by a single operator).
[95] *See* COGCC Docket No. 201100261.
[96] COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)

Alamosa Drilling Inc. (6), and Wolverine Resources, Inc. (5). The most common alleged violations were for final well sites reclamation, off-location flowline registration, operator's monthly reports of operations, shut-in wells, permit violations, and stormwater management.[97] Only five of the 146 NOAVs issued after the implementation of the Mission Change rules have resulted in a final enforcement order as of the writing of this report; all five were resolved in a single Commission hearing against Wolverine Resources in January 2022.[98]

A major focus for the COGCC in 2021 was clearing its massive backlog of enforcement cases. As a result, many of the 2021 NOAVs were issued for alleged violations that had occurred years prior. Of the 263 alleged violations covered in the NOAVs issued after Mission Change rules went into effect, 213 were for alleged violations that occurred in 2020 or earlier and 144 had initial discovery dates from 2020 or earlier. Ninety-five of the alleged violations occurred in 2019 or earlier and 50 were discovered in 2019 or earlier. One NOAV issued against Magpie Operating, Inc. in March 2021 alleges the operator failed to submit a Completed Interval Report in 1996; the violation had initially been discovered on March 12, 2019.[99]

COGCC records do not confirm that any of the corrective actions required by the NOAVs issued in 2021 have been completed even though all but 8 of the NOAVs required corrective action performance to be completed before the end of 2021.[100]

E. Final Enforcement Orders

Final COGCC enforcement orders can take two forms: AOCs and OFVs. AOCs function like a settlement, allowing the COGCC enforcement staff and operators to negotiate a resolution to the enforcement action.[101] AOCs consist of two key elements: (1) a penalty and (2) corrective actions required for the operator to return to compliance and remedy any adverse impacts that arose from the violation(s).[102] If an administrative law judge or hearing officer recommends

[97] COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)
[98] *See* COGCC Annual Violations and Penalties Report (Jan. 5, 2022) https://cogcc.state.co.us/documents/reg/Enforcement/2021%20EO%20D%202013-004%20Final%20Report%20-%20Supplement.pdf. The five resolved NOAVs were finalized on January 12, 2022 in a hearing before the Commission in which it approved a stipulated OFV against Wolverine Resources.
[99] *See* Rule 416; COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)
[100] COGCC Daily Activity Dashboard (data available for download at https://cogcc.state.co.us/dashboard.html#/dashboard)
[101] *See* Rule 523.d.(1).
[102] COGCC Enforcement Guidance, (Jan. 2015) available at https://cogcc.state.co.us/documents/reg/Policies/EnforcementGuidance.pdf.

approval of an AOC to the Commission, it automatically becomes a final Commission decision if no exceptions are filed within 20 days and the Commission does not reject the recommended AOC on its own motion.[103] The majority of NOAVs are resolved through AOCs.[104] The agency issued a total of thirteen AOCs in 2021.[105]

OFVs are less common than AOCs and typically occur when COGCC staff allege that the operator has (1) committed an act of gross negligence or knowing and willful misconduct that resulted in an egregious violation, (2) committed a violation that resulted in death or serious injury of a person, or (3) engaged in a pattern of violations.[106] The Commission may also commence an OFV hearing on its own motion if it determines the staff have failed to enforce the statute or a Commission rule, order, or permit.[107]

The COGCC issued seven OFVs in 2021.[108] As the end of the third quarter of the year, the Commission had only approved one OFV.[109] In the final quarter of the year, it approved six, including its second-largest ever penalty (assessed against KP Kauffman).[110]

Table 10: Final Enforcement Orders (2021)[111]			
	Number of OFVs	Number of AOCs	Penalties Assessed
Quarter 1	0	4	$247,150
Quarter 2	0	3	$313,320
Quarter 3	1	5	$1,657,066
Quarter 4	6	1	$4,771,919
TOTAL	**7**	**13**	**$6,989,455**

All of the Commission's final enforcement orders in 2021 concerned violations that predated the effective date of the Mission Change rules. Despite the fact that there are few

[103] *See* COGCC Rules 523.d.(1) and 520.b.
[104] https://cogcc.state.co.us/documents/reg/Policies/EnforcementGuidance.pdf
[105] *See* Quarterly HB 1256 Reports at https://cogcc.state.co.us/documents/reg/Enforcement/2021_1Q_HB1356_Report.pdf, https://cogcc.state.co.us/documents/reg/Enforcement/2021_2Q_HB1356_Report.pdf, https://cogcc.state.co.us/documents/reg/Enforcement/2021_3Q_HB1356_Report.pdf, https://cogcc.state.co.us/documents/reg/Enforcement/2021_4Q_HB1356_Report.pdf.
[106] *See* Rule 523.d.(2).
[107] Rule 510.f.(3).
[108] https://cogcc.state.co.us/documents/reg/Enforcement/2021_4Q_HB1356_Report.pdf; https://cogcc.state.co.us/documents/reg/Enforcement/2021_3Q_HB1356_Report.pdf
[109] COGCC Q3 2021 HB 1356 Report https://cogcc.state.co.us/documents/reg/Enforcement/2021_3Q_HB1356_Report.pdf
[110] https://cogcc.state.co.us/documents/reg/Enforcement/2021_4Q_HB1356_Report.pdf.
[111] *See* Quarterly HB 1256 Reports at https://cogcc.state.co.us/documents/reg/Enforcement/2021_1Q_HB1356_Report.pdf, https://cogcc.state.co.us/documents/reg/Enforcement/2021_2Q_HB1356_Report.pdf, https://cogcc.state.co.us/documents/reg/Enforcement/2021_3Q_HB1356_Report.pdf, https://cogcc.state.co.us/documents/reg/Enforcement/2021_4Q_HB1356_Report.pdf.

examples of the Commission's final enforcement of the new rules, their enforcement orders from the past year are illustrative of how the Commission sees its role in relation to the administration of its rules. Commission enforcement consistently prioritizes compliance over punishment. This is not without a reason. The limited financial assurance held by the COGCC for many large operators means that, were an operator to go out of business and abandon its wells, the state would be left with large cleanup costs. As a result, the Commission and staff tend to approach enforcement seeking cooperation and compliance rather than punitive measures.

F. Variances

Rule 502 allows operators to petition for a compliance variance. Variance requests that implicate public health, safety, welfare, the environment or wildlife must be heard and approved by the Commission. The ability for operators to obtain rule variances predated Mission Change and it continued afterwards. Thirty-four variance requests have been filed since the Mission Change rules went into effect, most of them involving variances to site reclamation and bradenhead testing rules. The Commission has ruled on only one variance request to date, and that involved a variance from Rule 910 (pit lining requirements and specifications). Grand Mesa Operating Company filed that variance asking it be allowed to continue constructing a new pit without a pit liner. Grand Mesa was granted a permit prior to the rule change requiring pit liners and it was informed by agency staff recently that it must, in fact, put in a pit liner at this point or ask for a variance. Grand Mesa argued it was not necessary to put in a pit liner because it was not going to store liquids or hydrocarbons in the pit and also because there had been no groundwater encountered on the site. The staff found the variance request to be a "low risk activity" and supported it. The Commissioners asked some clarification questions during a December 1, 2021 hearing and ultimately approved the request.[112]

G. Case Studies

i. Alta Mesa (Docket No. 201200279)

[112] See December 1, 2021 Commission hearing at 17:30. Video available here.

The now-bankrupt Alta Mesa owned and operated a single well in Colorado, which it plugged and abandoned on December 2, 2017. Staff became aware of various violations on the site regarding stormwater management, failure to conduct interim reclamation, noxious weeds, and failures to file forms with COGCC. On December 19, 2018, the Commission approved an AOC that would suspend $130,641 of a $261,282 penalty pending Alta Mesa's timely completion of corrective actions.[113]

COGCC staff conducted periodic inspections of the location from October 2018 to May 2021. These inspections revealed that Alta Mesa had failed to conduct any of the corrective actions outlined in the AOC. Staff attempted to contact Alta Mesa about the corrective actions in June 2020 but received no reply. In August 2020, the Director issued a written demand to Alta Mesa for payment of the suspended penalty amount of $130,641. Alta Mesa never replied.

Eventually, the COGCC became aware that Alta Mesa had filed for Chapter 11 bankruptcy relief on September 11, 2019. Staff told the Commission that neither the COGCC nor the Colorado Attorney General's office had been notified of Alta Mesa's bankruptcy. As a result, they did not participate in the bankruptcy action and the COGCC received no material distribution. Alta Mesa's assets were not sold, liquidated, or transferred to any other company; they remain in what the COGCC has determined to be a shell.

In November 2020, COGCC staff issued a NOAV against Alta Mesa for its failure to comply with the 2018 AOC. Staff eventually requested the Commission approve an OFV against Alta Mesa. As of the July 7, 2021 Commission hearing for that OFV, Alta Mesa had not responded to the NOAV, filed any answer, objected to the staff's filings, or appeared at the hearing. The Staff calculated a $344,140 penalty amount for violations of then-Rule 522.f. for failure to comply with an AOC and Rule 1004.a. for failure to perform reclamation activities at the location. Staff requested the Commission approve an OFV stating that, if Alta Mesa failed to return to comply with the OFV by returning to compliance and paying the penalty within 35 days, (1) staff may declare the well orphaned and claim all saleable products and equipment to help pay the cost of reclamation and (2) the director must revoke Alta Mesa's authorization to operate in Colorado and foreclose Alta Mesa's financial assurance of $20,000.

[113] Required corrective actions included (1) installation, inspection, and maintenance of stormwater best management practices through final reclamation; (2) removal of all noxious weeds; (3) decompaction of all disturbed areas; (4) regrading and recontouring of all disturbed areas to preexisting contours; (5) reseeding; and (6) conduction of bi-annual vegetative monitoring.

Staff indicated the reclamation costs were expected to be $75,000 and that they did not expect compliance from Alta Mesa. They requested the OFV so that, when Alta Mesa eventually failed to comply, the COGCC could access the financial assurance funds. During the July 7th hearing, Commissioners Nanjappa and McGowan expressed frustration that the Commission could not issue an order with immediate effect (rather than having to wait 35 days for compliance and penalty payment that were never expected). Staff responded that it was a due process issue and that typically bond claims occur when the violating operator still exists or another company has purchased their assets—this case was unique. Chairman Robbins was not satisfied with this answer, stating:

> This seems awfully complicated to clean up one bankrupt operator's well that we've known about for multiple years. I believe that it is incumbent on this Commission to take this as a learning moment and to uncomplicate this process. I agree with McGowan that we, as a full-time Commission, should be able to see a bond that needs to be pulled and, after due process notice to the operator, get the bond pulled. Having to do an AOC and OFV and then give the operator time at each stage doesn't make sense to me. I would like to use this as an opportunity to dig into enforcement and figure out what's working and what's not working.

Commissioner Nanjappa also raised concerns over the duration of time that passed from the November 2020 NOAV and the July 2021 OFV hearing. Staff explained the delay was due in part to the hearings unit taking time to generate notices, a staff publication error, and the 28 days given to operators to respond to NOAVs. Of particular concern, however, was the fact that the COGCC had not been aware of Alta Mesa's bankruptcy until, following Alta Mesa's lack of responsiveness to COGCC staff in 2019, a staff member conducted a Google search in summer 2020.[114]

Commissioner Messner eventually moved to amend the staff's requested OFV to include language prohibiting principals of Alta Mesa from operating in Colorado in the future (unless approved by the Commission at a hearing) if the company failed to come into compliance or pay its penalty. Commissioner Gonzalez opposed the amendment, raising concerns about the precision of the definition of principals and the difficulty of determining which high-level decisionmakers are responsible for violations. He emphasized that Alta Mesa had properly plugged and abandoned its well and the "level of impact of this specific well [$55,000 to the state] does not reach the level

[114] July 7, 2021 commission meeting staff presentation

of wanting to exclude those people in Colorado." Messner stood by his motion, stating "This is a message. It is egregious to ignore Commission rules and enforcement orders. I do not want operators like that operating here in Colorado."

Following deliberations, the Commission passed Messner's motion to adopt the OFV and exclude Alta Mesa's principals from operation in Colorado in a 4 to 1 decision. Commissioner Gonzalez was the dissenting vote.

ii. Front Range Nesting Bald Eagle Studies Petition for Review (Docket No. 210300016)

Crestone Peak Resources and one of its subcontractors, A&W Water Service, were the subject of two complaints filed with the COGCC by Front Range Nesting Bald Eagle Studies (FRNBES) alleging noise violations by A&W's water pumping system and those violations' negative impact on the habitat of bald eagles during their six-month breeding and roosting period. The complaints revolved around Crestone's Dreamweaver pad in Weld County, which was located less than 2000 feet from a Communal Bald Eagle Winter Roost known as the "Middle Roost," and specifically noise violations that came from A&W's water pumping operations located less than 200 feet from the Dreamweaver pad. FRNBES counted twenty bald eagle nests in the area around the Dreamweaver pad during the breeding and roosting period prior to the commencement of drilling activities. That number went down to just one nest during the 2020-2021 breeding season, and FRNBES alleged noise violations from the water pumping operations were a root cause.

FRNBES filed two complaints with the COGCC, one on November 24, 2020 and the other on January 21, 2021. The complaints alleged, *inter alia,* noise violations from the A&W water site exceeded COGCC rules and were causing adverse impacts to the bald eagles in the area. The COGCC did not reach a conclusion on whether noise violations occurred because it dismissed those complaints based upon its determination that an off-site water pumping facility, while only used in conjunction with the Dreamweaver oil and gas development, were nevertheless outside of the COGCC's jurisdiction to remedy. The COGCC staff decision found the "withdrawal of water from a surface water body, whether for the purpose of providing water for hydraulic fracturing operations or any other industrial, agricultural, or municipal use, does not fall within the statutory

or regulatory definition of 'oil and gas operations' as set for at C.R.S § 34-60-103(6.5) and the Rule 100 series."

C.R.S. § 34-60-103(6.5) and COGCC rules indicate:

> "Oil and gas operations" means exploration for oil and gas, including the conduct of seismic operations and the drilling of test bores; the siting, drilling, deepening, recompletion, reworking, or abandonment of an oil and gas well, underground injection well, or gas storage well; production operations related to any such well including the installation of flow lines and gathering systems; the generation, transportation, storage, treatment, or disposal of exploration and production wastes; and any construction, site preparation, or reclamation activities associated with such operations.

FRNBES requested a Commission review of the staff's dismissal pursuant to COGCC Rule 524 and that hearing occurred on September 1, 2021. Pursuant to Rule 510.g.(2), FRNBES had to prove the staff's decision to dismiss the complaints was "clearly erroneous," a standard staff has interpreted as proving the decision was completely unsupported by evidence in the record. Deliberations that occurred on September 3, 2021 by the Commissioners resulted in a non-unanimous decision. Commissioners Nanjappa and Gonzalez found the Commission did not have jurisdiction to enforce its regulations on the A&W water facility because it didn't meet the definition of an oil and gas facility. Commissioner McGowan found the facility did not violate COGCC noise regulations but did not indicate an opinion on the jurisdictional question. Commissioner Messner disagreed and believed the matter fell within the COGCC jurisdiction because the water facility was, in his opinion, part of an oil and gas operation. Chair Robbins found the staff did not make a "clearly erroneous" decision and therefore did not vote to overturn it.

It should be noted the Commission did not identify the agency responsible for jurisdiction over off-site (or adjacent) water pumping facilities, and it did not discuss clarifying that jurisdiction as it has done with produced water discharge facilities in a Memorandum of Understanding with the CDPHE Water Quality Control Division.[115] The FRNBES petition is linked here and the final Commission order is linked here for further reference.

[115] *See e.g.* the Wellington produced water permit Order at paragraph 6, available here.

iii. KP Kauffman Pattern of Violations (Docket No. 201100261, et al.)

The most extensive enforcement action taken by the Commission in 2021 was its issuance of a $2,014,530 penalty against KP Kauffman Company, Inc. (KPK). The Commission found KPK had committed a pattern of violations, including failure to report spills, improper disposal of impacted soils, failure to take reasonable precautions during an uncontrolled active gas release, and failure to comply with COGCC staff directives.[116] While the violations were egregious and the penalty was the second highest ever assessed by the COGCC, the enforcement order is unlikely to result in any substantial punishment of KPK. Rather than require the company to pay the full penalty amount, the Commission allowed staff and KPK to develop a compliance plan, adherence to which would allow KPK to avoid paying over one million dollars of the penalty assessed against it.

The compliance plan was the result of considerable deliberation and negotiation. Staff initially sought a fine of $3.7 million. The Commission held hearings on seven separate NOAVs issued against KPK throughout August of 2021. Following presentations and deliberations, the Commission determined KPK had committed 21 rule violations and assessed an initial penalty of $1,837,457. Following subsequent hearings on September 20 and 21, the Commission found KPK committed a pattern of violations and applied that finding as an aggravating factor to increase the previously assessed penalties to $2,014,530. Prior to and during the pattern of violations hearings, KPK submitted confidential testimony and documentation regarding its finances; based on that information, the Commission found KPK had an inability to pay a penalty in excess of $795,000. According to KPK's counsel at a hearing, the ability to pay determination was unrefuted by staff.[117] Based on that determination, the Commission determined that "a portion of the Penalty Amount will be suspended and vacated if KPK satisfies the terms and conditions set forth in the [OFV and compliance plan]."

At a September 21 hearing, the Commission authorized Chairman Robbins to serve as the hearing officer for discussions between COGCC staff and KPK to develop the terms of the

[116] Note: these violations all concerned the rules as in effect prior to the mission change rule effectiveness date of January 15th, 2021.

[117] KPK counsel John Jacus statement at November 5, 2021 Commission hearing. Never publicly addressed in the agency's inability to pay findings was how much the operator paid its outside counsel team to prepare for and aggressively contest the violation allegations during a multi-day hearing and beyond.

compliance plan. The parties held eight conferences and, on November 5, presented their compliance plan to the Commission.

The compliance plan will allow KPK to limit its penalty payment to $795,000 over five years if it complies with the terms. The plan contains several key elements. The first, and most important, is a Global Remediation Implementation Plan (GRIP) for ongoing and unresolved projects. The GRIP is required to include prioritization of remediation work to be performed, the level of staffing and resources required, a detailed schedule for all unresolved remediation projects, and requirements for recordkeeping and reporting. The GRIP outline also includes a process by which KPK can request a responsible party determination if it discovers potential historic contamination, potentially relieving it of remediation obligations. Upon completion of all corrective actions set forth in the GRIP, the Commission will vacate $400,000 of the penalty amount.

The second element is the Flowline System Integrity Evaluation and Plan, which requires KPK to use a qualifying third-party engineering firm to perform a systemic evaluation of KPK's flowline system to be used as the basis for an "integrity plan." The third element is a Comprehensive Waste Management Plan for all wastes generated by KPK and its operations. Finally, KPK is required to develop a Spill/Release Reporting and Training Plan for its employees on all required reporting to COGCC, surface owners, local governments, and other state and deferral agencies.

The flowline, waste management, and reporting training plan requirements will all be deemed completed as long as KPK submits plans that are ultimately approved by the Commission before their respective due dates. In exchange for its submission of each of these plans, KPK will receive vacation of $200,000 of the suspended penalty amount—all prior to its actual completion of the actions each plan promises.

In addition to the potential elimination of $1,219,530 in penalties, the compliance plan included an agreement by COGCC staff to forbear enforcement of 11 currently outstanding NOAVs against KPK.

The compliance plan does leave open the possibility that the Commission will suspend KPK's certificates of clearance (authorization to transport product off site) or suspend any new issuance of permits if KPK fails to meet the deadlines set forth in the plan or if it is found to be in violation of any of the COGCC's environmental impact prevention (900 Series) rules within the

next three years. The plan also provides for reviews of the status of its implementation by KPK and COGCC staff every 75 days, quarterly reports to the Commission, as well as a May 2022 hearing in which the Commission will review KPK's performance. Additionally, the Commission will require a hearing for all transfers of operatorship to KPK for the foreseeable future.

Following Chair Robbins' presentation on November 5, the Commission unanimously approved the compliance plan.[118]

During deliberations prior to the approval, Commissioner Nanjappa questioned the financial assurance currently held by the COGCC from KPK. Staff stated the company's financial assurance totaled approximately $1.5 million,[119] but it was uncertain what portion of that would be available for use by the Commission for the sites at issue in the plan if KPK were to fall out of compliance and fail to pay its penalties.[120] The compliance plan as passed required COGCC staff to review the adequacy of KPK's current financial assurance.[121]

On January 5, 2022, KPK and COGCC staff presented their first quarterly update to the Commission regarding KPK's progress under the compliance plan. Just days before the update, KPK had submitted drafts of its waste management and spill/release reporting training plans as well as its GRIP to staff for review. According to Assistant Attorney General Caitlin Stafford, "upon initial review staff is very concerned that the plans don't seem to address key necessary elements and may not ultimately lead to KPK's full compliance with the intent of the compliance plan or this commission's rules." COGCC staff member John Axelson stated the draft GRIP "falls pretty short of the requirements" and "basically presented a plan to complete the GRIP; it didn't really provide the GRIP." Axelson stated that staff did find the spill/release reporting training plan to be a "good effort," but staff will provide substantial revisions and corrections. He stated that, since the compliance plan was finalized, there have been five KPK spills which included ongoing reporting violations. Axelson also stated the draft waste management plan "is inadequate" and shows "there is still clearly not an understanding of some of our basic rules." He stated "KPK was basically gifted a $200,000 suspension of penalty for this plan to simply develop a comprehensive

[118] Compliance Plan, page 6.
[119] This amount equals approximately $1,351 of financial assurance per well based upon KPK's ownership of 1,110 wells (as of November 2021) when the agency previously found the average cost to plug and abandon orphan wells in a 2021 23-well study was $92,922. *See* 2021-07-23 Revisions to Orphaned Well Program Costs for Financial Assurance Rulemaking.pdf (state.co.us)
[120] November 5, 2021 Commission hearing.
[121] Order No 1V-772, page 46.

waste management. It should have already been in place because it's already required by Rule 905.a.(4)."[122]

Following staff critiques, Chair Robbins seemed to defend KPK emphasizing the fact that the plans were submitted close to the holidays meaning staff had not passed along all of their feedback to KPK prior to presenting to the Commission. Robbins also noted this is a first of its kind agreement, stating "we're sailing a ship that's just been built."[123]

Other Commissioners were substantially less forgiving. Commissioner Nanjappa expressed frustration that KPK was allegedly committing ongoing spill reporting violations. Commissioner Messner stated "[w]hat I'm hearing today is incredibly disturbing to this Commissioner and frustrating." Commissioner McGowan echoed these sentiments, stating "I, as a commissioner am concerned about this operator's ability to maintain compliance, to be in good standing, and to be able to take care of all the assets that they own." The Commissioners requested KPK provide an update in February rather than waiting until its next scheduled quarterly report. The compliance plan remained in place, however, and will be subject to a final Commission review in May 2022.[124]

Staff also presented their preliminary findings regarding KPK's financial assurance as required under the compliance plan. Staff found that KPK was in compliance with current financial assurance requirements. They suggested that additional financial assurance may be necessary but stopped short of initiating any formal process to request additional financial assurance under Rule 702. KPK expressed concern that additional financial assurance requirements could "impair [its] ability to perform as well as we might under the compliance plan agreement." Commissioners requested an update on staff's financial assurance investigation in the next quarterly update regarding the compliance plan. [125]

In approving the compliance plan rather than pursuing aggressive penalties, the Commission has essentially approved a plan that requires the submission of interim plans rather than real remediation. This is especially concerning as most of the plan requirements are simply returning KPK to a state of compliance with the rules that it should have already been following.

[122] January 5, 2022 Commission hearing.
[123] January 5, 2022 Commission hearing.
[124] The compliance plan, as adopted, gives the Commission the option to terminate the compliance plan and require payment of any outstanding portions of the penalty amount if (1) the Commission determines, after a hearing, that KPK is in violation of the 900 series rules, (2) KPK fails to adhere to the compliance requirements of Section IV the plan, or (3) KPK fails to appear at any hearing by the Commission pursuant to the terms of the plan. *See* Compliance Plan p. 27-28.
[125] January 5, 2022 Commission hearing.

Additionally, the Commission has thus far failed to require additional financial assurances from KPK even in the face of additional violations and marginal progress on the compliance plan. KPK has successfully employed a "too big to fail" argument thus far in front of the Commission, implicitly threatening to abandon over 1,000 wells and push the clean-up costs on the state if the Commissioners push them too much. While KPK's non-compliance long preceded Mission Change, the agency should use its new mission to make sure it is never put into a similarly vulnerable situation again.

iv. PCR Operating's Motion to Modify (Docket No. 201100264)

Following a staff audit that uncovered PCR Operating's failure to perform required mechanical integrity tests (MITs) and maintain adequate records in early 2020, staff issued a series of NOAVs against the operator. PCR did not respond to the NOAVs nor did it participate in the October 2021 OFV hearing against it.[126] Finding multiple violations, including a failure to perform any mechanical integrity tests on 33 wells in the two years since they had been shut in, the Commission issued an OFV against PCR.[127] The OFV required PCR to return to compliance within 35 days and included a $4,390 penalty.[128]

Two months later, PCR filed a motion requesting the Commission modify the OFV and grant it an additional 90 days for it to perform 33 required MITs. PCR claimed that it did not participate in the enforcement proceedings because it had not received actual notice of the NOAVs and OFV hearing.[129] The motion also revealed that, in early 2021, PCR had signed a letter of intent with a carbon capture and sequestration company who planned to purchase the land at issue and convert it into a carbon sequestration project. Following PCR's disclosure of the OFV to it, the potential buyer terminated the letter of intent.[130]

COGCC Staff filed a response objecting to PCR's motion on January 7, 2022. In it, staff argued the Commission should not modify its OFV because "PCR will simply continue to make assertions that it will comply with Commission rules if only it had more time– assertions which, when made to Staff historically, have proved hollow." Staff also rejected PCR's contention that it

[126] PCR Operating, Inc., *Motion to Modify Order Finding Violation*, Docket No. 201100264.
[127] Order 1V-769, Docket No. 201100264, page 2.
[128] Order 1V-769, Docket No. 201100264, page 4.
[129] *See* PCR Operating, Inc., *Motion to Modify Order Finding Violation*, Docket No. 201100264.
[130] PCR Operating, Inc., *Motion to Modify Order Finding Violation*, Docket No. 201100264, page 4.

did not receive proper notice, arguing that staff sent notice to the addresses PCR maintained on file but PCR had failed to comply with COGCC rules requiring operators to provide the COGCC with current contact information. PCR's failure to provide the COGCC with proper contact information, staff argued, did not invalidate the OFV. Beyond the notice issue, staff stated "the most important reason the Commission should deny PCR's Motion is that PCR does not offer any specific plan for how it will complete all required MITs in a timely manner." While PCR requested additional time to perform 33 MITs, staff indicated PCR is in fact behind on a total of 64 MITs.[131]

As of this writing, the Commission has not issued a decision regarding the PCR's motion to modify the OFV.

v. Caerus Piceance "Declaration of Compliance" (Docket No. 210800131)

In 2017, Caerus Piceance (Caerus) acquired three well sites in Garfield County. The prior owners had constructed and performed interim reclamation activities on the sites prior to Caerus's acquisition.[132] COGCC staff conducted inspections of the sites from 2012 through 2020 without noting any major issues with the interim reclamation performed by the previous owners. That changed, however, in March 2021 when a COGCC reclamation specialist inspected the well sites. The inspector noted issues including inadequate vegetation and missing or insufficient stormwater and erosion control measures. Following the inspection, staff issued a series of corrective actions to the operator but stopped short of issuing an NOAV.[133] COGCC staff and Caerus dispute whether there were conversations between the operator and the inspector regarding the inspections and corrective actions.[134]

In April 2021, Caerus wrote a letter to Director Julie Murphy requesting closure of the inspections and their associated corrective actions. Director Murphy did not respond to the letter. In August, Caerus filed an application for a hearing before the Commission. The operator requested that the Commission (1) issue a declaration of compliance for the stormwater management and interim reclamation activities at the three well sites or (2) approve a variance

[131] Staff's Response to Respondent's Motion to Modify Order Finding Violation, Docket No. 201100264, page 4.
[132] Interim reclamation requirements apply to disturbed areas affected by drilling or subsequent operations that are no longer needed for production. *See* Rule 1003.b.
[133] Parties' Stipulated Facts, Docket No. 210800131
[134] January 13, 2022 Commission Hearing.

from the erosion control and revegetation standards with regard to the corrective actions.[135] Staff opposed the motion and asked the Commission to deny the request and require Caerus to perform the corrective actions. On January 12 and 13, 2022, the Commission heard arguments from each of the parties.

Caerus argued that the sites had already been properly reclaimed and that operators should be able to rely on past inspections. A representative for the operator stated "operators are forced to hit a moving compliance target as the interpretation of the rule changes from year to year and from inspection to inspection." Caerus noted it uses holistic grazing practices (in addition to other measures) to "promote wildlife while still utilizing the energy resource." One witness for Caerus argued that completing additional reclamation work would actually be very harmful by adding additional environmental impacts such as dust and setting back revegetation progress.[136] Staff argued that no staff communication nor inspection reports ever specifically stated that the sites had met interim reclamation standards and that the current conditions do not meet COGCC requirements.

Commissioner questions and deliberations focused on the lack of communication between Caerus and staff. Caerus claim that when they request phone calls from staff, they never hear back. Staff stated that it is not staff's practice to respond to correspondence addressed to the Director by name.[137]

Commissioners also questioned the appropriateness of the hearing itself. Chairman Robbins stated "I believe that [the request for a declaration of compliance] is sort of an escape valve route around fully moving back and forth with staff and the enforcement process. [I] also do not believe that our rules contemplate sort of an operator bringing this sort of action to us."[138] Following discussion, the Commission unanimously decided to deny the request for a declaration of compliance.

However, Caerus did note that the surface owner of the sites at issue had waived compliance with the reclamation regulations. COGCC rules allow for the waiver of most reclamation requirements when the operator enters into an agreement with the surface owner and can demonstrate that such reclamation is not necessary to protect people, the environment, and

[135] Caerus Piceance LLC's Application for Declaration of Compliance or, in the Alternative, for Approval of Variance, Docket No. 210800131
[136] January 13, 2022 Commission Hearing.
[137] January 12, 2022 Commission Hearing.
[138] January 13, 2022 Commission Hearing.

wildlife. The rules do not, however, allow for the waiver of stormwater reclamation requirements.[139]

Following considerable back and forth about the proper action to take regarding the waiver, Chairman Robbins offered Commission counsel's service to draft a Commission order with input from the parties regarding the surface owner waiver issue. The draft order is set to be presented to the Commission for approval at its January 19, 2022 weekly meeting.[140]

Rulemakings: An Incomplete Grade

The COGCC conducted three rulemakings prior to its Mission Change: flowline disclosures and inspections; wellbore integrity testing; and changing some of its administrative procedures (the 500 series). It has initiated two rulemakings since Mission Change, and both are still pending as of the date of this report. The most recent rulemaking initiation is related to modifying the agency's wildlife high priority habitat maps but proposed revisions were only released on December 31, 2021.[141] The other rulemaking involves revisions to the agency's financial assurances rules.

SB 181 required the agency to undergo revisions to its financial assurance rules. That direction was prompted in part by legislative inquiry about the status of abandoned sites in the state and the state's potential liability to clean up those sites. Former COGCC Director Matt Lepore indicated in a 2017 letter to legislators that:

> The rate of new orphan wells is also accelerating each year with no sign of slowing down. Commission data show sixty-three potentially 'distressed operators' who each operate at least ten wells with at least 50% of their wells off-line, producing at one third the 'stripper well' rate, or delinquent for a required mechanical integrity test. Collectively, these operators own 3,998 wells across the state.[142]

The proceedings began with an informational docket and the agency seeking input on a series of questions related to financial assurances from any interested stakeholders. Commissioners

[139] *See* Rule 1001.c.
[140] January 13, 2022 Commission Hearing.
[141] High Priority Habitat rulemaking materials are available here.
[142] Letter from Director Matt Lepore to Senator Scott and Representative Rankin, October 4, 2017. The entire letter can be read here.

heard informational presentations from all of the stakeholders at the end of March and another presentation by industry representatives in May. COGCC staff released its first draft of rule revisions in June, turned the first draft into a "strawdog" draft and solicited comments on the strawdog draft in July, and released a second draft in October. The Commissioners heard presentations by all of the parties in November and released a third draft in December. Parties submitted comments to the third draft in early January, 2022 and the hearing is set to begin on January 20, 2022.

There are thirty-nine parties participating in the rulemaking, roughly categorized as environmental groups, industry, community organizations, and local governments. Environmental groups, including the Colorado Sierra Club as represented by Earthjustice, have argued the only way to ensure full compliance with the Act and protection of people, the environment, and wildlife is to require all operators to post a full-cost bond on all wells. Industry representatives have typically argued there is not an orphan well problem in Colorado, but even if there was it would be impossible to post full-cost bonds on every well and mandating such a requirement would cause operators to go out of business. Community groups have brought forth specific concerns relative to their communities and local governments typically want inactive wells plugged sooner so they can use the land for more productive purposes. Each party has filed several statements of their positions. WildEarth Guardians / 350.org filed a motion to temporarily halt all transfers of wells throughout the pendency of the rulemaking. The Commissioners unanimously denied that motion after a hearing on November 10, 2021 saying they did not believe they had the authority to pause all transfers during a period of time.[143]

An in-depth analysis of the three different rule drafts is beyond the scope of this paper, but in general they appear to show COGCC staff looking for ways to reduce risks of orphan wells pursuant to its SB 181 mandate while attempting to address industry's objections to virtually every provision.[144] So far, staff's attempts at finding a Goldilocks solution have been unsuccessful and the parties are still far apart on many of the major issues. The only clear implication for this report at this point seems to be the staff's extensive efforts to accommodate the industry during drafting and redrafting. While the agency welcomes the participation of non-industry groups in the rulemaking process, industry stakeholders have an inherent advantage through its superior

[143] November 10, 2021 Commissioners' hearing at 4:38:00. Video available here.
[144] It should be noted the industry does not speak with one voice or have the same objections at this rulemaking; in particular there is a split between smaller and larger producers.

resources and ability to plead its case through formal filings and informal means. This reality combined with the agency's continued inclination towards the industry puts non-industry groups at a disadvantage. Having said that, the rulemaking is ongoing and it is not possible to know what the Commissioners will ultimately decide.

Conclusion

We appreciate the opportunity to observe and summarize the actions of the COGCC since Mission Change for the Colorado Sierra Club. As noted in the introduction, we are very concerned about the direction of the agency and whether it will adhere to its new mission as mandated by SB 181. The agency's presumptive permitting philosophy, the application of its setback exceptions, and its uneven enforcement practices were all detailed in this study. We hope the identification of the issues and information surrounding those issues will be helpful to the Colorado Sierra Club. Part II of this report will be released subsequently and detail specific legal, legislative, and administrative recommendations designed to address the widening gap between SB 181 and its implementation.

Appendix A: OGDP Summaries

Alpha "Long View Farm" OGDP

The Long View Farm OGDP was the first OGDP the Commission considered after the Mission Change rules went into effect. It was an application for one additional well on an existing location that was not within 2000 feet of any other structure. There were only two public comments (one written, one oral) that included concerns about the public commenting process, alternative location analyses, wildlife, vegetation, and water source issues. Some Commissioner questions followed up on public comment concerns but, in a pattern we would continue to see in subsequent applications, most of those questions were not directly answered by COGCC staff or the applicant.

Name of company: Alpha Oil & Gas, LLC
Name of location(s): Long View Farm
Surface disturbance (including access road and pipeline corridors): 1.6 acres new disturbance
County of location: Lincoln
Local government approval: October 26, 2020
OGDP e-filing Docket number: 210300019
Scout card location: https://cogcc.state.co.us/cogisdb/OGDP/OGDPscout?OGDP=480170
Submission date: March 26, 2021
Approval date: September 1, 2021
Number of proposed new wells: 1 (although the 2B says 3) – expanding an existing location
Location within 2000 feet of:

- Non-residential buildings: 0
- High occupancy buildings: 0
- Residences: 0

Closest

- School / child care center: < 1 mile
- Waters of the state: 894 fet
- Water well:
- Wetland: 800 feet

High Priority Habitat within 1 mile? No
Disproportionately Impacted Community? No
Water Resource Information
Amount of water planned to be used

- From written comments: "According to the Form 2C, the well will require 144,125 barrels of fresh water, to be obtained from sur-face sources. The applicant's Water Plan, however, states that: "Alpha intends to procure this surface water from the Long View Farm surface owner and is still negotiating the details." So, no surface water source has been contracted for. The Water Plan also incongruously states that only 4,215 barrels of water will be required: this is less than 3% of the quantity of water that the Form 2C says will be need-ed. Which is correct?"
- From Director's Recommendation: "Response provided by Alpha: The proposed vertical well will utilize 4,215 barrels of water. This has been clarified in the updated Water Plan

during technical review. While Alpha is still exploring options with the landowner to secure a surface source of water on the property, it has determined as a secondary source to purchase water from the Town of Hugo. This has also been explained in the updated Water Plan."

Projected Emissions (pre-production in tons)

- NOX: 39.77
- VOCs: 4.45
- Methane: 2.12
- CO2: 137.56

Projected Emissions (production during one year in tons)

- NOX: 8.18
- VOCs: 6.66
- Methane: < 1
- CO2: 9,094.31

Projected Diesel Truck road miles:

- During construction: 2600
- During drilling: 25920
- During completions: 21840
- During interim reclamation: 3600
- During production: 187200

Highlights of public comments

- The cumulative impacts analysis does not but should consider affects to sensitive habitats and waters of the state.
- Water source information in the application is incomplete and/or contradictory.
- Notes the application's completeness determination despite the absence of an emergency spill response plan, a noise, lighting, or odor mitigation plan, and a transportation plan, and asks the question: "[i]s this going to be the new normal under the implementation of the Mission Change rules – that Noise, Light, and Odor Plans will not [be] required in rural areas?"
- There was not much time to review the Director's recommendation document before giving oral comment
- Operations planned during peak bird migration season
- No reclamation specifics
- Concerns about financial stability of this new Colorado company

Director's Recommendation highlights

- The Director does not have any wildlife or water resources concerns due to BMPs submitted by the applicant. CPW has not indicated any wildlife concerns either.
- The Director does not have concerns about waivers of certain plans, like noise and lighting mitigation, because the facility is very far away from any structure.
- An alternative location analysis was not required under COGCC Rule 304.b.2 due to the distance between the proposed operation and residences.

- Staff and applicant answers to public comment comments on page 6-12 of the Director's recommendation.

Commissioner hearing and deliberation summary:

- Approximately 30 minutes in duration
- In response to public comments regarding wildlife concerns, the applicant indicated it attempted to consult with Colorado Parks & Wildlife (CPW) but the CPW never made any comments about the proposal.
- Regarding cumulative impacts, Commissioner Nanjappa indicated she would be interested in trucking emissions information in future OGDPs, not just the number of truck trips.
- Commissioner Messner expressed concern about the lack of light and noise mitigation plans attached to the 2A, to which the applicant replied that it had incorporated BMPs in the area of noise and light mitigation and are not asking for any variances under Rule 502.
- Commissioner McGowan and Nanjappa asked questions regarding water sources for the operation but COGCC staff indicated it doesn't regulate the distribution of freshwater and answers from the applicant were inconclusive.
- Commissioner McGowan asked whether this would be an appropriate application to attach increased financial assurances but received a non-committal answer from the applicant.
- Commissioner Hackett asked about whether the applicant would use of low-odor drilling mud and the applicant indicated they would look into it.
- The OGDP was approved unanimously.

Link to September 1, 2021 COGCC hearing: https://youtu.be/eMg2jRMDNsU

- OGDP hearing began at 11:33
- Link to transcript of the Alpha hearing here.

Terra Rocky Mountain "Federal WMC 24-17" OGDP

Name of company: TEP Rocky Mountain, LLC
Name of location(s): Federal WMC 24-17
Surface disturbance (including access road and pipeline corridors):
County of location: Garfield
Local government approval: not required at the time of the OGDP
Federal government approval: granted January 14, 2021
OGDP e-filing Docket number: 210500082
Scout card location: https://cogcc.state.co.us/cogisdb/OGDP/OGDPscout?OGDP=480230
Submission date: May 13, 2021
Approval date: September 1, 2021
Number of proposed new wells: 17
Location within 2000 feet of:

- Non-residential buildings: 0
- High occupancy buildings: 0
- Residences: 0

Closest

- School / child care center: > 1 mile
- Waters of the state: 184 feet
- Water well: 5798 feet
- Wetland:

High Priority Habitat within 1 mile? Yes
Disproportionately Impacted Community? No
Water Resource Information
Amount of water planned to be used: 76,500 bbl surface water, 204,000 bbl recycled water
Projected Emissions (pre-production in tons)

- NOX: 97.71
- VOCs: 8.35
- Methane: 603.54
- CO2: 16,054.18

Projected Emissions (production per year in tons)

- NOX: 4.59
- VOCs: 34.03
- Methane: 223.3
- CO2: 9,330.45

Projected Diesel Truck road miles:

- During construction: 3,600
- During drilling: 31,752
- During completions: 18,528
- During interim reclamation: 360
- During production: 48

Highlights of public comments: three public comments, two of which mentioned wildlife concerns regarding critical elk habitat.

- This project would add to already intense oil and gas development in a high priority habitat.
- Any timing limitations should be part of the application and an enforceable part of the Commission's order
- Inadequate CPW consultation / CPW involvement in the process
- Process concerns regarding receiving the director's recommendation just two working days before the hearing and getting three minutes as a public commenter versus the applicant getting ten minutes.

Director's Recommendation highlights:

- Staff has no concerns about public health, safety, and welfare due to a lack of occupied buildings within one mile of the proposed pad.
- Staff believes the BMPs proposed by the applicant will be sufficient to protect wildlife and water sources.
- Staff and applicant answers to public comment comments on page 6-14 of the Director's recommendation.

Summary of Commissioner hearing and deliberation:

- Approximately 30 minutes in duration.
- Commissioner Messner asked the applicant to further explain its time limitation plans to account for wildlife. The applicant responds the time limitation is a condition of its federal lease. Commissioner Messner asks whether the applicant will be pursuing any exception processes to the federal timing limitations, to which the applicant replied in the negative.
- Commissioner McGowan asked about reseeding and reclamation plans, and the applicant indicated it would comply with BLM reclamation requirements.
- Commissioner McGowan brought up cumulative impacts and wanting to discuss emissions offset efforts. The applicant indicated emissions reduction is one of its priorities.
- Commissioner Messner stated his preference to complete noise and lighting mitigation plans as part of the OGDP rather than using a lesser impact exemption process.
- Commissioner Hackett noted TEP was a top-5 emitter in Colorado, with emissions coming from pneumatic controllers, fugitive emissions, and well liquids unloading, and wondered why its proposed operations in this application weren't electrified (while noting electrification isn't required by the COGCC rules). The applicant indicated electrification was limited by power line availability, particularly on federal lands.
- Commissioner Hackett further inquired why the proposed operation wasn't tankless, again even though it isn't required by current COGCC rules, and the applicant did not know the answer to that question but pledged to follow-up with an answer. Similarly, the applicant did not have an answer to Commissioner Hackett's questions about minimizing well liquid unloading emissions.
- The OGDP was approved unanimously.

Link to September 1, 2021 COGCC hearing

- OGDP hearing began at 47:20.
- Transcript available here.

Bayswater "Blehm" OGDP

Name of company: Bayswater Exploration & Production, LLC
Name of location(s): Blehm 18-I
New surface disturbance (including access road and pipeline corridors): 17.6 acres
County of location: Weld
Local government approval: January 27, 2021
OGDP e-filing Docket number: 210300017
Scout card location: https://cogcc.state.co.us/cogisdb/OGDP/OGDPscout?OGDP=480293
Submission date: March 4, 2021
Approval date: October 6, 2021
Number of proposed new wells: 24
Location within 2000 feet of:

- Non-residential buildings: 1 (323 feet) – is it just one building though?
- High occupancy buildings: 0
- Residences: 10 (the closest is 558 feet away). The boundaries of a residential subdivision are 1,350 feet away

Closest

- School / child care center: > 1 mile
- Waters of the state: 46 feet
- Water well: 1277 feet
- Wetland: 15 feet

High Priority Habitat within 1 mile: No
Disproportionately Impacted Community? Yes, based upon percentage of minority population
Water Resource Information: identified
Amount of water planned to be used: 103,720 bbl
Projected Emissions (pre-production in tons)

- NOX: 98.95
- VOCs: 52.43
- Methane: 8.5
- CO2: 11,382

Projected Emissions (production per year in tons)

- NOX: 15.2
- VOCs: 49.1
- Methane: .52
- CO2: 200

Projected Diesel Truck road miles:

- During construction: 5000
- During drilling: 300,000
- During completions: 500,000
- During interim reclamation: 5,000
- During production: 250,000

Summary of public comments (highlights):

- one written public comment was submitted from Weld County in support of the application. No commenters signed up to speak at the hearing.

Director's Recommendation highlights:

- Five potential locations were analyzed pursuant to Rule 304.b.2 (Alternate Location Analysis) due to the proposed pad's proximity to residences and wetlands.
- Extra outreach conducted by the operator due to the area's disproportionately impacted community status; no objections or public comments were filed by any nearby residents.
- Staff finds the BMPs attached to the operation provide "substantially equivalent" protections to the location being greater than 2000 feet from residences.

Summary of Commissioner hearing and deliberation:

- Approximately two hours in duration.
- Commissioner questions and deliberations resulted in conditions of approval to the Bayswater application. Substantive conditions included: (1) measuring the emissions reductions from the wells plugged and abandoned as part of the Blehm project; (2) requiring a chemical storage CPW waiver that wasn't already included in the application; (3) amending the Forms 2A and 2B to reflect the pad would be within 2000 feet of ten residences, not nine as originally submitted; (4) air monitoring between the pad and the nearest residence must stay in place for six months after the beginning of production.
- Of importance to several Commissioners was that no protests or negative public comment was lodged against this application despite the pad being closer than 2000 feet of ten residences. Commissioners credited the lack of protests to Bayswater's outreach and communications efforts.
- Commissioner Messner asked several questions trying to pinpoint how the best management practices outlined in the application were "substantially equivalent" to a 2000-foot setback. The applicant indicated Bayswater will use the same protective measures for Blehm as it would for any other project. Staff indicated they believed the protections were substantially equivalent but were vague about which best management practices led them to that conclusion.
- Commissioner Hackett indicated the best management practices adopted in this application are better than they were before Mission Change but asked about the possibility of adding a produced water pipeline and tankless operations. Commissioner Hackett also pointed out that operators citing the 2017 CDPHE health effects study should also cite the 2019 CDPHE health effects study for a fuller picture.

Link to 10.6.21 hearing

- OGDP hearing began at 1:35:00.
- Transcript available here.

PDC "Spinney" OGDP

Name of company: PDC Energy, Inc.
Name of location(s): Spinney
New surface disturbance (including access road and pipeline corridors): 17 acres
County of location: Weld
Local government approval: August 9, 2021
OGDP e-filing Docket number: 210500081
Scout card location: https://cogcc.state.co.us/cogisdb/OGDP/OGDPscout?OGDP=480337
Submission date: May 14, 2021
Approval date: October 6, 2021
Number of proposed new wells: 8
Location within 2000 feet of:

- Non-residential buildings: 1
- High occupancy buildings: 0
- Residences: 2 (Informed consent obtained for both residences.)

Closest

- Residence: 991 feet
- School / child care center: > 1 mile
- Waters of the state: 1132 feet
- Water well: 965 feet
- Wetland: 208 feet

High Priority Habitat within 1 mile? No
Disproportionately Impacted Community? No
Water Resource Information
Amount of water planned to be used: 1,912,000 bbl (0 recycled)
Projected Emissions (pre-production in tons)

- NOX: 160.55
- VOCs: 9.13
- Methane: 1.3
- CO2: 3,918.98

Projected Emissions (production per year in tons)

- NOX: 9.23
- VOCs: 9.13
- Methane: 6.49
- CO2: 6,448.36

Projected Diesel Truck road miles:

- During construction: 22,500
- During drilling: 62,555
- During completions: 84,304
- During interim reclamation: 22,500
- During production: 272,366

Highlights of public comments

- one written comment supportive of approval submitted by Weld County; no public comments during the OGDP hearing.

Director's Recommendation highlights:

- Alternative Location Analysis completed
- Informed consent obtained from two residences within 2000 feet of the proposed pad

Link to October 6, 2021 hearing: https://youtu.be/fiHNmw8_1bE

- OGDP hearing began at 3:28:49
- Transcript available here.

BNL Enterprises "Enterprise State 16-I" OGDP

Name of company: BNL Enterprises
Name of location(s): Enterprise State 16-I
New surface disturbance (including access road and pipeline corridors): 5.98 acres
County of location: Las Animas
Local government approval: yes, date unknown
OGDP e-filing Docket number: 210400038
Scout card location: https://cogcc.state.co.us/cogisdb/OGDP/OGDPscout?OGDP=480567
Submission date: April 25, 2021
Approval date: October 27, 2021
Number of proposed new wells: 1 vertical well to produce helium gas / no hydrocarbon production
Location within 2000 feet of:

- Non-residential buildings: 1
- High occupancy buildings: 0
- Residences: 0

Closest

- Residence: 2010 feet
- School / child care center: > 1 mile
- Waters of the state: 889 feet
- Water well:
- Downgradient wetland: > 1 mile

High Priority Habitat within 1 mile? No
Disproportionately Impacted Community? No
Water Resource Information
Amount of water planned to be used: 1500 bbl (0 recycled)
Projected Emissions (pre-production in tons)

- NOX: .03
- VOCs: .02
- Methane: 0
- CO2: 67.1

Projected Emissions (production per year in tons)

- NOX: 4.04
- VOCs: 26.43
- Methane: 3.0
- CO2: 6,123.1

Projected Diesel Truck road miles:

- During construction: 1000
- During drilling: 4600
- During Completions: 700
- During Interim Reclamation: 400
- During Production: 1200

Highlights of public comments

- no written or oral public comments were submitted.

Director's Recommendation highlights:

- The proposed operation will drill for helium gas rather than hydrocarbons at a relatively shallow depth. It will be located more than 2000 feet away from residences and does not require an alternative location analysis.

Summary of Commissioner hearing and deliberation:

- Approximately 45 minutes long.
- Discussion about financial assurances ensued because BNL is a new operator to Colorado.

Link to October 27, 2021 hearing: https://youtu.be/dVYJWAhuwgc

- OGDP hearing began at 14:02.
- Transcript available here.

Twin Bridges Resources "Red Rocks" OGDP

Name of company: Twin Bridges Resources, LLC
Name of location(s): Red Rocks
New surface disturbance (including access road and pipeline corridors): 5.35 acres
County of location: Las Animas
Local government approval: October 21, 2021
OGDP e-filing Docket number: 210500068
Scout card location: https://cogcc.state.co.us/cogisdb/OGDP/OGDPscout?OGDP=480749
Submission date: May 4, 2021
Approval date: November 17, 2021
Number of proposed new wells: 2 vertical wells to produce helium (two separate sites, one well each)
Location within 2000 feet of:

- Non-residential buildings: 0
- High occupancy buildings: 0
- Residences: 0

Closest

- Residence: > 1 mile
- School / child care center: > 1 mile
- Waters of the state: 505 feet
- Water well: > 1 mile
- Downgrade wetland: > 1 mile

High Priority Habitat within 1 mile? No
Disproportionately Impacted Community? No
Water Resource Information
Amount of water planned to be used: 200 bbl (0 recycled)
Projected Emissions (pre-production in tons)

- NOX: negligible
- VOCs: negligible
- Methane: negligible
- CO2: 43.2

Projected Emissions (production per year in tons)

- NOX: zero disclosed
- VOCs: zero disclosed
- Methane: zero disclosed
- CO2: zero disclosed

Projected Diesel Truck road miles:

- During construction: 156
- During drilling: 781
- During Completions: 781
- During Interim Reclamation: 156
- During Production: 3903

Highlights of public comments

- no written or oral public comments submitted.

Director's Recommendation highlights:

- The Director expressed no concerns regarding public health, safety, welfare, the environment or wildlife given the long distance the proposed sites were located from any buildings.

Summary of Commissioner hearing and deliberation:

- Approximately 25 minutes.
- Included discussion about helium wells versus traditional hydrocarbon wells.

Link to November 17, 2021 hearing: https://youtu.be/ZaQYvdz-MEg

- OGDP hearing began at 35:35.
- Transcript available here.

Kerr McGee "DB Farms" OGDP

Name of company: Kerr McGee
Name of location(s): DB Farms
New surface disturbance (including access road and pipeline corridors): 14.04 acres
County of location: Weld
Local government approval: March 30, 2021
OGDP e-filing Docket number: 210600094
Scout card location: https://cogcc.state.co.us/cogisdb/OGDP/OGDPscout?OGDP=480567
Submission date: June 11, 2021
Approval date: December 1, 2021
Number of proposed new wells: 12
Location within 2000 feet of:

- Non-residential buildings: 4
- High occupancy buildings: 0
- Residences: 4 (59 within 1 mile)

Closest

- Residence: 571 feet
- School / child care center: > 1 mile
- Waters of the state: 475
- Water well: 1118 feet
- Wetland: 1147 feet

High Priority Habitat within 1 mile? Yes
Disproportionately Impacted Community? No
Water Resource Information
Amount of water planned to be used: 3,054,647 bbl (<1% recycled)
Projected Emissions (pre-production in tons)

- NOX: 19.58
- VOCs: 2.55
- Methane: 1.84
- CO2: 3530.8

Projected Emissions (production per year in tons)

- NOX: 5.12
- VOCs: 8.03
- Methane: 2.53
- CO2: 6170.59

Projected Diesel Truck road miles:

- During construction: 106,716
- During drilling: 36,342
- During Completions: 105,624
- During Interim Reclamation: 46,877
- During Production: 41,303

Highlights of public comments:

- This facility would exacerbate the negative cumulative impacts of adding the proposed facility to an area that already has forty active wells within a mile of the location, the general inappropriateness of the location due to residences within 2000 feet, the applicant's redaction of the sources of its water for the operation, the inadequacies of the noise and odor plan, and the lack of inadequate financial assurance from the operator.
- Other negative comments submitted through public comment portal included concerns about further permitting of oil and gas facilities in the ozone non-attainment area and on climate impacts and that residences were too close to the proposed facility.
- Two comments from a mineral rights owner and the Weld County government were submitted in favor of the application through the public comment portal.
- Comments made at the hearing focused on the odor and noise mitigation plans, the already high level of ambient noise in the area even without the proposed new operation, the water source redactions, and the proximity of residences.

Director's Recommendation highlights:

- "Staff has determined that the ALA demonstrated that the proposed Location would present fewer potential adverse impacts than the alternatives analyzed. There are no preferable technically feasible alternative locations within or adjacent to the mineral development area that more successfully avoid potential impacts to human, environmental, and wildlife receptors."
- The Director's Recommendation found that BMPs proposed would provide substantially equivalent protections under 604.b but did not pinpoint which BMPs provided those substantially equivalent protections.
- "COGCC staff determined that the DB Farms permit application is in compliance with COGCC rules and that a variance from the rules is not required."

Summary of Commissioner hearing and deliberation:

- Approximately 2 hours long.
- Several questions and further discussion revolved around communication with the residents within 2000 feet of the proposed pad. During discussion, several Commissioners complimented the outreach but also indicated it could have been better.
- Two Commissioners brought up the fact that many residents nearby facilities have been surprised by the severity of the impacts once those operators actually started, regardless of what they were told ahead of time.
- There was discussion about the confidentiality of water sources, an issue brought up by one of the public commenters. Kerr McGee's attorney indicated the contract between the owner(s) of the water required confidentiality.
- Plugged and Abandoned wells – they are only plugging the ones within the current drilling spacing unit so there's no intercommunication.
- The Alternative Location Analysis process was praised; however, there was never any discussion about the possibility that none of the locations in the analysis were a sufficiently protective location.
- The Commissioner discussion indicated they believed the proposal offered "substantially equivalent" protections under Rule 604.b.4 but did not indicate which of those conditions

allowed the application to meet that standard. In addition, Chair Robbins indicated during final deliberation that "I, as one commissioner, understand that we are going to have locations that are closer than two thousand feet."

- Two Commissioners placed importance on the fact that DB Farms had already received approval from the local government; however, the fact that Weld County previously approved the application is not indicative that it analyzed health, safety, and welfare considerations in any meaningful way and does not acknowledge that Weld County standards are not as protective as the COGCC's.

Link to December 1, 2021 hearing: https://youtu.be/0Vvn4HrsTQ8

- OGDP hearing began at 1:13:54
- Transcript available here.

Appendix B: Cumulative Impacts for each OGDP

Pending OGDPs													
OGDP Name	**Operator**	**County**	**Total Estimated Water Usage* (bbls)**	**Pre-Production NOx Emissions (tons)**	**Pre-Production VOC emissions (tons)**	**Pre-Production Methane Emissions (tons)**	**Pre-Production CO2 Emissions (tons)**	**Production NOx Emissions (tons)**	**Production VOC emissions (tons**	**Production Methane Emissions (tons)**	**Production CO2 Emissions (tons)**	**Pre-Production Hazardous Air Pollutant Emissions (lbs.)**	**Annual Production Hazardous Air Pollutant Emissions (lbs)**
Nelson Family	Kerr McGee Oil & Gas	Weld	5,723,795	153.115	22.81	5.16	15,582.84	5.195	10.8857	14.7872	6,136.8033	7,713.8319	1,398.57
State Antelope B-2 Pad	Bonanza Creek	Weld	2,953,500	108.81096	7.641244	6.00752	12,371.17	8.54	34.398	40.13	10,306.796	0.30342047	1.409
Elder North	Mallard Exploration	Weld	3,507,000	59.42	3.812	2.61	3,216	0.31	38.95	4.726	6,419.49	84.158	2,908.108
Pitcher's Mound	TEP Rocky Mountain	Rio Blanco	-	-	-	-	-	11.9	34.21	208.38	4,302.27	-	5,622.38
Vaquero	St. Croix Operating	Washington	1,040	0.6167695	0.07744	0.18153	147.670741	0.21	4.21	2.59	258.18	12.223826	3.470657
2021 Cascade Creek Oil and Gas DP	Laramie Energy	Garfield	396,469	12.92	29.53	189.91	2,775.76	0.28	9.51	21.49	939.7	3690.78	1,524.21
Gadwall Pad	Mallard Exploration	Weld	4,008,000	59.42	3.812	2.61	3,216	0.31	38.95	4.726	6,419.49	84.158	2,908.108
Broe FD Pad	Great Western Operating	Weld	4,768,418	43.75	21.91	0.28	4,082.26	17.03	9.18	9.22	17,071.92	1,404.65	2,469.98
Harlequin South Pad	Mallard Exploration	Weld	4,008,000	59.42	3.812	2.61	3,216	0.31	38.95	4.726	6,419.49	84.1540732	2,908.108
Peanut Fed 3403	Verdad Resources	Weld	2,244,400	32.24044	5.43104	1.00592	6,324.09	14.884	34.0411	50.16897	8,547.985	1,518.742	1,969.349
Sammons Ranch	Vecta Oil & Gas	Las Animas	1,600	1.08	0.04	0.008	151.6	-	-	-	-	4.96	-
Longs Peak	Kerr McGee Oil & Gas	Weld	9,310,691	104.3	14.501	5.7433	29,641.573	14.115	14.8057	17.9776	16,987.8833	255.0219	3,259.76
Lone Tree North	Crestone Peak Resources Operating	Arapahoe	6,315,176	162	20.45	22.5	8,738.53	18.81	49.27	1,063.42	9,884.78	1,074.17	11,209
TOTAL			**43,238,089**	**797.09317**	**133.826724**	**238.62627**	**89,463.4937**	**91.894**	**317.3605**	**1,442.34177**	**93,694.7876**	**15,927.1531**	**36,182.4527**

**Does not include recycled water.*

Approved OGDPs												
OGDP Name	**Operator**	**Total Estimated Water Usage***	**Pre-Production NOx Emissions (tons)**	**Pre-Production VOCs Emissions (tons)**	**Pre-Production Methane Emissions (tons)**	**Pre-Production CO2 Emissions (tons)**	**Production NOx Emissions (tons)**	**Production VOCs Emissions (tons)**	**Production Methane Emissions (tons)**	**Production CO2 Emissions (tons)**	**Pre-Production Hazardous Air Pollutant Emissions (lbs.)**	**Annual Production Hazardous Air Pollutant Emissions (lbs.)**
DB Farms 40-12HZ	Kerr McGee Oil & Gas Onshore	3,039,602	19.59453	2.55253	1.84106	3,530.80	5.12453	2.232668	2.533935	6,170.6551	167.49	379.74
Red Rocks	Twin Bridges Resources	400	0.56	0.04	0.004	86.4	0	0	0	0	0.5	0
Enterprise State 16-1 (2962)	BNL Enterprise	1,500	0.03	0.12	0	67.16	4.04	26.43	3	6,123.1	2.16	157.52
Spinney 3N66W9 1-8	PDC Energy	1,912,000	160.853125	9.553979	1.3446115	4,611.8711	9.2541073	8.9924637	6.5381001	6,448.39303	189.01103	1,703.12674
Blehm 18-I Pad	Bayswater Exploration & Production	10,372,000	98.95	52.43	8.06	11,384	15.2	49.1	7.52	208	4.17	5520
Federal WMC 24-17	TEP Rocky Mountain	76,500	97.71	8.35	603.54	16054.18	4.59	34.03	223.3	9,330.45	1,758.12	3325
Long View Farm	Alpha Oil & Gas	4,215	39.77	4.45	2.12762	137.5685	8.283014	6.717055	0.841473	9,094.32843	5.394	4.903182
TOTAL		**15,406,217**	**417.467656**	**77.49651**	**616.91729**	**35,869.98**	**46.491651**	**127.50219**	**243.73351**	**37,374.9266**	**2,126.845**	**11,090.2899**

**Does not include recycled water*

Appendix C: Complaints filed with CDPHE

Health-Related Oil & Gas Concerns Reported to CDPHE (2021)[145]						
City of Residence	**Date Submitted**	**Exposure City**	**Exposure County**	**Exposure Zip Code**	**Affected Individual**	**Symptom(s)**
THORNTON	1/8/2021 15:28	UNSURE	Adams	99999	Reporter	Difficulty Breathing
THORNTON	1/8/2021 15:28	UNSURE	Adams	99999	Spouse	Asthma
LONGMONT	1/21/2021 19:09	LONGMONT	Boulder	80501	Reporter	Headaches
LONGMONT	1/21/2021 19:09	LONGMONT	Boulder	80501	Reporter	Nosebleeds
ERIE	1/28/2021 0:00	ERIE	Weld	80516	Reporter	Irritation - Lung
ERIE	2/1/2021 0:00	ERIE	Weld	80516	Reporter	Dizziness
ERIE	2/1/2021 0:00	ERIE	Weld	80516	Reporter	Headaches
ERIE	2/1/2021 0:00	ERIE	Weld	80516	Reporter	Irritation - Eye
ERIE	2/1/2021 0:00	ERIE	Weld	80516	Reporter	Irritation - Nasal
ERIE	2/3/2021 21:46	ERIE	Weld	80516	Child	Headaches
ERIE	2/3/2021 21:46	ERIE	Weld	80516	Child	Headaches
ERIE	2/3/2021 21:46	ERIE	Weld	80516	Reporter	Headaches
LONGMONT	2/12/2021 7:40	LONGMONT	Weld	80504	Reporter	Headaches
LONGMONT	2/12/2021 8:43	LONGMONT	Weld	80504	Reporter	Headaches
LONGMONT	2/12/2021 8:43	LONGMONT	Weld	80504	Spouse	Headaches
ERIE	2/13/2021 8:13	ERIE	Weld	80516	Child	Runny nose
ERIE	2/13/2021 8:13	ERIE	Weld	80516	Reporter	Irritation - Throat
LONGMONT	2/16/2021 0:00	LONGMONT	Weld	80504	Reporter	Headaches
LONGMONT	2/16/2021 11:58	LONGMONT	Weld	80504	Reporter	Headaches
LONGMONT	2/16/2021 16:13	LONGMONT	Weld	80504	Reporter	Headaches
ERIE	2/16/2021 22:30	ERIE	Weld	80516	Child	Headaches
ERIE	2/16/2021 22:30	ERIE	Weld	80516	Child	Nausea
ERIE	2/16/2021 22:30	ERIE	Weld	80516	Reporter	Irritation - Throat
ERIE	2/16/2021 22:30	ERIE	Weld	80516	Sibling	Cough
ERIE	2/16/2021 23:37	ERIE	Weld	80516	Reporter	Headaches

[145] Health-related concerns submitted via CDPHE's "Oil and Gas and Your Health" reporting form (https://oag-health.colorado.gov/). Other complaints not listed here may have been submitted via email or phone. All names and identifiable information were redacted by CDPHE.

ERIE	2/16/2021 23:37	ERIE	Weld	80516	Reporter	Ringing in ears/hearing loss
ERIE	2/17/2021 12:01	ERIE	Weld	80516	Reporter	Headaches
ERIE	2/17/2021 12:01	ERIE	Weld	80516	Reporter	Nosebleeds
BROOMFIELD	2/17/2021 13:39	BROOMFIELD	Broomfield	80023	Child	Nosebleeds
BROOMFIELD	2/17/2021 13:39	BROOMFIELD	Broomfield	80023	Child	Nosebleeds
BROOMFIELD	2/17/2021 13:39	BROOMFIELD	Broomfield	80023	Reporter	Nosebleeds
ERIE	2/21/2021 7:43	ERIE	Weld	80516	Reporter	Irritation - Eye
LONGMONT	2/21/2021 21:15	LONGMONT	Weld	80504	Reporter	Headaches
FT LUPTON	2/22/2021 5:57	FT LUPTON	Weld	80621	Reporter	Heart irregularities
FORT COLLINS	2/22/2021 19:43	FORT COLLINS	Larimer	80524	Reporter	Headaches
FORT COLLINS	2/23/2021 18:25	FORT COLLINS	Larimer	80524	Reporter	Difficulty sleeping
ERIE	2/24/2021 12:27	ERIE	Weld	80516	Reporter	Headaches
ERIE	2/24/2021 12:27	ERIE	Weld	80516	Reporter	Irritation - Eye
ERIE	2/24/2021 12:27	ERIE	Weld	80516	Reporter	Nosebleeds
LONGMONT	2/24/2021 14:25	LONGMONT	Weld	80504	Reporter	Headaches
BROOMFIELD	2/24/2021 16:51	BROOMFIELD	Broomfield	0	Reporter	Nosebleeds
ERIE	2/24/2021 20:50	ERIE	Weld	80516	Child	Asthma
ERIE	2/24/2021 20:50	ERIE	Weld	80516	Child	Headaches
ERIE	2/24/2021 20:50	ERIE	Weld	80516	Child	Headaches
ERIE	2/24/2021 20:50	ERIE	Weld	80516	Child	Nosebleeds
ERIE	2/24/2021 20:50	ERIE	Weld	80516	Reporter	Headaches
ERIE	2/24/2021 20:50	ERIE	Weld	80516	Reporter	Irritation - Eye
ERIE	2/25/2021 19:28	ERIE	Weld	80516	Reporter	Nosebleeds
ERIE	2/27/2021 0:00	ERIE	Weld	80516	Reporter	Difficulty sleeping
FORT LUPTON	2/28/2021 0:00	FORT LUPTON	Weld	80621	Reporter	Difficulty sleeping
FORT LUPTON	2/28/2021 0:00	FORT LUPTON	Weld	80621	Reporter	Headaches
ERIE	3/1/2021 19:49	ERIE	Weld	80516	Reporter	Shortness of breath
ERIE	3/1/2021 20:34	ERIE	Weld	80516	Reporter	Anxiety/stress
ERIE	3/1/2021 20:34	ERIE	Weld	80516	Reporter	Headaches
ERIE	3/1/2021 20:34	ERIE	Weld	80516	Reporter	Nosebleeds
ERIE	3/1/2021 20:34	ERIE	Weld	80516	Spouse	Cough
ERIE	3/2/2021 10:27	ERIE	Weld	80516	Reporter	Asthma
ERIE	3/2/2021 10:27	ERIE	Weld	80516	Reporter	Congestion - Nasal

ERIE	3/2/2021 10:27	ERIE	Weld	80516	Reporter	Difficulty Breathing
ERIE	3/2/2021 10:27	ERIE	Weld	80516	Reporter	Irritation - Eye
ERIE	3/2/2021 10:27	ERIE	Weld	80516	Reporter	Irritation - Nasal
ERIE	3/2/2021 10:27	ERIE	Weld	80516	Reporter	Irritation - Throat
ERIE	3/2/2021 10:27	ERIE	Weld	80516	Reporter	Runny nose
ERIE	3/2/2021 10:27	ERIE	Weld	80516	Reporter	Shortness of breath
THORNTON	3/2/2021 15:31	THORNTON	Adams	80602	Reporter	Headaches
ERIE	3/2/2021 21:21	ERIE	Weld	80516	Reporter	Dizziness
THORNTON	3/3/2021 10:22	THORNTON	Adams	80602	Reporter	Difficulty sleeping
THORNTON	3/3/2021 10:22	THORNTON	Adams	80602	Reporter	Headaches
THORNTON	3/3/2021 10:22	THORNTON	Adams	80602	Reporter	Muscle cramps/pain
THORNTON	3/5/2021 0:00	THORNTON	Adams	80602	Reporter	Headaches
THORNTON	3/5/2021 0:00	THORNTON	Adams	80602	Reporter	Nausea
BRIGHTON	3/5/2021 19:47	THORNTON	Adams	80603	Reporter	Headaches
ERIE	3/8/2021 10:12	ERIE	Weld	80516	Child	Cough
ERIE	3/8/2021 10:12	ERIE	Weld	80516	Reporter	Anxiety/stress
ERIE	3/8/2021 10:12	ERIE	Weld	80516	Reporter	Cough
ERIE	3/8/2021 10:12	ERIE	Weld	80516	Reporter	Headaches
ERIE	3/8/2021 10:12	ERIE	Weld	80516	Reporter	Irritation - Throat
ERIE	3/8/2021 10:12	ERIE	Weld	80516	Spouse	Headaches
THORNTON	3/8/2021 10:48	THORNTON	Adams	80602	Child	Congestion - Nasal
THORNTON	3/8/2021 10:48	THORNTON	Adams	80602	Reporter	Congestion - Nasal
THORNTON	3/8/2021 10:48	THORNTON	Adams	80602	Reporter	Headaches
THORNTON	3/8/2021 10:48	THORNTON	Adams	80602	Reporter	Irritation - Eye
ERIE	3/9/2021 19:20	ERIE	Weld	80516	Reporter	Congestion - Nasal
ERIE	3/9/2021 19:20	ERIE	Weld	80516	Reporter	Difficulty sleeping
ERIE	3/9/2021 19:20	ERIE	Weld	80516	Reporter	Headaches
ERIE	3/29/2021 20:37	ERIE	Weld	80516	Reporter	Difficulty Breathing
ERIE	3/29/2021 20:37	ERIE	Weld	80516	Reporter	Miscarriage
ERIE	3/29/2021 20:37	ERIE	Weld	80516	Reporter	Nosebleeds
ERIE	3/29/2021 20:37	ERIE	Weld	80516	Reporter	Shortness of breath
ERIE	3/29/2021 20:44	ERIE	Weld	80516	Reporter	Cough
ERIE	3/29/2021 20:44	ERIE	Weld	80516	Reporter	Dizziness

ERIE	3/29/2021 20:44	ERIE	Weld	80516	Reporter	Headaches
ERIE	3/29/2021 20:44	ERIE	Weld	80516	Reporter	Nosebleeds
ERIE	3/30/2021 20:17	ERIE	Weld	80516	Reporter	Headaches
ERIE	3/30/2021 20:17	ERIE	Weld	80516	Reporter	Irritation - Nasal
ERIE	3/30/2021 20:17	ERIE	Weld	80516	Reporter	Nosebleeds
ERIE	3/30/2021 20:17	ERIE	Weld	80516	Spouse	Difficulty sleeping
ERIE	3/31/2021 7:41	ERIE	Weld	80516	Reporter	Headaches
LONGMONT	5/7/2021 9:37	LONGMONT	Weld	80504	Reporter	Headaches
BRIGHTON	6/23/2021 11:11	BRIGHTON	Adams	80601	Reporter	Anxiety/stress
BRIGHTON	6/23/2021 11:11	BRIGHTON	Adams	80601	Reporter	Autoimmune problems
BRIGHTON	6/23/2021 11:11	BRIGHTON	Adams	80601	Reporter	Difficulty concentrating/clouding
LONGMONT	7/28/2021 0:00	LONGMONT	Boulder	80504	Reporter	Difficulty Breathing
LONGMONT	7/28/2021 0:00	LONGMONT	Boulder	80504	Reporter	Headaches
LONGMONT	7/28/2021 0:00	LONGMONT	Boulder	80504	Reporter	Heart irregularities
LONGMONT	8/6/2021 17:53	LONGMONT	Boulder	80504	Reporter	Lack of energy/fatigue
LONGMONT	8/6/2021 17:53	LONGMONT	Boulder	80504	Reporter	Nausea
LONGMONT	8/6/2021 22:25	LONGMONT	Weld	80504	Reporter	Anxiety/stress
LONGMONT	8/6/2021 22:25	LONGMONT	Weld	80504	Spouse	Anxiety/stress
BRIGHTON	8/7/2021 16:29	BRIGHTON	Adams	80603	Reporter	Headaches
BRIGHTON	8/8/2021 9:34	BRIGHTON	Adams	80603	Reporter	Dizziness
LONGMONT	8/17/2021 0:00	LONGMONT	Boulder	800504	Reporter	Headaches
HUDSON	8/26/2021 0:00	HUDSON	Weld	80642	Reporter	Cancer
HUDSON	8/26/2021 0:00	HUDSON	Weld	80642	Reporter	Difficulty Breathing
LONGMONT	9/11/2021 20:25	LONGMONT	Weld	80504	Reporter	Diarrhea
LONGMONT	9/11/2021 20:25	LONGMONT	Weld	80504	Spouse	Diarrhea
FORT COLLINS	9/15/2021 11:01	FORT COLLINS	Larimer	80524	Reporter	Headaches
LONGMONT	9/15/2021 14:26	LONGMONT	Boulder	80501	Reporter	Dizziness
LONGMONT	9/15/2021 14:26	LONGMONT	Boulder	80501	Reporter	Headaches
ERIE	9/26/2021 8:06	ERIE	Weld	80516	Reporter	Asthma
ERIE	9/26/2021 8:06	ERIE	Weld	80516	Reporter	Irritation - Eye
LONGMONT	9/27/2021 0:00	LONGMONT	Boulder	80504	Reporter	Headaches
LONGMONT	9/27/2021 0:00	LONGMONT	Boulder	80504	Reporter	Vomiting
WINDSOR	9/29/2021 17:05	WINDSOR	Weld	80550	Reporter	Difficulty sleeping

WINDSOR	9/29/2021 17:08	WINDSOR	Weld	80550	Reporter	Difficulty sleeping
LONGMONT	9/29/2021 21:31	LONGMONT	Weld	80504	Reporter	Anxiety/stress
LONGMONT	10/5/2021 20:23	LONGMONT	Weld	80504	Reporter	Headaches
BROOMFIELD	11/6/2021 0:00	BROOMFIELD	Broomfield	80023	Reporter	Congestion - Nasal
BROOMFIELD	11/6/2021 0:00	BROOMFIELD	Broomfield	80023	Reporter	Dizziness
BROOMFIELD	11/6/2021 0:00	BROOMFIELD	Broomfield	80023	Spouse	Congestion - Nasal
LONGMONT	-	LONGMONT	Weld	80504	Reporter	Difficulty sleeping
LONGMONT	12/16/2021 0:00	LONGMONT	Boulder	80503	Reporter	Headaches
ELIZABETH	12/20/2021 0:00	ELIZABETH	Elbert	80107	Reporter	Asthma

Appendix D: About the Authors

Michael Foote is the principal attorney at Foote Law Firm, LLC and practices environmental and energy law, including matters in front of the Colorado Oil and Gas Conservation Commission, the Colorado Air Quality Control Commission, and the Colorado Public Utilities Commission. He was a State Representative from 2012-2018 and a State Senator from 2018-2020 where he focused on environmental and energy policy, and was one of the four prime sponsors of Senate Bill 19-181. He was also a prosecutor for fifteen years in two Colorado jurisdictions.

Casey Morris is a third-year law student at the University of Denver. Her experience includes representation of community groups in oil and gas matters as a member of the University of Denver Environmental Law Clinic and a clerkship with the U.S. Environmental Protection Agency. She has also performed domestic and international energy transition policy analysis for Sustainable Development Strategies Group where she served as a Squire Patton Boggs Public Policy Fellow.