



January 5, 2026

Stephanie Garcia Richard
Commissioner of Public Lands
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Submitted via email

Re: Public Comment on NM State Land Office draft bonding rules

Dear Commissioner Garcia Richard:

The Center for Biological Diversity appreciates the opportunity to provide these comments concerning the New Mexico State Land Office's (Land Office) proposed modifications to its bonding rules at NMAC § 19.2.100.23. We thank the Land Office for its commitment to holding operators accountable and preserving the health and integrity of State lands for future generations of New Mexicans.

Currently, the Land Office's outdated bonding regime fails to adequately protect the Land Office and the State from the expensive consequences of industry's failure to clean up its own messes.¹ A study commissioned by the Land Office in 2021 highlighted the immense disparity between the present oil and gas cleanup liabilities in New Mexico and the amount of financial assurance securing those obligations. The report identified a more than \$3 billion shortfall just concerning well plugging and remediation costs on State Trust lands, not including an additional nearly \$2 billion shortfall to clean up other oil and gas infrastructure on trust lands.² Since that report, oil

¹ As of Dec. 29, 2025, there were 3,352 noncompliant inactive wells in New Mexico documented by the Oil Conservation Division. *See also* NM Legis. Finance Comm., Policy Spotlight: Orphaned Wells ["NM Policy Spotlight"] (June 2025) (outlining the issue of inactive wells and State liability in New Mexico), <https://www.nmlegis.gov/handouts/ALFC%20062425%20Item%204%20Policy%20Spotlight%20Orphaned%20Wells.pdf>.

² An Analysis of the Adequacy of Financial Assurance Requirements for Oil and Gas Infrastructure Located on State Trust and Private Lands in New Mexico, Center for Applied Research, Inc. (April 2021), accessible online at: <https://www.nmstatelands.org/wp-content/uploads/2021/05/NM-Assurance-Assessment-May-FINAL.pdf>.

and gas production has nearly doubled, only further expanding this gap and the State of New Mexico has already spent tens of millions of dollars in public funds cleaning up when industry had a legal obligation to do so.³

This bonding disparity risks public health, public funds, and public lands and the present rulemaking provides an important opportunity to modernize bonding requirements to equip the Land Office with the proper tools to mitigate these risks.

Our proposed modifications to the draft rule are intended to: 1) maximize enforcement, public participation, and accountability; 2) minimize potential liability for the State; and 3) create tools for the Land Office to effectively identify and weigh risks associated with bonding. We have outlined our recommendations in this letter and have attached a redline that incorporates these changes as Appendix 1.

I. The rule should include robust enforcement language and additional public participation and accountability measures.

- a. State Land Commissioner discretion should include limits and accountability.*
(Incorporated at proposed NMAC §§ 19.2.100.23.B.1; B.2; B.3; and B.5)

To ensure more concrete and lasting protection, we suggest limiting the overbroad discretion in the proposed rule as well as increasing accountability and transparency through additional public notice and participation. The Land Office has identified important risk factors that increase potential harm to State lands by lessees' oil and gas operations in proposed NMAC § 19.2.100.23.B.1 and B.2. If any of these risk factors are present, heightening the bonding requirements for a given lease or lessee should be mandatory. The Commissioner would retain the discretion to determine the appropriate increase. Any decision by the Commissioner requiring higher bonding should be made available to the public along with the lessee.

As proposed, NMAC § 19.2.100.23.B.3 gives the Commissioner sole discretion to defer heightened bonding requirements, without concrete limits on subsequent extensions. Parameters should be added, including a cap on the period for which deferments of heightened bonding may be granted. Transparency should also be increased by including public notice in all cases in which the Commissioner proposes to defer heightened bond requirements, accompanied by an order supplying the Commissioner's reasoning. Additionally, public notice and a public comment period should be provided if the Commissioner intends to extend a deferment past an established threshold, such as three months.

- b. Claims on bonds should enhance, not undermine, enforcement efforts.*
(Incorporated at proposed NMAC §§ 19.2.100.23.I.2 and I.3)

Both proposed NMAC § 19.2.100.23.I.1 and proposed NMAC § 19.2.100.23.I.2 should be removed to maintain the integrity of the bonding rule and allow the Land Office to effectively enforce claims against the financial assurance of noncompliant lessees.

³ NM Policy Spotlight, *supra* note 1, at 4–5.

Proposed NMAC § 19.2.100.23.I.2 provides an opportunity for a lessee to retain a lease even after the lessee has forfeited its financial assurance due to continued noncompliance. In instances in which a bond or other financial assurance has already been called and paid to the Commissioner, it is highly unlikely a lessee will be able to obtain another form of financial assurance. This provision exposes the Land Office to unnecessary risk and weakens enforcement.

Similarly, proposed NMAC § 19.2.100.23.I.3 protects a noncompliant lessee against whom the Land Office has initiated a claim to forfeit the lessee's financial assurance when the surety or issuing bank fails to respond to such a request. This subsection weakens the deterrent value of financial assurance requirements across the board by suggesting that alternative options for securing financial assurance exist after significant noncompliance that results in a claim to forfeit that financial assurance. A noncompliant lessee with an outstanding claim against their financial assurance will not be able to secure financial assurance from another legitimate source and the Land Office risks undercutting key enforcement measures by including this provision.

- c. Public participation, transparency, and accountability mechanisms should be strengthened.*
(Incorporated at proposed NMAC §§ 19.2.100.23.D.2; E.2; E.3; and E.4)

Avenues for public participation and access to information provide important accountability mechanisms to assist the Land Office in enforcing an effective bonding regime. The annual reports mandated by proposed NMAC § 19.2.100.23.D.1 will contain information and data that is important to the public. This provision should require the Land Office to maintain a publicly accessible database on its website where these reports can be accessed by the public and other interested parties.

Proposed NMAC § 19.2.100.23.E.2 should also be strengthened to allow the Commissioner to undertake a review of bonding adequacy that is at least as broad as the review for heightened bonding in proposed NMAC § 19.2.100.23.B. The public should have the ability to initiate a Land Office inquiry as to the need for bonding adequacy review before the 5-year minimum period elapses. This will be especially useful when a lessee has had compliance or financial issues in off-lease operations in New Mexico or other jurisdictions of which the Land Office may not be aware. The Land Office should commit to publishing a simple report at the end of each year listing all active leases, the lessee for each, the year of the lessee's most recent bond adequacy review, and the Land Office's determination on bond adequacy during that review. Bond adequacy reviews would be strengthened by providing the public with notice and an opportunity to comment, providing the Commissioner with additional information to inform the review.

II. The rule should mitigate the potential liability exposure of the State caused by operators that do not properly plug and remediate well sites.

- a. A \$150,000 bond is inadequate to protect the State*
(Incorporated at proposed NMAC §§ 19.2.100.23.A; B.1.a.i; and C)

While the proposed minimum bond of \$150,000 is a significant improvement from the current \$10,000 minimum bond, the proposed amount is still insufficient to protect the State's interests concerning potential decommissioning costs for wells on State lands. For one, Land Office bonds are lease-specific and not well-specific. Thus, one lease—protected by one bond—may have multiple wells on it. If this is the case, any potential harm caused to State lands by these wells could only be offset by a single bond that, as outlined below, is likely not enough to properly plug and remediate even a single well site.

The average cost to the Oil Conservation Division (the Division) in recent years for plugging a single well was roughly \$160,000, though the costs for site remediation at that same well can balloon into the millions of dollars.⁴ Further, the likelihood of expensive complications only increases when a well sits inactive and unplugged for long periods.⁵ Even if financial assurance of \$150,000 could compensate the State for plugging and remediation associated with a single well, its protective value decreases with each additional well on a given lease.

The minimum bond per lease of State lands for oil or gas extraction should be adjusted upward for each well on a lease. Using the Land Office's currently chosen \$150,000 as a starting point, this minimum number should increase directly in proportion to the number of unplugged wells present. In other words, financial assurance for a lease should provide at least \$150,000 for each well present on the lease. Accordingly, the Land Office's special "bulk bonding" rates should be modified to provide discounts to lessees with multiple leases in the form of percentage decreases from the per-well bonding outlined above, instead of providing a set minimum amount per lease.

Additionally, heightened bonding should be implemented for any lease containing a well that has not produced for two years or longer and the current exemption for wells that have been in approved temporary abandonment for longer than two years should be removed.⁶ Two years of inactivity is already a statutory and regulatory threshold at which an individual well is subject to increased bonding in the Oil and Gas Act and the Oil Conservation Division (Division) rules.⁷ This recognized threshold should be incorporated into the Land Office bonding rule.

b. *An annual production of 100 BOE is too low to address the risk posed by low-producing wells or to protect the State.*

(Incorporated at proposed NMAC §§ 19.2.100.23.B.1.b)

The proposed rule contains important language allowing for heightened bond requirements if a well on a lease has low hydrocarbon production. As currently drafted, the threshold for low production is 100 barrels of oil equivalent (BOE) during the past year, which is far too low.⁸ The production number must be high enough to meaningfully incorporate the risks associated with low-producing wells, which are much closer to decommissioning costs becoming due and thus at

⁴ EMNRD Annual Report 2024, Oil Conservation Division 58-59 (2024), https://www.emnrd.nm.gov/officeofsecretary/wp-content/uploads/sites/2/emnrd_annual_report_2024.pdf.

⁵ NM Policy Spotlight, *supra* note 3, at 12-14.

⁶ Proposed NMAC § 19.2.100.23.B.1.a.i.

⁷ NMSA § 70-2-14(A); NMAC § 19.15.8.9(D).

⁸ Proposed NMAC § 19.2.100.23.B.1.b.

greater risk of being orphaned. A recent report published by the New Mexico Legislative Finance Committee noted that, while there are roughly 3,300 wells that are currently inactive by their count, there are nearly 38,000 more wells that have low enough production to risk becoming inactive in the near future and becoming State liabilities.⁹ To protect State land leased for oil or gas production, the Land Office must have the tools to timely flag such risk-laden wells and proactively manage this risk.

The recent rulemaking before the Oil Conservation Commission addressed the risks of low-producing wells, referred to as “marginal wells,” and set the production threshold for such wells at 1,000 BOE in the prior year.¹⁰ The LFC report outlined similar risks of such wells and noted that industry usually plugs wells once they produce roughly 750 BOE or less annually, a strong sign that wells producing less than this are uneconomic.¹¹ Notably, both of these numbers are much higher than the 100 BOE annual production currently proposed by this rule.

The proposed bonding rule should be strengthened by using a higher production threshold of at least 1,000 BOE annually to trigger the potential for heightened bonding. The Commissioner would still have discretion to decide what level of heightened bonding is appropriate in each instance but would have an important tool available to adequately mitigate risks posed by such wells.

c. Alternative financial assurance instruments expose the State to unnecessary risk.
(Incorporated at proposed NMAC §§ 19.2.100.23.F.3)

Due to the integral role financial assurance plays in protecting State lands and the public interest, the rule must provide clear guidance as to what is expected of such instruments. Certain methods, such as self-insurance, are inherently risky. We encourage the Land Office to limit its risk exposure by eliminating the use of alternative forms of financial assurance. To the extent that the Land Office allows alternative forms of financial assurance, the rule should explicitly identify the alternative forms of financial assurance that are acceptable to ensure forms such as self-insurance are not considered. The rule should explicitly identify requirements of mandatory minimum coverage. For example, any alternative form of financial assurance must provide at least as much coverage as would be provided by traditional forms of financial assurance.

III. The rule should provide the Land Office with the tools required to properly access the risks posed by the oil and gas industry.

a. More robust screening of lessees would further protect the Land Office from bad actors.
(Incorporated at proposed NMAC §§ 19.2.100.23.B.2.a; B.4; D.1.d; D.1.e; and D.1.h)

⁹ NM Policy Spotlight, *supra* note 5, at 20.

¹⁰ E.g., *ITMO Proposed Amendments to 19.15.2, 19.15.5, 19.15.8, 19.15.9, and 19.15.25 NMAC*, Case No. 24683, Direct Testimony of Dwayne Purvis, P.E. 32 (NM Oil Conservation Comm’n Aug. 2025).

¹¹ NM Policy Spotlight at 21.

Offloading liabilities before they come due is a well-known strategy employed by the oil and gas industry.¹² This often takes the shape of a larger, more capitalized entity transferring its liabilities to smaller companies that frequently lack sufficient capital to properly meet plugging and remediation obligations. This is by design, it is not uncommon, and it is important that the Land Office have the tools to protect its interests in such instances.

The proposed rule allows the Land Office to examine a lessee's compliance history when considering heightened bonding. However, the language uses the term "lessee."¹³ Due to the nature of offloading liabilities, it is not uncommon for the same individuals or business entities to reenter a jurisdiction under a different name after being involved in serious compliance issues or bankruptcy proceedings that risk liabilities being offloaded onto the public. For example, a company named Remnant filed for bankruptcy in 2019 after years of significant setbacks in maintaining its wells. Despite the profits that reached its executives and their acquaintances, little capital was available to settle the company's outstanding debts during bankruptcy, and the company was eventually liquidated. However, in that sale many of Remnant's assets were purchased by a company called Acacia, run by some of the very same executives who led Remnant, for pennies on the dollar. Acacia itself has since filed for bankruptcy after significant compliance violations and now faces charges by the New Mexico Attorney General's Office.¹⁴

This being the case, the Commissioner's screening of a lessee for purposes of heightened bond requirements should include the compliance history of the individuals closely associated with the lessee, including officers, subsidiaries, investors, or other individuals in positions of power. Further, it is important not to limit this review to New Mexico. For example, it would be important to know about an operator with a history of noncompliance in Texas that went bankrupt, restructured with largely the same officers, and applied for a lease in New Mexico to prevent another situation like that involving Remnant and Acacia.

- b. Annual lessee certifications should be required to provide an opportunity for the Land Office to obtain additional information to inform bonding decisions.*
(Incorporated at proposed NMAC §§ 19.2.100.23.D.1.d; D.1.e; and D.1.h)

Bonding decisions made by the Land Office will be more effective if more information is available when making these decisions. As proposed, 19.2.100.23.D.1 provides the Land Office with information concerning a lessee's operations on the lease. However, these provisions should also provide the Land Office with compliance information concerning the lessee's operations off the lease. This information is relevant to the Land Office's deliberation as to any heightened bonding requirements necessary to counteract the risk on a given lease.

¹² Olalde, Mark, *The American Oil Industry's Playbook, Illustrated: How Drillers Offload Costly Cleanup Onto the Public*, ProPublica ["Industry Playbook"] (Dec. 30, 2024), <https://www.propublica.org/article/oil-orphan-wells-cleanup-playbook-siana-tom-ragsdale>; Olalde, Mark & Nick Bowlin, *The Rising Cost of the Oil Industry's Slow Death*, Capital & Main ["Cost of Industry's Slow Death"] (Feb. 22, 2024), <https://capitalandmain.com/the-rising-cost-of-the-oil-industrys-slow-death>.

¹³ *E.g.*, Proposed NMAC § 19.2.100.23.B.

¹⁴ *E.g.*, *State of New Mexico, et al. v. Acacia Operating Co., et al.*, No. D-101-CV-2025-03283, Compl., (NM Dist. Ct. Dec. 23, 2025); *Cost of Industry's Slow Death*, *supra* note 13; *In re Acacia Operating LLC*, Case No. 24-70194 (Bankr. W.D. Tex. 2024).

An operator's broader compliance and the nature of certain noncompliance, as well as any resulting enforcement, is relevant to the rest of that operator's operations. The Land Office should have access to this data when making bonding decisions.

- c. The Land Office should have access to detailed retirement planning documents that include accurate estimates of plugging, remediation, and reclamation costs on each lease.*
(Incorporated at proposed NMAC §§ 19.2.100.23.D.1.f)

The proposed rule requires lessees to “demonstrate[e]...retirement planning including statement of assets dedicated to plugging, remediation, and reclamation costs, based on the projected life of the reservoir, age of infrastructure, and number of active, inactive, and low producing wells” as part of annual reports.¹⁵ Detailed information concerning retirement planning of oil and gas operations on State lands is integral to properly weighing the risk to those lands.

There may be oil or gas operations on a lease belonging to entities other than the lessee and retirement planning should be comprehensive enough to provide the Land Office with an idea of the outstanding liabilities on each State oil and gas lease. Thus, a lessee should be required to provide this information concerning the wells it operates on a lease, as well as to obtain this information from third-party operators for each well those third parties operate on the lease. The lessee's annual report should detail the efforts made to obtain this information concerning the wells of third parties.

The draft rule sets the maximum heightened bond at “100% of estimated applicable plugging, remediation, and reclamation costs.”¹⁶ This provision only has meaning if the Land Office has access to an accurate estimate of these costs. It should not be the duty of the Land Office to provide this estimate, but that of the operator. Thus, subsection 19.2.100.23.D.1.f should make such an estimate, executed by a third party of the Land Office's choosing, a required element of the retirement planning provided in a lessee's annual report.

IV. Conclusion

Sufficient bonding levels are vital to protecting the State's interests concerning oil and gas leasing on State lands. These proposed changes set a framework for a bonding regime that is both ambitious and enforceable, minimizes the liability exposure of the State and New Mexicans, and provides the Land Office with the necessary tools to meaningfully identify and weigh the risks oil and gas operations pose to the lands it oversees.

We appreciate the Land Office for its work concerning this rule and for its consideration of these comments.

Sincerely,

Zach Pavlik and Colin Cox
Attorneys, Climate Law Institute

¹⁵ Proposed NMAC § 19.2.100.23.D.1.f.

¹⁶ Proposed NMAC § 19.2.100.23.B.1 and B.2.

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Appendix 1: Center for Biological Diversity Redline

STATE LAND OFFICE BONDING RULE DISCUSSION DRAFT

19.2.100.23 BONDING.

A. Minimum Bond Requirements.

Before the commencement of development or operations, including prospecting, on an oil and gas lease, the lessee shall execute and file with the commissioner a good and sufficient bond, in an amount to be fixed by the commissioner but not less than an amount providing one hundred fifty thousand dollars (\$150,000) for each unplugged oil or gas well located on the lease, subject to any bulk bonding modifications applicable under section (C) of this rule, in favor of the commissioner and state land office for the benefit of the applicable trust beneficiary, and contract purchasers and surface lessees of the affected acreage, to protect the commissioner and state land office against damage to trust land, minerals, or other natural resources, and to ensure the lessee's compliance with lease obligations. Damage to state trust land includes but is not limited to the failure to plug inactive wells located on the lease acreage, remediate spills, and reclaim surface disturbance and damage to mineral resources and reservoirs. The bond shall be written on a form prescribed or approved by the commissioner. The surety must be certified by the United States Department of the Treasury to issue surety bonds and must be authorized to do business in New Mexico. The bond shall be non-cancellable.

B. Heightened Bond Requirements.

1. If a lease includes on its premises any of the following conditions, the commissioner ~~may~~shall require the lessee to file an additional financial assurance, in an amount to be determined by the commissioner (not to exceed 100% of estimated applicable plugging, remediation, and reclamation costs):
 - a. An inactive well, i.e. a well for which no production or injection has been reported for a continuous period of one year or more, except for a well:
 - i. that has been in approved temporary abandonment status with the new mexico oil conservation division for a period of ~~five~~two years or less, but this exception shall not apply to any lessee or well operator which has 10% or more of all wells it operates on state trust lands in approved temporary abandonment status;
 - ii. that has received an approved shut-in from the commissioner; or

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- iii. that is on a lease and the lease has received an approved shut in from the commissioner.
 - b. A well that has produced ~~100~~ 1,000 barrels of oil or less in the past year or the equivalent volume of gas; or
 - c. A release, whether or not reported to the oil conservation division, that has not been completely remediated pursuant to state land office rules and requirements within the latter of one year of occurrence or discovery, or one year from the effective date of this rule.
2. If any of the following conditions have occurred in the past ten years, the commissioner ~~may~~ shall require the lessee to file an additional financial assurance, in an amount to be determined by the commissioner (not to exceed 100% of estimated applicable plugging, remediation, and reclamation costs):
- a. The commissioner or another regulatory agency has claimed the lessee's bond or other financial assurance filed with the commissioner or such other regulatory agency to redress the lessee's compliance deficiencies;
 - b. The commissioner has filed suit against the lessee for failing to remedy damage to state trust land caused by oil and gas operations on a lease held by the lessee; or
 - c. The lessee is out of compliance with an agreed compliance order, stipulated final order, or other final order of the oil conservation division, or a final order of another agency of the State of New Mexico that pertains to the lessee's oil and gas operations.
3. In the commissioner's sole discretion, a lessee may defer the heightened bond requirement for a period of up to 90 days by committing to plug wells, remediate releases, or address other conditions that trigger the heightened bond requirement by a date agreeable to the commissioner. The deferment may be extended in the commissioner's sole discretion based on the lessee's progress addressing the compliance deficiencies, provided that no deferment period, inclusive of any subsequent extensions of that deferment period, shall last longer than [6 months]. In the event heightened bonding is deferred under this rule, or a prior deferment is extended, the commissioner will provide written notice to the lessee and provide notice to the public on the State Land Office website of the length of the deferment or extension and the reasons for granting the deferment or extension. When a proposed deferment or proposed extension of a deferment results in the deadline for compliance with a heightened bonding requirement being extended past [3 months] from what would otherwise be the compliance deadline absent any deferment, the commissioner shall allow for public comment on such proposed deferment or

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proposed extension and shall consider any comments received before a final decision to grant the deferment or extension.

4. In addition to the heightened bonding factors identified in (1) and (2), the commissioner may require a higher level of bonding on an individual lease basis, based on the commissioner's assessment of other factors pertinent to the lessee's oil and gas operations in New Mexico, the environmental condition or compliance status of the lease premises or other state leases held by the lessee, ~~or significant changes in compliance costs-~~, and any information concerning a lessee's operations and compliance in other jurisdictions that is obtained through the submission of annual reports pursuant to section (D) of this rule. The commissioner shall include review of issues involving the compliance of officers, executives, major investors, parent companies, subsidiaries, or other parties closely related to the lessee.
5. In the event a higher level of bonding is required under any provision of this rule, the commissioner will provide written notice to the lessee and provide notice to the public on the State Land Office website of the required amount and the reasons for the higher bonding requirement.

C. Bulk Bonds. Lessees holding ten or more leases that are required under this rule to be secured by a bond may, with the commissioner's written approval, submit a single bond to cover multiple leases, according to the following schedule:

Between 2 and 9 leases: an amount equal to \$150,000 per lease for each oil and gas well located on each lease

Between 10 and 19 leases: ~~\$130,000 per lease~~ an amount equal to 90% of the full per-well bonding amount that would otherwise be required for each lease

Between 20 and 49 leases: ~~\$110,000 per lease-~~ an amount equal to 80% of the full per-well bonding amount that would otherwise be required for each lease

Fifty or more leases: ~~\$100,000 per lease-~~ an amount equal to 70% of the full per-well bonding amount that would otherwise be required for each lease

In the event the commissioner accepts one or more bulk bonds from a particular lessee, the lessee shall provide a schedule listing all leases subject to the bulk bond, and the wells (regardless of operator) located on each lease. No lease that is subject to heightened bond requirements is eligible for inclusion in, or coverage under, a bulk bond.

D. Reporting and Notification Requirements.

1. Each lessee shall file an annual report on or before December 31 of each year, certified under penalty of perjury by a person with authority to bind the lessee, detailing the following, for each lease held by that lessee:

- a. inventory of active and inactive wells on the lease, with reference to well name, API number, operator, date of last production, total reported oil

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- production (in BBLs) and gas production (in MCF) reported during the previous 12 months, and whether the well is part of an oil and gas unit;
- b. inventory of other fixed infrastructure on the lease acreage that is related to oil and gas lease operations, including but not limited to tank batteries, ponds, separators, but not including transient equipment such as vehicles;
 - c. list of ~~any hydrocarbon or produced water~~ all releases of hydrocarbons, produced water, drilling fluids, drilling wastes, and any other substance requested by the commissioner on lease premises, whether or not reported to the oil conservation division, by reference to location (latitude/longitude coordinates), substance released, responsible party, and status of remediation, to the extent known by the lessee;
 - d. identification of any warning letters, notices of violation, fines, penalties, civil actions, criminal actions, or judgments issued or initiated by any governmental entity with respect to oil and gas operations on the lease premises, or to which the lessee itself has been subject in New Mexico or any other jurisdiction in which it operates, by reference to date, nature of the alleged violation or action, and issuing or initiating entity;
 - e. identification of any civil litigation not initiated by a governmental entity concerning or arising out of oil and gas operations on the lease premises, or to which the lessee itself has been subject in New Mexico or any other jurisdiction in which it operates;
 - f. demonstration of retirement planning for the wells operated by the lessee on the lease, and for any wells operated on the lease by a third party, including a detailed estimate of the total cost to properly plug and remediate all wells on the lease, a statement of assets dedicated to plugging, remediation, and reclamation costs, based on the projected life of the reservoir, age of infrastructure, and number of active, inactive, and low producing wells and, if such information is not available for wells operated by third parties, a statement certifying the best efforts the lessee has taken to obtain such information; and
 - g. identification of any wells plugged in the previous twelve months and the cost to plug, remediate, and reclaim the well, well pad, and associated areas of oil and gas operations (such as adjacent spills, tank batteries, and flowlines); and
 - h. identification of each jurisdiction, state and federal, in which the lessee operates, specifically certifying that the lessee is compliant with all financial assurance and decommissioning obligations in each of those jurisdictions and, if it is not compliant, identifying each jurisdiction in which the lessee is not compliant, citing the obligation for which it is noncompliant, and providing any additional information the lessee determines pertinent to such noncompliance.

2. The commissioner may prescribe a form and submission format (e.g. web portal) for the annual report. To the extent there is no change from a prior year's report in

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any particular category or overall, the lessee may so certify in writing, under penalty of perjury, in lieu of filing a full report. All annual reports and certifications of no change shall be made publicly available on the State Land Office website.

3. Lessees shall notify the state land office within 30 days of any change of name or change of address of a surety or financial institution issuing a letter of credit or in the event Lessee is informed of any cancellation or non-renewal of the financial assurance or the insolvency of the surety or other entity issuing the financial assurance.

4. Lessees shall reasonably cooperate with the commissioner's inquiries regarding all matters pertaining to state land office bond requirements or to the related reporting requirements of this rule.

E. Periodic Adjustment and Review of Bonding Levels.

1. The monetary amounts of all bonds shall be adjusted every five years for inflation based on the preceding calendar year's change in the consumer price index for All Urban Consumers (CPI-U), United States City Average for All Items, published by the United States Department of Labor. The effective date of the adjustment shall be January 1 of the sixth year (the first day following each five-year review cycle).

2. The commissioner will periodically, but no less than every five years, review the sufficiency of each lessee's bond(s). The commissioner shall provide public notice on the State Land Office website identifying any operator scheduled for bond adequacy review at least 30 days prior to undertaking such review and shall allow interested parties to submit written comment providing information relevant to the bond review during that 30-day period. Factors the commissioner may consider include the status of the lease (e.g. number of active and inactive wells, lease acreage, number of operators on the lease), the compliance history of lessee ~~with respect to the specific lease in question and other state land office instruments,~~ any factors identified in section (B) of this rule, public comments submitted, and changes to actual or estimated costs of plugging, remediation, reclamation, and other compliance activities. In the event the commissioner determines a given bond is inadequate financial assurance to protect the state land office and applicable beneficiary, the commissioner shall send written notice to the lessee of the change and lessee shall have 60 days from the date of mailing to update its bond or other financial assurance. Failure of the commissioner to engage in bond sufficiency review of any particular lease or lessee in accordance with this paragraph shall not be evidence or an admission of the commissioner's acceptance of the lessee's current bond as adequate.

3. Any interested party may submit to the commissioner a request for review of the adequacy of a lessee's bonding regardless of whether five years have elapsed since the last review if the party believes new information is available or that there has been a material change in a lessee's operations, compliance status, or the status of an implicated lease(s). The commissioner may choose to review the bonds subject to such a request but shall notify the

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requestor if it chooses not to review the adequacy of a lessee's bonding based upon such a request. If the commissioner decides to review the adequacy of a lessee's bonding based upon the request, the State Land Office shall provide the lessee an opportunity to respond to any such request before determining a bond to be inadequate based upon the information in that request.

2.4. The commissioner shall publish annually a report providing information on bonding adequacy during the prior calendar year. This report shall be published by July 1 of each year and made publicly available on the State Land Office website. The annual report shall identify each active lease and the name of the lessee, along with the date of the most recent bond adequacy review and the adequacy determination reached in that review.

3.5. In the event that a well bond or other financial assurance on file with the new mexico oil conservation division would cover operations on a particular lease and the oil and gas act and new mexico oil conservation commission rules are changed to allow the commissioner to access such bond or other financial assurance, the commissioner may adjust downward the monetary value of the bond required under this rule by the amount of the bond or other financial assurance on file with the new mexico oil conservation division that is applicable to wells on state trust land.

F. Alternative Forms of Financial Assurance. In lieu of a surety bond, but in the same amounts and subject to the same substantive requirements set forth in this rule, with commissioner approval a lessee may post:

1. An irrevocable letter of credit, on a form prescribed or approved by the commissioner, issued by a federally-insured financial institution either doing business in New Mexico or that has agreed in writing to submit itself to the jurisdiction of New Mexico courts. Irrevocable letters of credit shall require the issuing bank to notify the commissioner in writing of any decision to not renew the letter of credit at least 120 days in advance, and shall provide the commissioner the right to redeem the letter of credit prior to non-renewal.

2. A cash deposit submitted to the commissioner, which shall be held in suspense unless and until the financial assurance is eligible for release or the commissioner makes a claim against the deposit.

~~3. Other alternative forms of financial assurance may be considered on a case-by-case basis, at the commissioner's sole discretion.~~

G. Waivers. A lessee may request a waiver of the bond requirement if the lessee does not intend to conduct or allow any development of oil and gas on the lease acreage, which is at the commissioner's sole discretion. Any request for a waiver must be made within 30 days of lease issuance or assignment. Waivers are not available for leases whose acreage contains producing or inactive wells, unremediated spills, or infrastructure related to oil and gas development from the lease acreage. In the event a lessee obtains a waiver, but then proceeds, or allows another to proceed, with oil and gas development on the lease, the

Appendix 1: Center for Biological Diversity Redline

STATE LAND OFFICE BONDING RULE DISCUSSION DRAFT

lessee must so notify the state land office and post the required bond at least 30 days prior to commencement of such development ~~within 30 days of commencing said development~~. In the event a lessee obtains a bond waiver, proceeds with oil and gas development on the lease, but fails to notify the state land office and post the required bond, the lessee shall be ineligible for any bond waiver for a period of at least five years.

H. Bond “Riders” Limited. The commissioner will not accept bond riders or amendments that change the name of the guarantor (the lessee), that change the scope of coverage, or that add multiple lessees to the same bond without specific written approval of the same. Lessees who under the pre-existing version of this rule are sharing a bond via rider shall obtain their own separate bonds in conformity with the phase-in schedule listed in subsection K.

I. Claims on Bonds.

1. The commissioner shall provide written notice to a lessee of any claim made against a surety bond, irrevocable letter of credit, or cash deposit on file with the commissioner, at the lessee’s last address of record on file with the state land office’s oil, gas, and minerals division. Such notification may be made by regular postal mail and no proof of delivery shall be required. The commissioner may, but has no obligation to, notify any party other than the surety or issuing financial institution, and lessee of record, regarding any bond claim.

~~**2.** In the event a bond or other financial assurance is paid out to the commissioner, the affected lease will be canceled unless, after the commissioner provides 30 days written notice by certified mail to the lessee, the lessee cures the default by posting a replacement bond or other form of financial assurance in conformity with this rule. The commissioner may require a higher or different form of financial assurance based on payment of the bond claim or other compliance deficiencies of the lessee.~~

~~**3.** In the event a surety (for a surety bond) or issuing bank (for a letter of credit) fails to respond to a claim against the bond or letter of credit within a reasonable period of time, or fails to honor a substantiated claim, the commissioner may reject the bond or letter of credit and require the lessee to obtain a new bond or other form of financial assurance within 30 days that is in conformity with this rule.~~

J. Release of Bonds. Bonds or other approved forms of financial assurance may only be released upon one of the following events: (1) the lessee first submits a substitute form of financial assurance in compliance with this rule and the commissioner approves the substitution; or (2) the lessee no longer holds any state oil and gas leases and the commissioner has confirmed there are no outstanding compliance or performance issues with respect to lessee’s lease(s).

K. Phase-in Schedule. The requirements of this rule shall apply to all new oil and gas leases, or existing leases for which no good and sufficient bond acceptable to the

Appendix 1: Center for Biological Diversity Redline

STATE LAND OFFICE BONDING RULE DISCUSSION DRAFT

commissioner has been filed (but which is required to be filed), immediately upon the effective date of the rule. The requirements of this rule shall become applicable to all oil and gas leases pre-existing the effective date of the rule, and for which a good and sufficient bond acceptable to the commissioner has been filed, according to the following schedule (the “Phase-In Schedule”):

- 1.** Any lease subject to any heightened bond requirements shall be in compliance within 60 days of the effective date of this rule.
- 2.** Lessees holding fifty or more oil and gas leases shall bring all their leases into compliance with this rule within 180 days of the effective date of the rule.
- 3.** All other lessees shall bring their leases into compliance with this rule within 365 days of the effective date of the rule.

[19.2.100.23 NMAC - Rp, 19.2.100.23 NMAC, 6/30/2016; A, 6/11/2019]

Policy Spotlight: Orphaned Wells



June 24, 2025

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Summary

New Mexico faces significant and growing financial liabilities for oil and gas well cleanup.

New Mexico has more than 60 thousand oil and gas wells that will eventually need to be plugged. Properly plugging and decommissioning those wells at the end of their productive lives is important to protect health and safety, the environment, and future resource development.

While operators plug most wells in New Mexico, the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department (EMNRD) can intervene to plug wells that operators leave inactive and unplugged without authorization. In the past 20 years, OCD has plugged approximately 1,000 of those “orphaned” wells, or 5 percent of all wells plugged in the state. However, the number of wells the division is authorized to plug has consistently outpaced its plugging efforts.

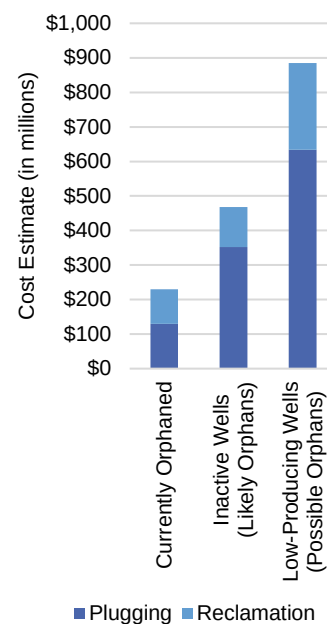
Currently, OCD has plugging authority for roughly 700 wells on state and private (“fee”) lands. The state likely will need to plug an additional 1,400 inactive wells for which OCD has not yet pursued plugging authority. On top of that, there are more than 3,000 wells on state or private land producing extremely small quantities of oil and gas whose expected cleanup costs far exceed their predicted future revenues, increasing their risk of being orphaned.

At recent state-contracted rates, plugging, remediating and reclaiming currently orphaned wells and their associated infrastructure will likely take close to a decade and cost more than \$208 million. Plugging and reclaiming the other 1,400 inactive wells on state and private land could cost more than \$468 million. Should additional extremely low-producing wells be orphaned by their operators, the costs for plugging and reclaiming them could approach \$1 billion. Altogether, the state’s current and near-future liability for well plugging and site remediation is estimated at \$700 million to \$1.6 billion.

Recent federal grants have increased OCD’s plugging capacity, but the division is still unable to plug wells at a rate that would allow it to clear its existing orphaned well list in a timely fashion, even without accounting for additional wells that are likely to become orphaned. The division has also struggled to control the costs of plugging and reclamation. Given that, it would be prudent for the state to reduce its future liability for orphaned wells, which could be accomplished through a variety of mechanisms, including revising its financial assurance system to incentivize operators to plug wells before they become fully inactive.

Properly plugging and decommissioning wells at the end of their productive lives is important to protect health and safety, the environment, and future resource development.

Chart 1. Liability Estimates for Plugging and Reclamation



*Note: Only wells on state or private lands; categories are mutually exclusive; plugging based on actual depth, \$43.85/foot, gas wells costing 9 percent more than oil wells; reclamation at \$83 thousand per well site.

Source: LFC

Project Objectives

- Assess the current scope of the orphaned well problem in New Mexico, including the environmental, economic, and health and safety impacts.
- Evaluate the adequacy of the state's current regulatory framework for preventing wells from becoming orphaned, and the efficacy of its current efforts to plug and abandon orphaned wells.
- Estimate the state's potential future liability for orphaned wells and accompanying infrastructure.

Key Findings

- Current orphaned wells will cost the state more than \$200 million; future liability very likely exceeds \$700 million.
- Reforms that prioritize operator-led cleanup can limit the state's financial exposure.

Key Recommendations

The Legislature should consider:

- Amending statute to define “orphaned” and “abandoned” wells, aligning the definitions with their common use in the oil and gas industry and clarifying that “orphaned” wells are oil and gas wells for which the state has pursued and received plugging authority;
- Amending Section 70-2-14 NMSA 1978 to specify that wells producing below certain thresholds set in rule require additional financial assurance;
- Amending Section 70-2-14 NMSA 1978 to allow an operator to meet its financial assurance obligations by fully funding a third-party trust or escrow up to OCD's site- or operator-specific estimated plugging and remediation costs; and
- Amending statute to clarify OCD's authority to review and disallow the transfer of wells should the division determine, through processes outlined in rule, the purchaser is unlikely to be able to fulfill its asset retirement obligations.

The Energy, Minerals and Natural Resources Department should:

- Promulgate rules defining “low-producing” wells (such as wells producing less than 750 BOE annually or ~ 2 BOE per day);
- Promulgate rules to expand the definition of “inactive” wells to include consistently ultra-low producing wells (such as wells that produce less than 180 BOE annually or ~0.5 BOE per day for more than three years);
- Promulgate rules specifying that low-producing wells require individual well financial assurance, posted within two months of

notice, and clarifying that their transfer is contingent on regulatory approval;

- Publish a list of orphaned wells monthly, including both wells the state has already plugged and those it is planning to plug and the costs associated with their plugging and reclamation, to ensure transparent tracking of state expenditures on orphaned wells; and
- Ensure the presence of a “company man” for all state-contracted well plugging who is responsible for filing daily reports on the activities undertaken by the contractor, the materials used, and the estimated plugging cost.

Background

New Mexico has been an oil and gas producing state for more than a century. During that time, companies have drilled at least 121 thousand oil and gas wells in the state, mostly in the northwest (San Juan Basin) and southeast (Permian Basin). Wells must be plugged at the end of their productive lives to protect the environment, health and safety, and future resource production. For wells still producing any volume of oil or gas, the state typically leaves it to operators to decide when the well should be plugged—in recent years, the average well produced roughly two barrels of oil equivalent a day in the year before it was plugged. However, if a well becomes fully inactive for more than a year, the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department (EMNRD) can require an operator to plug the well or pursue authority to plug it itself to mitigate potential risks. Since the 1970s, OCD has largely paid for state-contracted plugging using money from the oil and gas reclamation fund, which receives a portion of the oil conservation tax. Since 2022, the state has also received \$55.5 million in multiyear federal grants to address unplugged orphaned wells on state and private lands.

New Mexico has long recognized the importance of plugging wells at their end of their lives, but there is no consensus on when that is.

Oil and gas wells, by design, tap into subsurface reservoirs that are often more than a mile deep. When active production ceases, the wells can become pathways for hazardous substances to escape, including gases like methane and hydrogen sulfide and fluids like produced water and residual hydrocarbons. Those leaking gases and fluids can contaminate groundwater, endanger nearby homes, and impede future development of oil and gas resources. Modern plugging involves using cement to seal off oil, gas, and water-bearing formations to prevent leaks to the surface or adjacent strata, while site remediation and reclamation involve removing contaminated soil and disposing of surface infrastructure. Since the 1930s, New Mexico has required operators to plug wells at the end of their productive life.

Plugging wells mitigates the risk of a variety of hazards, including groundwater contamination. In the early 20th century, most states started requiring companies to plug oil and gas wells that were no longer producing or otherwise inactive with the goal of oil conservation because unplugged wells can lead to pressure drops or water intrusions that impede oil recovery. However, over time, regulators also recognized the importance of plugging for conservation of other resources, including groundwater. Improperly sealed wells can act as a conduit for fluids and gases to migrate into underground aquifers. A 2011 study by the Groundwater Protection Council, an organization whose members are state groundwater regulators, found inactive and unplugged wells were responsible for 22 percent of oil-

Terms and Definitions

Many terms used in the oil and gas industry are inconsistently defined. For example, “abandoned well” means different things in different parts of New Mexico statute. For this report, the following definitions apply, unless otherwise specified:

Orphaned well

A well for which the state has received plugging authority, either through a settlement agreement, order, or intergovernmental agreement.

Abandoned well

A well that has been properly plugged, either by the state or its operator.

Inactive well

A well that has not produced or injected for at least 15 months.

Plugging

Placing cement plugs at specific depths inside the wellbore to prevent migration of fluids and gas.

Remediation

Removal or treatment of contaminated soil and groundwater.

Reclamation

Removing infrastructure and returning the land to a condition as close to its original state as possible.

Produced water

Water that is brought to the surface alongside the oil and gas produced from a well. Produced water is also called “saltwater” because it typically contains high levels of salts, hydrocarbons, and other contaminants.

Barrel of oil equivalent (BOE)

A standardized unit that combines oil and gas into a single measure; one barrel of crude oil or 6,000 cubic feet of natural gas (6 mcf) equals one BOE

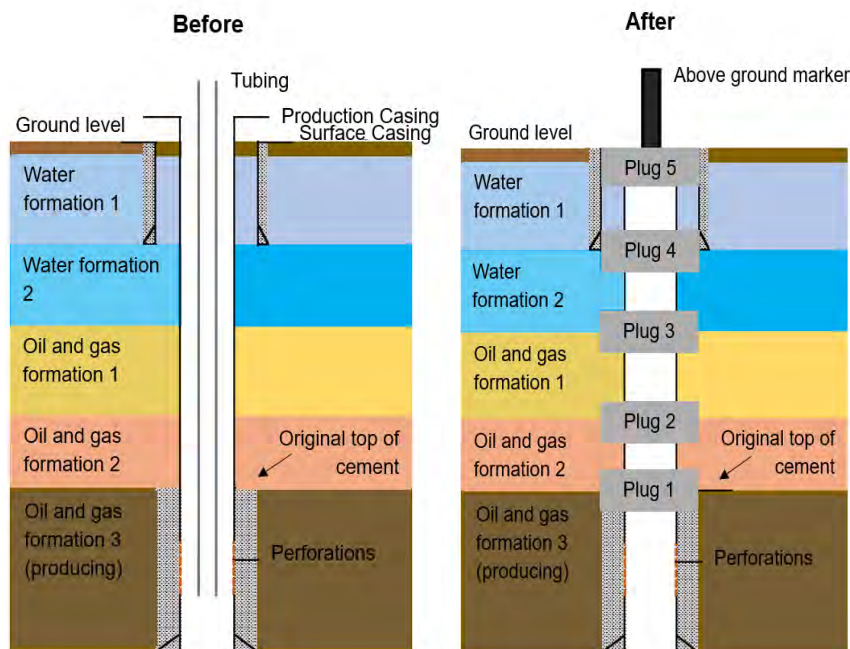
and gas-related groundwater contamination incidents in Ohio and 14 percent in Texas over a 16-year study period. Improperly plugged or unplugged wells have also been implicated in surface contamination incidents, including recently near the Texas-New Mexico border, where the wells have served as conduits for large leaks of produced water and hydrocarbons. Unplugged or improperly plugged wells can also leak gases, including hydrogen sulfide, which is toxic and highly corrosive, and methane, which is both a potent greenhouse gas and explosive. The federal Environmental Protection Agency estimates annual methane emissions from the nation's inactive and unplugged oil and gas wells are comparable to adding an additional 2 million gas-powered cars to the road. Although rare, methane leaks from oil and gas wells have also caused buildings to explode.

OCD regulations for plugging require placing cement at various depths inside the wellbore. Cement is the primary material used in oil and gas wells to prevent fluid and gas migration. When a well is constructed, companies anchor the steel casing that lines the well in place by filling sections of the space between the casing and the surrounding rock formation with cement. Similarly, when a well is plugged, cement is used to both seal off the producing formation and any hydrocarbon- and water-bearing formations above it. OCD may also require other types of mechanical barriers to be set inside the wellbore. The location of plugged wells must be marked with a 4-inch-wide, 4-foot-tall steel post, unless OCD grants a waiver to place the marker below ground.

Rising Incidence of State-Contracted Emergency Well Plugging in Texas

In November 2024, Texas' oil and gas regulator, the Texas Railroad Commission (RRC), requested an additional \$100 million appropriation for FY26-27 for well plugging, saying, "Emergent issues have developed that have made [the initial \$234 million request] insufficient to protect groundwater and the environment." While the request did not cite any specific incidents, RRC has reported responding to a number of well emergencies in the region of west Texas bordering New Mexico in recent years. For example, in December 2023, an unplugged well on a ranch in west Texas began leaking produced water at 14,000 gallons an hour. The water eventually covered more than 300 acres and pooled to as deep as a foot. Testing found the water contained 10 times the EPA's allowable amount of benzene, a chemical found in crude oil that is a known carcinogen. With no existing operator associated with the well, RRC paid \$2.5 million to plug the well and clean up the spill.

Figure 1. Well Plugging



Source: OCD

After a well is plugged, OCD may require remediation and reclamation of the well site. During active production, wells may leak oil, produced water, or drilling fluids, either from the well itself or from associated pits and tanks. When spills occur, operators are required to remediate the site promptly. However, a second round of remediation is often necessary at the end of a well's life to ensure the site is clean before closure. Remediation focuses on removing polluted soil and, if necessary, addressing impacts to surface water or groundwater. When remediation is necessary, OCD regulations require the top 4 feet of soil be free of contamination, usually achieved through excavation and replacement of the affected soil. Reclamation is usually characterized as restoring the land to its prior physical and ecological condition. Prior to well closure, OCD requires operators to level the site, remove equipment and debris, and close pits and tanks. OCD does not have a requirement for the operator to restore native vegetation or remove roads. The State Land Office (SLO) has its own requirements for reclaiming well sites on state trust land, which include erosion prevention, removal of infrastructure and roads, and revegetation.

Figure 2. Remediation and Reclamation



Remediation involves cleaning up surface and groundwater contamination, as at the Chaves County site on the left. Reclamation involves leveling the site and removing any equipment, as at the Eddy County site on the right.

Source: LFC files

Roughly half of wells drilled in New Mexico have already been plugged, although not always to modern standards. Of the roughly 121 thousand wells drilled in New Mexico, OCD records compiled by the energy analytics firm Enverus show at least 54 thousand have been plugged. Sixty-four percent of those wells have a plugging date, indicating there is an administrative record associated with their abandonment. The remaining wells in “plugged and abandoned” status have either blank or placeholder plugging dates. According to OCD, placeholder dates may mean they were plugged prior to modern recordkeeping or they remain unplugged. For wells plugged prior to the 1990s, the plugs may not meet modern plugging standards. While most modern plugging techniques were well-understood by the 1990s, the American Petroleum Institute, which publishes technical standards for the industry, did not release a manual of recommended practices for wellbore plugging and abandonment until 2021.

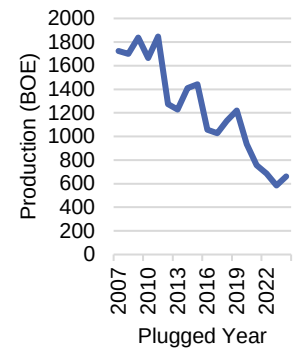
Figure 3. Modern Plugging Rig



Source: LFC Files

For wells producing any volume of oil or gas, OCD has historically left it to the discretion of operators to decide when to plug and reclaim the well. While state statute authorizes OCD to “require dry or abandoned wells to be plugged” to prevent oil, gas, or water from migrating between underground formations, neither “dry” nor “abandoned” is defined. In regulation, OCD requires operators to plug a well that is “no longer useable for beneficial purposes; or a period of one year in which a well has been continuously inactive.” “Beneficial purpose” is not defined, leaving operators with considerable discretion to decide when a well producing in any quantity has reached the end of its useful life. Operators may weigh different variables in their decision-making, including oil and gas prices, produced-water disposal costs, the potential for reworking the well to increase production, and the opportunity to drill new wells nearby, which often requires plugging older wells. In recent years, the average well produced roughly two barrels of oil equivalent (BOE) a day in the year before it was plugged, a decline from the mid-2000s. When wells stop producing altogether for an extended period, they become “inactive,” and must be either plugged, approved for temporary abandonment, or returned to production within a year.

Chart 2. Average Production in Year Prior to Plugging
n = 13,134



Source: Enverus

Since the 1970s, the state has stepped in to plug oil and gas wells when the operator does not.

When a well becomes inactive and is not plugged by its operator, OCD can pursue authority to plug the well itself. Once it receives that authority, OCD contracts with a plugging company. The division pays those contractors using funds from several sources, including forfeited financial assurances, the oil and gas reclamation fund, and, recently, federal grant funding through the Infrastructure, Investment and Jobs Act (IIJA). Since FY19, OCD’s contractual services spending has grown more than 2,000 percent, primarily as a result of plugging and reclamation of orphaned wells and their associated infrastructure. Most of that money has come from federal grants.

Plugging and reclamation account for a growing majority of OCD’s spending. OCD has broad authority to regulate oil and gas activity in New Mexico. Its statutory responsibilities include conducting inspections, overseeing drilling operations, and ensuring wells are properly plugged at the end of their productive life. State law also requires OCD to collect financial assurance from operators before drilling begins, to help insulate the state from future plugging and reclamation liability. As New Mexico has grown into the second-largest oil-producing state in the country, behind only Texas, OCD has also expanded, in both budget and personnel, although it remains relatively small compared to regulators in other oil- and gas-producing states. OCD regularly reports challenges with recruitment and retention, which has contributed to the division consistently underspending its budget. In recent years, plugging and reclamation of orphaned wells and their associated infrastructure have become a major part of OCD’s budget and responsibilities; contractual services spending, which

In recent years, plugging and reclamation of orphaned wells and their associated infrastructure have become a major part of OCD’s budget and responsibilities.

is primarily for addressing orphaned wells, has far exceeded any other spending category in the division's budget in recent years.

Table 1. OCD Sources and Uses
(in thousands)

	FY19	FY20	FY21	FY22	FY23	FY24	FY25 (budgeted)	FY26 (allocated)
Sources								
General Fund Transfers	\$5,020.9	\$5,835.3	\$6,203.1	\$6,451.1	\$7,163.1	\$8,836.6	\$10,374.6	\$10,439.3
Other Transfers	\$0.0	\$0.0	\$3.5	\$88.1	\$348.8	\$394.9	\$0.0	\$0.0
Federal Revenues	\$673.8	\$510.7	\$214.7	\$325.7	\$10,093.6	\$15,913.9	\$25,930.2	\$30,861.5
Other Revenues	\$3,040.8	\$4,523.6	\$5,333.2	\$19,384.6	\$30,353.4	\$24,698.8	\$21,475	\$25,192.8
Fund Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$722.1	\$0.0
Total Sources	\$8,735.5	\$10,869.6	\$11,754.5	\$26,249.5	\$47,958.9	\$49,844.2	\$58,501.9	\$66,493.6
Uses								
Personal Services and Employee Benefits	\$4,305.3	\$4,303.7	\$4,891.2	\$5,291.0	\$6,548.1	\$7,173.7	\$9,759.9	\$9,759.9
Contractual Services	\$1,711.6	\$1,415.3	\$3,136.8	\$10,607.9	\$13,219.0	\$28,546.7	\$44,990.9	\$52,983.9
Other	\$716.5	\$1,244.5	\$911.3	\$1,503.3	\$2,228.4	\$2,368.6	\$3,451.4	\$3,450.1
Other Financing Uses	\$119.9	\$132.0	\$123.9	\$91.8	\$0.0	\$144.8	\$299.7	\$299.7
Total Uses	\$6,853.3	\$7,095.5	\$9,063.2	\$17,494.0	\$21,995.5	\$38,233.8	\$58,501.9	\$66,493.6

Source: LFC files

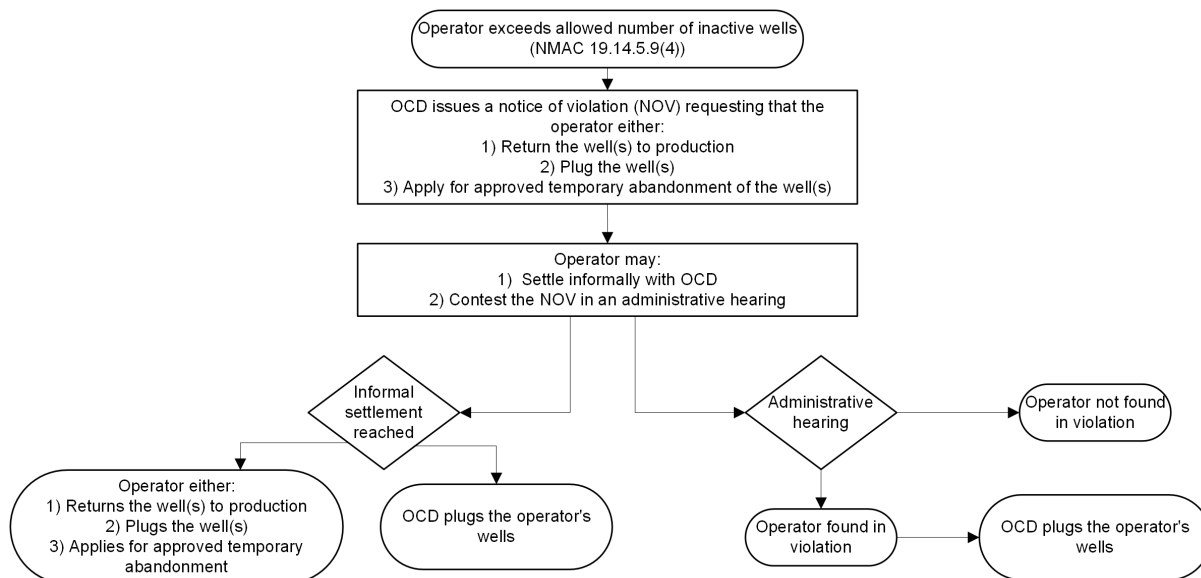
OCD typically pursues plugging authority for a well only when the operator is unresponsive to enforcement action. OCD can issue a notice of violation (NOV) to any operator that has more inactive wells than they are allowed under NMAC 19.15.5.9 A(4). Inactive wells are any production in 15 months and which are not plugged or approved for tem NOV, OCD offers operators the option to informally resolve the situation via (“agreed compliance order”) prior to a formal administrative law hearing. Of an informal agreement with OCD may contest the NOV in an administrative much like a civil trial. In practice, many operators simply do not respond to a default judgment in OCD’s favor at hearing. Following the hearing, if the violation of the law, OCD’s director may issue an order directing the operator days or have them plugged by the state (Figure 4). OCD can also plug wells government and tribal governments as requested, using either state funding, 1978, or through intergovernmental cost-sharing agreements.

Table 2. Number of Allowed Inactive Wells

Size of Operation	Number of Wells
100 wells or less	Two or fifty percent, whichever is less
101 to 500 wells	Five or less
501 to 1000 wells	Seven or less
More than 1000 wells	10 or less

Source: NMAC 19.15.5.9

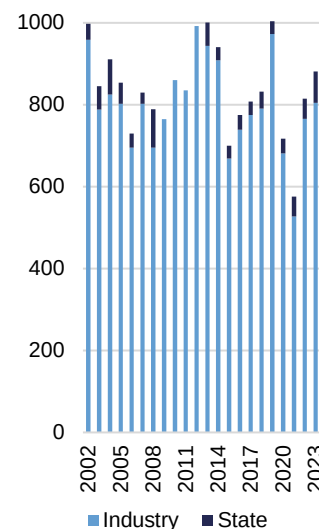
Figure 4. How Wells are “Orphaned” in New Mexico



Source: LFC

OCD has not kept detailed records of state-contracted plugging, but the division has plugged at least 967 wells since 2002, or approximately 5 percent of all wells plugged in New Mexico during the same period. Historically, OCD has not kept robust records of the wells it has plugged, making it difficult to evaluate trends in state-contracted well plugging over time. However, the division began reporting the number of orphaned wells plugged during a fiscal year as part of its budget performance measures starting in 2002. According to those records, OCD has plugged at least 967 wells since then, although the actual number is likely higher because reporting was not required for fiscal years 2009-2012. That equates to approximately 51 wells per year and 5 percent of all wells plugged in the state since 2002. However, OCD has always had a plugging backlog, meaning the percentage of state-plugged wells would be higher if OCD were able to plug all wells it had the authority to plug in any given year. In past performance reports to LFC, OCD has cited a number of reasons for delays in plugging, including contractor availability, funding shortfalls, weather conditions, well conditions, and delays in procurement contracting (see Appendix A).

Statute requires operators to provide financial assurance to OCD before drilling to insulate the state from well plugging and reclamation liability, but the maximum allowable amounts do not cover actual costs. Financial assurance requirements for oil and gas operations in New Mexico are set partly in statute and partly in rule. Section 70-2-14 NMSA 1978 requires operators to post financial assurance before they can drill or

Chart 3. Wells Plugged by Year
FY02-FY24

■ Industry ■ State

Note: OCD was not required to report to the LFC on state-contracted well plugging between FY09 and FY12.

Source: OCD, LFC Report Cards

produce a well, in an amount “sufficient to reasonably pay the cost of plugging the wells covered.” However, the statute caps total financial assurance at \$250 thousand per operator for all active wells, even though plugging a single well can often exceed \$100 thousand, and most operators in the state have more than five wells. The statute also requires higher bonding amounts for wells in “temporarily abandoned status,” although that term is not defined. In practice, for the purposes of financial assurance, OCD considers wells “temporarily abandoned” when they have reported no production for more than two years or when operators apply for official permission to shut-in a well temporarily. In rule, OCD sets the maximum financial assurance for temporarily abandoned wells at \$1 million, which reflects their higher risk of being orphaned. According to a study examining 40 years of oil production in California, the chance a dormant well will resume production is 50-50 after just 10 months of dormancy and 25 percent after five years of dormancy. (See Appendix B for other states’ minimum and maximum financial assurance amounts).

Even if OCD plugs an operator’s well or wells, its financial assurance remains intact unless the division actively pursues forfeiture.

Operators can use one of several financial instruments to fulfill the state’s financial assurance requirements. Surety bonds, typically issued by specialized surety companies, are the most commonly used type of financial assurance. They are paid for with annual premiums and secured by varying amounts of collateral; typical premium rates are 1 to 5 percent of the total bond amount annually. Regulations state OCD will not approve the transfer of a well to a new operator until appropriate financial assurance is in place. Once a new operator provides the required financial assurance, the previous operator can request release of its own bond or policy. When OCD plugs an operator’s wells, it can seek forfeiture of the financial assurance. In the case of a surety bond, OCD must file a claim with the surety company that is the third-party guarantor. The surety will then initiate an investigation to determine the validity of both the bond and the claim. Investigations can be lengthy and may involve site visits and requesting evidence from OCD. At the end of the process, if the surety company finds the claim is valid, it will try to get the operator to pay and, only failing that, pay the claim itself. If the operator is bankrupt or the surety disputes the validity of the bond, the process can be complicated and involve litigation. In most cases, the funds recovered through forfeiture fall short of the actual cleanup cost. Although OCD is authorized by statute to sue operators for the remaining balance, it has not done so.

Table 3. Estimated Annual Premiums for Surety Bonds

Premium Rate	100+ Active Wells	25+ Temporarily Abandoned Wells
2%	\$5,000	\$20,000
4%	\$10,000	\$40,000

Source: LFC files

**Financial Assurance
Tiers for Wells on
Private and State Lands**

Active wells

- One well: \$25 thousand plus \$2 per foot depth.
- One to 10 wells: \$50 thousand.
- 11 to 50 wells: \$75 thousand.
- 51 to 100 wells: \$125 thousand.
- More than 100 wells: \$250 thousand.

Temporarily abandoned wells

- One well: \$25 thousand plus \$2 per foot depth.
- One to five wells: \$150 thousand.
- Six to 10 wells: \$300 thousand.
- 11 to 25 wells: \$500 thousand.
- More than 25 wells: \$1 million.

Source: NMAC 19.15.8.9

**Allowable Types of
Financial Assurance**

Surety bond

A three-party agreement in which a surety company guarantees the operator will fulfill its plugging and reclamation obligations.

Cash bond

A cash deposit held by the state to guarantee the operator fulfills its obligations.

Irrevocable letter of credit

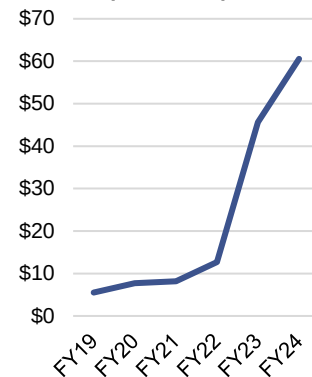
A financial guarantee issued by a bank, ensuring payment to the state under specified conditions and with appropriate documentation.

Insurance policy

A two-party contract in which an operator pays a premium in exchange for an insurer guaranteeing a defined well cleanup benefit.

Historically, OCD has used the oil and gas reclamation fund to pay for plugging orphaned wells; as of April 2025, the fund's balance was \$66.7 million. The Legislature established the oil and gas reclamation fund in 1977 as a nonreverting fund “for use by the oil conservation division in carrying out the provisions of the Oil and Gas Act.” Among the currently enumerated purposes of the fund is ensuring the proper plugging and reclamation of “abandoned oil and gas wells and associated facilities” (Section 70-2-38 NMSA 1978). While the statute does not define “abandoned,” the fund has historically been used primarily for plugging and reclamation of wells and associated infrastructure without a locatable or financially viable operator. At the time of its creation, the fund received 0.01 percent of oil and gas conservation tax revenues. Today, the reclamation fund receives 10.5 percent of conservation tax proceeds when the price of West Texas Intermediate crude oil is less than \$70 and 19.7 percent when it is above \$70. Those distributions represent the highest percentages of the conservation tax the reclamation fund has received since the fund was created (see Appendix C). The remainder of the oil and gas conservation tax goes to the general fund. The reclamation fund also receives financial assurances the state has forfeited from oil and gas producers that fail to meet their reclamation obligations, but those are a minor contributor. The fund’s balance grew 998 percent between the end of FY19 and the end of FY24, to \$65 million, because of high oil and gas prices and production. Despite those record balances, the state has made minimal expenditures from the fund in the last two years, instead using federal grants to pay for plugging orphaned wells.

Chart 4. Oil Reclamation Fund Balance
(in millions)



Source: LFC cash balance

Table 4. Reclamation Fund Sources and Uses
(in thousands)

	FY19	FY20	FY21	FY22	FY23
Beginning Cash Balance July	\$4,226.4	\$6,322.7	\$7,777.7	\$9,073.2	\$26,995.0
Oil and Gas Conservation Tax Revenue	\$3,529.5	\$3,340.3	\$4,656.3	\$22,222.6	\$26,933.7
Bond Forfeitures, Salvage, and Reimbursement Recoveries	\$88.5	\$0.00	\$0.00	\$161.3	\$0.00
Total Revenue	\$3,617.9	\$3,340.3	\$4,656.3	\$22,383.9	\$26,933.7
Total Expenses Directly from Fund	\$1,521.6	\$1,885.4	\$3,361.3	\$4,462.1	\$3,030.7
Ending Cash Balance June	\$6,322.7	\$7,777.7	\$9,072.7	\$26,995.0	\$50,898.1

Source: OCD

Since 2022, New Mexico has received \$55.5 million in federal grants to identify and plug orphaned oil and gas wells and is eligible for up to \$111.8 million more. The federal Infrastructure Investment and Jobs Act, (IIJA) or bipartisan infrastructure law, signed into law in 2021, allocated more than \$4 billion toward identifying, plugging, and remediating orphaned wells on state, federal, and tribal lands. The law specifies that for the purposes of wells on state and private lands, the term orphaned “has the

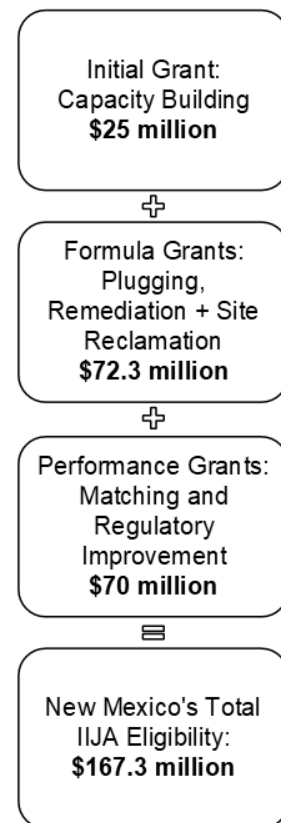
meaning given the term by the applicable state.” Under IJJA, states became eligible for three types of grants: an initial grant, formula grants, and performance grants. The initial grant was intended to strengthen states’ existing well-plugging programs. New Mexico received an initial grant of \$25 million. The formula grants provide additional financial assistance for plugging and reclamation on state and private lands. New Mexico is eligible for up to \$72.3 million in formula grants; it received \$25 million in 2024. Finally, performance grants are intended to reward states for meeting specific targets; matching performance grants of up to \$30 million are available to cover the cost of any spending on orphaned well plugging in a single fiscal year that exceeds historic state averages, while regulatory improvement performance grants provide up to \$40 million to states that improve their standards and procedures around well-plugging and strengthen their regulatory frameworks to avoid future orphaned well liability. New Mexico received a \$5.5 million performance matching grant in January 2025 based on the average of its spending on well plugging between 2010 and 2019. A federal review of grants briefly paused funding in early 2025, but it has since resumed.

OCD spent \$46.4 million between FY19 and FY24 on plugging and reclamation of 360 wells and their associated infrastructure.

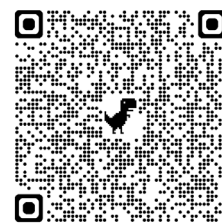
With federal funding to plug and remediate orphaned wells, OCD has recently increased its yearly plugging rate from 30 to 50 wells a year to over 100 in FY24. Historically, OCD has not consistently or systematically tracked the costs incurred by the state for plugging and reclamation, complicating the assessment of long-term trends in spending on orphaned wells. However, at a high level, OCD has spent more in the last five years on plugging and reclamation than it did in the previous 10. As spending has increased, the costs for plugging and remediation have also risen dramatically.

Plugging costs are highly site-specific but depth, type of well, and other variables typically affect costs. Numerous studies have found the cost of plugging can vary widely between different well sites. However, a 2021 study of more than 19 thousand wells across several states found certain factors to be predictive of increased costs, including well depth, well age, and the elevation of the well site. Additionally, the study found gas wells were, on average, 9 percent more expensive to plug than oil wells because of additional time and equipment often needed to stop the flow of natural gas during plugging operations. In testing those findings on recent well plugging costs in New Mexico, the relationships between plugging costs and depth and plugging costs and well type hold true; deeper wells were more expensive to plug and gas wells were more expensive than oil wells. (In FY24, the average gas well cost 101 percent more to plug than the average oil well, but the sample size was only 10 wells). Wells at higher elevations, however, were not more expensive in FY24 than lower elevations, and older wells were not significantly more expensive than more

Figure 5. New Mexico's IJJA Funding Eligibility



Source: Orphaned Well Program Office



Scan the QR code for an interactive map of wells plugged by the state

recently drilled wells. New Mexico's current financial assurance regulations account for the increased cost of depth in requirements for single well bonds, but not all-well or blanket bonds, and do not differentiate between oil and gas wells.

The average per-well cost of state-contracted plugging has risen nearly 450 percent since FY19 and the average per-foot cost has risen 270 percent, more than eight times the rate of overall oilfield inflation.

OCD does not systematically track the cost of well plugging, but LFC analysis of available invoices from FY19 onward shows the per-well cost of state-contracted plugging rose 443 percent between FY19 to FY24, from an average of \$30 thousand to \$163 thousand. In FY24, costs ranged from \$31 thousand to \$778 thousand. Because deeper wells, which take more time and require more cement, are typically more expensive to plug, many cost comparisons use cost-per-foot instead of a per-well average. Since FY19, per-foot costs for state-contracted plugging have risen roughly 270 percent. In FY24, the average per-foot cost of state-contracted plugging in New Mexico was \$43.85. The Texas Railroad Commission (RRC) has reported comparable costs for state-contracted plugging in RRC District 8, a region that borders New Mexico. However, RRC attributes those high costs primarily to complex emergency plugging incidents in District 8. While New Mexico has had a handful of emergency plugging incidents, its costs for nonemergency plugging are similarly high (see Appendix D for more on Texas' plugging costs).

Table 6. OCD Reclamation and Remediation Costs for Orphaned Tank Batteries
FY23-25

Cato San Andres Tank Battery #6	\$ 623,024.02
Double L Queen Tank Battery	\$ 5,151,041.47
Hal J Rasmussen Tank Battery	\$ 7,607,260.24
Total	\$13,381,325.73

*Note, all totals are as of May 1, 2025

Source: SHARE

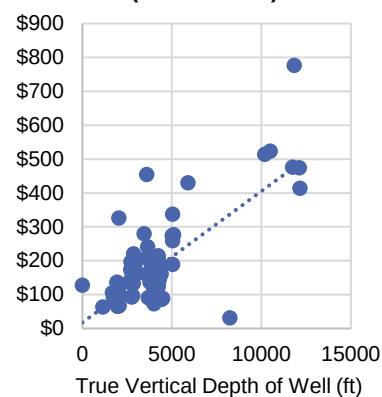
While OCD spent more overall on well plugging between FY19 and FY24, per-project costs were highest for remediation and reclamation of infrastructure associated with oil and gas production, not well plugging itself. In FY23, OCD began remediation and reclamation work on three tank batteries—groups of tanks typically used to collect, separate, and store crude oil and produced water—in Lea and Chaves counties. The tank batteries were previously owned and operated by Canyon E&P Company, Cano Petro of New Mexico, and Hal J Rasmussen Operating, and all three were selected for remediation because of suspected or confirmed leaks of petroleum hydrocarbons. Two of the three projects are ongoing, but the most expensive project to date has been the Hal J Rasmussen site, known as the Reed Estate #001 tank battery. A site assessment conducted prior to remediation efforts found soil with

Table 5. FY24 Average Cost to Plug by Well Type

Well Type	# of wells	Average Cost
Overall Average	106	\$163,000
Oil	81	\$150,634
Gas	10	\$303,063
Injection	13	\$120,634
Salt Water Disposal	2	\$259,965

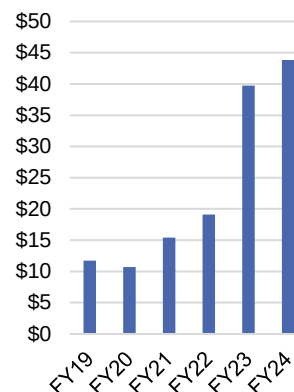
Source: OCD, SHARE

Chart 5. FY24 Cost of Plugging by Depth of Well
(in thousands)



Source: OCD, SHARE

Chart 6. Average Per-Foot Cost for State-Contracted Plugging
FY19-24



Source: LFC analysis of OCD and SHARE data

hydrocarbon levels 10 times the state limit and chloride levels double the state limit. However, the most recent leak at the site was more than a decade ago and there is no evidence spills at the site have contaminated groundwater or a nearby playa (seasonal lake). Similarly, a contamination delineation assessment of the Double L Queen Tank battery (Canyon E&P) found evidence of hydrocarbon and chloride contamination above state thresholds from past leaks, but no evidence the spills had impacted groundwater resources or caused any additional health or safety issues. At the third site, known as the Cato San Andres tank battery #6 (Cano Petro), OCD documents do not indicate that similar soil sampling or groundwater assessment have occurred to date, but photographs submitted to the division by the contractor responsible for cleanup show pools of standing oil at the site. In a 2021 report for the New Mexico State Land Office, Vertex Resources estimated the decommissioning and reclamation costs of a storage tank site at \$9.5 million, based principally on an assumption of a large site surface area and the need to remove substantial volumes of contaminated soil. Invoices from the tank battery sites show that removal of contaminated soil is by far the largest line-item expense.

Figure 6. Orphaned Tank Batteries



Double L Queen tank battery in Chaves county



Cato San Andres tank battery #6 in Chaves county

Source: Envirotech/Frontier Development

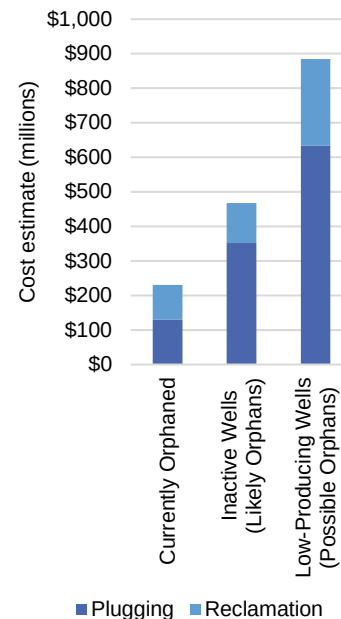
Current Orphaned Wells Will Cost the State More Than \$200 Million; Future Liability Very Likely Exceeds \$700 Million

New Mexico does not define “orphaned well” in statute or rule, resulting in different estimates of both the number of orphaned wells and the resulting state liability, depending on the context and source. For this report, orphaned wells are those for which OCD has already pursued and received plugging authority, either through a settlement agreement or administrative hearings, because those represent the most immediate and certain costs. However, in addition to wells the state already has legal authority to plug, thousands of inactive and low-producing wells are at risk of being orphaned, potentially increasing the state’s liability by many orders of magnitude. OCD considers a well “inactive” if it has not reported production in 15 months. OCD does not currently have the authority to plug approximately 1,400 inactive wells on state or private land that it considers likely to be orphaned. In addition to those inactive wells, thousands of wells produce extremely low volumes of oil and gas—less than a barrel of oil equivalent per day. For many of those wells, the expected cost of cleanup far exceeds predicted future revenues, increasing their risk of being orphaned. Altogether, the state’s current and near-future liability for well plugging and site remediation is estimated to be between \$700 million and \$1.6 billion.

Plugging and reclaiming the well sites and associated infrastructure OCD currently has responsibility for will likely cost between \$200 million and \$400 million.

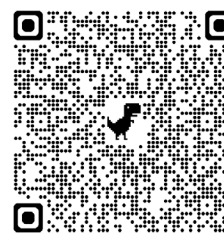
Based on internal OCD data, the division is currently responsible for plugging close to 1,000 orphaned wells, including roughly 700 on state or private land. At recent rates, plugging those wells will take close to a decade, not including well site remediation and reclamation. OCD is also responsible for remediation and reclamation of an additional 500 well sites and 18 infrastructure sites, including a number of tank batteries. In total, plugging, remediation and reclamation of all currently orphaned wells and infrastructure on state and private land is estimated to cost a minimum of \$208 million, and likely more.

Chart 7. Liability Estimates for Plugging and Reclamation



*Note: Only wells on state or private lands; categories are mutually exclusive; plugging based on actual depth, \$43.85/foot, gas wells costing 9 percent more than oil wells; reclamation at \$83 thousand per well site.

Source: LFC analysis



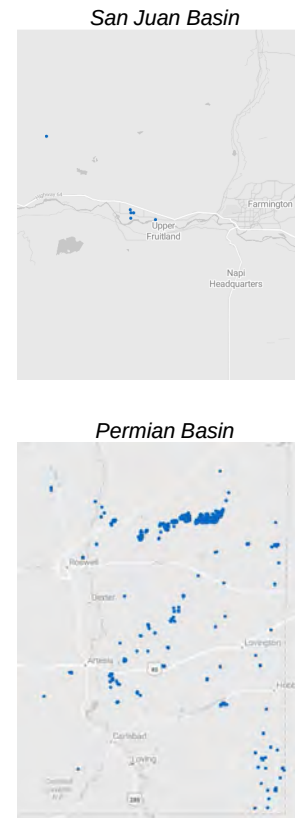
Scan the QR code for an interactive map of current, likely, and possible orphaned wells

The term “orphaned well” is not defined in either statute or rule, complicating efforts to estimate the state’s liability. While orphaned wells are commonly understood in the oil and gas industry to mean wells that have no viable operator and, therefore, have become the responsibility of the state or federal government, New Mexico does not define the term anywhere in statute or rule, and OCD does not use the term consistently. Public estimates of the number of orphaned wells in New Mexico vary widely, depending on how the term is defined. In some contexts, OCD cites around 700 orphaned wells; in others, it references 1,700 or more than 3,000. The disparity results from whether OCD includes only wells the state has pursued and received permission to plug or also those it does not currently have legal authority to plug but believes it will have to plug in the future. It also depends on whether the count refers only to state and private (fee) wells or also includes federal and tribal wells. While limiting the definition to only wells OCD currently has plugging authority for runs the risk of obscuring the magnitude of the state’s liability, it is important to distinguish between certain liability and expected liability. For that reason, this report considers those categories separately. Also, while OCD contracts for well plugging on state, private, tribal, and federal land under different circumstances, state funds are primarily used for plugging wells on state and private land¹, so those wells are the focus of this analysis.

OCD does not publish a list of wells the state has plugged or is planning to plug and does not track them consistently in internal documents. As a result of requirements associated with federal IIJA grant funding, OCD has recently begun compiling an internal list of wells the state has plugged or plans to plug, along with associated infrastructure requiring cleanup. That list represents the most comprehensive effort to understand the scope of state-contracted well plugging. However, the list is not publicly available and is frequently inconsistent with publicly available data. However, because it is the only available data source that tracks wells for which OCD has received plugging authority, LFC staff used the list to determine the number of currently orphaned wells in New Mexico and refined the number by removing incorrectly labeled data. Wells were included if they did not have a plugged date and if they were located on state or private land.

At current rates, plugging the 702 wells the state is currently responsible for will likely cost more than \$130 million and take close to a decade. According to OCD’s internal list, OCD currently has plugging authority for 702 wells that have yet to be plugged on state and private land. Based on the average per-foot cost for state-contracted well plugging in

Figure 7. Maps of Orphaned Wells in New Mexico



¹ Per Section 70-2-37 NMSA 1978, OCD does have authority to plug wells on federal land using the reclamation fund; however, most orphaned wells on federal land are plugged using federal money. Additionally, OCD does not have authority to plug wells on tribal land without a request from the corresponding tribal government. Therefore, this analysis of state liability only includes wells with state or private surface ownership; it excludes orphaned, inactive, and low-producing wells with federal surface ownership and private or state mineral ownership, which are rare.

FY24 (\$43.85) it will cost OCD over \$130 million just to plug those wells. That figure is based on actual well depths and an estimate that gas wells cost 9 percent more to plug than oil wells, although, as noted above, recent actual costs for plugging gas wells have been 101 percent higher than oil wells. If that trend holds, the total cost could be closer to \$141 million for those 702 wells. Saltwater disposal wells could also be more expensive to plug based on previous OCD spending, and there are currently 11 of those wells on OCD's plugging list. However, the state has plugged too few in recent years to draw clear conclusions. If the state's per-foot plugging costs could be brought closer to those of other states, like Texas's FY24 average of \$15.60 statewide, or back to OCD's average of \$19.10 in FY22, plugging currently orphaned wells could be closer to \$46 million to \$57 million. The state holds \$5.6 million in financial assurance associated with currently orphaned wells or their operators, meaning most of the funding for plugging the wells is likely to come from federal IJA grants or the reclamation fund. If FY24 plugging rates of approximately 100 wells per year are maintained, it would take OCD seven years to plug its current orphan well population. However, these estimates do not include the added time and cost of site remediation.

Table 7. Orphaned Well Plugging Cost Estimates

Estimate	Per-foot Cost	Oil and Other Wells (in millions)	Gas Wells (9% increase) (in millions)	Total Cost (in millions)
NM FY24 Average	\$43.85	\$118.7	\$12.1	\$130.8
NM FY24 Median	\$40.30	\$109.1	\$11.1	\$120.2
NM FY22 Average	\$19.10	\$51.7	\$5.3	\$57.0
Texas Statewide FY24 Average	\$15.60	\$42.2	\$4.3	\$46.5

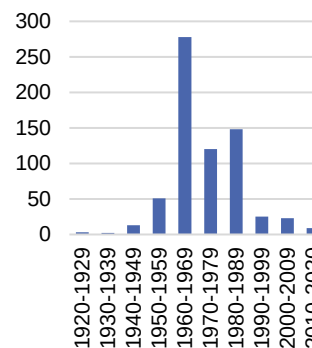
Source: OCD, SHARE, Enverus

In addition to plugging, OCD is currently responsible for remediation and reclamation of roughly 1,200 well sites; the estimated cost is \$48 million to \$100 million. In addition to the 702 unplugged wells, 499 wells plugged by the state between 2013 and 2024 are awaiting environmental remediation and reclamation. OCD records show the division has only remediated and reclaimed five of the wells it has plugged since 2013. That work cost a total of \$205 thousand, including performance bond premiums paid by contractors but reimbursed by OCD. The average per-site cost was approximately \$40 thousand. All those projects were completed in FY24 for wells plugged in FY18. At \$40 thousand per site, remediation of all roughly 1,200 well sites the state currently has authority for would cost an estimated \$48 million. OCD has inspected 121 well sites to date and has estimated the cost of remediation and reclamation for those sites at \$2.8 million, or an average of \$23 thousand per site. However, based on past averages and other studies, that estimate is likely low. The 2021 Vertex Resources study for the State Land Office estimated well site remediation and reclamation at \$83 thousand per-site, on average, which would put the total at \$100 million, not including cleanup of infrastructure associated with the well sites, like tank batteries.

Ridgeway Arizona Settlement Agreement

Among the orphaned wells OCD is currently plugging are a number of wells owned by Ridgeway Arizona Oil Corporation, an active operator. In 2023, OCD reached a settlement agreement with Ridgeway Arizona to plug 299 of the company's wells. Under the terms of the agreement, the state is paying upfront to plug the wells, with Ridgeway Arizona reimbursing the state "at a rate of \$2.00 per gross barrel of oil sold by Operator," with a minimum payment of \$30 thousand per month. According to OCD contracts, the state paid \$1.3 million to plug six of Ridgeway's inactive wells in FY24, for an average cost of \$210 thousand per well. If future costs are similar, the total for the remaining inactive Ridgeway wells could exceed \$60 million. Paying \$30 thousand per month, it would take Ridgeway Arizona 170 years to make the state whole in that scenario.

Chart 8. Orphaned Wells by Year Drilled



Note: Does not include orphaned wells missing a drilling date (30 out of the 700)

Source: OCD

OCD is also responsible for decommissioning, remediation, and reclamation of 18 infrastructure sites; the estimated cost is \$30 million to \$140 million. The infrastructure sites include both tank batteries and a waterflood facility, which are facilities that treat, store, and pump (usually produced) water for injection into oil and gas wells to increase reservoir pressure and boost oil recovery. As noted above, the cost for remediation and reclamation of tank batteries has varied widely in the past. The three already-commenced projects have collectively cost the state \$13.4 million since FY23, and two are ongoing. Two of the tank battery sites listed for future reclamation are considered “highest” priority by OCD, although no public documents indicate how the division arrived at that assessment. OCD has not yet had to reclaim a waterflood facility, and its public database lacks information about the facility, making it difficult to estimate the potential costs associated with its decommissioning and reclamation. Given that the only completed tank battery project cost OCD \$5.2 million and a nearing-completion project has already cost \$7.6 million, a very conservative estimate for the remaining 15 tank batteries would be \$30 million, at \$2 million per site. On the high end, using the \$9.5 million estimate from the Vertex Resources report, the costs could be more than \$140 million.

OCD expects to plug and reclaim most wells on its inactive well list, which would cost close to \$500 million.

OCD rules require it to keep a publicly available “inactive well list” that is updated daily. The list records wells that have reported no production or injection for 15 months, a period encompassing both the 12 months of inactivity that renders a well out of compliance with the Oil and Gas Act and a 90-day grace period for the operator to remedy the problem and report production. Inactive wells become orphaned wells when OCD issues a notice of violation (NOV), and the operator fails to bring its inactive wells into compliance. While virtually all wells on the inactive list are eligible for enforcement action, OCD has historically prioritized issuing NOVs to operators with large numbers of inactive wells. However, the division considers the entire inactive well list likely orphans. In its application for federal IJJA funding, OCD estimated New Mexico has 1,700 orphaned wells, a number encompassing all inactive wells on state and private land, including wells for which OCD has not yet pursued plugging authority.

**Table 8. April 2025
Inactive Well Count by
Surface Owner**

Surface Owner	Inactive Wells
State	749
Private/ Fee	1307
Federal	955
Tribal	336

Source: OCD Inactive well list

Twenty-nine percent of operators are out of compliance with the Oil and Gas Act because they have too many inactive wells. Under administrative code, an operator is allowed to have a certain number of wells that are nonproducing and unplugged for more than a year while remaining in compliance with the Oil and Gas Act, depending on the size of its overall well portfolio. About 60 percent of the 576 oil and gas companies operating in the state have at least one well that has not produced anything in the past 15 months; 29 percent of all operators are out of compliance with the Oil and Gas Act because they hold too many inactive wells. Of those out of compliance, 121 companies have no wells that have produced any oil or gas in the last 15 months; they collectively hold 1,034 inactive, unplugged wells. About 70 percent of those operators could be considered very small, with five wells or less.

Table 9. Years Since Last Production for Inactive Wells

Years since last production	Number of inactive wells
1 to 5	928
6 to 10	283
11 to 20	140
21 to 40	47
More than 40	3

Source: OCD

Table 10. Operators Out of Compliance Due to Inactive Well Counts

Size of Operation	# of inactive wells to be out of compliance	# of operators out of compliance
100 wells or less	Two or fifty percent, whichever is more	139
101 to 500 wells	Six or more	20
501 to 1,000 wells	Eight or more	7
More than 1,000 wells	11 or more	1

Note: As of March 2025.

Source: OCD Inactive Well List

Currently, the state does not have plugging authority for 1,400 wells on state or private land that appear on the inactive well list; they could cost the state \$468 million to plug and reclaim. The inactive well list is updated daily and is not archived, making it difficult to track trends in the data over time, but past presentations and reports from OCD indicate the overall number of inactive wells has been increasing. A 2008 LFC report card for EMNRD indicates roughly 2,000 wells were inactive at the time. In 2021, OCD reported the state had over 3,000 inactive wells, similar to the number of inactive wells on the list when it was exported for analysis in this report in April 2025. Of those, roughly 2,000 are on state and private land and 1,400 are not currently orphaned. Plugging those 1,400 inactive wells would cost \$352 million at the FY24 per-foot average of \$43.85, assuming gas wells cost 9 percent more. However, if gas-well costs follow recent trends, the total would be closer to \$416 million. Site remediation would cost an additional \$116 million based on Vertex's per-site estimate of \$83 thousand. OCD currently holds \$66 million in financial assurance associated with the operators of those wells, although not all of that would likely be available for plugging and reclamation. At the rate OCD plugged orphaned wells in FY24, about 100 wells, it would take the division over 30 years to plug all the wells on the inactive well list. About 14 percent of the remaining wells on the inactive well list have not produced or injected in the last decade.

Table 11. Estimated Costs to Plug Remaining Inactive Wells

(in millions)		
Per- foot Estimate	Total Cost (9% more for gas wells)	Total Cost (101% more for gas wells)
NM FY24 Average (\$43.85)	\$352.5	\$416.4
NM FY24 Median (\$40.30)	\$323.9	\$382.7
NM FY22 Average (\$19.10)	\$153.5	\$181.4
Texas Statewide FY24 Average (\$15.60)	\$125.4	\$148.1

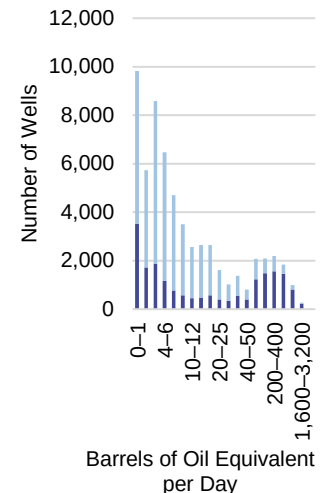
Source: OCD Inactive Well List, SHARE, Enverus

In addition to fully inactive wells, thousands of extremely low-producing wells have minimal revenues and hundreds of millions of dollars in outstanding cleanup liabilities.

New Mexico oil and gas production has climbed precipitously in recent years, driven by a small subset of very high-volume unconventional wells in the Permian Basin. Meanwhile, a growing majority of wells in the state are “stripper” wells, nearing the end of their productive lives. While low-producing wells can generate significant revenues for both operators and the state, wells below certain production thresholds are unlikely to generate sufficient revenues in their remaining lifespan to be able to fund their own plugging and reclamation, putting those wells at greater risk of being orphaned.

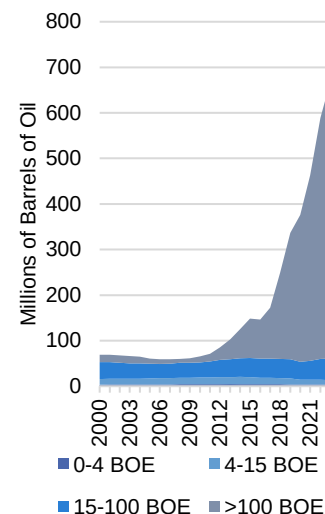
Wells producing extremely low volumes pose a financial risk to the state because they may not generate sufficient revenues to fund their own end-of-life plugging and abandonment. Stripper wells are defined in Section 7-29B-3 NMSA 1978 as an oil well producing less than 10 barrels of oil a day, a gas well that produces less than 60 thousand cubic feet of gas a day or an oil and gas well that produces less than 10 barrels of oil equivalent (BOE) per day. The federal government uses the term to refer to wells that produce less than 15 BOE a day. According to production data from the energy analytics firm Enverus compiled by the federal Energy Information Administration, 64 percent of active wells in New Mexico produced 10 BOE a day or less in 2023. Those 38,817 stripper wells accounted for 1 percent of the state’s oil production and 7 percent of its natural gas production in 2023 and generated roughly \$890 million in revenue based on average commodity prices. However, most of those revenues are attributable to wells producing at the higher end of the range, with just \$48.8 million, or an average of \$5 thousand per well attributable to the 9,824 wells that produced 1 BOE a day or less in 2023. Revenues for those ultra-low producing wells likely vary widely, depending on the oil/gas ratio of the well (oil-heavy wells are more profitable), pipeline availability, and location, among other things. However, even at the high end, those wells are unlikely to be generating sufficient revenues to finance their own end-of-life plugging and abandonment. While companies with diversified well portfolios may be able to fund plugging and abandonment out of revenues from other wells, companies with concentrated portfolios of ultra-low-producing wells may struggle to meet their end-of-life asset retirement obligations.

Chart 9. New Mexico Oil and Gas Wells by Production Volume, 2023



Source: EIA (Enverus)

Chart 10. New Mexico Oil Production by Well Production Volume, 2000-2023

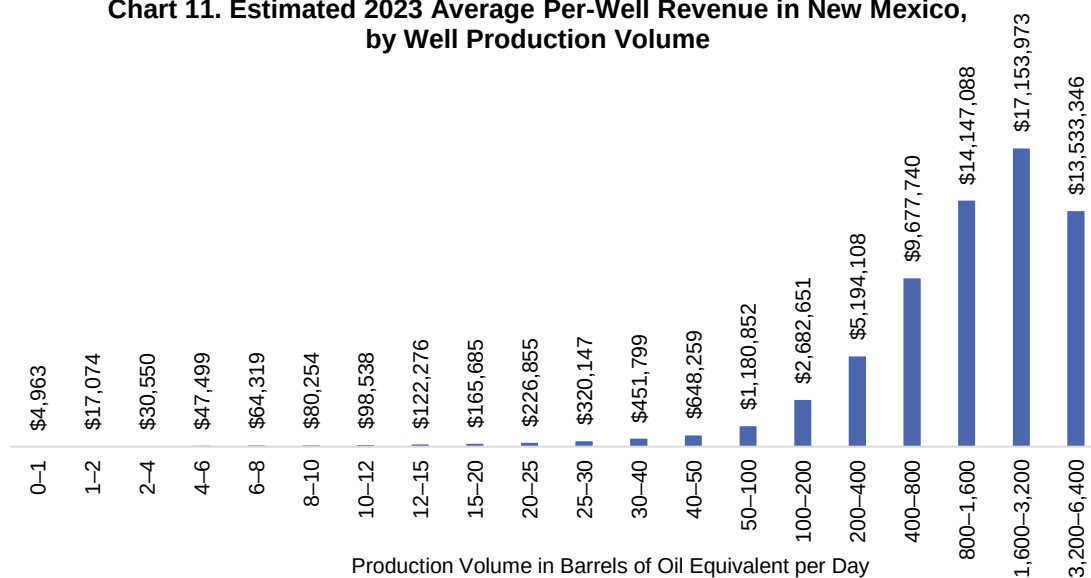


Source: EIA (Enverus)

There is no specific threshold at which a well becomes uneconomic, but production of less than 2 BOE a day may be an appropriate threshold for additional regulatory scrutiny. Determining the specific point when a well becomes uneconomic—i.e., when a well’s liability surpasses the value of its potential future production—is challenging for several reasons, but principally because of fluctuating prices for oil and gas. For example, a well producing 2 BOE per day might be profitable at \$100 per barrel but uneconomic at \$50 per barrel. However, as noted previously, in New Mexico, the average well plugged in recent years produced approximately 2 BOE per day in the year prior to abandonment. Because most wells are plugged by the industry, that suggests operators may find it uneconomic to maintain production from wells producing less than 2 BOE a day—roughly 750 BOE a year. In Colorado, wells producing less than two barrels of oil or 10 mcf of gas per day are considered “low-producing” and are subject to additional scrutiny because of their risk of being orphaned. New Mexico should consider adopting a similar standard. In 2023, 15,558 wells produced less than 750 BOE. Of those, 9,016 produced less than 750 BOE a year from 2021 to 2023 and are not currently on the state’s orphaned or inactive lists, including 4,969 on state or private land. Given when industry plugs wells and Colorado’s regulations, that group of persistently low-producing wells likely represents those most at risk of being orphaned in the future.

In Colorado, wells producing less than two barrels of oil or 10 mcf of gas per day are considered “low-producing” and are subject to additional scrutiny because of their risk of being orphaned.

Chart 11. Estimated 2023 Average Per-Well Revenue in New Mexico, by Well Production Volume



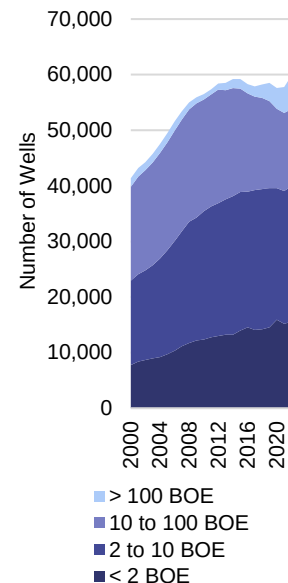
*Note: Estimates are based on EIA’s 2023 average WTI price of \$77.58/barrel and Henry Hub spot price of \$2.53/MMBtu. EIA classified wells based on peak production, without accounting for well downtime, so for categories with a small sample size (11 wells produced 3,200 boe +/-day), well downtime has a large effect on overall production volumes, and per-well revenue estimates.

Source: LFC analysis of EIA (Enverus) data.

The roughly 3,000 wells on state and private land in New Mexico that have produced less than 1 BOE per day over multiple years are likely at the end of their lives. Wells may temporarily dip into ultra-low production levels for a variety of reasons. However, wells that consistently produce less than 365 barrels of oil equivalent a year (1 BOE a day) are likely at the end of their productive lives, given the average production of wells in the year before they are plugged. More than 5,000 oil and gas wells in New Mexico fall into that category based on annual production data for 2021, 2022, and 2023. (This analysis excludes enhanced oil recovery injection wells and saltwater disposal wells, which also require plugging at the end of their lives.) While some of those wells are currently on the inactive list, a majority are not. Of the wells not on the inactive list, 3,024 are located on state or private land, meaning they could become the responsibility of the state if their operators fail to plug them. Seventy percent of those wells are oil wells while 30 percent are gas wells, and they are of widely varying vintages, with some of the wells drilled more than a century ago, according to OCD records, and others drilled as recently as 2020. Most were drilled between 1950 and 2010. The vast majority of the wells—87 percent—are owned by private companies whose financial health is difficult for regulators to assess. New Mexico should consider updating its definition of “inactive” to include wells producing fractions of a barrel a day for multiple years, to minimize the incentive for operators to delay plugging of wells.

Potential liability for extremely low-producing wells greatly exceeds potential tax contributions. While wells can continue producing in very low quantities for extended periods of time, the financial risk those wells pose to the state far exceeds potential tax revenues. At an 8 percent effective tax rate on oil and gas, the 3,024 wells producing 365 BOE a year would generate a maximum of \$6 million in tax revenue annually with West Texas Intermediate crude oil at \$70 per barrel. The 1,828 wells producing 180 BOE would generate a maximum of \$1.8 million in tax revenue annually under the same scenario. At current state-contracted plugging and reclamation costs, using actual depth and assuming gas wells cost 9 percent more to plug than oil wells, plugging and reclaiming those wells would cost \$531 million to \$885 million.

Chart 12. New Mexico Oil and Gas Wells by Production Volume 2000-2023



Source: EIA (Enverus) data

Table 12. Estimated Plugging Costs for Wells Producing <365 BOE Annually Between 2021 and 2023

	Number of Wells	Estimated Plugging Cost
< 90 BOE	1,135	\$235,000,000
<180 BOE	1,828	\$379,000,000
<365 BOE	3,024	\$634,000,000

*Note: Only currently active wells on state or fee land; categories are inclusive; plugging estimate based on actual depth, \$43.85/foot, and gas wells costing 9% more than oil wells

Source: LFC Analysis of OCD data

Recommendations

The Legislature should consider:

- Amending statute to define “orphaned” and “abandoned” wells, aligning the definitions with their common use in the oil and gas industry and clarifying that “orphaned” wells are oil and gas wells for which the state has pursued and received plugging authority.

The Energy, Minerals and Natural Resources Department should:

- Archive and publish a quarterly inactive well list to enable longitudinal analysis and better cost estimating.
- Create a system that formally reminds operators of stripper wells of state statute and rule requiring them to plug and properly abandon their wells;
- Promulgate rules defining “low-producing” wells (such as wells producing less than 750 BOE annually or ~ 2 BOE per day); and
- Promulgate rules to expand the definition of “inactive well” to include consistently ultra-low producing wells (such as wells that produce less than 180 BOE annually or ~0.5 BOE per day for more than three years).

Reforms That Prioritize Operator-Led Cleanup can Limit the State's Financial Exposure

Requiring financial assurance is currently the state's primary tool to discourage operators from orphaning wells, but in practice, it is insufficient. Even when OCD can successfully forfeit an operator's financial assurance, the amount recovered is typically far below the actual costs of plugging and reclamation. The gap between actual plugging costs and the required financial assurance weakens the incentive for operators to plug their own wells, especially older, low-value wells where cleanup costs are high. As a result, operators are more likely to walk away from those wells, leaving OCD to manage the most complex and least desirable sites. Managing those projects has proven difficult: OCD was not designed to act as a large-scale plugging contractor and has struggled to control costs and ensure consistent quality. To reduce future liabilities and discourage a reliance on state-contracted plugging, the Legislature should consider regulatory mechanisms beyond financial assurance that would better align incentives and keep well closure in the hands of the industry, which is generally better equipped to do the work efficiently and cost-effectively.

OCD struggles to control both the cost and quality of state-contracted plugging.

As noted in earlier in this report, per-foot and per-well costs for state-contracted plugging have increased sharply in recent years. There are a number of possible explanations for that increase. Oil field inflation has increased industry costs across the board. Also, with increased funding, OCD has taken on a backlog of plugging and remediation work that involves more complicated and expensive wells and associated infrastructure. However, OCD's lack of systematic cost-tracking mechanisms and its procurement process have also likely contributed to the rapid increase in New Mexico's per-foot plugging costs, which are higher on average than neighboring states. Since FY19, OCD has managed well plugging and reclamation through four separate statewide price agreements (SPAs), each amended multiple times. Instead of issuing contracts for individual projects, OCD uses SPAs as rate sheets, allowing contractors to bill for work based on pre-approved unit prices. That approach has resulted in limited price competition and inconsistent cost control, with multiple projects requiring change orders exceeding \$1 million. Plugging designs and costs have also varied widely across sites with similar characteristics, suggesting gaps in both quality oversight and financial accountability.

OCD Contracting Procedure for Standard Well Plugging Operation:

1. OCD requests and receives a plugging price estimate from a vendor on the statewide price agreement.
2. OCD issues a purchase order (PO) to the vendor.
3. The vendor designs a plugging plan and wellbore diagram based on available information.
4. The vendor submits a sundry notice to OCD for review and approval.
5. OCD reviews the sundry and may add additional conditions of approval, depending on the well.
6. The vendor plugs the well and submits a plugging and abandonment report for the OCD well file.
7. The vendor invoices OCD with line items for each per-unit charge, by day.

Source: OCD

Records associated with orphaned wells may be missing or incomplete, making it more difficult to anticipate problems that might arise during plugging. Operators are required to file paperwork with OCD about various well operations, including drilling, well completions, and well conversions. Many of those records are digital or have been digitized and are available as PDFs on OCD's website. However, those public well files usually contain far less detail than the files available to operators themselves when they purchase a well. Older wells also often have incomplete OCD well files, resulting in situations where OCD's plugging contractors encounter unanticipated problems as they commence plugging. Those problems can result in orphaned wells being more expensive and dangerous to plug than wells plugged by the industry.

Figure 9: Incomplete Well File

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

DATE 1/31/84

RE: Proposed MC _____
Proposed DHC _____
Proposed NSL _____
Proposed NSP _____
Proposed SMD ✓ _____
Proposed WFX _____
Proposed PHX _____

Gentlemen:

I have examined the application for the:

Alpha Twenty One Prod. Co. Buckskin Fed. #2-N
Operator Lease and Well No. Unit, S - T - R 18-24-38

and my recommendations are as follows:

SOME OF THE PEA WELLS
DO NOT ISOLATE DISPOSAL ZONE.
THE CASE SHOULD BE SET FOR
HEARING OR DENIED.

The OCD file for the Buckskin Federal #002 well contains a document from 1984 indicating OCD had concerns at the time about converting the well to a saltwater disposal well. The file does not contain information about how those concerns were resolved, but it was ultimately converted. Plugging the well cost the state \$5.2 million.

Source: OCD

OCD does not have a comprehensive monitoring system for regularly assessing the relative risk of a well. As a condition of the federal IJA grants, OCD is required to measure the amount of methane a well is emitting pre- and post-plugging, the state's first attempt at monitoring leaks from orphaned wells. While methane is just one type of potential leak, it can indicate larger problems with the well that may not be otherwise easily detectable, making it a powerful diagnostic tool. To date, OCD has sampled 172 wells pre-plugging, most of which have since been plugged. Thirty-eight percent of the wells had no detectable methane leakage, and another 35 percent were leaking in very low quantities. However, 27 percent were leaking more than the IJA reporting threshold of 1 gram per hour. Leaking wells are supposed to be considered the top plugging priority in OCD's prioritization framework, which combines field observations with other

Figure 8. Corroded Production Tubing



When pluggers pulled the production tubing from this well prior to plugging, they found it was full of holes, likely caused by either prolonged contact with saltwater or hydrogen sulfide. Holes can cause the tubing to part or split as it is removed from the hole, which then necessitates expensive fishing operations.

Source: LFC files

Table 13. Pre-Plugging Methane Emissions

Emissions Rate (g/hr)	Count of Wells
0	66
< 1	60
1-100	37
100-1,000	4
1,000 +	5

Source: OCD

data to assign wells a plugging priority (see Appendix E for more on the scoring system). OCD has scored 271 or 39 percent of the 702 currently orphaned wells. Despite measured methane leaks at some of those sites, OCD has not assigned any of the currently orphaned wells to its top priority category. Also, OCD's priority rankings are time-sensitive, meaning low-priority wells may become high priority in the future. Factors like whether a well is inside a municipal boundary and the type of well are unlikely to change over time, but development can encroach on wells, and inactive and unmaintained wells are more likely to develop integrity issues that could lead to leaks or other problems. Roughly 80 percent of the 702 currently orphaned wells have not produced oil or gas in the last five years. Given that OCD has been able to plug roughly 100 wells a year in recent years, the lowest-priority wells on its list may not be plugged for close to a decade. Unmaintained and unplugged wells are more likely to develop integrity issues, which not only can pose an environmental and safety hazard but has the potential to make the wells more expensive and difficult to eventually plug. To reduce the risk of currently low-priority wells becoming safety or environmental emergencies, OCD should develop a system for consistently monitoring orphaned wells awaiting plugging.

Table 14. Statewide Purchase Agreements for Plugging and Reclamation

SPA	Start Date	End Date	Amendments	Spending Authorized Through SPA
60-521-16-05813	12/1/2016	12/1/2020	4	\$4,971,170
10-00000-20-00038	10/1/2020	10/1/2022	2	\$6,707,646
10-52100-21-06041	6/1/2021	6/1/2023	1	\$3,049,040
30-00000-22-00001	2/1/2023	(ongoing)	9	\$48,438,853

Source: LFC Analysis of SHARE data

Frequent changes to the statewide price agreements obscure pricing and make it difficult to pinpoint specific cost drivers. A statewide purchase price agreement (SPA) is a contract with one or more vendors to provide specific goods or services at a predetermined price for a set period. In theory, SPAs can allow the state to leverage its purchase power for discounts on bulk goods or services, but past LFC evaluations have found agencies often use them to make direct purchases that might be provided more economically through separate contracts. However, agencies often favor SPAs because they allow for faster procurement, without the need for individual bids. . OCD has used SPAs, administered for agencies by the State Purchasing Division of the General Services Department (GSD), for all of its plugging and remediation work in recent years, and the division says this allows it to respond quickly to emergency plugging situations. However, the division's use of SPAs reduces pricing transparency and cost control. Because of frequent changes to the invoiceable line items covered by the SPAs, it is extremely difficult to track changes to the costs of goods

and services over time. For example, cement retainers and cast iron bridge plugs—both used to help place cement plugs in the wellbore—have been categorized differently across the last four SPAs. Some agreements list them separately, others group them together, and the latest agreement includes different bid options based on whether they are set via tubing or wireline. However, where comparable, costs for the same goods and services have in many cases doubled or even tripled since FY19. Analyzing a single contractor’s invoices from 2023 shows that prices for identical line items increased by more than 20 percent between March and November of that year, at a time when the producer price index for oilfield services, a measure of inflation, was declining. For example, the cost of a “supervisor/cementer” rose from \$500 per day to \$750 per day, “backhoe services with operator” increased from \$100 per hour to \$150 per hour, and the price for a “wireline unit on location” jumped from \$500 to \$2,000.

Figure 10. Vendor Costs for Specific Line Items within the Statewide Purchase Price Agreement

			(AO)	\$1,730.00
			(AS)	\$5,100.00
61	Each	Wireline set CIBP, 7.625", includes setting tool rental		
			(AB)	\$3,500.00
			(AE)	\$2,850.00
			(AL)	\$5,000.00
			(AO)	\$2,345.00
			(AS)	\$5,600.00
62	Each	Tubing set CIBP, 7.625", includes setting tool rental		
			(AB)	\$3,800.00
			(AE)	\$5,250.00
			(AL)	\$5,000.00
			(AO)	\$1,925.00

Source: GSD

Without internal cost estimates or requirements to select the lowest bid, OCD may be paying more for plugging and reclamation than necessary. In the latest statewide purchase agreement, GSD requested vendor “bids” or rate proposals on 156 items and services related to the plugging, remediation and restoration of orphaned oil and gas wells and facilities. That process is similar to what Colorado requests as part of its “main service agreement” and Texas as part of its “request for qualifications.” The items and services in the SPA range from the per-item cost of sacks of Class B cement to the discount a vendor will offer if it provides items not covered by the SPA. Companies were not required to submit bids on all items, but only on the items and services they intended to provide. A total of 31 vendors were awarded under the agreement, ranging from oilfield service companies to environmental consulting firms. According to the terms of the SPA, awarded vendors effectively form a “pre-approved” vendor list.

OCD is not required to contract for the lowest rate proposed under the agreement but can choose the contractor it believes is best suited to a

particular job. Texas and Colorado follow similar models, but both states then issue separate, detailed contracts for specific plugging projects. Colorado's contract includes a per-unit, line-item breakdown of the estimated cost. In Texas, the Railroad Commission can negotiate the details of the contract. Before issuing a purchase order, OCD does not negotiate or develop its own internal price estimates for plugging and remediation work but instead relies on the approved vendors to submit estimates. Plugging costs frequently exceed estimates, with 236 recently plugged wells costing \$10.4 million more than originally budgeted. While some of those cost overruns may be unavoidable, requiring more detailed information from contractors upfront and having more structured processes for internally estimating costs could save the state hundreds of thousands of dollars if they help reduce project totals by even a fraction of a percent.

OCD has approved multiple change orders exceeding \$1 million on projects contracted through the statewide purchase price agreement.

Change orders are used to adjust the total authorized by a purchase order to accommodate alterations in scope, timeline, or cost. It is considered procurement best practice to limit change orders and for any change order involving significant increases or decreases to include supporting documentation and an estimate of the projected total cost. OCD frequently issues multiple change orders for plugging and reclamation projects, and often the justification for the change order is "additional work was required." In many cases, the division also issues change orders after receiving invoices for total amounts higher than the initial purchase order, which, while not prohibited, is considered a poor procurement practice.

Ballooning Costs as a Result of Plugging Problems

The most expensive well OCD plugged in FY24 was the BRC Madera #001 well (API 30-015-22372), a gas well drilled in 1977. The well is between an RV park and a residential neighborhood on the south side of Carlsbad and prior to plugging was leaking significant quantities of methane. OCD's contractor began plugging the well on August 23, 2023. According to a plugging summary filed with OCD, the contractor encountered a number of issues during plugging, including problems with cementing that resulted in the company having to drill out cement plugs it had previously set before replacing them, extending the time and equipment needed to completely plug the well. While the original cost estimate was \$250 thousand, it ultimately cost \$778 thousand to plug the well.

Table 15. Change Orders for Plugging the Buckskin Federal #002 Well (API: 30-025-27024)

Date	Event	Plugging	Bond Premiums	NM GRT	Total Authorized
7/5/2024	Purchase Order Issued for Plugging 2 Wells (Buckskin #001 and #002)	\$ 372,031.37	\$ 18,601.57	\$ 20,508.23	\$ 411,141.17
Undated	Change Order Issued	\$ 1,183,069.91	\$ (6,267.33)	\$ 61,802.00	\$ 1,649,745.75
1/29/2025	Change Order Issued	\$ 1,157,000.00		\$ 83,159.38	\$ 2,889,905.13
2/21/2025	Change Order Issued	\$ 2,750,000.00		\$ 342,617.63	\$ 5,982,522.76

*Note: The values associated with NM GRT in the latter two change orders do not correspond to a line item in the original purchase order but are assumed to be for NM GRT. The total is listed incorrectly in the 02/21/2025 change order but is correct in the table.

Source: SHARE

OCD has paid at least \$1.3 million between FY23 and FY25 to reimburse contractors for performance bond premiums but has no guidelines for nonperformance. The purpose of a performance bond is to ensure that only qualified, financially stable contractors take on public projects and that the contractor fulfills the obligations outlined in their contract. The terms of the most recent state purchase price agreement

governing plugging and reclamation work specify that companies are required to obtain performance bonds covering 50 percent of the project total for any project estimated to cost more than \$25 thousand. The agreement also specifies that the state will pay “the premium cost for the performance bond without markup.” Section 13-4-18 NMSA 1978 requires contractors to provide performance bonding for public works construction contracts valued at \$25 thousand or more. Public works contracts are defined as “a contract for construction, construction management, architectural, landscape architectural, engineering, surveying or interior design services.” While performance bonds can theoretically help insulate the state from liability associated with incomplete or poorly executed work, OCD has no record of ever pulling a contractor’s performance bond and does not specify under what circumstances it would do so in the statewide purchase price agreement. Nevertheless, according to invoices, OCD has paid at least \$1.3 million in bond premiums between FY23 and FY25. Some states do not require performance bonding for plugging and reclamation projects. The Colorado Department of Natural Resources only requires performance bonds for federally funded projects but not state projects; the Texas Railroad Commission’s contract management guide notes that performance bonds are “discouraged unless there is a compelling need or statutory requirement.”

Plugging costs and designs vary widely between sites with similar characteristics, suggesting inadequate quality and financial controls.

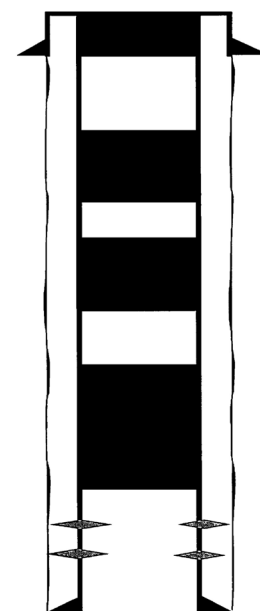
Examining a set of 12 oil wells plugged between March and November 2023 within a half-mile radius by the same contractor, total plugging costs ranged from \$73 thousand to \$220 thousand (Figure 13). The wells are largely identical in their depth, design and age. For example, the lowest and highest cost wells are 600 feet apart and were drilled in the same year, to the same depth (Table 15). While the final plugging design is also almost identical (Figure 11 and Figure 12), the OCD plugging report for the Barkneht well indicates the contractor had trouble with cementing

Figure 11. Plugged Wellbore Diagram: Barkneht #001
\$219,834



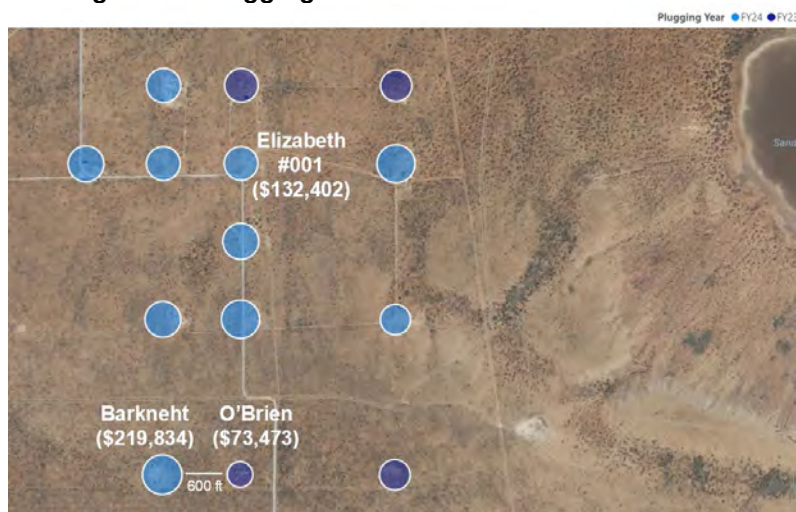
Source: OCD

Figure 12. Plugged Wellbore Diagram: O'Brien Lightcap 7 #001
\$73,473



Source: OCD

Figure 13. Plugging Cost Variation Within an Oil Field



Source: OCD, SHARE

equipment that resulted in needing to drill out a previously-set plug, and that it had to pump much more cement to cover the same vertical distance because of cement loss to the surrounding rock formation. The contractor ran a cement bond log—a tool used to determine how well cement is bonded to the casing and surrounding formation—prior to plugging the Barkneht well, but not the O’Brien, and used a device called a cement retainer below the first plug on the Barkneht, but not on the O’Brien. OCD attributes the differences in plugging costs and procedures to differences in the conditions encountered downhole, as well as staff turnover. While downhole conditions do vary across wells, differences of the magnitude observed in this small group of wells suggest OCD has inadequate financial and quality controls.

Table 16. Adjacent Well Plugging Comparison

Well Name	O'Brien Lightcap	Barkneht
API	30-005-60815	30-005-60817
Date Drilled	12/2/1980	12/15/1980
Well Depth	2860	2861
Well Type	Oil	Oil
Date Plugged	3/18/2023	10/12/2023
Plugs Placed	4	4
Days to Plug	5	9
Purchase Order Estimated Cost	\$78,974.00	\$150,000.00
Actual Plugging Cost	\$ 73,472.95	\$ 219,834.41

Source: OCD, SHARE

Having a designated agency representative on site for state-contracted plugging, as is done by the industry and other states, could result in significant cost savings and would ensure plugging standards are followed. It is common practice for the industry to have a representative on site during well-plugging operations, often called a “company man.” The representative might either be a direct employee of the company or a contracted third party, but the job is to be an on-site supervisor, sending frequent updates to the operator on actions taken to plug the well, materials used, and any issues that arise. The practice ensures all plugging standards are followed and that billing is accurate. Eight states require a representative of the regulator to be on site for well plugging, including Texas and Colorado, but New Mexico does not. While different states have different reasons for requiring a representative of the regulator on site during plugging operations, the practice has both potential quality and cost-saving benefits. Improperly plugged wells may leak, requiring re-plugging, which is time-consuming and expensive, so it is in the state’s interest to ensure wells are plugged properly the first time. There is also the potential for cost savings from more accurate invoicing. At the anticipated total cost for plugging all wells currently under OCD’s purview, a 1 percent cost savings would translate to \$1.3 million, which would cover the cost of OCD hiring a third-party contractor to be the division’s representative at state-contracted plugging operations.

OCD Plugging Oversight

Although many staff at OCD play some role in the state’s well-plugging efforts, only one person currently provides dedicated oversight of state-contracted plugging. That petroleum engineer in the engineering special projects group reviews contractor-provided plugging plans and diagrams and communicates with the plugging contractors over the phone about problems that arise, as well as any modifications to the plugging plan. However, the engineer is not in the field and must rely on accurate reporting from the contractors. Field oversight is handled by a rotating group of inspectors, who visit plugging sites as their broader duties allow but who are typically not present for any extended period of time at a site. Using IJA funding, OCD is currently attempting to hire a new staff member whose sole focus would be on-the-ground oversight of plugging operations, but the division has struggled with recruitment and retention (see Appendix F for OCD’s organization structure).

Despite recent increases, financial assurance posted by operators is typically insufficient to cover the costs of plugging and remediating orphaned well sites.

In 2015, the Legislature amended statute to create separate financial assurance requirements for “temporarily abandoned” wells, and in 2018, it increased the maximum amount of financial assurance that can be required for active wells from \$50 thousand to \$250 thousand. The result has been operators posting an additional \$53 million for temporarily abandoned wells and increased overall financial assurance. However, the financial assurance posted by some operators remains as low as \$105 per well, with only one operator in the state having more per-well financial assurance than the current average cost of state-contracted plugging.

Operators have posted a total of \$117 million in financial assurance with OCD, but that translates to less than \$1,000 per well for some operators. OCD records show the division currently holds unreleased financial assurance from 1,580 operators totaling \$117 million. There are currently 576 operators in New Mexico with unplugged wells. Of the financial assurance that has not been released by OCD, \$17 million is associated with operators that OCD records show no longer have any unplugged wells in the state. The largest amount held by OCD for a single operator with active wells is \$1.5 million, or \$20 thousand per well. The median financial assurance held by OCD for an individual operator with active wells is \$75 thousand, or an average of \$7,000 per well. However, some operators have much lower per-well financial assurance; more than three dozen operators have less than \$1,000 per well in posted assurance, and the company with the least has just \$105 per well. Because financial assurance is tied to specific operators, the per-well financial assurance amount is much more significant than the statewide total; OCD can only access funds from the individual operator whose wells it has plugged.

According to OCD records, the state has successfully redeemed a total of \$870 thousand in financial assurances since 2000, which represents just a fraction of the costs of state-contracted well plugging over the same time period. As noted previously, OCD does not have a comprehensive record of the wells it has plugged historically, making it difficult to evaluate how much financial assurance should have been available to OCD for plugging. However, according to OCD records, the state has successfully “redeemed” \$869,863 in financial assurance since 2000 from 15 different operators backed by 10 banks or sureties. OCD has not successfully redeemed any financial assurance since 2018; available data does not indicate whether the division has pursued forfeiture in the interim. Of the financial assurance that has been forfeited since 2000 (the furthest extent of OCD records), roughly a third (\$304 thousand) came from a single operator, Canyon E&P, which orphaned 227 wells in 2015 (see sidebar). There are 34 operators on OCD’s orphaned well list with wells on state or private land that are being or have been plugged by the division.

Canyon E&P: Insufficient and Unforfeited Financial Assurance

Canyon E&P, a foreign limited liability company, purchased many of its 227 wells in 2010 from an operator going through bankruptcy proceedings with the stated intent of using waterflooding to restore production from the wells, which had been depleted of conventional oil resources. However, the waterflooding never commenced and Canyon E&P also went bankrupt.

In 2015, OCD issued the company a notice of violation (NOV), noting that none of the company’s wells had reported production for two years and many of its wells had not produced for much longer, putting the company out of compliance with the Oil and Gas Act. After an administrative law hearing, the OCD director issued an order compelling Canyon E&P to plug the wells within 30 days, or barring that, giving OCD the authority to plug them itself. OCD began plugging the wells shortly thereafter, in the first quarter of fiscal year 2016.

At the time OCD began plugging Canyon E&P’s wells, the state held **\$957 thousand** in financial assurance from the operator. It has successfully forfeited **\$304 thousand**, while **\$644 thousand** is listed as unredeemed, without a release date. While OCD does not have records that would allow for analysis of the total amount spent by the state on plugging Canyon E&P’s wells, since FY18, it has been at least **\$10 million**.

A decade later, the division has fully plugged and remediated 25 of Canyon E&P’s wells, plugged but not remediated an additional 171, and **32 remain unplugged and unremediated**. Those unplugged wells have been sitting idle for at least 11 years, and in some cases as long as 30 years.

Together, those operators have \$5.8 million in unredeemed financial assurance, but the totals for individual operators vary widely, from \$16 thousand to more than \$1 million. The administrative burden of pursuing small amounts of financial assurance could be seen as outweighing the value, but not pursuing forfeiture may communicate that there are no consequences for orphaning wells.

While statute authorizes OCD to sue operators for indemnification of costs associated with state-contracted plugging, the division has no record of ever having done so. Section 70-14 NMSA 1978 allows OCD to sue operators to recover plugging costs paid out of the reclamation fund. However, there is no record of OCD ever bringing suit against an operator to recover costs incurred by the state through the plugging of its wells. The State Land Office (SLO) brought suit against an operator in 2016 for recovery of damages associated with spills and unpaid fees. In 2020, a judge ruled in SLO's favor and ordered the operator to pay \$2.4 million, with interest. In 2023, the company filed for Chapter 11 bankruptcy and in 2024, for Chapter 7. Despite the judgement, the state has not recovered any money beyond the operator's original financial assurance.

Regulators in other states and countries reduce their liability for plugging and remediating orphaned wells through various mechanisms.

Current financial incentives are poorly aligned to encourage operators to properly plug and abandon their wells because requirements for financial assurance per well are less than the typical plugging cost, and OCD does not consistently seek forfeiture of financial assurance. Regulators in other states and countries have attempted to address that misalignment of incentives through a variety of mechanisms, including increasing financial assurance requirements, assigning liability to prior operators or interest holders, and preventing the transfer of wells to operators that cannot demonstrate they have the financial resources to plug them. More direct approaches include requiring operators to set aside future cleanup money in site- or operator-specific trust or escrow accounts and to plug a certain percentage of their inactive wells regularly. Many of these policy approaches have only been implemented in recent years, making it too early to fully assess their long-term effectiveness, and each comes with tradeoffs in terms of administrative burden, enforceability, and industry impact. EMNRD is currently beginning a rulemaking process based on a third-party petition that would make changes to the financial assurance requirements, among other things. While many of the changes align with the recommendations of this report, they are constrained by the current statutory framework and, as a result, have the potential to simply replicate its existing problems. In New Mexico, the goal should be to structure policies that motivate operators to plug wells before they become OCD's responsibility, leveraging the industry's capacity to do the work faster and likely at a lower cost.

Table 17. Policy Options for Reducing Orphan Well Liability

Policy	Description	Arguments For	Arguments Against	Implementing Jurisdictions
Increased financial assurance	Increase required financial assurance amounts to reflect actual plugging costs, including requiring single well financial assurance for inactive and low producing wells.	Increases the money available to the state for orphaned well plugging; matches an operator or well's risk profile to its required financial assurance.	Bonds or letters of credit can be difficult to obtain and cost operators money that goes towards neither production nor plugging; it can be difficult for the state to forfeit surety bonds.	Colorado Proposed NM rules
Trailing liability	The regulator can hold prior operators, lease holders, or working interest owners responsible for well plugging and remediation if the current operator is unable to pay.	Allows the state to hold operators that profited from the well responsible for cleanup; encourages self-policing among operators and may minimize the transfer of wells to risky operators.	Trailing liability can be difficult to enforce and can result in costly legal battles.	California Louisiana Department of the Interior
Licensing	The regulator can assess various aspects of a company (past compliance, financial standing, plugging liability, well portfolio, etc.) to determine if a company should operate in the state and/or if it can buy wells from other operators.	Prevents operators that do not have the capital to plug wells, have many inactive wells, or are facing large plugging liabilities from obtaining more wells that could become the responsibility of the state.	Depending on the level of detail requested from operators, the administrative burden could be significant.	Alberta <Canada> Texas
Site- or operator-specific trusts	Operators are required to pay into a trust or escrow account up to a site- or operator-specific estimated cleanup cost. The payments can be structured to build over time at defined rates or be tethered to production, so those profiting the most pay the most.	Ensures the state has enough money to plug and remediate wells should they be orphaned and puts all the money spent by the operators on FA towards cleanup. Disincentivizes orphaning because liability is effectively pre-paid.	Between estimating the necessary assurance and tracking many hundreds or thousands of accounts, the administrative burden could be significant. This option also ties up operator capital.	Louisiana Colorado

Source: LFC files

In 2022, Colorado adopted new rules requiring additional financial assurance with the goal of aligning an operator's risk profile with its required financial assurance. In 2019, the Colorado General Assembly passed Senate Bill 19-181, which restructured the Oil and Gas Conservation Commission into the Energy and Carbon Management Commission (ECMC) and directed it to adopt rules ensuring every operator is financially capable of meeting statutory obligations, including plugging, remediation, and reclamation (C.R.S. § 34-60-106(13)). The resulting rules, which went into effect in 2022, require all operators to submit a financial assurance plan, reviewed annually by ECMC. In its rulemaking, the commission determined lower production is a proxy for higher orphaning risk, and as a result, the required financial assurance plans are tethered to an operator's average annual production and its corporate structure (e.g., public or private). Operators with lower average production are assigned to plans that require greater financial assurance. Operators on those plans must also make defined annual contributions to a third-party trust fund until their full financial assurance obligation is met. Operators receive credit toward their financial assurance requirements for wells they plug and abandon. As of June 2024, more than one-third of operators had not submitted a financial assurance plan, and another 10 percent had submitted plans that were deemed insufficient. The rules have also been criticized for offering too many compliance pathways, increasing ECMC's administrative burden and potentially creating loopholes. However, it remains to be seen whether they

ultimately achieve the goal of reducing the number of orphaned wells in the state.

Similar to Colorado, proposed New Mexico rules would require operators to submit a plugging and abandonment plan prior to purchasing wells and for OCD to collect more financial assurance from operators with lower production. The rulemaking proposal, case number 24683 submitted by the Western Environmental Law Center, would make changes to OCD's current rules regarding inactive wells, financial assurance and well plugging. Among the suggestions are requiring operators to submit plugging plans when wells are transferred that demonstrate the purchaser has sufficient resources to plug the wells it is purchasing, requiring single well financial assurance for wells that produce less than 1,000 BOE annually and for less than 180 days, and requiring operators with well portfolios composed of more than 15 percent inactive or low-producing wells to provide single-well financial assurance for all of their wells. The proposal also recommends treating wells that produce less than 90 barrels and for less than 90 days in a year as presumptively of "no beneficial use," meaning they would need to be plugged. This report recommends defining "low-producing" wells and requiring additional financial assurances for them. It further recommends expanding the definition of "inactive" wells to include wells that produce fractions of a barrel of oil equivalent a day. This report also suggests additional mechanisms be made available to fulfill financial assurance requirements that would allow operators to set aside money over time for plugging and reclamation costs. Careful consideration should be afforded in the rulemaking process to ensuring the changes do not result in operators orphaning additional wells.

California uses trailing liability to hold previous operators responsible for properly plugging and abandoning wells if the current operator does not meet its obligations. Since 1996, California administrative code (Cal. PRC. Section 3237) has stated that the current operator of a deserted well is responsible for properly plugging wells and decommissioning production facilities. However, if the regulator determines the current operator does not have the financial resources to fully cover the cost of plugging and cleanup, the immediately preceding operator is responsible for the cost. The regulator can continue to look to previous operators until an operator is found that is determined to have the resources to plug and abandon the well. That includes mineral interest owners that may have leased the working interest in a well to another person. Known as "trailing liability," the rule is meant to disincentivize operators from transferring wells to companies they believe will not have the capital to properly plug and abandon the well, therefore keeping it from being orphaned to the state. The federal Department of the Interior has also had regulations that create trailing liability for offshore oil and gas platform decommissioning since the 1950s. However, it has never used those rules to pursue a prior operator in part because complex corporate structures can limit the ability of regulators to pursue compensation using trailing liability.

While OCD is limited in its ability to hold previous operators responsible for well plugging and reclamation, the State Land Office (SLO) can hold lessees responsible for the cleanup of well sites on state land if the operator cannot afford or refuses to do it themselves.

On New Mexico state trust lands, the lessee and the operator of a well are often not the same because the entity that holds the lease from SLO may assign operational responsibilities to another company. In March 2020, SLO created an accountability and enforcement program focused on ensuring leaseholders comply with the terms of their lease agreements, including proper plugging and reclamation. SLO staff began tracking inactive wells and reaching out to lessees to plug and remediate those sites. In several cases, SLO has sued to compel lessees, and a recent New Mexico Court of Appeals decision concluded prior oil and gas lessees can be held responsible for cleanup necessitated by their activities on state trust lands. According to the agency, the program has resulted in the industry plugging 650 wells that may otherwise have been orphaned. At the current per-well average of \$163 thousand, that translates to nearly \$106 million in potential cost savings for plugging alone. SLO also claims increased enforcement has led to operators and lessees doing a better job of tracking and managing their inactive and marginal wells before the agency gets involved, but it is difficult to validate those claims. OCD records indicate a similar number of wells have been plugged annually in recent years as have been plugged historically, but it is possible those wells would not have been plugged otherwise.

The Alberta (Canada) Energy Regulator can deny the transfer of wells to operators that cannot afford to plug them. The Alberta Energy Regulator (AER) oversees all oil and gas production in Alberta, including licensing of oil and gas operators in the province. AER conducts an annual licensee assessment with the goal of understanding the ability of licensees to meet their regulatory obligations, including plugging and abandoning their wells. Factors considered in determining whether the applicant poses an unreasonable risk and should be denied a license include the compliance history of all actors within the applicant's company (including its directors, officers, and shareholders in the province and elsewhere), compliance history of actors previously associated with the applicant, financial health of the applicant and associated entities, outstanding debts to AER or others, cancellation or reductions in insurance coverage, and any unspecified factor AER considers appropriate in the circumstances. This process applies to the company's initial license to operate as well as whether it is allowed to purchase additional wells from other operators. Texas similarly requires operator assessments, though the information required is far less comprehensive than the financial and operational assessments used in Alberta. If OCD were able to review and deny or approve well transfers from one operator to another based on both companies' compliance history and available capital, the division could potentially prevent the transfer of wells to companies that do not have the financial resources to properly plug and abandon wells, therefore reducing the likelihood of orphaning.

Alberta Licensee Capability Assessment Considerations

- Financial health;
- Estimated total magnitude of liability (active and inactive), including plugging, remediation, and reclamation;
- Remaining lifespan of mineral resources and infrastructure and the extent to which existing operations fund current and future liabilities;
- Management and maintenance of regulated infrastructure and sites, including compliance with operational requirements;
- Rate of closure activities and spending and pace of inactive liability growth; and
- Compliance with administrative regulatory requirements, including the management of debts, fees, and levies.

Source: Alberta Energy Regulator

A site-specific trust account, like those offered in Louisiana and required for certain operators in Colorado, can be used as a supplement or alternative to the current financial assurance system.

Bonds, particularly surety bonds, have long been the primary regulatory mechanism for ensuring proper plugging and abandonment of wells. However, changes to the surety bond market have made those more difficult for some operators to obtain. As a result, regulators in some states have created a mechanism for companies to set aside money directly for cleanup through site-specific trusts or escrow accounts, up to an estimated maximum. In Louisiana, operators have the option of fulfilling their financial assurance requirements through a site-specific trust when they transfer a well to another operator. Typically, an operator will do that to avoid being held liable for plugging and remediation costs if the new operator fails to pay (because Louisiana also has trailing liability). The amount required for Louisiana's site-specific trust accounts is determined through an estimate of actual plugging costs, which must be updated when the well is transferred. A 2024 legislative program evaluation recommended Louisiana encourage the use of site-specific trusts by requiring them when new wells are permitted. In Colorado, certain low-producing operators are required to contribute to a sinking fund or third-party trust at a specified rate annually. Those funds are not tied to individual wells but to the operator itself to minimize the administrative burden on regulatory staff. Other models for escrow or trust accounts include tethering contributions to the account to production, with different tiers for the stage of a well's life. Those can be structured to ensure the operator who profits from the most from the well also pay towards the liability, or to require accelerated contributions later in a well's life. One advantage of trusts over sureties is that all the money paid into the account ultimately goes toward plugging and reclamation, not to a bank or insurance company through premiums. If structured properly, the trusts also ensure the state has sufficient financial assurance to cover the costs of plugging and remediating the site should it be orphaned.

Recommendations

The Legislature should consider:

- Amending statute to require the Oil Conservation Division of the Energy, Minerals and Natural Resources Department to annually provide a report to the Legislature detailing all costs associated with state-contracted plugging and remediation, not only costs associated with use of the reclamation fund, including information about average cost-per-foot for plugging and cost-per-acre for remediation;
- Amending Section 70-2-14 NMSA 1978 to specify that wells producing below certain thresholds set in rule require additional financial assurance;
- Amending Section 70-2-14 NMSA 1978 to allow an operator to meet its financial assurance obligations by fully funding a third-

party trust or escrow up to OCD's site- or operator-specific estimated plugging and remediation costs; and

- Amending statute to grant the Oil Conservation Division the authority to review and disallow the transfer of wells should the division determine, through processes outlined in rule, that the purchaser is unlikely to be able to fulfill its asset retirement obligations.

The Energy, Minerals and Natural Resources Department should:

- Promulgate rules specifying that low-producing wells require individual well financial assurance, posted within two months of notice, and clarifying that the transfer is contingent on regulatory approval;
- Publish a list of orphaned wells monthly, including both wells the state has already plugged and those it is planning to plug, including the costs associated with plugging and reclamation, to ensure transparent tracking of state expenditures on orphaned wells;
- Develop internal estimates for the cost of plugging and reclaiming individual wells and associated infrastructure;
- Develop individual contracts for plugging projects, in addition to the statewide purchase price agreement, that specify the scope of work, the estimated cost, the procedures for obtaining a change order and the circumstances under which OCD will pull a contractor's performance bond;
- Reopen its statewide purchase agreement for plugging and remediation work to solicit additional bids from plugging contractors by September 2025;
- Ensure the presence of a "company man" for all state-contracted well plugging who is responsible for filing daily reports on the activities undertaken by the contractor, the materials used, and the estimated plugging cost;
- Develop a risk-based monitoring system to track leaks from wells awaiting plugging, as well as plugged and abandoned wells, and provide annual reports on the number of previously plugged wells that are leaking, what they are leaking, and how much; and
- Complete the prioritization scoring of all currently orphaned wells and complete assessments for new orphaned wells within 90 days of the state assuming plugging authority.

Appendix A. EMNRD Report Card Updates on Orphaned Well Plugging

Fiscal Year	LFC/OCD Comments
2007	"The program area managed 12 site remediation projects in FY07 costing approximately \$3 million and exhausting reclamation funds available for this purpose. It should be noted that some of these projects, while expensive, were determined to be critical to reclamation efforts."
2012	"In FY12, the OCD spent only \$3 million, or 30 percent, of the oil and gas reclamation fund to plug wells and to conduct site assessments, monitoring and maintenance activities. The agency reports no wells were plugged for the first quarter of FY13 because a vendor on price agreement went out of business and the price agreement expired."
2013	"Well plugging activity increased in FY13, with a cumulative, annual total of 57 wells plugged, decreasing the number of outstanding wells to be plugged by almost 50 percent. Additionally, the program generated \$100 thousand in revenue for the oil and gas reclamation fund from the sale of salvage equipment at the plugging sites."
2014	"The program is currently working with a group of contractors to properly plug a significant number of wells resulting from the business failure of the former Xeric Oil and Gas Corp. There are 45 such wells located southwest of Hobbs, ten of which were plugged in the first quarter of FY14."
2015	"The program is currently working with a group of contractors to properly plug a significant number of wells resulting from the business failure of the former Xeric Oil and Gas Corp. The hearing process for two sets of wells was completed and the wells are now approved for plugging. The division has five plugging contractors under contract. All five are currently doing work for other clients and will begin plugging wells for the Oil Conservation Division as soon as possible."
2016	"The agency is on track to meet the annual target for plugging abandoned oil and gas wells. However, agency and LFC projections show a rapidly decreasing oil reclamation fund balance through FY17 due to a long list of wells authorized for plugging – which is expected to grow in the near future due to oil producer bankruptcies – and increased use of the fund to support agency operations. At the same time the fund is being tapped at a higher rate, revenues are projected to decline as the oil and gas industry weathers the downturn. As of May 2016, the cash balance of the oil reclamation fund is \$9.3 million, but agency staff reports an unobligated balance of only \$395 thousand and projects a reduction in fund revenues. The average cost of plugging a well is \$30 thousand to \$40 thousand."
2017	"OCD had been waiting on General Services Department approval of a new four year plugging contract, which stopped activity in the second quarter. However, 10 wells were plugged in the third quarter and improved weather conditions should allow the agency to meet the annual target of 30 wells plugged."
2018	Q1: "No wells were plugged in the first quarter, which the OCD attributes to wet weather in the southeast which limited access to well locations. OCDs performance on this measure will also likely be hindered by funding; the oil reclamation fund, which is used to pay for plugging activities, will likely be exhausted by the close of FY20." Q2: "OCD plugged 12 wells in the second quarter and is on pace to meet the target. Performance on this measure may improve as a result of the Legislature increasing general fund appropriations for EMNRD by \$3 million to offset use of the reclamation fund. EMNRD anticipates plugging 60 wells in calendar year 2018. The State Land Office estimates there are 600 unplugged, abandoned wells on state trust lands."
2019	"Despite plugging 41 abandoned oil and gas wells in FY18, the agency requested a target of only 27 in FY19, which it met. OCD reports that 208 abandoned or orphaned wells are currently approved for plugging."
2021	Q1: "Due mainly to timing conflicts with OCD's well-plugging contractor, the target for wells plugged was not met in FY20." Q4: "OCD had a new procurement agreement for FY21 that allowed for additional approved well-plugging contractors, which substantially increased the number of wells plugged in FY21 relative to the past three fiscal years. The division was just one well short of meeting its annual target."

Comments Continued

2022	Q2: "Orphan well-plugging was slow in the first two quarters of FY22 and OCD is unlikely to meet its annual target. Program staff report the recent well sites have been in worse than usual condition with defective casing and casing collapses causing additional rig time and cementing to properly remediate the wells. The increased time and materials required, plus the effects of inflation, have significantly increased cost of well-plugging to roughly \$70.5 thousand per well." Q3: "OCD has recently been focusing its well-plugging efforts on a large oil field containing old, poorly maintained orphan well sites that require additional time and resources to remediate. Furthermore, program staff report low availability of equipment and crews has also contributed to the slow pace of well-plugging. Wells such as these with defective casing and casing collapses are more expensive and take longer to complete, but pose the greatest risk to groundwater. OCD has spent just over \$1 million on plugging costs for 16 wells so far in FY22." Q4: OCD has recently been focusing its well-plugging efforts on a large oil field containing old, poorly maintained orphan well sites that require additional time and resources to remediate. Since 2015, OCD has plugged 234 wells on state and private land. In FY22 OCD has spent \$1.6 million in recurring funds, and \$1.8 in other state funds on well plugging. OCD secured the services of four rigs and intends to plug more wells using monies from the reclamation fund and a sizeable grant from the federal government. Plugging cost per well have doubled from FY21 to FY22."
2023	"OCD received a \$25 million initial federal grant to fund plugging and remediation at 200 well sites over 24 months under the federal Infrastructure Investment and Jobs Act's Orphan Well Program. ENMRD's 2022 annual report estimated more than 1,700 abandoned wells are located on state-owned or private land. The division expects to receive an additional \$75 million over the next four years for expenditure through 2030. As required by the grant, the division successfully obligated 90 percent of the initial funding to 145 plugging projects. The Division anticipates plugging the remaining balance of those initial grant funds by September 2023. However, the "wells properly plugged" metric counts only completed plugging projects. The division currently has three contract plugging crews working concurrently and correctly predicted a significant increase in well-plugging activity between the second and third quarters once it completed steps to ramp up the program. OCD has set an internal target of plugging approximately 200 wells by October 2023, well above its target of 50 for the year; however, crew availability remains a challenge."
2024	"Ten wells were plugged during the fourth quarter of FY24, bringing the total for the fiscal year to 105. Five plugging rigs were contracted and are working simultaneously. Plugging activity increased due to funding from the federal Infrastructure Investment and Jobs Act and continued state support from the oil reclamation fund. With still over 2,000 orphaned wells identified in New Mexico, the agency's ability to complete these plugging projects at an increased pace will be critical to protecting public health and safety."
2025	"Nine abandoned and orphaned wells were plugged during the first quarter of FY25. The lower-than-average number was due to new requirements for pre-clearance of well site regarding compliance with the Endangered Species Act and the National Historic Preservation Act. Once new clearance requirements are finalized, well plugging will return to a more consistent rate. The division also, per the request of the Federal Indian Minerals office, has begun plugging on Navajo-allotted land. With still over 2,000 orphaned wells identified in New Mexico, the agency's ability to complete these plugging projects at an increased pace will be critical to protecting public health and safety."

Source: LFC

Appendix B. Other State Financial Assurance Amounts

While most states require oil and gas operators to provide upfront financial assurance for well plugging, the amounts and variables considered vary widely. In 2023, the Ground Water Protection Council published a summary report featuring different states' approaches to financial assurance for oil and gas well plugging and remediation. Among the states, Alaska has the highest blanket or all-well bond maximum at \$30 million, while Pennsylvania has the lowest blanket bond at \$25 thousand for all wells. New Mexico is one of four states where the maximum blanket bond is capped at \$250,000 in statute. Eleven states consider the depth of the proposed well in the amount of financial assurance required, increasing the amount as the well depth increases. However, many of these states, including New Mexico, only consider well depth in the financial assurance amount required for a single well while the blanket bonds for more than one well do not consider depth. Only four states vary their blanket bond amounts depending on the depth of the well: for example, in Kansas there are blanket bond amounts for all wells less than 2,000 feet in depth and higher blanket amounts for wells more than 2,000 feet in depth. Additionally, some states consider factors like location of the well, mineral type, and status of the well.

Financial Assurance Amounts in Select States

State	Minimum	Maximum	Do amounts consider well depth?
Alaska	\$400,000	\$30,000,000	No
Colorado	\$12,000	\$6,000,000	No
New York	\$2,500	\$2,000,000	Yes*
Louisiana	\$6,000	\$500,000	Yes
New Mexico	\$25,000	\$250,000	Yes
Texas	\$25,000	\$250,000	Yes
Michigan	\$20,000	\$250,000	Yes*
West Virginia	\$5,000	\$250,000	No
Utah	\$1,500	\$120,000	Yes*
South Dakota	\$50,000	\$100,000	No
Mississippi	\$20,000	\$100,000	Yes
Nebraska	\$10,000	\$100,000	No
Alabama	\$5,000	\$100,000	Yes
Arkansas	\$3,000	\$100,000	No
Illinois	\$1,500	\$100,000	Yes
Montana	\$1,500	\$50,000	Yes
Kansas	\$7,500	\$45,000	Yes*
Indiana	\$2,500	\$45,000	No
Pennsylvania	\$2,500	\$25,000	No

Note: New York, Michigan, Utah, and Kansas regulate blanket bond amounts based on the depth of the wells while the other only consider depth in the amount for a single well.

Source: Ground Water Protection Council

Appendix C. History of the Oil and Gas Conservation Tax and the Oil and Gas Reclamation Fund

- Laws 1959, Chapter 53, Section 7: Oil conservation tax created at a rate of 0.14 percent on oil and gas products severed and sold. The revenue went to the oil conservation fund, which was used by the Oil Conservation Commission (OCC) to enforce the Oil and Gas Act (as is currently the function of OCD).
- Laws 1975, Chapter 289, Section 15: The oil conservation tax rate was increased to .18 percent.
- Laws 1977, Chapter 237, Section 5 and 6; Chapter 234, Section 4: The Legislature amended statute so most of the conservation tax revenue still went to the conservation fund, but 0.01 percent was deposited in the newly created oil and gas reclamation fund specifically for the OCC to plug and remediate abandoned well sites. The laws also tied the conservation tax rate to the balance in the reclamation fund; being 0.19 percent when the fund balance was under \$1 million, and 0.18 percent when the balance was over \$1 million.
- Laws 1989, Chapter 130, Sections 1 and 6: The Legislature changed the allocation of the conservation tax, increasing the share directed to the reclamation fund to 5.3 percent, with 87.7 percent going to the conservation fund, and 7 percent to the general fund.
- Laws 1991, Chapter 9, Section 16: The Legislature repealed the conservation fund, instead sending all conservation tax not sent to the reclamation fund to the general fund; the percent directed to the reclamation fund remained the same, at 5.3 percent.
- Laws 2010, Chapter 98, Sections 1 and 2: The Legislature untethered the conservation tax rate from the balance of the reclamation fund and instead tied it to the price of oil. When the price of West Texas Intermediate is less than \$70 per barrel, the tax is 0.19 percent and the reclamation fund receives 10.5 percent of the tax revenue and the remainder goes to the general fund. When the price is over \$70 per barrel, the tax is 0.24 percent and the reclamation fund receives 19.7 percent of the revenue.

Appendix D. Texas Plugging Costs

District	Calculated average per-foot cost														
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
01	\$3.95	\$3.03	\$5.98	\$10.47	\$8.52	\$6.85	\$6.65	\$7.68	\$8.21	\$7.88	\$11.14	\$12.31	\$11.53	\$9.49	\$11.15
02	\$3.96	\$4.84	\$4.84 ⁽²⁾	\$14.27	\$10.74	\$10.74 ⁽⁴⁾	\$8.36	\$8.36 ⁽⁵⁾	\$8.30	\$8.81	\$15.70	\$13.57	\$7.97	\$8.48	\$11.77
03	\$8.36	\$6.07	\$8.73	\$12.13	\$8.71	\$10.59	\$10.96	\$5.22	\$6.04	\$7.51	\$13.93	\$15.58	\$10.40	\$30.19	\$21.60
04	\$4.31	\$5.60	\$7.72	\$13.96	\$15.77	\$6.49	\$6.38	\$7.56	\$9.42	\$9.35	\$8.32	\$8.16	\$8.66	\$10.35	\$16.37
05	\$3.87	\$4.35	\$6.10	\$7.85	\$14.45	\$10.96	\$7.45	\$5.28	\$5.02	\$31.73	\$6.40	\$8.29	\$6.62	\$10.20	\$9.92
06	\$8.99	\$7.64	\$6.42	\$4.90	\$5.94	\$5.94 ⁽⁴⁾	\$8.30	\$11.00	\$6.84	\$7.69	\$7.93	\$6.49	\$8.81	\$15.75	\$15.05
6E	\$3.74	\$5.63	\$5.63 ⁽²⁾	\$8.45	\$7.16	\$6.25	\$6.11	\$5.96	\$6.40	\$7.63	\$6.79	\$7.54	\$8.34	\$12.46	\$11.90
7B	\$3.90	\$5.70	\$5.39	\$6.48	\$6.76	\$7.77	\$5.93	\$6.23	\$6.23	\$7.19	\$11.27	\$7.42	\$10.09	\$9.57	\$10.62
7C	\$7.34	\$12.93	\$10.56	\$6.29	\$4.52	\$10.26	\$7.53	\$7.85	\$7.21	\$8.09	\$9.63	\$9.30	\$6.43	\$11.14	\$10.95
08	\$8.56	\$6.52	\$12.31	\$12.68	\$17.37	\$6.80	\$11.57	\$14.15	\$13.28	\$10.29	\$17.88	\$17.23	\$27.38	\$30.75	\$46.48
8A	\$4.28	\$4.28 ⁽¹⁾	\$4.28 ⁽²⁾	\$4.28 ⁽³⁾	\$9.02	\$9.02 ⁽⁴⁾	\$6.54	\$6.54 ⁽⁵⁾	\$6.54 ⁽⁶⁾	\$10.62	\$12.16	\$17.54	\$12.74	\$17.09	\$14.27
09	\$2.60	\$2.73	\$3.38	\$3.96	\$4.21	\$4.92	\$2.88	\$2.97	\$3.04	\$4.27	\$4.37	\$4.46	\$4.61	\$6.39	\$5.96
10	\$6.25	\$5.85	\$5.63	\$14.50	\$7.48	\$17.17	\$9.05	\$6.85	\$5.44	\$8.13	\$9.69	\$10.94	\$9.81	\$16.45	\$16.39

Notes: Cost is calculated based on actual costs incurred by the Railroad Commission for plugging wells in the previous fiscal year.

(1) No State Funded plugging operations were completed in District 8A during FY 2011. The per-foot cost from FY 2010 was continued.

(2) No State Funded plugging operations were completed in Districts 02, 6E or 8A during FY 2012. The per-foot cost from FY 2011 was continued.

(3) No State Funded plugging operations were completed in Districts 8A during FY 2013. The per-foot cost from FY 2012 was continued.

(4) No State Funded plugging operations were completed in Districts 02, 06, and 8A during FY 2015. The per-foot cost from FY 2014 was continued.

(5) No State Funded plugging operations were completed in Districts 02 and 8A during FY 2017. The per-foot cost from FY 2016 was continued.

(6) No State Funded plugging operations were completed in Districts 8A during FY 2018. The per-foot cost from FY 2017 was continued.

Appendix E. OCD Well Plugging Prioritization System

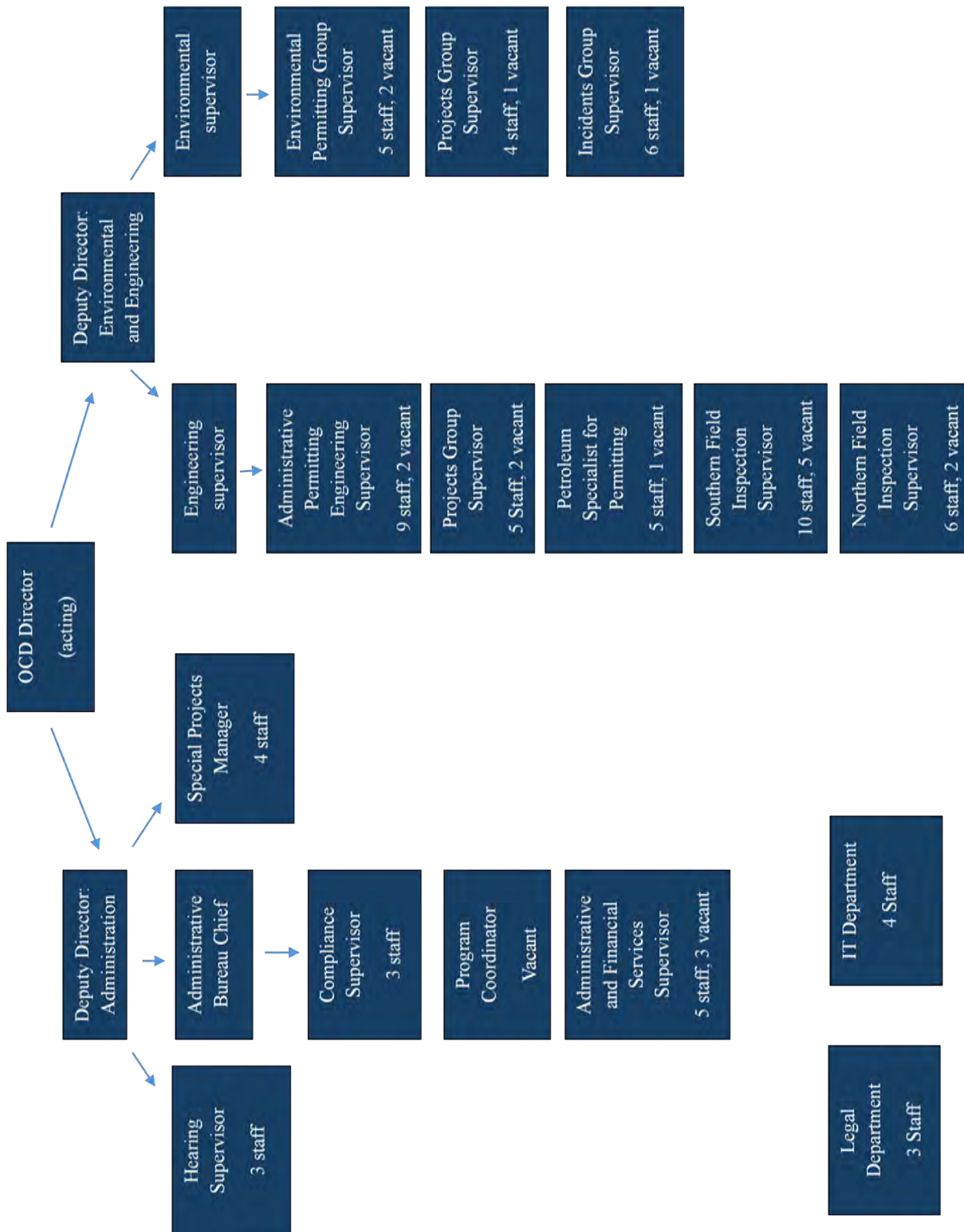
Each well is scored on 21 different criteria, with different weights assigned to each criterion. Wells that are actively leaking are automatically deemed highest priority, but other criteria that may boost a well's overall score include if it is within 300 feet of an occupied structure, if it is within a municipal boundary, if the well is a saltwater disposal well, if it has known defective casing, and if it has no well head control. After wells that are actively leaking, wells with a score over 100 are considered the second-highest priority, scores of 50-100 are third, and wells with a score lower than 50 are the last priority to plug.

OCD Plugging Prioritization Ranking Criteria

Factor	Maximum Weight	Weighting Criteria
Active leaks	Highest priority	
Within 300 ft of an occupied structure	10	Yes/No
Within a municipal boundary	10	Yes/No
Disposal well?	10	Yes/No
Mechanical integrity testing history/ known defective casing	10	Yes/ No; unrepaired failure
No Wellhead control	10	Well with gas or casing above 12" =10, well without gas =7
No surface casing or water protection casing	9	Yes/No
Well has abnormally high pressure	8	Yes/No
Located within an agricultural area	8	Yes/No
Age of well >25 years	7	Yes/No
Bradenhead pressure >10	7	Yes/No
Date of las production or injection >10	7	Yes/No
Within one mile of other orphan wells needing plugging	6	Yes/No
Within 200 ft of a water supply well	5	Yes/No
Proximity to karst geology	5	High karst =5, medium karst =3, low karst =0
Hydrogen sulfide	5	Yes/No
Naturally occurring radioactive material	5	Yes/No
Citizen complaints	5	Yes/No
Areas within ½ mile of injection/disposal	4	Yes/No
Private surface	3	Yes/No
Other	10	TBD, level dependent on issue discovered.

Source: OCD

Appendix F. OCD Organizational Structure



Source: OCD

Note: As of March 2025

**AN ANALYSIS OF THE ADEQUACY OF
FINANCIAL ASSURANCE REQUIREMENTS
FOR OIL AND GAS INFRASTRUCTURE LOCATED
ON STATE TRUST AND PRIVATE LANDS
IN NEW MEXICO**

April 30, 2021



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EXECUTIVE SUMMARY

During 2020, nearly 370 million barrels of crude oil and 2 trillion cubic feet of natural gas were produced from approximately 60,000 wells (NMOCD, 2021) and transported by an estimated 35,000 miles of oil and gas pipeline throughout New Mexico (USDOT PHMSA, 2019). New Mexico state regulatory entities have jurisdiction over this infrastructure wherever it is located on private lands or state trust lands, and it is the role of these entities to ensure proactive measures are taken to minimize potential public, environmental, and fiscal liability risks created by infrastructure that is not operated or abandoned in compliance with state requirements. To this end, state regulatory entities may impose financial assurance requirements on oil and gas operations to reduce the public's liability posed by noncompliant infrastructure. The goal of this research effort was to generate an objective, data-driven analysis of the adequacy of current financial assurance requirements imposed by state regulatory entities to offset the potential public liability posed by wells, pipelines, and other oil and gas infrastructure located on private lands and state trust lands throughout New Mexico.

As presented in this report, the Center finds that financial assurance requirements do not exist for much of the oil and gas infrastructure explored in this study, and in some cases where such requirements are imposed, operators may have multiple ways of minimizing or avoiding those requirements. Further, the Center finds most of the current applicable financial assurance requirements are regressive in design, which means the largest users of private and state trust lands often carry the lowest marginal amounts of financial assurance coverage.

Overall, the Center finds that existing financial assurance requirements applicable to all infrastructure types are not sufficient to fully offset estimated closure and clean-up costs. As summarized in the table below, this study finds the total cost of closure and clean-up of the oil and gas infrastructure currently located on state trust and private lands to be approximately \$8.38 billion. Whereas the total financial assurance coverage for this infrastructure accessible to state regulatory entities for the purpose of closure and clean-up efforts is estimated to be approximately \$201.42 million, resulting in a total financial assurance gap of approximately \$8.18 billion.

	Estimated Closure and Clean-up Costs (millions)		Estimated Financial Assurance (millions)		Estimated Financial Assurance Gap (millions)	
Infrastructure	State Trust	Private	State Trust	Private	State Trust	Private
Wells*	\$3,316.40	\$2,275.33	\$136.11	\$37.07	(\$3,180.29)	(\$2,238.26)
Pipelines†	\$980.73	\$929.57	\$0.24	\$0.00	(\$980.49)	(\$929.57)
Other	\$876.38	<i>no data</i>	\$28.00	\$0.00	(\$848.38)	<i>no data</i>
Total	\$5,173.51	\$3,204.90	\$164.35	\$37.07	(\$5,009.16)	(\$3,167.83)
	\$8,378.41		\$201.42		(\$8,176.99)	

Notes: All figures presented in this table are reported in millions of USD.

*Cost figures reported in this table include well plugging and downhole abandonment, surface facility decommissioning, and wellsite surface reclamation.

†Cost figures reported in this table exclude produced water, freshwater, and most gathering pipelines used by oil and gas operators. Costs reported in this table assume buried pipelines are abandoned in-place rather than fully removed.

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1 INTRODUCTION

1.1 REPORT PURPOSE AND OVERVIEW

A significant portion of the surface and subsurface estate in the oil and gas basins of New Mexico is under the purview of state regulatory entities. Hydrocarbon exploration and extraction activities on those lands are regulated by the New Mexico Oil Conservation Division (NMOCD), oil and gas transmission is regulated by the New Mexico Public Regulation Commission (NMPRC), and the New Mexico State Land Office (NMSLO) has additional regulatory authority over all oil and gas activities on state trust lands. Due to market volatility which is common to the petroleum industry and the considerable number of oil and gas operators with active wells, pipelines, and other oil and gas support infrastructure in New Mexico¹, it is not unusual for an operator to file for bankruptcy in the middle of operations, especially in the event of an economic downturn or slump in demand for petroleum.² In such cases, the cost of plugging and abandoning certain wells and/or decommissioning pipelines and well-support facilities and reclaiming surface lands may fall to the NMOCD or to the NMSLO. Furthermore, without timely remediation, inactive (i.e., non-producing) or unmanaged oil and gas wells and supporting infrastructure can pose considerable physical and environmental hazards (Alboiu & Walker, 2019). Improperly abandoned pipelines and unplugged or improperly plugged wells can release subsurface methane and unaddressed spills and leaks can contaminate surface and ground water (Boothroyd, et al., 2016).

Given these environmental and fiscal risks, it is of great importance to the New Mexican public and that proactive measures are taken to minimize the risk and liability of oil and gas operations on lands subject to state jurisdiction. As the designated administrators of oil and gas operations on these lands, it is the role of the NMOCD, the NMSLO, and other state regulatory entities to ensure that adequate financial assurance requirements are imposed on and met by operators seeking to utilize those lands.³ To this end, the Center's primary goal in this study is to generate an objective, data-driven analysis of the adequacy of current financial assurance requirements imposed by state regulatory entities on wells, pipelines, and other oil and gas infrastructure located on state trust lands and private lands throughout New Mexico.⁴

1.2 BACKGROUND AND REGULATORY RESPONSIBILITIES

Table 1 summarizes the basic hierarchy of state regulatory responsibility for the oil and gas infrastructure that forms the subject of this analysis. Per state statutes, the NMOCD is responsible for regulation of the entire life cycle of oil and gas wells situated on private fee

¹ The oil and gas infrastructure types included in this analysis were selected based on data availability and conversations with NMSLO personnel. By including or omitting specific types of infrastructure from this analysis, the Center makes no representation of the importance of financial assurance requirements, or lack thereof, that may apply to that infrastructure.

² During the COVID-19 pandemic, demand trends for refined petroleum products were sharply altered, putting many oil and gas operators in a position where it was unprofitable to continue production in the short term. To provide some economic relief to oil and gas producers, pursuant to 19.2.100.71 NMAC, on March 4, 2020 the NMOCD issued an order allowing wells to be temporarily shut-in and remain inactive for a period not to exceed 36 months with a potential to extend the shut-in period for an additional 12 months (EMNRD, 2020). As of preparing this report, the long-term implications of the COVID-19 pandemic and its effect on the future of oil and gas production in New Mexico is unclear.

³ See Section 4 of this report for a discussion of the specific statutory responsibilities of these regulatory entities.

⁴ Similar studies have been prepared by the U.S. Government Accountability Office for oil and gas infrastructure located on federal and tribal lands and therefore subject to federal government regulation. The analysis presented herein is specific infrastructure that is subject to state regulation.

lands and state trust lands: permitting new wells, enforcing state statutes and rules during well operation, and ensuring abandoned wells are properly plugged and affected lands are responsibly restored. To fulfil its responsibilities, the NMOCD requires operators to provide financial assurance for the wells each operator owns on state trust and private fee lands. The NMOCD's financial assurance requirements are designed to provide a mechanism for enforcing operator compliance with state rules and regulations dictating the conditions for proper plugging and abandonment of wells.

The authority to regulate oil and gas pipelines in the state of New Mexico is granted to the NMPRC. However, in this role, the NMPRC is primarily focused on ensuring pipelines are operated in a safe and responsible manner. With that objective in mind, the Pipeline Safety Bureau of the NMPRC tasks itself with licensing new pipelines, conducting safety and compliance inspections on existing pipelines, and investigating intrastate⁵ pipeline incidents and accidents.

The NMSLO is responsible for the management of all state trust lands in New Mexico which consist of over nine million surface acres and over thirteen million mineral acres. Because a significant portion of the land administered by the NMSLO is situated in active oil and gas regions, the NMSLO has adopted its own set of financial assurance requirements for oil and gas lessees and operators of wells, pipelines, and other oil and gas support infrastructure. All of the NMSLO's financial assurance requirements are in addition to those imposed by other regulatory entities that also may have some degree of regulatory authority over state trust lands.

Table 1 – Summary of responsibility of various New Mexico regulatory entities

Regulatory Entity	Wells		Pipelines*		Other Infrastructure†	
	On State Trust	On Private Fee	On State Trust	On Private Fee	On State Trust	On Private Fee
NMOCD	Yes	Yes	Yes	Yes	No	No
NMSLO	Yes	No	Yes	No	Yes	No
NMPRC	No	No	Yes	Yes	No	No

Notes: Cells containing "Yes" indicate the corresponding entity has some level of regulatory responsibility over that oil and gas asset. Other federal or state regulatory entities not listed here may have jurisdiction over certain aspects or functions of oil and gas facilities that are not pertinent to this analysis.

*While the NMOCD and NMPRC both have some regulatory authority over pipelines in New Mexico, neither entity currently imposes financial assurance requirements.

†Other Infrastructure, as referenced here and throughout this report, strictly refers to oil and gas infrastructure permitted by an NMSLO business lease. See Section 2.2 for further information.

1.3 SUMMARY OF FINDINGS

Based on the data available to the Center upon preparing this analysis and the assumptions presented in subsequent sections of this report, the Center's findings pertaining to the adequacy of the current financial assurance requirements for various oil and gas related infrastructure are summarized in Tables 2, 3, and 4. A detailed discussion of the analysis methodology and requisite assumptions utilized in developing these tables is provided in Section 3 and Section 4 and additional summary tables and cost calculations are provided in Section 5.

⁵ Interstate pipelines and incidents related to those pipelines are managed by the Federal Energy Regulatory Commission.

As shown in Table 2, on average, applicable financial assurance requirements differ considerably depending on where a well is located (i.e., on state trust land or private fee land) and the primary use of that well (i.e., oil, gas, or saltwater disposal). Excluding saltwater disposal wells on state trust lands, the estimated gap between base plugging and downhole abandonment costs and financial assurance coverage averages to approximately \$86,100 per well. If estimated wellsite decommissioning and surface reclamation costs are included in this calculation, the Center estimates the average financial assurance gap is approximately \$182,600 per well (again excluding saltwater disposal wells on state trust lands).

Table 2 - Summary of per well financial assurance adequacy analysis findings for oil, gas, and SWD wells

	State Trust			Private Fee		
	Gas	Oil	SWD	Gas	Oil	SWD
Financial Assurance*	\$3,300	\$3,500	\$239,400	\$2,300	\$3,400	\$8,600
Closure & Clean-up Cost†	\$168,900	\$218,400	\$175,900	\$151,800	\$216,700	\$178,300
Plugging & Abandonment	\$90,500	\$93,100	\$89,800	\$84,100	\$93,500	\$90,500
Site Decommissioning	\$6,300	\$22,200	\$3,200	\$6,300	\$22,200	\$3,200
Surface Reclamation	\$72,100	\$103,100	\$82,900	\$61,400	\$101,000	\$84,600
Differences (Assurance Gap)						
Assurance - P&A Cost	(\$87,200)	(\$89,600)	\$149,600	(\$81,800)	(\$90,100)	(\$81,900)
Assurance - Total Cost	(\$165,600)	(\$214,900)	\$63,500	(\$149,500)	(\$213,300)	(\$169,700)

Notes: All figures presented in this table are reported at the “per well” level.

*The financial assurance estimates reported in this table were developed by the Center. See Section 4.1 for further information.

†Closure and clean-up costs reported in this table and elsewhere in this report are based on prior work completed by Vertex Resource Services, Ltd. See Section 3.1 for further information.

The current financial assurance requirements and the costs of closure for pipelines located on state trust and private fee lands in New Mexico are summarized in Table 3. As shown therein, the estimated average financial assurance coverage for pipelines on state trust lands is approximately \$51 per mile, whereas the average decommissioning and surface reclamation cost is estimated to exceed \$211,000 per mile. Based on the Center’s research, currently there are no financial assurance requirements for pipelines located on private fee lands, therefore the financial assurance gap is equivalent to the total cost of decommissioning and reclamation.

Table 3 – Summary of per mile financial assurance adequacy analysis findings for oil and gas pipelines

	Surface Land Status	
	State Trust (\$/mile)	Private Fee (\$/mile)
Financial Assurance*	\$51	\$0
Decommissioning and Reclamation Costs†	\$211,000	\$213,000
Pipeline Decommissioning	\$16,000	\$16,000
Surface/Right-of-Way Reclamation	\$195,000	\$197,000
Difference (Assurance Gap)	(210,949)	(213,000)

Notes: All figures presented in this table are reported on a “per mile” basis in USD.

*The financial assurance estimates reported in this table were developed by the Center. See Section 4.2 for further information.

†Decommissioning and reclamation costs reported in this table are based on prior work completed by Vertex Resource Services, Ltd and assume such costs are consistent with standard industry requirements for pipeline abandonment. See Section 3.2 for further information and alternative removal scenarios.

The differences between current financial assurance requirements and the costs of closure for other oil and gas infrastructure located on state trust lands in New Mexico are summarized in Table 3. Note that this portion of the Center's analysis does not include similar infrastructure located on private fee lands because such data could not be located for use in this analysis. Of the other oil and gas facility types explored in this analysis, financial assurance requirements were only identified for rule 34 recycling and containment facilities and petroleum storage tanks. In both cases, the current level of financial assurance coverage required for these facilities is exceeded by the estimated facility decommissioning and surface reclamation cost.

Table 4 – Summary of per site financial assurance adequacy for other oil & gas infrastructure

Other O&G Facility Type	For Infrastructure on State Trust Lands		
	Financial Assurance*	Closure Cost†	Assurance Gap
Compressor Station Sites	\$0	\$231,000	(\$231,000)
Electrical Power Related Sites	\$0	\$704,000	(\$704,000)
Freshwater Frac Ponds	\$0	\$335,000	(\$335,000)
Landing Strips/Airports	\$0	\$590,000	(\$590,000)
Maintenance and Metering Sites	\$0	\$147,000	(\$147,000)
Private Mobile Radio Tower Sites	\$0	\$277,000	(\$277,000)
Office Buildings/Maintenance Yards	\$0	\$609,000	(\$609,000)
Processing and Dehydration Facilities	\$0	\$618,000	(\$618,000)
Rule 34 Recycling Facilities	\$1,000,000	\$1,126,000	(\$126,000)
Storage Sites	\$0	\$778,000	(\$778,000)
Petroleum Storage Tanks	\$54,545	\$9,543,000	(\$9,488,455)
Transfer Sites	\$0	\$384,000	(\$384,000)
Telemetry Paging Sites	\$0	\$176,000	(\$176,000)
Truck Stops	\$0	\$795,000	(\$795,000)
Storage Facilities/Warehouses	\$0	\$579,000	(\$579,000)
Other O&G Related Sites	\$0	\$3,760,000	(\$3,760,000)

Notes: All figures presented in this table are reported on a "per site" basis in USD. Similar data for infrastructure located on private fee lands were not available for this analysis.

*The financial assurance estimates reported in this table were developed by the Center. The estimates presented in this table do not include additional financial assurance coverage that may be available from NMSLO-required mega-bonds held by the infrastructure owner. See Section 4.2 for further information.

†Decommissioning and reclamation costs reported in this table are based on prior work completed by Vertex Resource Services, Ltd. See Section 3.2 for further information and alternative removal scenarios.

1.4 DISCLAIMER AND NOTES ON REPORT USAGE

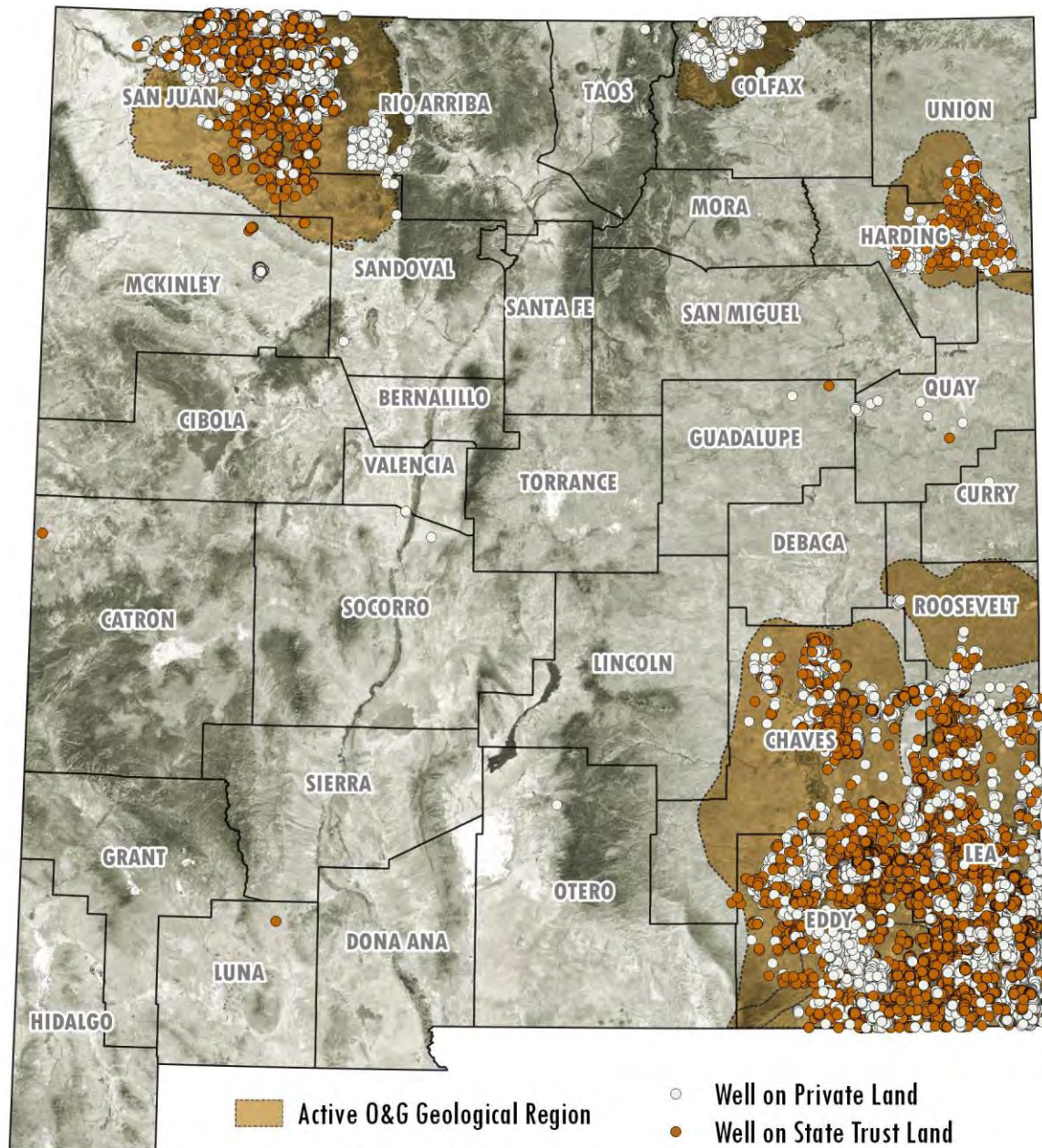
The analysis contained in this report and all related supplementary information are based upon the Center's best professional judgment and on sources of information purported to be reliable. However, no representation or warranty is made by the Center as to the accuracy or completeness of any third-party information used for this assessment. The analyses and conclusions presented in this report have been prepared by the Center on the basis of current knowledge and assumptions which are believed to be reasonable but may not be within the control of the Center. The assumptions used in preparing this report and all related supplemental and background information are inherently subject to significant uncertainties. If the assumptions used prove to be inaccurate, the conclusions expressed or inferred herein could be materially different from reality.

2 SCOPE OF ANALYSIS

2.1 OIL, GAS, AND SALTWATER DISPOSAL WELLS

The oil, gas, and saltwater disposal wells that form the basis and subject of this analysis are depicted geographically in Figure 1. This inventory of wells is representative of all active oil wells on state trust and private fee lands in New Mexico that are operated by entities permitted by the NMOCD. Where an “active well” in this context refers to any oil, gas, or saltwater disposal well located on state trust or private fee lands that has not been approved by the NMOCD for bond release. The inventory of active wells dataset, which was acquired directly from the NMOCD’s online data storage directory found at (EMNRD - OCD, 2020), is

Figure 1 – Graphical representation of oil, gas, and saltwater disposal wells subject to analysis



publicly available and was current as of October 16, 2020 when the data was accessed and acquired for use in this analysis.⁶

A summary of the wells contained in the dataset as disaggregated by surface land status and various well attributes pertinent to this analysis is provided in Table 5. As shown therein, at the time this data was retrieved, there were 28,257 active wells on state trust and private fee lands throughout New Mexico being operated by 487 permitted operator entities. According to the NMOCD's records, approximately 57% of these wells were situated on state trust land, and the remaining 43% were situated on private fee land. Notably, nearly 87% of the subject wells are characterized as an oil or gas well (i.e., 57% and 30% respectively).

Table 5 – Summary of oil, gas, and saltwater disposal wells subject to analysis

	Surface Land Status		
	State Trust (N= 16,174)	Private Fee (N= 12,083)	State and Fee (N= 28,257)
Permitted Entities	363	358	487
Well Count by Well Type			
CO ₂	201	536	737
Gas	3,867	4,585	8,452
Injection	1,474	736	2,210
Miscellaneous	57	27	84
Oil	10,235	5,922	16,157
Saltwater Disposal	340	277	617
Well Count by Well Status			
Active	13,949	10,338	24,287
Dry Hole	2	5	7
New	1,129	967	2,096
Plugged (<i>Not Released</i>)*	619	437	1,056
Shut In	9	25	34
Temporary Abandonment	343	212	555
Temporary Abandonment (<i>Expired</i>)	107	87	194
Zone Plugged (<i>Permanent</i>)	7	9	16
Zone Plugged (<i>Temporary</i>)	8	3	11
Observation	1	0	1

Source: Data extracted from (NMOCD, 2020)

Notes: *Well Type* and *Well Status* are data attributes assigned by the NMOCD. Active wells within the original dataset characterized as never drilled, cancelled, or plugged (site released) have been omitted from this analysis.

*Wells classified by the NMOCD as “plugged (not released)” are assumed to have completed the plugging and abandonment process but still require surface decommissioning and reclamation.

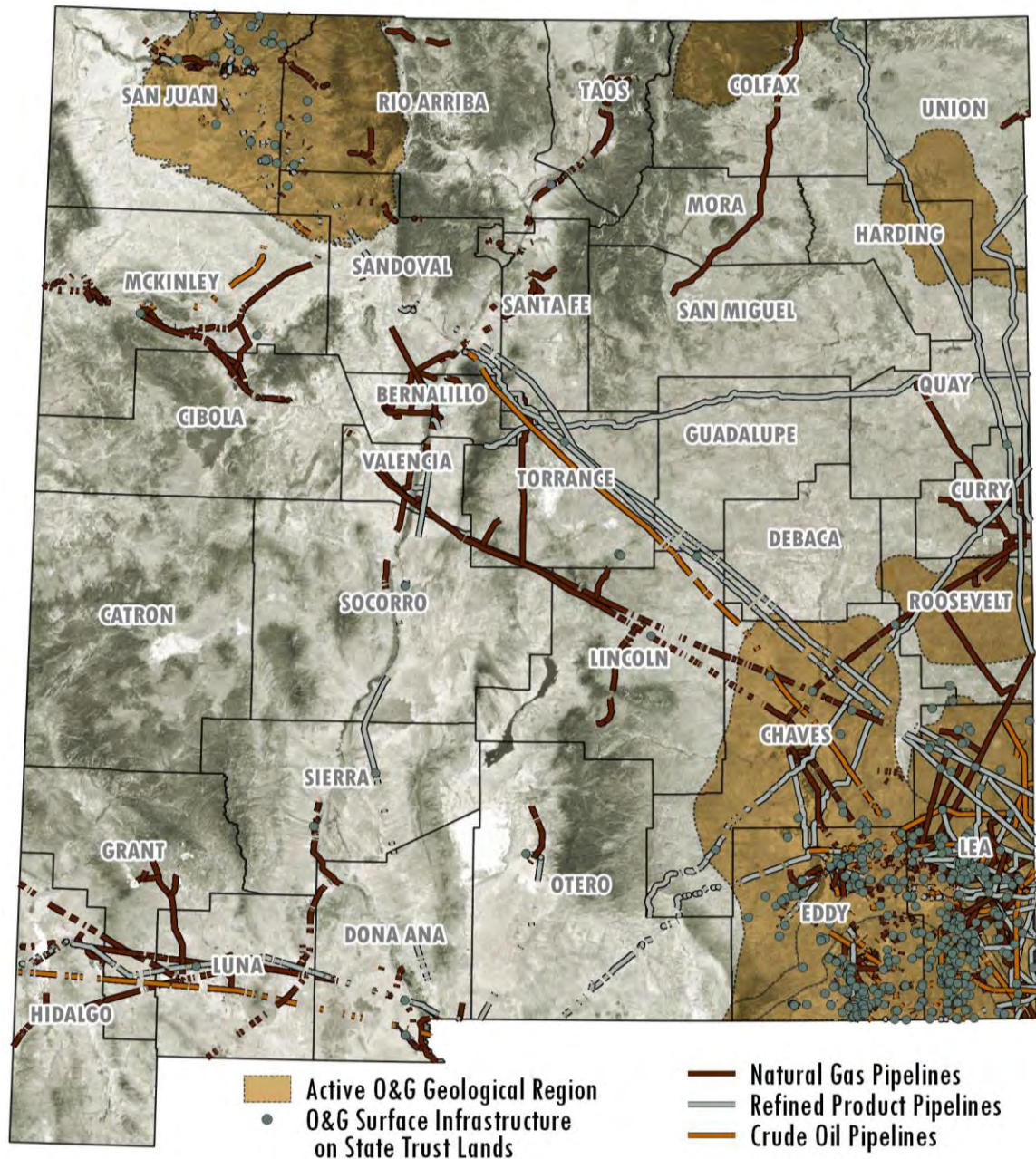
2.2 PIPELINES AND OTHER OIL & GAS INFRASTRUCTURE

As a secondary focus, this analysis also explores the closure liabilities and financial assurance requirements associated with midstream and oil and gas support infrastructure such as

⁶ The Center is not aware of any significant changes to the wells comprising the wells inventory dataset since its acquisition from NMOCD in October 2020. However, the dataset is constantly evolving and undergoes regular updates to reflect changes in well status, the inclusion of new wells, and the exclusion of wells that have completed the plugging and abandonment process.

pipelines, compressor stations, and other off-lease, above-ground appurtenances that are outside of and may or may not be related to a specific wellsite. The infrastructure reviewed as part of this analysis is illustrated geographically in Figure 2. It is important to note that detailed source information about these facilities and their location is largely unavailable, and the infrastructure pictured in Figure 2 is representative of only a fraction of such infrastructure in New Mexico. Much of this infrastructure does not fall under the jurisdiction of a single state or federal regulatory entity, and as a result, the reporting and monitoring requirements are minimal or nonexistent. Within this category, considerably more information is available for infrastructure situated on state trust lands compared to private fee lands, but even within state trust lands, data is limited, especially in a format that is suitable for this analysis.

Figure 2 – Graphical representation of other oil and gas infrastructure subject to analysis



None of the New Mexico state regulatory entities maintain detailed geospatial data depicting the location, ownership, and use of pipelines throughout the state. As such, the most comprehensive dataset available for oil and gas pipelines in New Mexico is maintained by the Pipeline and Hazardous Materials Safety Administration (PHMSA). Unfortunately, the PHMSA dataset is highly restricted due to national security concerns and is only available in a raw format to government officials and pipeline operators.⁷ The next best alternative is a for-purchase proprietary dataset maintained by S&P Global Platts (Platts). Though neither of the datasets maintained by PHMSA or Platts include produced water pipelines, smaller-diameter gathering lines, or above-ground temporary pipelines which are frequently used by oil and gas producers. Mileage information for the pipelines included in the Platts pipeline inventory dataset and situated on state trust or private fee lands is presented in Table 6.

Table 6 – Summary of pipelines and other oil and gas infrastructure subject to analysis

	Surface Land Status		
	State Trust	Private Fee	State and Fee*
Known Operators†	43	49	67
Pipeline Miles by Known Operators			
Natural Gas Pipelines	2,399	2,325	4,724
Refined Product Pipelines	1,523	473	1,996
Crude Oil Pipelines	510	1,439	1,949
Pipeline Miles by Unknown Operators			
Natural Gas Pipelines	99	106	205
Refined Product Pipelines	109	27	135
Crude Oil Pipelines	0	0	0
Total Pipeline Miles in Inventory‡	4,640	4,370	9,009
Oil and Gas Surface Infrastructure Sites§			
Compressor Station Sites	135	<i>no data</i>	<i>no data</i>
Fresh Water Frac Ponds	80	<i>no data</i>	<i>no data</i>
Maintenance and Metering Sites	36	<i>no data</i>	<i>no data</i>
Processing and Dehydration Facilities	26	<i>no data</i>	<i>no data</i>
Rule 34 Recycling Facilities	25	<i>no data</i>	<i>no data</i>
Petroleum Storage Tanks	55	<i>no data</i>	<i>no data</i>
Other O&G Support Infrastructure¶	184	<i>no data</i>	<i>no data</i>

Source: (S&P Global Platts, 2020) and (Vertex Resources Services, Ltd., 2021)

*For comparison, PHMSA estimates there were approximately 35,045 miles of natural gas and hazardous liquids pipeline in New Mexico in 2019 (USDOT PHMSA, 2019).

†Within the pipeline inventory dataset many miles of pipeline cannot be tied to a specific operator.

‡These figures may differ from those presented in the Vertex Report because those in the Vertex Report are inclusive of pipelines located on federal and tribal lands.

§Data pertaining to oil and gas support and midstream infrastructure is only available through the NMSLO for state trust lands. Similar data is not available for infrastructure located on private fee lands.

¶A full list of these facilities as categorized by the NMSLO is provided in Table 12.

⁷ The Pipeline and Hazardous Materials Safety Administration (PHMSA) operates under the U.S. Department of Transportation. Public access to pipeline location, type, and ownership information is limited to the PHMSA's National Pipeline Mapping System Public Map Viewer (PHMSA, 2020). Some aggregate data is available to the public, but not in the granular format that would be required for this analysis.

Table 6 also presents a summary of the midstream and oil and gas support infrastructure included in this analysis. As shown therein, data for these asset-types is only available for state trust lands. Furthermore, the figures presented in Table 6 are only inclusive of these assets to the extent they are not covered by an NMSLO oil and gas lease agreement or right-of-way agreement.⁸ Though likely this is not a concern for this study because the decommissioning and reclamation costs for surface infrastructure covered by those agreements would be included in either the well-specific or pipeline-specific sections of this analysis.

3 COSTS OF RECLAMATION

To estimate the scope and cost of the well closure and clean-up process for the wells identified in Table 5 and the ancillary oil and gas-related infrastructure identified in Table 6, the Center relied on a recent analysis prepared by Vertex Resources Services, Ltd (Vertex Report).⁹ The Vertex Report details the estimated liability for all oil and gas related assets situated on state trust lands and other lands (private, tribal, and federal) in New Mexico. The following report sections summarize the key cost parameters and assumptions utilized herein by the Center to analyze the adequacy of current financial assurance requirements in New Mexico and quantify the gap between those requirements and the costs of infrastructure closure and clean-up.

3.1 OIL, GAS, AND SALTWATER DISPOSAL WELLS

3.1.1 Well Plugging and Abandonment

The per well plugging and abandonment cost analysis findings presented in the Vertex Report and subsequently utilized by the Center in this analysis are summarized in Table 7. Vertex found that per well plugging and abandonment costs varied considerably depending on certain well-specific parameters and specifications such as geographical location, age, fluid (i.e., oil, gas, produced water), well bore depth, number of producing pools crossed, drilling profile direction, and the presence of downhole equipment. To allow for nuance among wells and increase the accuracy of cost estimates, Vertex created a series of well type classifications and prepared class-specific plugging and abandonment cost estimates.

Vertex also found that beyond the standard abandonment activities required for each well classification, many wells within the NMOCD's wells inventory would require additional abandonment activities to meet state regulatory standards for plugging and abandonment. These additional cost activities include running a cement bond log where necessary, perforating and squeezing the intermediate casing shoe if an intermediate casing string is present, and addressing low cement top issues. Within the Vertex Report, these costs are based on a sampling study to identify the frequency with which these additional costs would be incurred. The average of the high and low-cost scenarios presented in the Vertex Report are presented in Table 7 as adjusted to account for Vertex's frequency assumptions.

⁸ Much of the midstream and well-support infrastructure present on state trust lands is covered by either an oil and gas extraction lease or right-of-way agreement. The sites included in Table 6 are only representative of those permitted by the NMSLO under a business lease.

⁹ See Vertex Resources Services, Ltd. (2021). *New Mexico Oil and Gas Liability Assessment*. Sherwood Park, Alberta Canada: Vertex Resources Services, Ltd. Available upon request from Dhugal Hanton (DHanton@vertex.ca).

Table 7 – Estimated well plugging and abandonment costs

Well Class [†]	Measured Depth (<i>ft</i>)	Producing Pools	Well Counts*		Estimated P&A Costs Per Well		
			State Trust	Private Fee	Base Cost [‡]	Additional Cost [§]	Total Cost
1	<5k	1 zone	1,680	2,798	\$50,400	\$26,600	\$77,000
2	<5k	2 zones	616	332	\$59,900	\$26,600	\$86,500
3	5k – 10k	1 zone	1,093	1,060	\$57,000	\$26,600	\$83,600
4	5k – 10k	2 zones	683	805	\$66,500	\$26,600	\$93,100
5	>10k	1 zone	1,536	709	\$70,400	\$26,600	\$97,000
6	>10k	2 zones	1,310	773	\$79,800	\$26,600	\$106,400
7	<5k	1 zone	3,669	2,089	\$64,300	\$26,600	\$90,900
8	<5k	2 zones	252	192	\$73,800	\$26,600	\$100,400
9	5k – 10k	1 zone	1,359	421	\$71,000	\$26,600	\$97,600
10	5k – 10k	2 zones	1,455	1,609	\$82,000	\$26,600	\$108,600
11	>10k	1 zone	928	458	\$84,300	\$26,600	\$110,900
12	>10k	2 zones	966	391	\$93,800	\$26,600	\$120,400
13	Plugged	n/a	627	446	n/a	n/a	n/a
			16,174	12,083			

Source: (Vertex Resources Services, Ltd., 2021) and (NMOCD, 2020)

*The well counts presented in this table exclude wells located on federal and tribal lands in New Mexico and therefore may differ from the total well counts presented in the Vertex Report.

†Well classification categories were developed within the Vertex Report based on well-specific parameters: location, fluid, profile direction, status, age, and depth. Definitions can be found in the Vertex Report.

‡Base costs include the standard abandonment activities required for each well classification. Activities and time required were determined on based on Vertex's historical experience and actual invoiced expense data obtained from the NMSLO.

§Sample average costs are reported here. These costs include running a cement bond log, perforating and squeezing the intermediate casing shoe, and addressing low cement top issues.

Based on Vertex's assumptions, plugging and abandonment costs range between \$77,000 and \$120,400 per well. These figures translate to approximately \$11.69 and \$13.48 per foot of well depth plugged. As a simple basis for comparison, for FY2020, the Railroad Commission of Texas calculated the average cost of plugging and abandonment within the Permian Basin area of Texas (i.e., Texas Oil and Gas Division Districts 8A and 8) to be between \$12.16 and \$17.88 per foot respectively, or approximately \$15.02 per foot on average within the two Districts (Railroad Commission of Texas, 2020). For further comparison, the Vertex Report also presents a summary of six recently abandoned vertical wells on New Mexico State Trust Lands. The cost of plugging and abandonment among these six wells averaged to \$11.44 per foot of well depth plugged (Vertex Resources Services, Ltd., 2021).

3.1.2 Wellsite Facility Decommissioning and Reclamation

In addition to the costs of well plugging and abandonment, the Vertex Report also provides cost estimates for wellpad surface facility decommissioning and reclamation. While the NMOCD's (in contrast to the NMSLO's) financial assurance requirements are not necessarily intended to cover such costs in the event of improper abandonment by a permitted operator, such costs typically would be incurred by the operator if the well were to be abandoned in accordance with state regulations and are therefore informative to this analysis. As with the plugging and abandonment cost analysis, Vertex developed a series of well categories based on various well-type parameters to allow for variation in decommissioning and reclamation

costs. For the wells subject to this analysis, the average surface facility decommissioning costs are presented in Table 8. Broadly, in developing these cost estimates, Vertex assumes facility decommissioning includes removal of all above-ground facilities, equipment, and appurtenances; disconnection and removal of the wellhead; cutting and capping the well below grade; disconnection and isolation of flowlines; and removal of piles and concrete pads.

Table 8 – Estimated wellsite surface facility decommissioning costs

Purpose	Flow Type	Storage	Flowline	Well Counts*		Cost/Site
				State Trust	Private Fee	
Oil	Flowing	No	Yes	3,086	1,439	\$13,363
Oil	Pumping	No	Yes	4,088	2,462	\$20,319
Oil	Pumping	Yes	No	4,088	2,462	\$27,523
Gas	Flowing	No	Yes	3,157	4,293	\$5,500
Gas	Flowing	Yes	No	351	477	\$12,157
Gas	Pumping	No	Yes	227	118	\$6,418
Gas	Pumping	Yes	No	227	118	\$12,769
SWD	n/a	No	Yes	324	268	\$3,226
				15,547	11,637	

Source: (Vertex Resources Services, Ltd., 2021) and (NMOCD, 2020)

*Well counts exclude wells classified as plugged (not released) or "empty" within the wells database. The well counts presented in this table exclude wells located on federal and tribal lands in New Mexico and therefore may differ from the total well counts presented in the Vertex Report.

For the wells subject to this analysis, the average surface reclamation costs are presented in Table 9. Note that these costs are exclusive of and in addition to the plugging and abandonment costs presented in Table 7 and the surface decommissioning costs presented in Table 8. In developing these cost estimates, Vertex assumes surface reclamation efforts would include environmental testing and assessment; removal of fencing; removal of contaminated soils; remediation of compacted soils; site regrading and contouring for erosion control; and seeding and revegetation. As reflected in Table 9, the per well costs of surface reclamation efforts are expected to differ considerably depending on the age of the well and the oil and gas region within which it is located.

Table 9 – Estimated wellsite surface reclamation costs

Purpose	O&G Basin	Spud Year	Well Counts*		Cost/Site
			State Trust	Private Fee	
Oil	San Juan	< 2012	120	178	\$53,894
Oil	San Juan	≥ 2012	46	2	\$164,305
Gas	San Juan	< 2012	1,461	2,005	\$53,866
Gas	San Juan	≥ 2012	18	20	\$39,762
SWD	San Juan	Any	16	16	\$136,568
Oil	Permian	< 2012	9,088	5,517	\$99,705
Oil	Permian	≥ 2012	2,510	982	\$116,900
Gas	Permian	< 2012	2,216	1,437	\$78,545
Gas	Permian	≥ 2012	173	263	\$195,698
SWD	Permian	Any	324	249	\$80,199
Oil	Other	< 2012	195	5	\$28,676
Oil	Other	≥ 2012	1	1	\$33,974

analysis are presented in Table 11. In congruence with the Vertex Report, these costs are estimated under two separate scenarios as briefly defined below.

Standard Decommissioning and Reclamation Scenario. In this scenario, it is assumed that all pipelines included in the analysis are decommissioned in a manner that is consistent with current industry standards: cleaning and purging all hydrocarbons from the line with air or other inert fluid; removal and disposal of flammable fluids; cutting and capping pipe ends below grade; removal of above-ground appurtenances; and disconnection of cathodic protection systems. Pipeline rights-of-way are then reclaimed in a manner that is consistent with Vertex’s assumptions regarding wellsite surface reclamation, that is, surface reclamation efforts would include environmental testing and assessment; removal of fencing and markers; removal of contaminated soils; remediation of compacted soils; site regrading and contouring for erosion control; and seeding and revegetation.

Full Removal and Reclamation Scenario. In this scenario, all pipelines included in the analysis are completely removed after abandonment. That is, all buried pipelines are pulled or excavated prior to segmentation and disposal and all surface pipelines are also segmented prior to disposal. Vertex assumes the cost of full removal of buried pipelines is analogous to the cost of constructing a new pipeline. Pipeline right-of-way reclamation effort assumptions under this scenario are the same as those identified in the alternative scenario.

Table 11 – Estimated pipeline decommissioning and right-of-way reclamation costs

Pipeline Diameter	Type	Pipeline Miles*		Cost/Mile†		
		State Trust	Private Fee	Surface Reclamation	Standard Decom. Scenario	Full Removal Scenario
Under 8"	Buried	525	555	\$180,626	\$5,430	\$100,000
10" to 16"	Buried	426	637	\$180,626	\$10,010	\$544,000
18" to 24"	Buried	1,287	561	\$180,626	\$16,275	\$1,620,000
Over 24"	Buried	1,016	1,157	\$180,626	\$27,455	\$2,880,000
Under 8"	Surface	525	555	\$229,916	\$6,455	\$6,455
10" to 16"	Surface	426	637	\$229,916	\$11,935	\$11,935
18" to 24"	Surface	322	140	\$229,916	\$19,725	\$19,725
Over 24"	Surface	113	129	\$229,916	\$32,055	\$32,055
		4,640	4,370			

Source: (Vertex Resources Services, Ltd., 2021)

*These figures may differ from those presented in the Vertex Report because they exclude pipelines located on federal and tribal lands.

†As indicated in the Vertex Report, all pipeline decommissioning and reclamation costs prepared by Vertex and reiterated in this report should be considered Class 5 estimates, meaning they were prepared based on very limited information and consequently have significant accuracy ranges, i.e., +50%/-30%.

3.2.2 Other Oil and Gas Infrastructure Decommissioning and Reclamation

The Center also relied on Vertex’s estimated costs of facility decommissioning and surface reclamation for well-support and other oil and gas related infrastructure on state trust lands.¹⁰

¹⁰ As discussed in Section 2.2, similar data pertaining to other oil and gas support infrastructure is only available from the NMSLO for state trust lands. Similar data is not available for infrastructure located on private fee lands.

These costs, as applied to the infrastructure subject to this analysis, are presented in Table 12. In estimating these costs, Vertex assumes facility decommissioning would include removal of all surface facilities, foundations and pilings, and movable equipment. After completion of facility decommissioning efforts, sites would be reclaimed to return to the affected land to pre-development condition, i.e., efforts would include environmental testing and assessment, removal of fencing; removal of contaminated soils, remediation of compacted soils, site regrading and contouring for erosion control, and seeding and revegetation.

It should be noted that because detailed site-specific equipment inventories were not available to Vertex, and because facility specifications and land encumbrances vary from site to site, the cost estimates presented in the Vertex Report and reiterated here are based on Vertex's estimated per acre costs developed for well sites, i.e., \$9,222 per acre for facility decommissioning and \$52,758 per acre for surface reclamation. The validity or accuracy of these assumptions was not explored by the Center in preparing the analysis presented herein.

Table 12 – Estimated decommissioning and reclamation costs for other oil and gas infrastructure

Facility/Site Description	Site Count†	Average Site Size (acres)	Cost/Site*	
			Facility Decom.	Surface Reclamation
Compressor Station Sites	135	3.73	\$34,000	\$197,000
Electrical Power Related Sites	29	11.35	\$105,000	\$599,000
Fresh Water Frac Ponds	80	5.39	\$50,000	\$285,000
Landing Strips/Airports	1	9.52	\$88,000	\$502,000
Maintenance and Metering Sites	36	2.36	\$22,000	\$125,000
Private Mobile Radio Tower Sites	11	4.47	\$41,000	\$236,000
Office Buildings/Maintenance Yards	5	9.83	\$91,000	\$518,000
Processing and Dehydration Facilities	26	9.97	\$92,000	\$526,000
Rule 34 Recycling Facilities	25	18.16	\$168,000	\$958,000
Storage Sites	44	12.54	\$116,000	\$662,000
Petroleum Storage Tanks	55	153.96	\$1,420,000	\$8,123,000
Transfer Sites	2	6.20	\$57,000	\$327,000
Telemetry Paging Sites	23	2.84	\$26,000	\$150,000
Truck Stops	20	12.84	\$118,000	\$677,000
Storage Facilities/Warehouses	7	9.34	\$86,000	\$493,000
Other O&G Related Sites‡	42	60.67	\$559,000	\$3,201,000

Source: (Vertex Resources Services, Ltd., 2021)

*Facility decommissioning and surface reclamation cost estimates presented in this table are based on Vertex's cost estimates for wellpad decommissioning and surface reclamation on a per acre basis, and are considered Class 5 estimates (i.e., +50%/-30%). For infrastructure and sites listed in this table, Vertex estimates facility decommissioning and surface reclamation costs at \$9,222/acre and \$52,758/acre, respectively.

†These figures are only inclusive of such sites as they exist on state trust lands. Similar data is not available for private fee lands.

‡This category is used by the NMSLO as a catch-all and is inclusive of all facilities categorized as such by the NMSLO.

3.2.3 Summary of Pipeline and Other Oil and Gas Infrastructure Costs

Table 13 presents the product of the per mile and per site surface reclamation and facility decommissioning costs identified in Sections 3.2.1 and the 3.2.2 as applied to the estimated

pipeline miles on state trust and private fee lands and the other oil and gas support facility site counts on state trust lands. As shown therein, based on the cost assumptions presented in the Vertex Report, the estimated total cost of decommissioning all pipelines and reclaiming all pipeline rights-of-way on state trust and private fee lands in a manner that is consistent with current industry standards is approximately \$1.91 billion. Alternatively, if all pipelines were required to be completely removed and properly disposed of, the costs of pipeline decommissioning and right-of-way reclamation are estimated to exceed \$11.74 billion. Additionally, the total estimated cost of removal and reclamation of other oil and gas related facilities located on state trust lands is estimated at \$876.38 million.

Table 13 – Estimated cost of other oil and gas infrastructure decommissioning and surface reclamation

	Surface Land Status		
	State Trust (millions)	Private Fee (millions)	State and Fee (millions)
Estimated Pipeline Costs*			
Standard Decommissioning Scenario			
Surface Reclamation	\$906.33	\$861.23	\$1,767.56
Pipeline Decommissioning	\$74.40	\$68.34	\$142.74
Total Scenario Cost	\$980.73	\$929.57	\$1,910.30
Full Removal Scenario			
Surface Reclamation	\$906.33	\$861.23	\$1,767.56
Pipeline Decommissioning	\$5,314.38	\$4,660.45	\$9,974.83
Total Scenario Cost	\$6,220.71	\$5,521.68	\$11,742.39
Estimated Other Infrastructure Costs			
Compressor Station Sites	\$31.19	<i>no data</i>	<i>no data</i>
Electrical Power Related Sites	\$20.42	<i>no data</i>	<i>no data</i>
Fresh Water Frac Ponds	\$26.80	<i>no data</i>	<i>no data</i>
Landing Strips/Airports	\$0.59	<i>no data</i>	<i>no data</i>
Maintenance and Metering Sites	\$5.29	<i>no data</i>	<i>no data</i>
Private Mobile Radio Tower Sites	\$3.05	<i>no data</i>	<i>no data</i>
Office Buildings/Maintenance Yards	\$3.05	<i>no data</i>	<i>no data</i>
Processing and Dehydration Facilities	\$16.07	<i>no data</i>	<i>no data</i>
Rule 34 Recycling Facilities	\$28.15	<i>no data</i>	<i>no data</i>
Storage Sites	\$34.23	<i>no data</i>	<i>no data</i>
Petroleum Storage Tanks	\$524.87	<i>no data</i>	<i>no data</i>
Transfer Sites	\$0.77	<i>no data</i>	<i>no data</i>
Telemetry Paging Sites	\$4.05	<i>no data</i>	<i>no data</i>
Truck Stops	\$15.90	<i>no data</i>	<i>no data</i>
Storage Facilities/Warehouses	\$4.05	<i>no data</i>	<i>no data</i>
Other O&G Related Sites	\$157.92	<i>no data</i>	<i>no data</i>
Total Other Infrastructure Cost	\$876.38		

Note: All cost estimates presented in this table are reported in millions of USD and considered Class 5 estimates (i.e., +50%/-30%).

*The total cost figures shown here are based on the pipeline mileages and costs/mile presented in Table 11 of this report and therefore may differ from the total cost estimates presented in the Vertex Report.

4 FINANCIAL ASSURANCE OBLIGATIONS

4.1 OIL, GAS, AND SALTWATER DISPOSAL WELLS

In New Mexico, oil and gas extraction activities on state trust and private fee lands are regulated by the New Mexico Oil Conservation Division (NMOCD) of the New Mexico Energy, Minerals, and Natural Resources Department. As part of the NMOCD's regulatory authority provided under the New Mexico Oil and Gas Act (N.M. Stat. § 70-2-1-38), the NMOCD is responsible for establishing financial assurance requirements for oil, gas, and saltwater disposal wells operated on state trust and private fee lands. For oil and gas leases on state trust lands, additional authority in this context has been granted to the NMSLO. Given these overlapping administrative responsibilities, the financial assurance obligations faced by well operators differ depending on the underlying status of the land occupied by the well: private fee land or state trust land.

4.1.1 NMOCD Financial Assurance Requirements for Oil, Gas, and Saltwater Disposal Wells

The NMOCD is responsible for the regulation of the entire life cycle of oil, gas, and saltwater disposal wells situated on private fee lands and state trust lands: permitting new wells, enforcing state oil and gas statutes and rules during well operation, and ensuring abandoned wells are properly plugged and affected lands are responsibly restored. As part of this directive, pursuant to 19.15.8 NMAC, the NMOCD requires permitted oil and gas entities to provide financial assurance in an amount determined by the number of active and inactive wells the permitted entity operates on state trust and private fee lands. The NMOCD's financial assurance requirements are designed to provide a mechanism for enforcing operator compliance with state rules and regulations dictating the conditions for proper plugging and abandonment of wells pursuant to 19.15.25 NMAC. Per the relevant statutes, the NMOCD's required financial assurance is specifically intended to fund well plugging and abandonment and land restoration efforts in the event of non-compliance by the permitted entity. Financial assurance provided by well operators is not intended to secure payment for third parties (landowners or lessees) whose livestock, crops, range, or improvements may be damaged by well operators at any point during the life cycle of the well.

Permitted entities can fulfill the NMOCD's financial assurance requirements with one of three financial instruments: 1) an irrevocable letter of credit, 2) a plugging insurance policy or surety bond issued by a reputable corporate surety, or 3) a cash bond deposited in an account held in trust for the NMOCD at a federally insured financial institution within the State of New Mexico.

As previously alluded to, financial assurance requirements differ for active and inactive wells under the purview of the NMOCD. All permitted entities operating wells on state trust and private fee lands in New Mexico are required to carry financial assurance in a manner that is consistent with the left half of Table 14, however, if one or more of that entity's wells assumes the definition of an inactive well¹¹, the NMOCD requires the permitted entity to carry

¹¹ Per 19.15.8 NMAC, an inactive well is defined as a well that has been in a temporarily abandoned status (i.e., non-producing) for more than two years. Wells that do not meet this default criterion but for which an operator is still seeking approval for temporary abandonment from NMOCD will also be treated as inactive wells.

additional financial assurance commensurate with the rate structure shown in the right half of Table 14. It is worth emphasizing that the NMOCD requires operator-specific financial assurance as opposed to well-specific financial assurance. Therefore, the effective financial assurance coverage for individual wells on state trust and private fee lands within New Mexico can vary considerably. That is, as the number of wells a permitted entity operates increases, the per well financial assurance coverage decreases. This regressive financial assurance requirement structure applies to both active wells and inactive wells permitted by the NMOCD, however, by design the marginal effect is much lower for inactive wells both because the coverage requirements are higher and because most permitted entities have comparatively few inactive wells.

Table 14 – Summary of NMOCD’s financial assurance requirements for active and inactive wells

NMOCD Requirement for All Wells		NMOCD Additional Requirement for Inactive Wells	
Permitted Wells	Requirement	Permitted Wells	Requirement
1-10 wells*	\$50,000	1-5 wells*	\$150,000
11-50 wells	\$75,000	6-10 wells	\$300,000
51-100 wells	\$125,000	11-25 wells	\$500,000
100+ wells	\$250,000	25+ wells	\$1,000,000

Source: 19.15.8 NMAC

*Permitted entities may alternatively provide financial assurance for a single well in the amount of \$25,000 plus \$2/ft projected or actual depth of the well. This formula applies to both single active and single inactive wells.

4.1.2 NMSLO Financial Assurance Requirements for Oil, Gas, and Saltwater Disposal Wells

The NMSLO is responsible for the management of all state trust lands in New Mexico which consist of over nine million surface acres and over thirteen million mineral acres. The NMSLO’s mission is to provide a sustainable revenue stream to New Mexico schools and public institutions through the leasing and rental of state trust lands, and as the designated administrator and steward of these lands, it is the responsibility of the NMSLO to ensure that land uses by private enterprises are done in a manner that does not undermine the land’s future viability as a revenue-generating asset. Since a significant portion of the land administered by the NMSLO is situated in active oil and gas regions, the NMSLO has adopted its own set of financial assurance requirements for oil and gas lessees pursuant to the authority granted under 19.2.100 NMAC.¹²

As previously noted, the NMSLO’s financial assurance requirements are in addition to those of the NMOCD as outlined above in Section 4.1.1. However, one important distinction between the NMSLO’s requirements and those of the NMOCD is that the NMSLO’s requirements are lease-specific rather than operator-specific or well-specific. This is an important distinction because multiple NMOCD-permitted entities may be authorized by the NMSLO to develop and operate multiple wells on the same state trust land oil and gas lease. In such cases, financial assurance requirements for a given lease may, in effect, cover multiple NMOCD-permitted entities and/or multiple wells.

¹² 19.2.100 NMAC is specific to oil and gas leases on state trust lands, financial assurance requirements for saltwater disposal well site easements permitted on state trust lands are covered under a separate statute, i.e., 19.2.11 NMAC.

The financial assurance requirements and associated bonding instruments utilized by the NMSLO are summarized in Table 15. As shown therein, the NMSLO's current coverage requirements are considerably lower than those of the NMOCD, though it is important to reiterate that the NMSLO's requirements are in addition to the NMOCD's requirements. This is because the intended purpose of the NMSLO's financial assurance requirements is also somewhat different than that of the NMOCD. While the NMOCD's primary focus is to ensure wells are properly plugged and its secondary focus is to ensure lands affected by well construction, operation, and abandonment are properly restored, the NMSLO's primary focus is to ensure that the NMSLO and its lessees holding grazing permits or patent to the affected lands are compensated for damages caused by oil and gas lessees.¹³ Though conceivably, in the event of default or improper performance or abandonment of a well by an NMOCD-permitted operator, funds made accessible by the NMSLO's financial assurance requirements likely would be utilized for the same purpose, i.e., well plugging and abandonment and restoration of the surface lands.

Table 15 – Summary of NMSLO's financial assurance requirements for oil and gas leases

NMSLO Requirement for Oil, Gas, and SWD Leases		
Bond Type	Coverage	Requirement
Single lease	1 lease (<i>no well limit</i>)	\$10,000
Multi-lease blanket	2 or more leases (<i>no well limit</i>)	\$20,000
Mega-bond	All leases and/or right-of-way easements	\$25,000
SWD damage & performance	1 SWD easement (<i>damage to surface lessees</i>)	\$10,000
SWD reclamation*	1 SWD easement (<i>restoration of surface/subsurface</i>)	\$250,000
Cross-lease wellpads†	1 wellpad with a cross-lease wellbore	\$50,000

Note: This table was assembled using various bond forms and rules documents available to the public on the NMSLO's website at the time of preparing this analysis.

*The purpose of the SWD reclamation bond is somewhat different than the purpose of the other NMSLO bond types (see Footnote 13)

†Cross-lease wellpads are covered by NMSLO business leases rather than oil and gas leases.

As illustrated in Table 15, the NMSLO's financial assurance requirement structure is also regressive in design, i.e., as the number of leases a permitted entity holds and the concomitant number of wells that lessee operates increases, the per well financial assurance coverage decreases. Arguably, compared to NMOCD's financial assurance requirement structure, the NMSLO's is even more regressive since the change in the marginal coverage requirement is not tied to the number of wells a permitted entity operates. Obviously, this statement does not apply to saltwater disposal leases where bond coverage only extends to a single easement and therefore to a finite number of wells that is fixed by engineering constraints.

4.1.3 Analysis of Financial Assurance Carried by Well Operators

All NMOCD financial assurance coverage data used in this analysis was extracted from the publicly accessible Electronic Permitting and Payment System maintained by the NMOCD

¹³ This statement is true with exception of the NMSLO's surety reclamation bond for saltwater disposal easements. Financial assurance requirements under this bond type are exclusive of damages caused by the permitted lessee to any surface lessee of the affected lands or to livestock, range, water, crops, tangible improvements, or surface improvements. Rather, this bond type is intended ensure compliance with all performance requirements of the saltwater disposal well and leased area, as well as the proper removal of improvements and equipment, remediation, reclamation, and restoration of the affected lands.

(NMOCD, 2020). This online repository contains queryable data and profile information for all active permitted entities and wells within the State of New Mexico, including details about the financial assurance coverage held by those permitted entities. Though it should be mentioned, some sampling and inference techniques were required due to the sheer volume of data and the limitations of the system's report production capabilities.

The first step in analyzing the adequacy of the NMOCD's and the NMSLO's current financial assurance requirements for active wells was to determine how the requirements and the supporting data available to the Center translated to the active wells on state trust and private fee lands in New Mexico. Where an active well in this context refers to any oil, gas, injection, or saltwater disposal well located on state trust or private fee lands that has not been approved by the NMOCD for bond release. That is, the well has been plugged and the wellsite facilities have been decommissioned and the wellsite grounds have been fully reclaimed per state standards and requirements. By this definition, a well need not be actively producing to be considered an active well.

Estimated Well-Specific Coverage Required by NMOCD

Estimating the level of financial assurance coverage on the individual wells included in this analysis is complicated by the fact that both the NMOCD's and the NMSLO's requirements can create circumstances where any given number of wells may be covered by a single financial assurance instrument. Or, alternatively, an individual well may be covered by multiple financial assurance instruments, which occurs when an NMOCD-permitted entity holds a single well bond, a blanket bond, and/or an inactive well bond. To contend with this complexity, the Center assumes herein that the total level of financial assurance applicable to an NMOCD-permitted entity could be applied to any or all the wells operated by that entity. This process is described formulaically by Equation (1).

$$(1) \quad well\ coverage_{ij} = \frac{1}{n_j} (single\ well_j + multi\ well_j + inactive\ well_j)$$

Where the well-specific financial assurance coverage for well i operated by permitted entity j is calculated as the sum of all NMOCD financial assurance instruments applicable to permitted entity j divided by the total number of wells n operated by permitted entity j .

Table 16 presents a summary of the results of Equation (1) as applied to the wells dataset presented in Section 2.1. The table also contains various summary statistics that help demonstrate how the NMOCD's financial assurance coverage requirements translate to the active wells that are the subject of this analysis.

The NMOCD's Electronic Permitting and Payment System is not capable of generating full-population financial assurance reports queryable by permitted entity, therefore individual permitted entities were sampled to attain robust coverage profiles for permitted entities within each well-count cohort presented in Table 16. The sample rates for each well-count cohort adhere to an escalating scale to minimize the magnitude of total sampling error. For example, permitted entities responsible for 100+ wells were fully sampled (i.e., 100%) whereas permitted entities responsible for only 1 well were sampled at a lower rate (i.e., 27%).

Table 16 – Summary of estimated financial assurance coverage required by NMOCD

OCD Financial Assurance for Permitted Entities				Sampling		Wells Covered	
Permitted Wells	Min Required*	Mean Per Entity†	Mean Per Well	Entities	Sample Rate	Mean	Max
1 Well‡	\$25k+\$2/ft	\$40,482	\$40,482	113	27%	1	1
2-10 Wells	\$50,000	\$60,412	\$6,041	181	28%	5	10
11-50 Wells	\$75,000	\$102,205	\$2,044	111	31%	25	50
51-100 Wells	\$125,000	\$168,232	\$1,734	26	54%	71	97
100+ Wells	\$250,000	\$254,021	\$120	47	100%	452	2,119

*As outlined in 19.15.8 NMAC.

†For purposes of illustration, these figures exclude additional financial assurance coverage held by the permitted entity for inactive wells.

‡ If a permitted entity only operates 1 well, the financial assurance requirement for that entity is either \$50,000 or \$25,000 plus \$2/ft projected or actual depth of the well. Within the dataset, many permitted entities opt for a \$50,000 blanket coverage option even if the depth-based formula would result in a lower requirement.

As shown in Table 16, on average, NMOCD-permitted entities carry financial assurance at a level that exceeds the minimum requirement for the number of wells they operate. This is true even if additional financial assurance carried by permitted entities for inactive wells is excluded from the calculations. The reason for this outcome is that many permitted entities carry a blanket bond that is based on their well-count in addition to one or more single well bonds for certain wells (typically those situated on private fee lands). Despite the averages shown in Table 16, it should be noted that many NMOCD-permitted entities have not demonstrated adequate financial assurance coverage and have been found in violation of their financial assurance obligations by the NMOCD.¹⁴

Estimated Well-Specific Coverage Required by NMSLO

To estimate additional well-specific financial assurance coverage for wells situated on state trust lands and therefore subject to NMSLO financial assurance requirements, the Center utilized a bond coverage dataset provided by the NMSLO for use in this analysis. The dataset provides a mechanism to link specific financial assurance instruments held by state trust land oil and gas lessees to all operators that are covered by the instrument. These operators can then be linked to specific wells in the wells dataset using NMOCD-assigned Oil and Gas Reporting ID (OGRID) codes.¹⁵ Here again, certain assumptions about well-specific coverage are required due to the limitations of the data format. Specifically, this analysis assumes all wells on state trust lands linked to a specific permitted entity benefit from all financial instruments linked to that entity. This assumption is necessary because state trust land oil and gas leases and concomitant wells may be covered by multiple bonds, i.e., single lease and multi-lease or mega-bonds.

Table 17 presents various summary statistics to illustrate how the NMSLO's financial assurance coverage requirements manifest at the individual well and operator levels. As shown therein, permitted entities with 1 well or 2-10 wells tend to carry more financial assurance

¹⁴ From the records provided in the Electronic Permitting and Payment System, the NMOCD does seem to be aware of and is taking action on these non-compliance issues.

¹⁵ All NMOCD-permitted entities are assigned a unique OGRID which is used by the NMOCD to link permitted entities to wells and other assets. The NMSLO uses this same identification code in its own databases and records.

coverage than is technically necessary per NMSLO requirements, and by design, coverage on the wells operated by those entities is highest among wells on state trust lands. However, as discussed in Section 4.1.2, the regressive design of the NMSLO's financial assurance requirement structure means that permitted entities responsible for the operation and maintenance of higher well counts on state trust lands carry considerably lower coverage per well. For example, those entities operating more than 100 wells on state trust lands on average carry approximately \$127 per well in assurance coverage, which is only about 1% of the coverage carried by entities with only 1 well on state trust lands.

Table 17 - Summary of estimated financial assurance coverage required by NMSLO

NMSLO Financial Assurance for Permitted Entities				# of Wells Covered	
Wells Operated	Mean Per Entity*	Mean Per Well†	Entities	Mean	Max
1 Well†	\$13,203	\$13,203	64	1	1
2-10 Wells	\$20,152	\$5,595	132	4	10
11-50 Wells	\$25,000	\$1,247	81	24	50
51-100 Wells	\$24,688	\$386	16	67	100
100+ Wells	\$26,892	\$127	37	329	1,136
SWD Easement	\$645,738	\$246,558	122	1	4

* This statistic is complicated by the fact that the NMSLO allows multiple operators to be covered by a single bond and some operators choose to carry multiple bonds.

† Within this study it is assumed each SWD on state trust land is covered by a \$10,000 performance bond and a \$250,000 reclamation bond unless it is clear from the NMOCD's records that multiple SWD wells operated by the permitted entity are located within the same state trust land oil and gas lease.

Estimated Total Financial Assurance Carried by Well Operators

The well-specific and entity-specific average financial assurance coverage figures presented above were calculated from the Center's analysis of the actual wells inventory dataset presented in Section 2.1. An overview of the aggregate and average per well financial assurance coverage for those wells on state trust and private fee lands is presented in Table 18 by well type and underlying land status.

Table 18 – Estimated total financial assurance coverage on subject wells

	Financial Assurance (State Trust)			Financial Assurance (Private Fee)		
	Gas (N = 4,068)	Oil (N = 11,766)	SWD (N = 340)	Gas (N = 5,121)	Oil (N = 6,685)	SWD (N = 277)
Total Coverage	(millions)	(millions)	(millions)	(millions)	(millions)	(millions)
NMSLO required	\$1.88	\$5.01	\$78.78	\$0.00	\$0.00	\$0.00
NMOCD required	\$11.43	\$36.39	\$2.63	\$11.75	\$22.94	\$2.38
Total	\$13.31	\$41.39	\$81.41	\$11.75	\$22.94	\$2.38
Coverage/Well	(USD)	(USD)	(USD)	(USD)	(USD)	(USD)
NMSLO required	\$461	\$426	\$231,706	\$0	\$0	\$0
NMOCD required	\$2,810	\$3,092	\$7,738	\$2,295	\$3,432	\$8,592
Total Per Well	\$3,272	\$3,518	\$239,443	\$2,295	\$3,432	\$8,592

Based on the assumptions and data sources presented here in Section 4.1, the Center estimates the amount of financial assurance held by NMOCD-permitted entities operating active wells

on state trust and private fee lands in New Mexico to be approximately \$173.18 million, which translates to an overall average coverage (weighted by well type) of approximately \$6,129 per well.

4.2 PIPELINES AND OTHER OIL & GAS INFRASTRUCTURE

As with oil and gas wells throughout New Mexico, there is overlapping authority in the regulation of pipeline and other oil and gas infrastructure on private lands and state trust lands. As previously noted, regulatory authority of over this infrastructure at a level and context that is relevant to this analysis is limited to one or more of four regulatory entities: the NMOCD, the NMSLO, NMED, and/or the NMPRC.

4.2.1 Financial Assurance Requirements for Pipelines

In New Mexico, the authority to regulate oil and gas pipelines is granted to the NMPRC in a manner that is consistent with 18.60.2 NMAC.¹⁶ However, in this role, the NMPRC is primarily focused on ensuring pipelines are operated in a safe and responsible manner. With that objective in mind, the Pipeline Safety Bureau of the NMPRC tasks itself with licensing new pipelines, conducting safety and compliance inspections on existing pipelines, and investigating intrastate pipeline incidents and accidents. The NMPRC does have the authority to impose fees on pipeline operators per 18.60.3 NMAC, but as currently structured, these fees are intended to cover the costs of staffing and training for the NMPRC's Pipeline Safety Bureau (NMPRC, 2020). The NMPRC also requires pipeline operators to carry insurance coverage in the event of a pipeline incident or accident, but it does not require operators to provide financial assurance for performance or reclamation purposes.

A summary of the NMSLO's financial assurance obligations for pipeline operators with rights-of-way across state trust lands is presented in Table 19. Again, neither the NMPRC nor the NMOCD currently have similar requirements that would apply to pipeline operators on either state trust or private fee lands.

Table 19 – Summary of NMSLO's financial assurance requirements for pipelines

NMSLO Financial Assurance Requirements for Pipelines		
Bond Type	Coverage	Requirement
Mega-bond*	All leases and/or right-of-way easements	\$25,000
ROW damage bond (single)	1 easement damage bond	\$500
ROW damage bond (blanket)	2 or more easement damage bond	\$2,500
Produced water bond (single)†	1 easement reclamation bond	\$25,000
Produced water bond (blanket)†	2 or more easement reclamation bond	\$250,000

*As previously discussed, mega-bonds effectively provide holders coverage on all rights-of-way and oil and gas wells they operate on state trust lands.

†Produced water and freshwater pipelines are not included in the Platts pipeline dataset used to establish the pipeline inventory subject to this analysis, therefore, the bond coverage held by produced water and freshwater pipeline operators is necessarily omitted from this analysis.

¹⁶ Recently there has been an attempt to transfer authority and regulatory responsibilities for pipelines in New Mexico from the NMPRC to the NMOCD. New Mexico State Senate Bill 409 was drafted for this purpose and was brought before the Senate Rules Committee in early March 2021. It is now expected that the bill will not be voted on until 2022.

As with oil and gas wells, the NMSLO has also leveraged its state trust land management responsibilities by adopting its own set of financial assurance requirements for pipelines pursuant to 19.2.10 NMAC. Though here again, it is important to point out the NMSLO's primary goal in imposing financial assurance requirements is to ensure that the NMSLO and its lessees holding grazing permits or patent to the affected lands are compensated for damages caused by pipeline operators due to the construction, operation, or abandonment of the pipeline. This statement is true for pipelines transmitting oil, gas, and refined petroleum products but not for produced water pipelines. The NMSLO's financial assurance requirements for produced water pipelines are instead intended to ensure compliance with all NMSLO requirements for proper removal of improvements and equipment, remediation, reclamation, and restoration of the affected lands.

4.2.2 Financial Assurance Requirements for Other Oil & Gas Infrastructure

Many of the oil and gas infrastructure types listed in Table 13 that are not located within a wellsite or a pipeline right-of-way are not subject to the regulatory oversight of the NMPRC or the NMOCD. As such, no financial assurance obligations are imposed on the owners or operators of this infrastructure except where these facilities are located on state trust lands and therefore subject to the jurisdiction of the NMSLO. Infrastructure that falls into this category and is located on state trust lands is typically permitted by the NMSLO through a business lease as defined under 19.2.9 NMAC. Per this statute, the NMSLO does have the authority to require the owner of the infrastructure to carry bond coverage in an amount adequate "to assure proper removal of the improvements from trust land and the restoration of trust land." However, in practice, the NMSLO typically does not impose financial assurance requirements on operators of most of the infrastructure listed in Table 13.¹⁷

Extant financial assurance obligations where applicable to the subject other oil and gas infrastructure types are presented in Table 20.¹⁸

Table 20 - Summary of financial assurance requirements for other oil and gas infrastructure

Infrastructure Type	Assurance Amount	Statute	Regulatory Entity
Rule 34 Recycling Facilities	\$25,000 minimum*	19.15.34	NMOCD
Rule 34 Recycling Facilities	\$1.00/bbl contained	19.2.9	NMSLO
Petroleum Storage Tanks	\$500,000-\$1,000,000†	20.5.117	NMED‡

*Per 19.15.34, permitted operators carrying financial assurance consistent with 19.15.8 NMAC (see Table 14) are not required by the NMOCD to provide additional assurance. Otherwise, operators are required to provide financial assurance in the greater amount of \$25,000 or the estimated cost of facility closure.

†Per 20.5.117 NMAC operator financial responsibility requirements vary depending on the location, capacity, and number of storage tanks operated. Financial assurance coverage in the amounts shown here is only required if the operator cannot demonstrate an adequate tangible net worth or otherwise pass the financial test of self-insurance outlined under 20.5.117.1705 NMAC.

‡New Mexico Environment Department - Petroleum Storage Tank Bureau

¹⁷ As indicated to the Center during telephone conversations with staff persons within the NMSLO's Commercial Resources Division. It should be noted that NMSLO business leases require lessees to carry commercial general liability insurance in the minimum amount of \$200,000 for damage to or destruction of each legally described real property arising out of a single occurrence with an aggregate of \$1,000,000. Additionally, NMSLO mega-bonds may also extend coverage to operators of other oil and gas infrastructure where applicable.

¹⁸ Note that this table excludes oil and gas related surface waste management facilities used for the disposal of oil field waste. These facilities are required by the NMOCD per 19.15.36 NMAC to carry financial assurance coverage to ensure proper construction, operation, closure, and post closure. However, these facilities are outside the scope of this study.

As shown in Table 20, financial assurance requirements for this infrastructure are nuanced and pursuant to the relevant regulations, operators may have multiple ways of minimizing or avoiding these requirements. For instance, if a rule 34 recycling facility operator is also a well operator meeting the financial assurance obligations presented in Table 14, then additional coverage for rule 34 recycling facilities and associated containment ponds/tanks/pits is not required by the NMOCD.

4.2.3 Analysis of Financial Assurance Coverage for Pipelines and Other Oil & Gas Infrastructure

Estimated Per Pipeline Mile Financial Assurance Coverage Required by NMSLO

The Center’s estimated per pipeline mile financial assurance coverage for pipelines situated on state trust lands, and therefore subject to NMSLO financial assurance requirements, are presented in Table 21. The table presents various summary statistics to illustrate how the NMSLO’s financial assurance coverage requirements translate to per pipeline mile coverage and per operator coverage. As with the NMSLO’s financial assurance requirement structure for wells, the requirement structure for pipelines is regressive in design. As the number of pipeline miles increases for a given operator, the per mile coverage on the pipelines owned by that operator decreases. As an example, the Center estimates that pipeline operators with more than 100 miles of pipeline crossing state trust land are expected to carry approximately \$11 in financial assurance coverage per mile — compared to an average of \$761 per mile coverage for operators with fewer than 5 miles of pipeline on state trust land.

Table 21 – Summary of estimated financial assurance coverage for pipelines

NMSLO Requirements for Pipeline Operators [†]			Operator Counts		Miles Covered	
Pipeline Miles	Mean Per Entity	Mean Per Mile	Known	Unknown*	Mean	Max
Less than 5 miles	\$2,141	\$761	9	55	3.57	4.99
5 to 10 miles	\$3,750	\$493	8	0	6.59	7.86
10 to 25 miles	\$5,000	\$240	6	0	19.97	24.52
25 to 50 miles	\$1,833	\$48	3	0	37.29	50.21
50 to 100 miles	\$1,500	\$20	4	0	71.58	89.54
More than 100 miles	\$2,154	\$11	13	0	295.42	996.32

*Inventoried pipeline mileage associated with unknown operators is assumed to be owned by multiple operators consistent with the median number of pipeline miles operated by the known operators, i.e., approximately 2 miles per operator.

[†]Note that these figures are specific to operators of oil, gas, and refined products pipelines only and do not include financial assurance coverage that would be applicable to produced water or freshwater pipelines.

In developing the estimates presented in Table 21, several assumptions were necessary due to deficiencies in the underlying Platts pipeline inventory (see Section 3.2) and the absence of detailed, operator-specific financial assurance coverage data available for use in this analysis. A summary of key assumptions employed in this portion of the analysis is provided below:

- Each non-contiguous state trust land parcel is assumed to be a separate easement for the purposes of estimating the bond coverage required of pipeline operators included in the pipeline inventory.
- There are approximately 111 miles of pipeline within the Platts pipeline inventory that belong to unidentified operators. Where located on state trust lands, it is assumed that

this mileage is owned by multiple operators at a level that is consistent with the median number of pipeline miles operated by the known operators, i.e., approximately 2 miles per operator.

- Neither operator-specific nor pipeline-specific financial assurance coverage data was provided by the NMSLO for use in this analysis. It is therefore assumed that pipeline operators are profit maximizing and hold the minimum bond coverage required by the NMSLO. Mathematically, this means operators with pipelines encumbering fewer than five state trust land parcels are assumed to carry \$500 in bond coverage per parcel. Operators encumbering more than five state trust land parcels are assumed to hold a blanket bond (i.e., carry \$2,500 in total bond coverage).
- Pipeline operators that have been identified previously in this analysis as holders of an NMLSO mega-bond for one or more oil and gas leases on state trust lands are assumed to have no additional bond coverage for their oil and gas pipelines, however, it is also assumed herein that the entire \$25,000 in bond coverage under the mega-bond could be applied to pipelines operated by the mega-bond holders.

Estimated Per Other Oil & Gas Site Financial Assurance Coverage Requirements

As shown in Table 22, of the other oil and gas infrastructure and facility types reviewed as part of this analysis, only petroleum storage tanks and rule 34 recycling facilities are expected to be covered by any level of financial assurance. On average, rule 34 recycling facilities are estimated to carry bond coverage of approximately \$1,000,000 per site (as required by the NMSLO), but the NMOCD's requirements shown in Table 20 likely do not apply to the rule 34 recycling facilities subject to this analysis because the operators of these specific facilities meet the financial assurance requirements under 19.15.8 NMAC. It is also expected that the requirements of 20.5.117 NMAC do not apply to most of the petroleum storage tank facilities included in this analysis because the operators of those facilities would easily pass the financial test of self-insurance outlined in 20.5.117.1705 NMAC.

Table 22 – Summary of estimated financial assurance coverage for other O&G infrastructure

Infrastructure Type	Site Count*	Operator Count	Estimated Coverage	
			Mean Per Entity	Mean Per Site
Compressor Station Sites	135	49	\$0	\$0
Electrical Power Related Sites	29	9	\$0	\$0
Freshwater Frac Ponds	80	21	\$0	\$0
Landing Strips/Airports	1	1	\$0	\$0
Maintenance and Metering Sites	36	26	\$0	\$0
Private Mobile Radio Tower Sites	11	11	\$0	\$0
Office Buildings/Maintenance Yards	5	5	\$0	\$0
Processing and Dehydration Facilities	26	20	\$0	\$0
Rule 34 Recycling Facilities†	25	10	\$2,500,000	\$1,000,000
Storage Sites	44	35	\$0	\$0
Petroleum Storage Tanks‡	55	21	\$142,857	\$54,545
Transfer Sites	2	2	\$0	\$0
Telemetry Paging Sites	23	16	\$0	\$0

Infrastructure Type	Site Count*	Operator Count	Estimated Coverage	
			Mean Per Entity	Mean Per Site
Truck Stops	20	18	\$0	\$0
Storage Facilities/Warehouses	7	7	\$0	\$0
Other O&G Related Sites	42	30	\$0	\$0

*Infrastructure included in this table is limited to that permitted by an NMSLO business lease.

†These figures represent the NMSLO's estimated requirement. The estimated financial assurance coverage for these facilities as required by NMOCD is expected to be \$0.00.

‡Per 20.5.117 NMAC, operators are only required to carry bond coverage if their demonstrated “tangible net worth” is less than \$10-\$20 million. Most of the operators of the subject storage tanks have estimated values exceeding \$1 billion.

A summary of key assumptions employed in this portion of the analysis is provided below:

- Because all of the subject rule 34 recycling facility operators also operate 95 or more wells on private and state trust lands, those operators are assumed to meet the NMOCD's financial assurance requirements under 19.5.8 NMAC and therefore do not carry additional financial assurance that otherwise would be required per 19.15.34 NMAC.
- All of the subject rule 34 recycling facilities are assumed to contain one million barrels of fluid and therefore carry financial assurance coverage in the amount of \$1,000,000 per facility to meet the NMSLO's requirements of \$1.00/bbl contained.¹⁹
- All of the subject storage tank sites are assumed to contain on average at least 10,000 gallons (~238bbls) of petroleum per month and therefore meet the eligibility threshold for regulation by the NMED under 20.5.117 NMAC.
- All storage tanks subject to this analysis are assumed to be located at petroleum marketing facilities as defined under 20.5.101.7 NMAC.²⁰

Estimated Total Financial Assurance Carried by Pipeline and Other Oil & Gas Infrastructure Operators

Table 23 presents the aggregate financial assurance coverage estimates produced by the per mile and per site estimates presented above as multiplied by the estimated pipeline miles and facility counts available for use in this analysis. Based on the assumptions and data sources presented here in Section 4.2, the Center estimates the total amount of financial assurance carried by pipeline operators is approximately \$236,500 and any level of coverage is only carried by operators with pipelines crossing state trust lands. No financial assurance coverage requirements exist for pipeline operators on private fee lands in New Mexico. With respect to other oil and gas infrastructure located on state trust lands, the Center estimates the total amount of financial assurance coverage is approximately \$28.0 million, the majority of which is tied to the NMSLO's requirements pertaining to rule 34 recycling and containments facilities. A smaller portion of this coverage is tied to petroleum storage tanks as required by the New Mexico Environment Department.

¹⁹ This estimate of the average fluid containment of the subject rule 34 recycling facilities was provided by staff persons of the NMSLO's Commercial Resources Division, the Center did not attempt to corroborate these figures.

²⁰ Per N.M. Code R. § 20.5.101.7, “petroleum marketing facilities” include all facilities at which petroleum is produced or refined and all facilities from which petroleum is sold or transferred to other petroleum marketers or to the public.

Table 23 – Estimated total financial assurance coverage on pipelines and other oil & gas infrastructure

	Surface Land Status		
	State Trust (millions)	Private Fee (millions)	State and Fee (millions)
Total Coverage on Pipelines	\$0.24	\$0.00	\$0.24
Total Coverage on Other O&G Infrastructure	\$28.00	no data	no data
Compressor Station Sites	\$0.00	no data	no data
Electrical Power Related Sites	\$0.00	no data	no data
Freshwater Frac Ponds	\$0.00	no data	no data
Landing Strips/Airports	\$0.00	no data	no data
Maintenance and Metering Sites	\$0.00	no data	no data
Private Mobile Radio Tower Sites	\$0.00	no data	no data
Office Buildings/Maintenance Yards	\$0.00	no data	no data
Processing and Dehydration Facilities	\$0.00	no data	no data
Rule 34 Recycling Facilities	\$25.00	no data	no data
Storage Sites	\$0.00	no data	no data
Petroleum Storage Tanks	\$3.00	no data	no data
Transfer Sites	\$0.00	no data	no data
Telemetry Paging Sites	\$0.00	no data	no data
Truck Stops	\$0.00	no data	no data
Storage Facilities/Warehouses	\$0.00	no data	no data
Other O&G Related Sites	\$0.00	no data	no data

Notes: All figures presented in this table are reported in millions of USD. The estimates presented in this table do not include additional financial assurance coverage that may be available from NMSLO-required mega-bonds.

5 FINDINGS AND CONCLUSIONS

Based on the data available to the Center upon preparing this analysis and the assumptions presented in the above sections of this report, the Center’s findings pertaining to the adequacy of the current financial assurance requirements for the various oil and gas related infrastructure explored as part of this study are presented below.

As discussed in Section 4.1, the primary function of much of the financial assurance coverage on oil, gas, and saltwater disposal wells throughout New Mexico is to ensure that basic plugging and abandonment costs are covered in the event an operator fails to abandon a well in a manner that is consistent with state standards. Well equipment decommissioning and wellsite surface reclamation are secondary objectives. Given this priority structure, Table 24 presents the adequacy of current financial assurance requirements as compared to basic plugging and abandonment costs, and Table 25 presents these same requirements as compared to the total estimated costs of well closure and clean-up.

As shown in Tables 24 and 25, on average, the applicable financial assurance requirements differ considerably depending on where a well is located (i.e., on state trust land or private fee land) and the primary use of that well (i.e., oil, gas, or saltwater disposal). Of the wells included in this study, only saltwater disposal wells located on state trust lands carry financial assurance

coverage at a level that meets or exceeds the full liability of well closure and clean-up. Excluding saltwater disposal wells on state trust lands, the estimated gap between base plugging and downhole abandonment costs and financial assurance coverage averages to approximately \$86,100 per well. If estimated wellsite decommissioning and surface reclamation costs are included in this exercise, the Center estimates that the average financial assurance gap is approximately \$182,600 per well (again if saltwater disposal wells on state trust lands are excluded from the average calculations).

Table 24 – Summary of per well financial assurance adequacy findings for O&G wells (P&A cost gap)

Land Status	Well Type	Financial Assurance	P&A Costs*	Assurance Gap
State Trust	Gas	\$3,300	\$90,500	(\$87,200)
State Trust	Oil	\$3,500	\$93,100	(\$89,600)
State Trust	SWD	\$239,400	\$89,800	\$149,600
Private Fee	Gas	\$2,300	\$84,100	(\$81,800)
Private Fee	Oil	\$3,400	\$93,500	(\$90,100)
Private Fee	SWD	\$8,600	\$90,500	(\$81,900)
Weighted Average		\$6,129	\$91,124	(\$85,006)

Notes: All figures presented in this table are reported on a "per well" basis.

*Cost figures reported in this table are specific to well plugging and downhole abandonment efforts and do not include surface facility decommissioning or wellsite surface reclamation.

Table 25 – Summary of per well financial assurance adequacy findings for O&G wells (total cost gap)

Land Status	Well Type	Financial Assurance	Total Costs*	Assurance Gap
State Trust	Gas	\$3,300	\$168,900	(\$165,600)
State Trust	Oil	\$3,500	\$218,400	(\$214,900)
State Trust	SWD	\$239,400	\$175,900	\$63,500
Private Fee	Gas	\$2,300	\$151,800	(\$149,500)
Private Fee	Oil	\$3,400	\$216,700	(\$213,300)
Private Fee	SWD	\$8,600	\$178,300	(\$169,700)
Weighted Average		\$6,129	\$197,897	(\$191,779)

Notes: All figures presented in this table are reported on a "per well" basis.

*Cost figures reported in this table include well plugging and downhole abandonment, surface facility decommissioning, and wellsite surface reclamation.

The current financial assurance requirements and the costs of closure for pipelines located on state trust and private fee lands in New Mexico are summarized in Table 26. As shown therein, the estimated average financial assurance coverage for pipelines on state trust lands is approximately \$51 per mile, whereas the average decommissioning and surface reclamation cost is estimated to exceed \$211,000 per mile. Based on the Center's research, currently there are no financial assurance requirements for pipelines located on private fee lands, therefore the financial assurance gap is equivalent to the total cost of decommissioning and reclamation.

Table 26 - Summary of per pipeline mile financial assurance adequacy findings for O&G pipelines

Land Status	Financial Assurance	Costs*	Assurance Gap
Standard Decommissioning Scenario			
State Trust	\$51	\$211,000	(\$210,949)
Private Fee	\$0	\$213,000	(\$213,000)
Weighted Average		\$26	(\$212,000)

Land Status	Financial Assurance	Costs*	Assurance Gap
Full Removal Scenario			
State Trust	\$51	\$1,341,000	(\$1,340,949)
Private Fee	\$0	\$1,264,000	(\$1,264,000)
Weighted Average	\$26	\$1,304,000	(\$1,304,000)

Notes: All figures presented in this table are reported on a "per mile" basis.

*Costs reported here are representative of the average per mile pipeline decommissioning and right-of-way reclamation costs presented in Table 11 weighted by the number of pipeline miles reported in Table 11.

The differences between current financial assurance requirements and the costs of closure for other midstream and oil and gas support infrastructure located on state trust lands in New Mexico are summarized in Table 27. Note that this portion of the Center's analysis does not include similar infrastructure located on private fee lands because such data could not be located for use in this analysis. Of the other oil and gas infrastructure types explored in this analysis, financial assurance requirements were only identified for rule 34 recycling and containment facilities and petroleum storage tanks. In both cases, the current level of financial assurance coverage required for these facilities is exceeded by the estimated facility decommissioning and surface reclamation cost.

Table 27 – Summary of per site financial assurance adequacy findings for other O&G infrastructure

Other O&G Infrastructure Type	For Infrastructure on State Trust Lands		
	Financial Assurance	Closure Cost	Assurance Gap
Compressor Station Sites	\$0	\$231,000	(\$231,000)
Electrical Power Related Sites	\$0	\$704,000	(\$704,000)
Freshwater Frac Ponds	\$0	\$335,000	(\$335,000)
Landing Strips/Airports	\$0	\$590,000	(\$590,000)
Maintenance and Metering Sites	\$0	\$147,000	(\$147,000)
Private Mobile Radio Tower Sites	\$0	\$277,000	(\$277,000)
Office Buildings/Maintenance Yards	\$0	\$609,000	(\$609,000)
Processing and Dehydration Facilities	\$0	\$618,000	(\$618,000)
Rule 34 Recycling Facilities	\$1,000,000	\$1,126,000	(\$126,000)
Storage Sites	\$0	\$778,000	(\$778,000)
Petroleum Storage Tanks	\$54,545	\$9,543,000	(\$9,488,455)
Transfer Sites	\$0	\$384,000	(\$384,000)
Telemetry Paging Sites	\$0	\$176,000	(\$176,000)
Truck Stops	\$0	\$795,000	(\$795,000)
Storage Facilities/Warehouses	\$0	\$579,000	(\$579,000)
Other O&G Related Sites	\$0	\$3,760,000	(\$3,760,000)

Notes: All figures presented in this table are reported on a "per site" basis in USD. Similar data for infrastructure located on private fee lands was not available for this analysis. The estimates presented in this table do not include additional financial assurance coverage that may be available from NMSLO-required mega-bonds held by the infrastructure owner.

Overall, the Center finds that existing financial assurance requirements applicable to all infrastructure types are not sufficient to fully offset estimated closure and clean-up costs. As summarized in the Table 28, this study finds the total cost of closure and clean-up of the oil and gas infrastructure currently located on state trust and private lands to be approximately \$8.38 billion. Whereas the total financial assurance coverage for this infrastructure accessible

to state regulatory entities for the purpose of closure and clean-up efforts is estimated to be approximately \$201.42 million, resulting in a total financial assurance gap of approximately \$8.18 billion.

Table 28 – Summary of total financial assurance adequacy findings

Infrastructure	Estimated Closure and Clean-up Costs <i>(millions)</i>		Estimated Financial Assurance <i>(millions)</i>		Estimated Financial Assurance Gap <i>(millions)</i>	
	State Trust	Private	State Trust	Private	State Trust	Private
Wells*	\$3,316.40	\$2,275.33	\$136.11	\$37.07	(\$3,180.29)	(\$2,238.26)
Pipelines†	\$980.73	\$929.57	\$0.24	\$0.00	(\$980.49)	(\$929.57)
Other	\$876.38	<i>no data</i>	\$28.00	\$0.00	(\$848.38)	<i>no data</i>
Total	\$5,173.51	\$3,204.90	\$164.35	\$37.07	(\$5,009.16)	(\$3,167.83)
	\$8,378.41		\$201.42		(\$8,176.99)	

Notes: All figures presented in this table are reported in millions of USD.

*Cost figures reported in this table include well plugging and downhole abandonment, surface facility decommissioning, and wellsite surface reclamation.

† Cost figures reported in this table exclude produced water and freshwater pipelines used by oil and gas operators. Costs reported in this table assume buried pipelines are abandoned in-place rather than removed.

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N E W M E X I C O



Energy, Minerals and Natural Resources Department

A photograph of a desert landscape at sunset. In the foreground, a dirt road leads towards a series of wind turbines and a large electrical transmission tower. The sun is low on the horizon, creating a warm, golden glow and long shadows. The sky is a deep blue with some wispy clouds.

ANNUAL REPORT 2024

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Message from Cabinet Secretary Designate - Melanie A. Kenderdine

I was appointed Secretary-designate of the Energy, Minerals and Natural Resources Department (EMNRD) by Governor Michelle Lujan Grisham in May of 2024. It was immediately clear that EMNRD plays a vital role in ensuring that New Mexico's abundant natural resources are both protected and used in environmental responsible and economically impactful ways. One of the first things I did after starting this job was schedule meetings with the staffs of the department's five operating divisions. I wanted to personally meet with them and learn more about them and how they go about their jobs.

I had not completed those meetings when the South Fork and Salt Fires started burning in the southwestern part of the state, devastating parts of the communities of Ruidoso and the Mescalero Apache Reservation. The first responders to these fires included fire crews from EMNRD's Forestry Division, two of which were newly formed and in the early stages of training to become official Interagency Hot Shot Crews. These crews' performance in battling these two highly destructive blazes—as well their efforts in assisting with fires in the Pacific Northwest later in the summer—proved that New Mexico has a formidable wildland firefighting force that will only get better as its training progresses.

A few weeks later, I was proud to present an award from EMNRD's Mining and Minerals Division (MMD) to two companies for their outstanding work on reclaiming the site of an old, abandoned coal mine that was threatening to irrevocably damage a stream channel near Raton in northern New Mexico. This is just one of the many sites that MMD's Abandoned Mine Land Program cleans up every year. MMD also ensures environmentally responsible mining, including copper mining in the southwest part of the state. This copper is critical for a clean energy future where it is used for electric vehicles, transmission towers and lines, and a range of other technologies that are essential for the clean energy transition.

The Abandoned Mine Land Program had quite the year in 2024. First, it won its own award from the federal Office of Surface Mining Reclamation and Enforcement for cleaning up coal waste piles that were threatening to pollute a stream and damage a road, also near Raton. It followed that up by extinguishing two long-simmering underground coal fires that were emitting toxic gas and threatening to disrupt construction of a new water supply line that will serve the City of Gallup and parts of the Navajo Nation.

Shortly after Labor Day, I spoke at a public event at which Gov. Michelle Lujan Grisham, Sen. Martin Heinrich and Albuquerque Mayor Tim Keller were among the dignitaries celebrating an \$87 million federal grant awarded to EMNRD's Energy Conservation and Management Division to help New Mexicans make their homes more energy efficient. This same EMNRD division also received a \$156 million federal grant in 2024 to enable low-income New Mexicans to install solar generation to power their homes. That grant will help many New Mexicans to make major contributions to the state's clean energy transition, including those in rural and tribal communities.

As this year progressed, I also supported the Oil Conservation Division's successful efforts to prevent tens of millions of cubic feet of methane gas emissions by continuing to enforce its nation-leading methane waste rules. The Oil Conservation Division has also further reduced environmental hazards by plugging nearly 150 orphan wells over the past two years. My introduction to EMNRD has also included visiting several of the 35 magnificent parks managed by the State Parks Division. These spaces are true representations of the landscapes that help make New Mexico the Land of Enchantment and provide locations where New Mexicans and tourists from across the country and the world can enjoy and appreciate the spectacular beauty of our state.

I would be remiss if I did not note that the work each EMNRD division does—from plugging orphan wells to reclaiming mine sites and promoting solar energy development and welcoming visitors to state parks—creates good-paying jobs in multiple New Mexico communities, bolstering the state's economic health.

This report details these and many of EMNRD's other accomplishments in the last year. I look forward to continuing this critical work in 2025 and beyond.



MELANIE A. KENDERDINE
Cabinet Secretary Designate



The Office of the Secretary (OFS) oversees all divisions within the Department, and includes the Office of Information Technology, the Public Information Office, and the Office of General Counsel. OFS provides overall policy direction, strategic direction, and measures program performance for the Department. OFS is also the main liaison between the Department and the Governor, other state agencies, and legislators.

| PUBLIC INFORMATION OFFICE

The Public Information Office fields media requests, creates and approves of all marketing materials, and works closely with all Divisions to promote programs. This office writes speeches for public events, distributes press releases, and promotes the work of the Department through the website, publications, and events. The Public Information Office also provides guidance to Divisions on overall communications messaging.

| OFFICE OF GENERAL COUNSEL

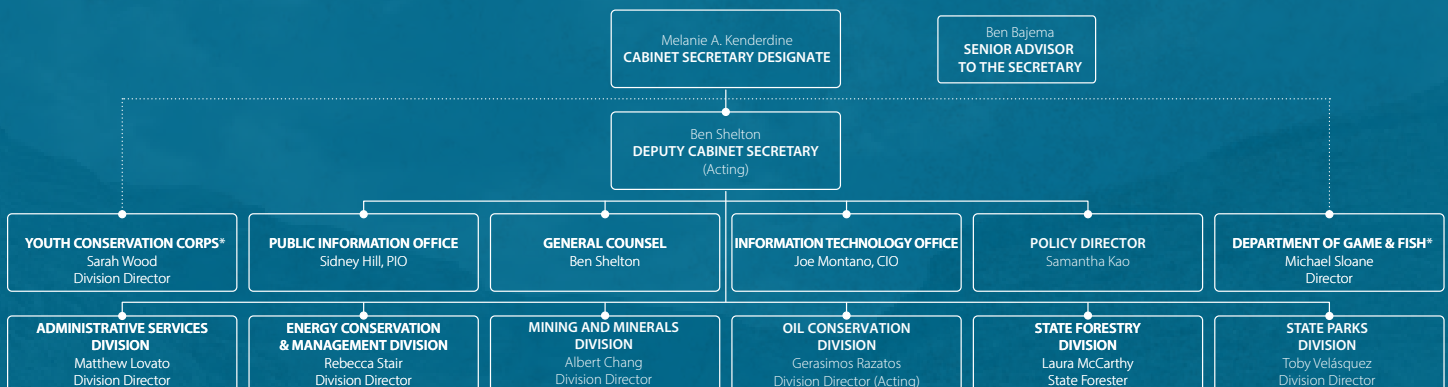
The Office of General Counsel manages the legal affairs for the entire Department. This office reviews contracts, represents the Department in administrative and judicial proceedings, drafts and analyzes proposed legislation and rules, and assists with other legal matters as necessary.

| INFORMATION AND TECHNOLOGY OFFICE

The Information and Technology Office (ITO) is the central information technology and information systems provider for the Department's employees across the state. It employs 21 technical positions that are responsible for maintaining and supporting the Department's computer systems, network telecommunications infrastructure, and application development needs.

| ADMINISTRATIVE SERVICES

The Administrative Services Division (ASD) supports the day-to-day functions of the Department. Responsible for EMNRD's finances and property, the Division manages the budget, procurement, accounting, grant reporting, and processes payment vouchers, travel documents, purchase orders, and more. Crucially, ASD coordinates the annual financial audit and prepares the annual financial statement. ASD also manages the HR Department and is the primary liaison between EMNRD and the State Personnel Office.



* Administratively attached with no direct budget support from EMNRD.

The background of the image is a semi-transparent photograph of a desert landscape. In the foreground, there is a dirt road with some dry, yellowish grass on the left side. In the middle ground, several wind turbines are visible, and a large high-voltage power line tower stands prominently on the right. The sun is low on the horizon, creating a bright, hazy glow across the sky and the scene.

ECAM

ENERGY CONSERVATION
AND MANAGEMENT

LETTER FROM THE DIRECTOR

The Energy Conservation and Management division (ECAM) is leading the state's charge toward clean energy adoption. ECAM has positioned New Mexico as a leader in the implementation of innovative clean energy programs, which are generating quality jobs, attracting investment, raising standards of living, and diversifying the state's economy. According to a DOE study, New Mexico ranked third of all states in clean job creation.

What a year!

In 2024, ECAM:

- Helped update building codes to incorporate energy efficiency measures.
- Was the first state to apply for both US Department of Energy Home Rebates Programs—Home Electrification and Appliance Rebates (HEAR) and Home Efficiency Rebates (HER), bringing \$87 million in federal grants for distribution to New Mexico households.
- Was the third state to launch HEAR – and the first state to offer retail (point-of-sale) discounts for low-income residents on the purchase of energy efficiency home improvements and electric appliances.
- Updated the rules on the state's Solar Market Development Tax Credit.
- Implemented tax credit programs for both clean cars and electric vehicle chargers.
- Began setting up a geothermal office within the division.
- Received a \$156 million Solar for All Award from the US EPA and launched the five-year program to make solar energy accessible in the state's rural and low-income communities.
- Applied for and received several green jobs grants.
- Launched a one-stop-shop clearinghouse website, CleanEnergy.nm.gov, to help New Mexicans find and apply for all the above-mentioned energy-efficiency grants and tax credits.
- Grew and restructured the department to streamline operations and better accommodate an increased workload. Hired staff for grant writing, financial management, administrative support, communications, and more.

ECAM continued helping New Mexicans by reviewing a record number of residential solar installations and developing metrics for quantifying energy efficiencies. Additionally, ECAM's subject matter experts participated in many forums and partnerships, providing unbiased technical support, and helped advance many high priority projects and initiatives, from Albuquerque's Community Change grant to Navajo Transitional Utility Authority.

Looking ahead, ECAM plans to implement grant programs to help launch a geothermal industry in New Mexico and serve as the state's State Energy Finance Institution (SEFI). The SEFI designation will help secure competitive loans from the DOE's Loan Programs Office for clean energy projects across the state. We are making great progress in ensuring that New Mexico has a Just Transition to a clean-energy future, and we are eager to build on that the momentum in 2025.



REBECCA "PUCK" STAIR
Division Director
Energy Conservation and Management Division



The Energy Conservation and Management Division (ECAM) develops and implements effective clean energy programs — renewable energy, energy efficiency, alternative fuels, and safe transportation of radioactive waste — to promote economic growth, environmental sustainability, and wise stewardship of natural resources while protecting public health and safety for New Mexico and its citizens.

44

Staff positions

4

Professional engineering for
technical support
and evaluation

5

Climate and resiliency

12

Program management in energy
efficiency/security/resilience,
renewable energy, alternative fuels,
and climate change

6

To administer tax credits

3

WIPP to ensure
safe transportation of
transuranic waste

8

Administration and
public services

2

Regulatory and legal

STATUTORY RESPONSIBILITIES

- **RENEWABLE ENERGY:** Solar, wind, geothermal, biomass, and energy storage technology applications in all sectors; distributed energy technologies such as residential solar and co-generation (combined heat and power) systems.
- **ENERGY EFFICIENCY:** Technology applications such as energy control systems and efficient lighting, motors and appliances, as well as behavioral practices, that reduce energy use and costs in buildings and the transportation sector; residential and commercial building energy codes and standards.
- **ALTERNATIVE TRANSPORTATION AND CLEAN FUELS:** Ridesharing and carpooling; park-and-ride programs; vehicles and infrastructure for electric vehicles, clean-burning fuels such as compressed natural gas (CNG), renewable natural gas, propane, biodiesel, and renewable diesel.
- **WASTE ISOLATION PILOT PLANT (WIPP) TRANSPORTATION:** Safe and uneventful transportation of transuranic (TRU) waste in New Mexico.

OUTLINE OF STRATEGIC PRIORITIES

- Grid Modernization & Clean Electrification
- Climate Change Action
- Transportation Decarbonization
- Energy Efficiency
- Energy Diversification
- Energy Workforce Development
- Sustainability & Resiliency
- State Energy Security Planning
- Transuranic Waste Transportation Safety



GRID MODERNIZATION & CLEAN ELECTRIFICATION

| GRID MODERNIZATION

New Mexico cannot successfully transition to a clean-energy future without significantly upgrading its electric grid. A modern electric grid has to accommodate new types of power—particularly renewable sources such as solar and wind energy—generated by multiple entities across various locations. In addition to managing these new forms of power across a distributed network, a modern grid must be fortified to withstand cyber-attacks or other potential threats. And its operating costs must be kept to a minimum to ensure that power remains affordable for the average consumer.

With all this in mind, the legislature, in 2023, authorized ECAM to establish a grant program to fund pilot projects that demonstrate how a modern grid operates. In fiscal year 2024, ECAM funded two pilot projects:

- New Mexico State University (NMSU) received \$117,709 to support an economic choice study. The survey results will provide valuable insight about consumers' willingness to pay for electrifying New Mexico's transportation infrastructure. It should, for instance, yield a profile of the types of consumers—and their locations within the state—that are most willing to participate in electric vehicle (EV) programs. PNM, the state's largest investor-owned utility, has expressed interest in using this study to increase its understanding of consumer behavior.
- The City of Aztec Electrical Utility was awarded \$170,000.00 to support a \$360,000.00 feasibility and engineering study for the Aztec Clean Energy Transition Project. Deliverables included permitting and construction documents for a proposed ground based 2-megawatt photovoltaic system and 4-megawatt per hour battery energy storage system (BESS). The local grid will benefit by having dispatchable energy to help manage the middle-of-the-night winter peak along with adding renewable generation.

Grid Modernization program staff also completed the fourth round of project selection in the fourth quarter of FY 2024. Two projects with an aggregated total of \$900,000.00 were selected for funding in FY 2025.

| LONG DURATION ENERGY STORAGE

The Long Duration Energy Storage Grant Program is intended to de-risk battery project development by bringing down capital costs, shortening utility planning horizon gaps and bringing new technology solutions to market by answering research questions. The program is funded through a one-time state allocation to EMNRD to support "advanced energy technologies." The funding will support two projects in FY25.

| LOOKING AHEAD TO A MORE RESILIENT GRID

ECAM has received \$20,646,913.00 from the U.S. Department of Energy to cover three years of funding for the Preventing Outages and Enhancing Resilience (POWER) program, which is part of the Biden Administration's Infrastructure Investment and Jobs Act. The POWER program is expected to produce innovative methods for boosting the resiliency of the electric grid.

The state is required to match the Congressional allocation by 15 percent and the Legislature has awarded the \$3,097,036.65 match to cover the first three years.

In New Mexico, the ongoing POWER program directly supports electric utilities' installation of grid enhancing measures such as weatherization equipment, advanced monitoring and control technologies, utility pole management and vegetation management. ECAM issued a solicitation for the next round of POWER projects in the third quarter of FY 24 and selected one project to move on to the second phase of review to be completed by the DOE's Grid Deployment Office. ECAM will release a second round of solicitations in the first half of FY 25.

CLIMATE CHANGE ACTION

In January 2019, Governor Michelle Lujan Grisham issued Executive Order 2019-003 on Climate Change and Energy Waste Prevention, which created the state Interagency Climate Change Task Force and included directives for agencies to incorporate climate mitigation and adaptation practices into their policies and operations. ECAM supports the Task Force through coordination, technical assistance, planning, and policy development and supports interagency work to reduce greenhouse gas emissions from electricity generation, transportation, industry, the built environment, and natural and working lands.



In April 2024, ECAM increased its Climate Policy Bureau to five positions. The Bureau is charged with coordinating interagency efforts to reduce greenhouse gas emissions, building New Mexico's capacity to adapt to climate change, and developing and implementing a statewide Climate Action Plan. In 2024, ECAM's Climate Policy Bureau made important strides to develop the state climate adaptation framework.

EMNRD shared a significant award with NMED of \$3M under the EPA Climate Pollution Reduction grant. This new funding allowed the recruitment of two new staff members, and the start of a year-long process to draft a Comprehensive Climate Action Plan. The Climate Action Plan will build on the work of the Climate Change Task Force, support agency coordination, and lay the groundwork for future funding opportunities to continue New Mexico's progress towards meeting its climate goals.

The climate adaptation and resilience program hired a new Resilience Coordinator to work closely with other state agencies and contractors to gather valuable feedback on the initial draft of the Climate Adaptation and Resilience Plan.

CPB staff engaged with local officials and tribal communities through a series of community climate adaptation and resilience outreach events. The events took place in Truth or Consequences, Roswell, Albuquerque, Farmington, Taos, Las Vegas, Santa Fe (Tribal outreach), and included a virtual event. A total of 176 participants attended these events, generating nearly 800 comments on the draft Climate Adaptation and Resilience Plan.

TRANSPORTATION DECARBONIZATION

| CROSS-AGENCY COLLABORATION

In 2024, ECAM continued cohosting the Transportation Climate Action Team (TCAT) working group and added more agency representation to broaden opportunities for decarbonization of the transportation sector. The group is comprised of members from EMNRD, NM Department of Transportation, NM Environment Department, NM Tourism Department, NM Taxation and Revenue Department, Department of Workforce Solutions, NM General Services Department, NM Economic Development Department, Public Education Department and the Public Regulation Commission.

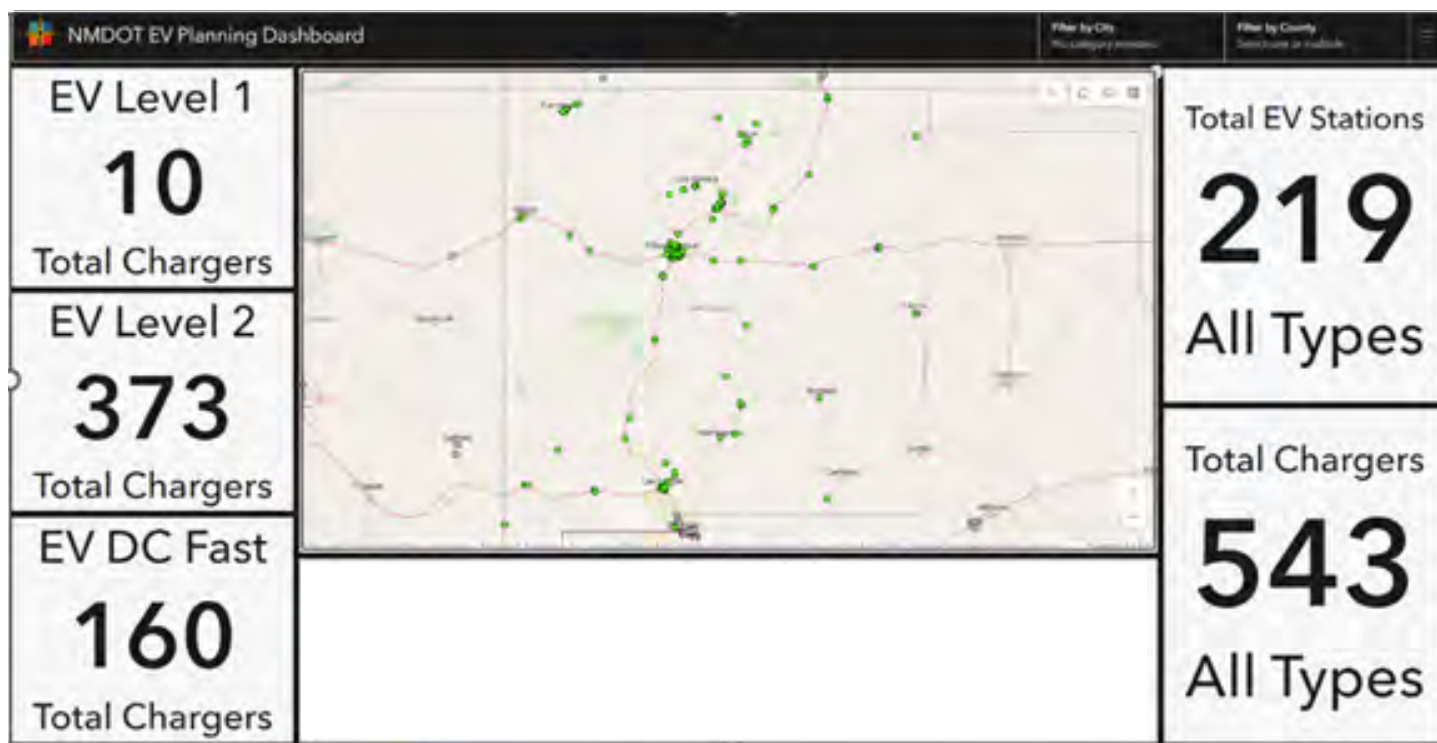
Monthly meetings provide the opportunity to host guest speakers such as the North Central Regional Transit District Blue Bus program. TCAT members also share expertise and support. For example, the ECAM tax team brought the draft Clean Car Tax Credit Rule to a TCAT meeting and team members from the Taxation and Revenue Department explained how the application process could be streamlined by connecting to a backend database of vehicle registrations.

TCAT also supported changing statewide price agreement provisions that were hindering many state agencies' efforts to fully embrace adding electric vehicles to their fleets.

In 2023, the types of electric, hybrid and plug-in vehicles available through the price agreement was expanded. Agencies no longer have to search specifically for electric or hybrid vehicles. Gas, diesel, electric, hybrid and plug-in hybrid vehicles are all listed on a single price agreement.

In addition to participating in the TCAT, ECAM also helped the NM Department of Transportation (NMDOT) begin distributing the \$38.3 million in distributing the National Electric Vehicle Infrastructure (NEVI) funding across the state by 2026.

Between late 2023 and early 2024, ECAM helped NMDOT evaluate the first round of proposals for this funding. NMDOT received



17 applications and awarded \$11.9 million to six entities. These awards will pay for placement of 84 EV chargers at 20 locations across the state. It is significant to note that many of these charging stations will be in rural parts of the state. The entities that will install these chargers, and their locations, are listed here:

- EV Gateway (Las Cruces)
- Francis Energy (Raton, Socorro, Los Lunas, T or C, and Vaughn)
- Pilot (Jamestown, Moriarty)
- Red E Charging LLC (Santa Fe, Albuquerque, Grants, Maxwell, Bernalillo)
- SkyChargers LLC (Deming)
- Tesla (Lordsburg, Encino, Gallup, Wagon Mound, Las Vegas, Santa Rosa, Tucumcari)

NMDOT expects to begin reviewing additional funding applications in the Spring of 2025, and ECAM will continue to advocate for equitable siting of electric charging stations.

| STATE FLEET TRANSITION

To increase the purchase of EVs for state fleets, ECAM signed an MOA with the GSD Transportation Services Division and an IDA with State Parks to distribute money from the State Energy Program Bipartisan Infrastructure Law's supplemental funds.

| ALTERNATIVE FUELS

Thanks to public and private investments in New Mexico, the network of EV chargers continues to expand.

FUEL TYPE	STATION COUNTS
Biodiesel	0
CNG	9
E85	13
Electric (station locations charging ports Level 1 Level 2 DC Fast)	317 754 2 435 317
Hydrogen (retail non-retail total)	0 0 0
LNG	1
Propane (primary secondary total)	46 12 58
Renewable Diesel	0
Total	835

EV CHARGING STATION	2023	2024	DIFFERENCE
EV Level 2 Chargers	373	435	+ 17%
EV DC Fast Chargers	160	317	+ 98%
Total EV Stations of all types	219	317	+ 45%
Total Charging Ports	543	754	+ 39%

| INTERSTATE COLLABORATION

ECAM is partnering with ChargeWest, a coalition of western states, on the proposed ZEV-Ready West Initiative, which is aimed at providing first responders in the West with specialized training for Zero-Emission Vehicle (ZEV) emergencies. This is needed to address the specific challenges posed by ZEV technologies, including battery fires and preparedness for hydrogen fuel cell deployments.

The ZEV-Ready West Initiative strategically addresses the need for specialized emergency response training by developing critical “train-the-trainer” sessions, which can greatly expand the impact and reach of the training resources across western cities and landscapes. Project deliverables also include accessible online curricula to provide immersive, modular training specifically for rural first responders. If the project is awarded federal funding, New Mexico would receive \$5k-10K for two trainers to attend centralized training along with about 60 other western state representatives. These trainers would receive the information and equipment needed to train other first responders in New Mexico.

| OUTREACH

Helping rural municipalities understand the challenges and how to facilitate the expansion of EV charging networks has been a primary focus of the Alternative Fuels Program this year.

In Spring 2024, ECAM presented at the annual meeting of the NM League of Zoning Officials about the proactive steps that local jurisdictions can take to ensure zoning and other land use regulations accommodate EV charger sites. Of the more than 100 zoning officials in the audience, many were unfamiliar with EV technologies, proving that outreach to more rural parts of New Mexico is crucial to widespread EV adoption.

ENERGY EFFICIENCY

ECAM is leading several major initiatives to improve energy efficiency.

| COMMUNITY ENERGY EFFICIENCY DEVELOPMENT PROGRAM

The Community Energy Efficiency Development (CEED) Program was established in 2022 after the NM Legislature passed the Community Energy Efficiency Development Block Grant Act. The CEED Program aims to facilitate energy efficiency projects in underserved communities by providing block grants to local governments in partnership with community organizations. The program provides funding for improvements to residential buildings to reduce energy consumption, energy-related operating costs, and/or the carbon intensity of energy consumption.

In 2023, the Community Energy Efficiency Development (CEED) Program Rule was promulgated to establish requirements and procedures for CEED Program grant applications. In the fall of 2023, ECAM issued a Request for Applications which closed in January 2024. Projects were selected for award in May 2024 and are currently in the contracting process. The awarded grants will expend the \$10 million allocated by the State Legislature and an additional \$1.76 million from the US Department of Energy’s Energy Efficiency and Conservation Block Grant.



SOLAR MARKET DEVELOPMENT TAX CREDIT

The New Mexico Solar Market Development Tax Credit provides a tax credit of 10% of the cost of a solar system, up to \$6,000. When it enacted this program in 2020, the legislature placed an \$8 million cap on the amount of credits that could be issued in a given year. It has raised that cap three times due to consumer demand. The current cap is \$30 million a year.

In January 2024, the legislature also provided a supplemental tax credit for tax years 2021, 2022 and 2023, for those New Mexicans who were denied the credit because the cap had been reached in those years.

| CLEAN CARS TAX CREDIT

The 2024 legislature passed a Clean Car Tax Credit and Clean Car Charging Unit Tax Credit.

| GEOTHERMAL GROUND-COUPLED HEAT PUMP TAX CREDIT

The 2024 legislature passed a geothermal ground-coupled heat pump tax credit. A New Mexico taxpayer who purchases and installs a geothermal ground-coupled heat pump system in New Mexico is eligible for a tax credit incentive. The credit would apply to a geothermal ground-coupled heat pump system that uses energy from the ground, water or, ultimately, the sun for distribution of heating, cooling or domestic hot water.

ECAM is currently in the process of a rulemaking on this credit, with an anticipated publication date during the second quarter of 2025.



ENERGY SAVINGS PERFORMANCE CONTRACTS

As part of the state's climate and energy goals, ECAM is helping to make buildings across New Mexico state government more energy- and water-efficient. Energy Savings Performance Contracting (ESPC) has been available to New Mexico's governmental agencies since 1993 through the Public Facility Energy Efficiency & Water Conservation Act.

In 2024, the Guaranteed Energy Savings Performance Contracts (GESPC) Program reviewed and certified nine projects, totaling more than \$64 million in energy efficiency upgrades, of which \$51 million was financed through the GESPC process. DOE's State Energy Program formula funds staff time for review, evaluation of energy audits, certification of investment grade audits, and oversight of these projects. The nine projects certified during the project year will save the public entities more than \$3,200,000 per year in energy costs. In addition, the staff continues to monitor more than 40 projects that bring the GESPC Program savings totals to 1.6 million therms of gas, 98 million kilowatt-hours (kWh) of electricity, and 36.5 million gallons of water annually.

ENERGY DIVERSIFICATION & WORKFORCE DEVELOPMENT

| SUSTAINABLE EDUCATION FOR ADVANCED BUILDINGS

New Mexico has adopted the 2021 International Energy Conservation Code (IECC), fulfilling a directive from the governor in Executive Order 2019-003. These updated codes went into effect for new buildings and major renovation projects in July 2024.

In 2024, to support the energy efficiency buildings sector workforce, ECAM staff trained over 350 workers on the new energy codes. This initiative is a partnership with Doña Ana Community College, Northern New Mexico College, San Juan College, and Santa Fe Community College, through support by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy.



The training courses cover aspects of both the residential and commercial energy conservation codes and associated codes and standards. The courses are offered in both live and online formats.

The courses target both design/build industry professionals as well as code officials performing plan reviews and inspections. Professionals can fulfill Continuing Education Credit or Professional Development requirements.

| CLEAN ENERGY WORKFORCE

New Mexico's clean energy workforce is expanding at an impressive rate, outpacing the state's overall economic growth. In 2023, New Mexico had the third-fastest rate of clean energy job growth in the United States at 5.9%, according to the US DOE's Energy and Employment Report.

ECAM has secured the following funding to support workforce development initiatives:

- \$1,533,830 from the Department of Energy for the Training for Residential Energy Contractors (TREC) program.
- \$2,000,000 for the New Mexico Home Energy Auditor Training (NM HEAT) program.

ECAM is also applying for an additional \$2,000,000 for the TREC Guided Access Pathways (TREC GAP) program. The TREC GAP program aims to fill the "gaps" in current training funding and will include training in more specialized and advanced green skills and wraparound services.

ECAM plans to achieve several key objectives with federal funding, including supporting the Home Efficiency Rebates (HER) and Home Electrification and Appliance Rebates (HEAR) programs, reducing training costs for both new and existing home energy contractors, making career entry and skill upgrades more accessible. The focus is on energy auditors, electricians, plumbers, and Heating, Ventilation, and Air Conditioning (HVAC) professionals. To promote

diversity and inclusion, funding will expand access to training programs for underrepresented populations through advanced recruitment, hybrid instruction models, and wrap-around services.

Recognizing the need for coordinated partnerships, ECAM established quarterly Workforce Alliance for Green Energy (WAGE) stakeholder meetings. In 2024, three WAGE meetings brought together diverse participants, including educational institutions, businesses, labor unions, community organizations, state agencies, and trade associations. These gatherings serve to identify challenges and opportunities, increase public awareness, share best practices, and facilitate policy development.

Looking ahead, these initiatives and partnerships position New Mexico to continue its leadership in clean energy workforce development.

| RENEWABLE ENERGY PRODUCTION TAX CREDIT

The Renewable Energy Production Tax Credit (REPTC) provides a tax incentive for utility-scale renewable energy generation. Wind and solar facilities that were certified prior to January 1, 2018 are eligible to receive a tax credit for electricity generated upon being certified by ECAM.

NEW MEXICO RENEWABLE ENERGY PRODUCTION TAX CREDIT-STATUS-2024

WIND SYSTEMS			
Tax Credit Status	Capacity (MW)	Annual Production (MWH)	Status/Comments
Post-Eligible Total	774.10	2,217,260	Operating
Certified	883.9	2,054,055	Operating
Waiting List	300.0	625,6077	Operating Non-eligible Tax Credit
SOLAR SYSTEMS			
Post-Eligible	252.6	624,818	Operating
Certified	149.6	387,637	Operating
Waiting List	902.8	1,824,469	Certified
TOTAL CAPACITY & ANNUAL PRODUCTION OF OPERATING SYSTEMS IN NEW MEXICO			
Wind & Solar	3,263.0	7,733,846	Operating in 2024

| AGRICULTURAL BIOMASS TAX CREDIT PROGRAM

The agricultural biomass tax credit began in 2011. It was originally to expire in 2020 but was extended to 2030. In accordance with the statute, a corporate or personal taxpayer that transports agricultural biomass to a qualified energy producing facility can request the department to issue a certificate of transportation

for a corporate or personal income tax credit. The tax credit is calculated at \$5/wet ton. Three dairies requested Certificates of Transportation for Tax Year 2024, for 38,156 wet tons or \$190,781.

| GEOTHERMAL POWER PERMITTING PROGRAM

New Geothermal Resources Development rules went into effect in 2024, allowing for issuance of a facility-wide permit to the Lightning Dock Geothermal Facility in Hidalgo County. The new permit covers all wells and equipment on the site. In 2024, geothermal exploration continued at well 17B-7 at the Lightning Dock facility. The well was drilled to a depth of 18,000 feet, making it the deepest well ever permitted in New Mexico. The bottom hole temperature of 250° C was recorded.

The well owners are currently conducting studies of the data collected to decide how to proceed. A new corporation – Zanskar – purchased Lightning Dock in 2024. Zanskar has approached ECAM about increasing Lightning Dock’s geothermal electricity production from the current 4 MW generation capacity to a maximum of 15 MW capacity. ECAM granted this modification to allow for geothermal production expansion.

SUSTAINABILITY & RESILIENCY

In 2023, ECAM began using Federal Emergency Management Agency Building Infrastructure & Resilient Communities (BRIC) funding to support climate change adaptation planning and climate awareness outreach. We convened state agencies to develop a climate mitigation and adaptation annex to the state Hazard Mitigation Plan, and a larger state Climate Resilience and Adaptation Plan. The climate change awareness grant is helping ECAM partner with stakeholders, local governments and Indian Tribes and Pueblos to build their respective capacities to plan for natural hazards exacerbated by climate change.

Communication tools, such as ECAM’s Climate Risk Map, help illustrate the hazards exacerbated by climate change. To raise awareness of the resource, ECAM made several presentations to interested groups including students, citizen groups, and professionals. ECAM continues to respond to Climate Risk Map questions and share data with researchers and consultants working on climate related issues in the state.

STATE ENERGY SECURITY PLANNING

An Energy Security Program Coordinator has been hired, with a focus on enhancing the state’s energy security, resilience and preparedness. The coordinator will concentrate on building strong relationships with energy stakeholders and local and tribal governments by establishing monthly coordination meetings to ensure consistent communication and collaboration across the energy sector.

In addition to the coordination meetings, a series of regional energy exercises are planned for 2025 across New Mexico. These exercises will be designed to simulate real-world scenarios such as a winter storm causing a widespread power outage, a wildfire impacting energy infrastructure and a heatwave causing extreme demand on the electric grid.

These exercises will test collective response capabilities and communication. The exercises will help identify areas needing improvement and contribute to the state’s overall energy security framework. The exercises will involve a diverse group of stakeholders, including energy sector partners, government agencies, and local and tribal emergency managers, reflecting a whole-community approach. This inclusive strategy ensures comprehensive collaboration and coordination across all relevant entities to strengthen emergency response and resilience.





Gov. Lujan-Grisham speaks during the HER/HEAR launch event.

In June 2024, Emergency Support Function (ESF) 12 was activated during the Southfork and Salt Fires. In the State Emergency Operations Center (EOC), ESF 12 representatives played a key role in facilitating the flow of critical information between energy stakeholders, such as PNM and Otero County Electric Co-op, and helped manage power disruptions that affected the area. This activation highlighted the importance of a well-coordinated response and reinforced the value of ongoing efforts to strengthen energy security.

| WHAT IS ESF 12?

Energy is a critical component of the state's emergency management framework, dedicated to managing and restoring energy systems during and after emergencies. At the state level, ESF 12 coordinates efforts among state agencies, local jurisdictions, and private sector partners to:

- **Assess Damage:** Evaluate the impact of disasters on energy infrastructure and services.
- **Prioritize Restoration:** Identify and prioritize critical energy needs and restoration efforts.
- **Facilitate Communication:** Ensure effective communication and information sharing between all relevant stakeholders, including government agencies and energy providers.
- **Support Recovery:** Assist in the restoration and recovery of energy services to support community resilience and operational continuity.

ESF 12 ensures that energy disruptions are managed efficiently, helping to stabilize the state's energy supply and support overall disaster response and recovery efforts.

| ENERGY REBATES

The Home Electrification and Appliance (HEAR) program offers rebates to help low-income New Mexico residents—homeowners and renters alike—seeking to upgrade their homes with energy-efficient technologies, including insulation, heat pumps, and Energy Star-certified appliances.

New Mexico was the first state in the nation to launch the Inflation Reduction Act home retail rebates. This program allows rebates for home efficiency and electric appliances to be provided at the cash register. This initiative, funded by \$43 million from the U.S. Department of Energy, aims to advance clean energy adoption across New Mexico.

Eligible participants can receive up to \$14,000 in rebates per household, significantly reducing the financial barrier to making energy-efficiency upgrades. New Mexico's HEAR program is rolling out in phases, starting with rebates for self-installed insulation projects. Additional products and contractor-installed projects will be introduced in the coming months.

TRANSURANIC WASTE TRANSPORTATION SAFETY

EMNRD has oversight of the Cooperative Agreement for moving hazardous waste to the Waste Isolation Pilot Plant (WIPP). The parties to this agreement include the New Mexico Environment Department, New Mexico Department of Transportation, New Mexico Department of Public Safety, and New Mexico Department of Health. The US DOE provides annual funding to ECAM to oversee the WIPP transportation program. The current five-year agreement is funded for \$6.2 million.

The WIPP Transportation Program is coordinating a full-scale exercise with the City of Raton, Colfax County, and the City of Trinidad, Colorado. The WIPP Transportation Exercise (WIPPTREX) is planned for October 2025. Fire service training to include hazardous materials response along with workshops and tabletop exercises will take place in the year leading up to the WIPPTREX. We have deployed the Law Enforcement Modular Response Radiological Transportation Training (LE MERRTT) developed by the State WIPP Working Group and accredited by the New Mexico Law Enforcement Academy.

During the last five-year Cooperative Agreement, we have:

- Trained over 20,000 responders, medical personnel, and volunteers.
- Provided over 425,000 radiation and hazardous material training hours.
- Funded 250 NMSP officers to be classified as Emergency Response Officers.
- Provided funding to certify six officers as trainers in Critical Incident Management (CIM).
- Assisted in training over 1,200 State Police Officers in CIM
- Provided funding for 39 Commercial Vehicle Enforcement Officers and Inspectors to become CVSA Certified Level VI Inspectors.
- Provided funding for two officers to become trainers for CVSA Level VI.
- Provided funding for CVSA Level VI recertification biennially
- Funded 15 local fire services jurisdictions through a Memorandum of Agreement.
- Provided funding for over 9,000 firefighters to be trained in Hazardous Materials Awareness and Operations, Hazardous Materials Technician, or Chemistry.
- Provided funding for seven fire departments along the shipping corridor to maintain certification for FEMA Typed Hazardous Materials Team.
- Implemented the in-state compliance review of the shipping carrier – placed on a biennial review process.
- Developed a law enforcement centric course (LE MERRTT) for first responders accredited through New Mexico Law Enforcement Academy to be delivered to all police, sheriffs, and BIA officers along the shipping corridor.

EMNRD continues to provide oversight of all transuranic waste transportation shipments in and through New Mexico. DOE averages 12 shipments a week, with the majority coming from Idaho National Laboratory. Shipments from Los Alamos National Laboratory made up the second largest percentage of shipments to the WIPP facility this year.

Total inspections conducted on WIPP shipments in New Mexico for this calendar year January 1 – August 29, 2024:

SHIPPER SITE	SHIPMENTS SENT TO WIPP
Argonne National Laboratory	4
Idaho National Laboratory	245
Los Alamos National Laboratory	33 (Point of Origin)
Lawrence Livermore Laboratory	0
Oak Ridge National Laboratory	8
Savannah River Site	47
Sandia National Laboratories	0
Waste Control Specialists	0
Total	377 Inspections

ECAM continues to work closely with NMDOT to review the primary and alternate designated routes to the WIPP for the National TRU Program Southern Transportation Corridor.

Currently, shipments from Savannah River Site and Oak Ridge National Laboratories use the designated alternate Southern Corridor approach entering New Mexico on US176 from Andrews, Texas, proceeding south on NM18, and then west on NM128 to the WIPP site. ECAM will continue to work with NMDOT and the DOE to determine the safest routes for all radioactive waste transports in New Mexico.



LETTER FROM THE DIRECTOR

The recurring theme of 2024 for the Forestry Division is growth, and growth cuts both ways when it comes to land management and wildfires. The full-time staff and emergency hires who work as the state's responders to wildfires are always evaluating growth potential as it applies to a new start. New Mexico's warm, dry climate is a perfect incubator for the expansion of fast-moving fires given the variables of fuel type (trees or grasses, or often both), terrain, and wind. Wind speed, terrain and fuels make the difference when the fire is 100 acres or in the tens of thousands of acres.

New Mexico's most significantly destructive fire this year was a one-two punch. The South Fork and Salt Fires began on a Monday in the middle of June, and by that evening, over 8,000 people in the community of Ruidoso, as well as the community of the Mescalero Apache Tribe, had been forced to evacuate their homes. With no time to collect their belongings and confronting a sluggish line of cars all pointed out of town, the two fires' rapid growth put all those residents in danger – not just of losing their homes, but their lives. Even by the time an early monsoonal rain cell parked itself over the fires and drenched them with 2 inches of water – three days into the efforts to get containment line around the fires – it was apparent the destruction would be severe and long-lasting. Two people lost their lives, and over a thousand homes and outbuildings were destroyed. This is a sobering example of the damage wildfire can do, no matter if it's caused by lightning or human activity.

The Forestry Division has a responsibility to protect the people of New Mexico from wildfires and to help people learn how to protect themselves before the fire ever starts. That is why the division's recent growth in staffing and its capacity to implement forward-thinking forest management and land conservation practices are instrumental, not just for the protection of people, but for the protection of our forests and watersheds.

This calendar year provided the Forestry division with a chance to grow its horizons. On the land management side, Forestry staff assisted communities throughout the state in several different ways. The division's hazard tree removal program is helping residents clear dangerous fire-weakened trees within the Hermit's Peak Calf Canyon burn scar. The Community Wildfire Defense Grants program brought in nearly \$30 million in federal funding - more than double the funding from last year - to assist non-governmental organizations and counties expand their wildfire protection efforts. The Forest Health Program monitored the increase of forest defoliation due to invasive insect spread. Reforestation efforts were bolstered by the selection of a site on which to build the New Mexico Reforestation Center, along with increased training opportunities to grow a workforce that can harvest, collect and plant seedlings in burn-scarred areas throughout the state. Conservation in northern New Mexico took a big step forward with the closing of the 6,780-acre Brazos Cliffs Forest Legacy easement, protecting the spectacularly beautiful Brazos Cliffs from development forever, allowing New Mexicans to enjoy their natural resources while hunting or hiking.

Two state-led wildfire crews were also formed this year and began their journey on the way to becoming official Interagency Hot Shot Crews (IHC). These crews worked on the devastating South Fork and Salt Fires, as well as other wildfires across the state. Forestry also deployed these new crews, along with long-time crews and engines, to assist other states as wildfires stressed resource availability to fight fires in Oregon and the Pacific Northwest. The effort of the people leading crew development becomes more impressive when you consider that New Mexico is just the third state in the U.S. to fund its own full-time wildfire crews.

I hope you enjoy reading the following highlights of Forestry's progress as a division, and the wide range of goals achieved by its two bureaus: Resource Protection and Resource Management. These accomplishments would not be possible without the long hours and hard work of staff. Each person's contributions result in significant outcomes with lasting value for future generations.



LAURA MCCARTHY
Division Director
Forestry Division



DIVISION OVERVIEW

The Forestry Division is devoted to addressing the critical needs of New Mexico's forests and watersheds by reducing the fuels that increase the dangers of wildland fires, identifying invasive insects that lead to mortality and disease, conserving rare plants, and promoting healthy forests and watersheds for generations to come.

Forestry, headquartered in Santa Fe, supports nine satellite offices across the state, including the Albuquerque Fire Center, six district offices in Bernalillo, Capitan, Chama, Cimarron, Las Vegas and Socorro, the Wildfire Response Program and the Inmate Workcamp Program.

| DIVISION OVERVIEW

- 43 million acres of wildfire suppression response area
- 24,700,000 acres of forest in New Mexico
- 10,700,000 acres of private forest
- 7,900,000 acres of National Forest
- 46 endangered plant species



Capitan District's NSS firefighters prepare water resources to respond to the Blue 2 Fire near Ruidoso. Photo by: Chris Hansen

The New Mexico Forestry Division (Forestry) retains lead responsibility for wildland fire management on all non-federal, non-tribal, and non-municipal lands, maintaining fire suppression capacities and emphasizing public and firefighters' safety. Forestry promotes healthy, sustainable forests and watersheds in New Mexico for the benefit of current and future generations.

STAFFING

141

Staff Positions

74

Fire Protection, Prevention and Communication

40

Forestry and Natural Resource Management

27

Administration and Services

| STATUTORY RESPONSIBILITIES

LAND MANAGEMENT: Provide technical assistance to landowners across 33 New Mexico counties to improve forest and watershed health by developing resource management plans, providing insect and disease identification, facilitating forest health project funding, providing tree care training and distributing low-cost seedlings.

WILDFIRE SUPPRESSION: Respond to and suppress wildfires on 43 million acres of non-municipal, non-federal, and non-tribal land. Proactively mitigate wildfire risk by evaluating communities most at risk to wildfire, developing appropriate management programs, implementing fire prevention projects and managing disease and insect infestations.

FOREST PRODUCTS: Regulate the harvest of commercial forest species on private forestland and support the development of a restoration-based forest products industry to use the wood byproducts of forest and watershed treatments.

CONSERVATION: Conserve forested ecosystems by improving forest conditions and habitat through active management and acquisition of land and easements for conservation purposes.

RARE AND ENDANGERED PLANTS: Protect endangered plants by regulating their collection, maintaining a state list of rare and endangered plants, conducting inventory and research to document the state's plant diversity; issuing incidental take permits to mitigate the loss of endangered plants.

| STRATEGIC PRIORITIES

- Implement the science-based, collaboratively developed state Forest Action Plan across ownership and jurisdictional boundaries.
- Recruit and train wildland firefighters across the state to increase response capacity to new wildfires and for staffing of long-duration wildfires.
- Increase the pace and scale of forest restoration projects with cross-boundary planning and contracting to restore as many acres as possible.
- Support the development and upgrading of the New Mexico Reforestation Center to increase the state's capacity for reforestation efforts both within recent burn-scarred areas, and other locations throughout the state.



Overlooking the vast Chama District from atop the Canones uplift on Canyon Ridge Ranch. Photo by: Jose Carrillo

| LEGISLATION

Despite having a short legislative session in 2024, Forestry came away with two key pieces of legislation that will help firefighters and conservation efforts throughout the state. **Senate Bill 128** gives Forestry's first responders access to the state public safety enhanced retirement plan. This game-changing initiative allows professional state firefighters, who put their lives at risk on each assignment, access to the same kind of retirement plan that public safety responders receive. From a workforce development perspective, this adds another significant arrow to the quiver of benefits that Forestry can offer recruits who might otherwise seek positions with federal agencies. **Senate Bill 9**, or the Land of Enchantment Legacy Fund, directed an investment of \$300 million of additional funding into the fund's interest-generating account. With a corpus of \$350 million, the annual interest income is projected to provide Forestry's conservation efforts—through the Forest and Watershed Restoration Act and the Natural Heritage Conservation Act—\$1.4 million each year without the need to draw funds from the principle. Lastly, and of equal importance, the Governor signed **House Bill 1** this summer, which allows funds to be directed to recovery efforts in the Ruidoso and Mescalero areas affected by the devastating South Fork and Salt Fires and the destructive flooding that followed.

| RESOURCE PROTECTION BUREAU

- 8,170 acres burned on state and private land*
- 392 wildfires
- 250 human-caused wildfires
- 68 wildfires with undetermined cause
- 74 naturally-caused wildfires

*As of 8/15/2024

New Mexico continues to experience hot and dry conditions brought on by climate change. Although this past winter brought a slightly above average snowpack, and the summer monsoons returned, fire response activity stayed consistent, with Federal lands and National Forests experiencing a significant amount of burned acres.

More than 8,170 acres burned in 2024 on state and private land. Human-caused wildfire remains a significant concern, with an estimated 250 wildfires started by people. Sixty-eight fires had an undetermined cause – and these were likely human-started. Seventy-four of these wildfires were confirmed to be naturally caused.

The South Fork and Salt Fires, which started June 17, dominated the headlines and caused massive destruction to the communities of Mescalero and Ruidoso. Over 25,000 acres were burned, more than 1,000 structures were destroyed, over 8,000 people were evacuated, and two people lost their lives. Although the South Fork Fire was found to have been started by lightning, the Salt Fire is suspected to have been human-caused, and an investigation into possible suspects is still on-going. These fires followed just weeks after containment was achieved on the Blue 2 Fire, which burned over 7,000 acres in the Lincoln National Forest, just a few miles north of Ruidoso.

Other major fires in the state began on federal land, including areas within the Gila, Santa Fe, and Cibola National Forests, as well as the El Malpais National Monument. In total, these fires burned approximately 102,000 acres. The maps on the following pages offer more insight into where these and other fires started across New Mexico in 2024.



Mimbres crew digs containment line on a fire assignment in Oregon.
Photo by: Stephanie Finch

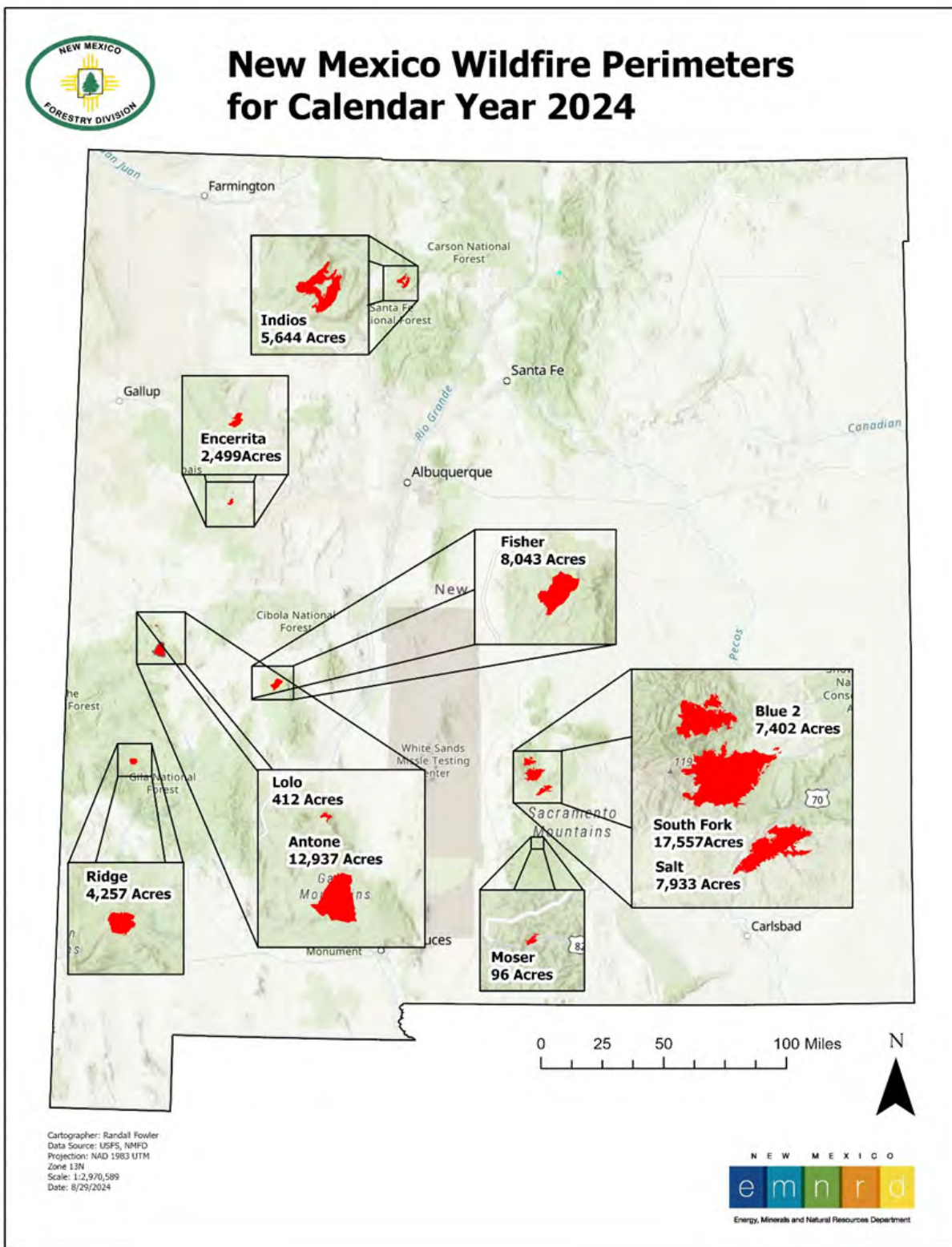
| FIRE TRAINING AND EQUIPMENT

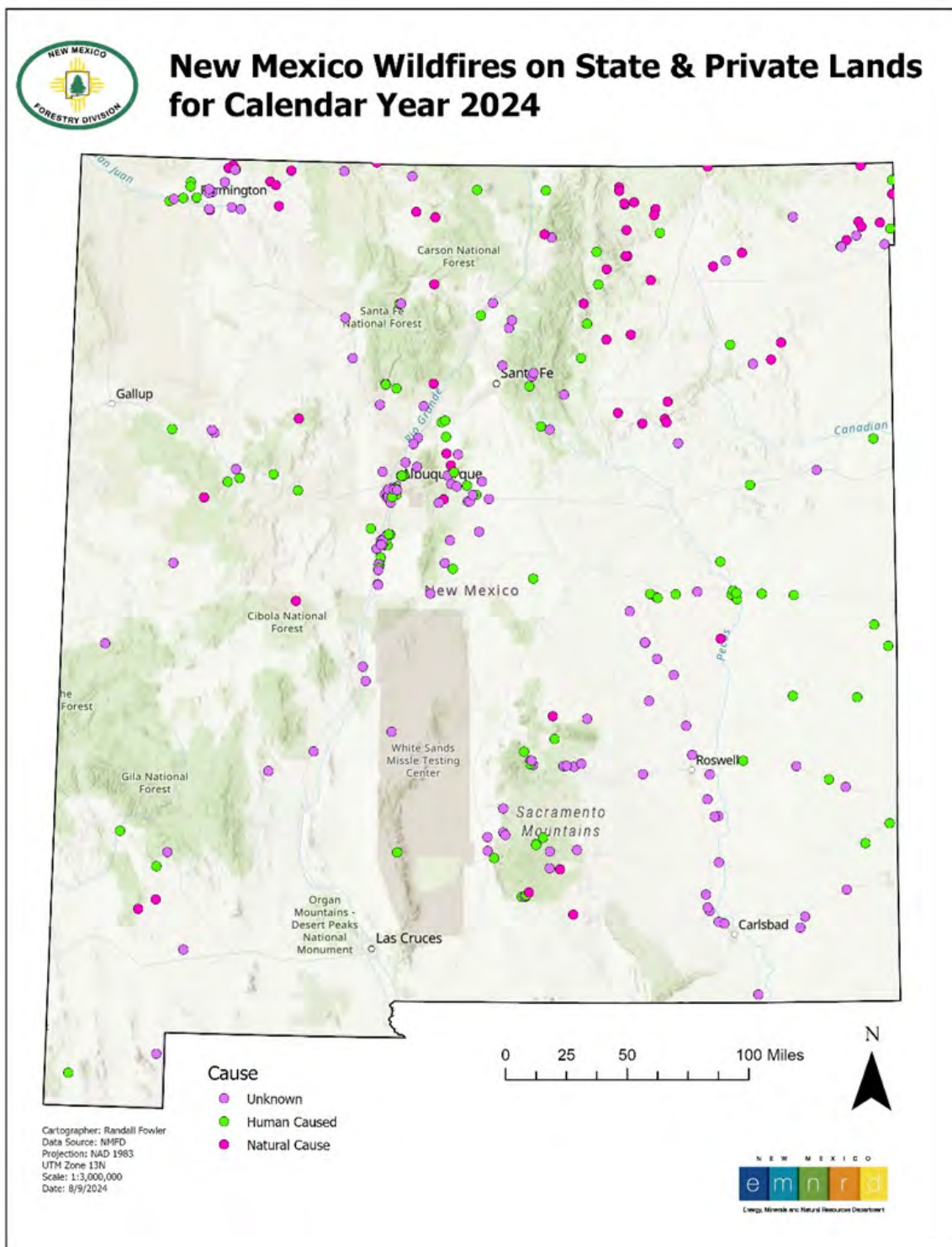
- 2,434 Firefighters trained
- 62 classes offered
- 35 volunteer fire departments provided with personal protection and firefighting equipment
- 5 wildland fire coordinator positions funded for counties

Forestry trains and hires hundreds of firefighters annually to combat wildfires each year in New Mexico. Entry-level and advanced training is provided free to students with support from state and federal funding. Forestry exceeded its annual training goal of 1,500 wildland firefighters, with 2,434 people trained at 62 classes held statewide. Forestry provided volunteer fire departments with 35 grants for personal protective equipment and funding for five Wildland Fire Coordinator positions in counties across the state. The coordinators assist with creating and implementing Community Wildfire Protection Plans (CWPP) and building wildfire response capacity of local volunteers.



Division fire suppression resources on the Oakmont Fire in Timberon, NM.
Photo by: Cody Phillips





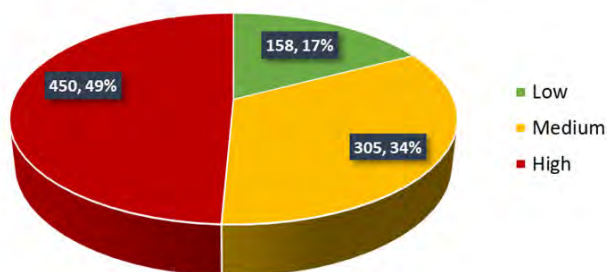
New Mexico Fires Calendar Year 2023

| FIRE PLANNING TASK FORCE

- 905 communities at risk
- 65 Community Wildfire Protections Plans (CWPP) completed

The New Mexico Fire Planning Task Force is made up of local, state, federal, and tribal cooperators who assist Forestry in identifying and protecting areas most vulnerable to wildfires. The Task Force meets once per year to approve CWPPs, develop model ordinances and standards for building codes, and consider the benefits of thinning, prescribed burns, and defensible space that can reduce the threat of wildfires to communities. As of December 11, 2023, 905 communities are listed at risk from wildland fire and 65 CWPPs are complete. Of the communities found at risk, 446 are listed as high risk, 303 are listed as medium risk, and 156 are listed as low risk from wildland fire (see pie chart).

Communities at Risk Statewide Totals



| COMMUNITY WILDFIRE DEFENSE GRANT PROGRAM

- \$28 million awarded through the Infrastructure Investment and Jobs Act
- 11 federally funded grants awarded to New Mexico organizations
- 16 public workshops

The Community Wildfire Defense Grant (CWDG) program provides competitive grant funding to at-risk communities who wish to develop or revise a Community Wildfire Protection Plan (CWPP) or who wish to carry out projects described in a CWPP that is less than 10 years old. This CWDG opportunity is authorized through the Infrastructure, Investment, and Jobs Act and provides \$1 billion for this program over a five-year period.

This year, New Mexico had eleven applications selected with \$28 million funded for project work and CWPP updates. Increased public workshops and outreach no doubt contributed to this 154% increase over 2023 awarded funds. Outreach continues for the next grant cycle with offers of technical assistance extended to tribal communities and rural electric co-ops within the state.



Wildfire Response Program staff lead a critical training pumps class for administratively determined firefighters. Photo by: Victor Lujan

| CERTIFIED PRESCRIBED BURN PROGRAM

- 9 elements of training created for online viewing
- 2 types of certifications – pile burns and broadcast burns

The Certified Prescribed Burn Program trains contractors and landowners to safely conduct pile burns and prescribed burns on private land, which help reduce the threat of catastrophic wildfires on the specific property and the surrounding community. Participants who receive their certification also are provided with



Chama District staff discuss priority areas and Communities at Risk with a Community Wildfire Protection Plan coordinator. Photo by: Gabe Kohler

protection against double damage claims, should the burns travel off their land. The certification training course can be accessed through Forestry's website. The training is self-paced; applicants may train for certification in either pile burning, broadcast burning, or both.

The program established a draft model burn plan working group incorporating non-governmental organizations (NGO's), emergency managers, fire chiefs, private landowners, and state personnel. Two certified burn managers were approved by committee, and the program's promotional efforts are increasing with public notices, interagency meetings, community meetings, and producing a monthly flier.



Division staff discuss wildfire prevention with tribal collaborators at a community meeting in Chama.

| WILDFIRE PREVENTION PROGRAM

- \$69,078 invested by communities to reduce their wildfire risk with Firewise USA™
- 28 Firewise USA™ sites in good standing

The Forestry Division collaborates with local, state, federal, and tribal partners to educate New Mexicans about fire prevention and preparedness using programs such as Fire Adapted Communities (FAC), Ready, Set, Go! (RSG), and Firewise USA™. The flagship Firewise USA national recognition program encourages neighbors to act together to reduce the wildfire risk to their communities. Out of 28 active communities, Idlewild in Colfax County contributed the most significant community investment of volunteer hours and money at a total of \$53,644.

Communities had until the end of 2024 to submit or renew their Firewise USA™ application. In addition to the Firewise program, the monthly newsletter "Wildfire Preparedness Is Year-Round" is produced by Forestry in concert with fire prevention partners Forest Stewards Guild, the FAC Learning Network, and

the communications teams for each National Forest in New Mexico. Topics such as "Ember Awareness," "Fireworks Safety," and "Defensible Space," remind New Mexicans that fire prevention and awareness begins at the personal and community level.



Staff from the Rio Grande crew of the Wildfire Response Program respond to the Battle Mountain Complex fire in Oregon. Photo by: Victor Lujan

| WILDFIRE RESPONSE PROGRAM

- 11 task books opened for trainees in multiple positions
- 11 wildland fire assignments completed on state and private lands in the state of New Mexico.
- 30 emergency wildland firefighters hired for the Rio Grande crew and engine crews.

The Wildfire Response Program (WRP) assists and provides a Type 2 Initial Attack crew to help rapidly respond to wildfires throughout the state. The program hires and trains emergency firefighters at the start of fire season to efficiently suppress fires in an adequate and safe manner. Once proper certifications and refreshers have been completed, the crewmembers are provided

work opportunities on the Rio Grande Crew and engine crews. During the 2024 fire season, crews responded to fires throughout the state as well as in the state of Oregon. When fires were not active, WRP staff planned and examined possible prescribed fire units, and assisted firefighters with training in several positions, including Firefighter Type 1, Incident Commander Types 4 and 5, Heavy Equipment Boss, Task Force Leader, and Crew Boss.

Future opportunities include working with the Carson National Forest on assisting with prescribed fires, as well as assisting on the Hermits Peak Calf Canyon burn scar suppression repair efforts. Last November, the program implemented a successful prescribed burn on 115 acres of the Blue Hole Cienega in Santa Rosa to help with regeneration of the state-endangered Pecos sunflower.

| MIMBRES AND PECOS RIVER HOTSHOT CREWS

- 7 wildfire suppression assignments in New Mexico
- 2 assignments in Oregon
- 26 Crewmembers hired

Forestry's new wildfire crews came on board this summer and made great progress to increase their skills and qualifications. The Mimbres Crew, based in Socorro, and the Pecos River Crew, based in Las Vegas, have bolstered Forestry's capacity to respond to wildfires on state and private land, as well as support federal and tribal partners with fire suppression efforts. While they are not technically hotshots yet, over the next three years, these two crews will learn to function as independent wildland fire suppression units. Their goal is to undergo a review by the National Wildfire Coordination Group and earn certification as official Interagency Hotshot crews. The two crews have assisted on seven fire assignments within New Mexico, and both crews were mobilized for fire suppression efforts within the state of Oregon to assist on the numerous fires that burned there this summer.

| INMATE WORK CAMP PROGRAM

Forestry's Inmate Work Camp Program (IWC) provides training and work opportunities for minimum-security inmates and contributes to forest health maintenance on public lands in the state. This year, IWC staff joined the Mimbres wildfire crew to fill the state's fire suppression needs. Forestry has put in extensive effort to continue negotiations with the Department of Corrections to have an updated memorandum of understanding and an IWC policy manual in place to continue the program and all the valued work it provides to other governmental agencies.

| RESOURCE MANAGEMENT BUREAU

- 203,763 acres total with forest stewardship plans in NM
- 5,447 acres in new or revised forest stewardship plans
- 2,600 landowners participated in educational programs
- 586 technical assistance requests completed for landowners
- 9 new forest stewardship plans for private forest landowners



Pecos River crew digs a fire protection line on the Battle Mountain Complex Fire in Oregon. Photo by Adam Wisely.

Forestry works with private landowners and state and federal agencies through the Resource Management Program to improve healthy and resilient forests and watersheds, and to protect land from future development that isolates and fragments forested areas. Forestry administers several incentive programs to place conservation easements on large, contiguous tracts of land.



Kristen Sanders, Las Vegas District, sites a forest stand with NM Highlands University intern as part of the district's annual summer internship program. Photo by: Kristen Sanders

The Forest Stewardship Program also provides technical assistance and manages projects in partnership with sovereign Tribes, Pueblos and Indigenous nations. In 2022, the program supported a variety of projects from tree thinning and timber sales to firewood collection and wetland restoration.

The 2020 New Mexico Forest Action Plan provides Forestry and its partners with a roadmap for managing forests and watersheds to increase resilience to wildfire and other disturbances accelerated by climate change. The Plan's ten strategies outline the range of actions required to restore forests, manage fire safely and effectively, and coordinate resource management and land conservation with Forestry's sister agencies and stakeholders statewide.

| FOREST & WATERSHED HEALTH PROGRAM

- 192 action items in the 2020 Forest Action Plan supporting 10 statewide strategies
- 100% of Forest Action Plan strategies have actions underway
- 80+ agencies and organizations attending the statewide Forest and Watershed Health Coordinating Group
- 20 Pueblos, Tribes, and Nations invited to participate in Coordinating Group meetings

In 2008, Forestry created the Forest and Watershed Health Coordinating Group, an advisory body of partners engaged in restoration with the objective of collaboratively planning, funding, and implementing the best restoration strategies in the right places. These concepts, updated with current knowledge of climate, fire, ecological and social sciences, were integrated into the 2020 New Mexico Forest Action Plan.

In 2024, the Forest and Watershed Health Coordinating Group held an in-person working session to track progress on the implementation of the Forest Action Plan ahead of the 5-year review period. Additionally, the Group held an industry roundtable and a Lincoln National Forest Industry meeting to address concerns with consistency of contractor work in the state. The group identified a need for improved transparency with upcoming work. In response, Forestry has prepared to launch an Active and Planned Project Directory online for contractors and the public to have better access to upcoming project information. Additionally, the US Forest Service has planned to announce stewardship agreements with its 6-month firm and tentative list, which previously only included timber sales. Forestry also filled the new staff position of Forest Markets Coordinator, to act as a forest markets industry liaison.

| POST-FIRE RECOVERY

- 16 landowner visits to provide reforestation guidance in HPCC burn scar
- 12 post-fire restoration practice plans written for landowners impacted by HPCC
- 5 landowner visits to evaluate bark beetle damage in HPCC burn scar



Division staff measure tree diameters within the Rio Chama Stewards project. Photo by: Jose Carrillo



Mimbres type-2 hand crew assists with sandbags following the South Fork and Salt Fires in Ruidoso. Photo by: Stephanie Finch

The Salt and South Fork Fires in June of 2024 burned at least 1,400 structures, becoming the most destructive wildfire in New Mexico's history, and necessitated a robust response from multiple state and federal agencies to aid in post-fire recovery efforts. Forestry, in consultation with the Department of Homeland Security and Emergency Management (DHSEM), launched a hazard tree program to remove hazardous trees, assist with seeding and mulching activities, and, as funds allow, to utilize other slope stabilization measures to hasten watershed stabilization and reduce downstream impacts to communities across the state. Forestry continues to engage in partner coordination to ensure programs assisting landowners in watershed recovery are



Seedlings before distribution. Photo by: Luciane Coletti

complementary and address gaps as they arise. This has included engaging with the U.S. Department of Agriculture's Farm Service Agency to request the Emergency Forest Restoration Program be enacted to restore property damaged by the fire and post-fire floods. The Forestry Division is prepared to provide technical assistance to New Mexico landowners who enroll in this program. In addition, Forestry filled a Burned Area Coordinator position, so that communities impacted by post-fire damage can be served by further coordination efforts.

Simultaneously, Forestry continues to engage in recovery efforts related to 2022's unprecedented Hermits Peak-Calf Canyon Fire. The Las Vegas District staff continue to meet with impacted landowners and provide guidance on the restoration of their forest lands, including hosting a reforestation workshop this spring that discussed best-management-practices for post-fire recovery to reduce bark beetle impacts and soil erosion. The District also provided guidance on two large reforestation projects totaling 500 acres in the Galinas Canyon. These properties were treated with felling and mastication of standing dead tree, hauling of larger trees off site for milling, seeding with native forbs and grasses, and planting tree seedlings. Forestry launched its first private property hazardous tree removal program, hiring two contractors to coordinate and conduct this work and collecting landowner assistance requests. The contractors have begun site visits and treatments will prioritize removal of trees that threaten public or private roads, utility lines, and other infrastructure.

| REFORESTATION

- 24 new seed collection tree climber trainees for fall '24 training sessions.
- 150,000 conifer seedlings being grown at the New Mexico Reforestation Center for the USDA Forest Service.
- 125 tree planters trained, with 5000 seedlings planted in the course of these trainings.

Forestry's Reforestation Coordinator works collaboratively with partners, specifically New Mexico Highlands University, New Mexico State University, and the University of New Mexico to create conditions for planting the right tree in the right place for the anticipated climate in 2100, as well as restoring burned lands to a healthy function for people and the environment.



Division members take a tour of the Mescalero Tribal seedling nursery. Photo by Polly Mullen

The current John T. Harrington Forestry Research Center in Mora was selected as the site of the New Mexico Reforestation Center (NMRC). To help increase seed supply, New Mexico Highlands University (NMHU) hired a Seed Collection Coordinator. The university also is developing a seed processing facility and was expected to offer another tree seed climber training and operational collection event in September of 2024. Additionally, NMHU partnered with American Forests to release an app through which personnel with partner entities, as well as citizen scientists, can upload cone crop observations and locations to improve efficiency of and participation in cone crop scouting. The app went live in July 2024 and is posted on Forestry's Reforestation webpage.

A 100-acre pilot project on the Hermit's Peak Calf Canyon burn scar is in progress with planting to take place in the fall. This pilot project will demonstrate the advantages of the most recent science-based reforestation techniques from all university partners. Workshops and training will be on-going to ensure that the state's reforestation pipeline builds and maintains capacity in the areas of collection, planting and workforce development.

| NATURAL AND WORKING LANDS

- 39,754,624 metric tons of carbon estimated to be stored on private lands under Forestry Division jurisdiction
- 4,612,665 metric tons of carbon estimated to be stored on State Trust Lands.

The Natural and Working Lands (NWL) program was established in response to Governor Michelle's Lujan Grisham's Executive Order 2019-003 Addressing Climate Change and Waste Prevention. Forestry received funding through the United States Climate Alliance (USCA) Natural and Working Lands Technical Assistance Fund and United Nations Fund, Inc. (UNF) to partner with the University of Maryland and University of New Mexico to develop carbon monitoring capability and better understanding of carbon storage in New Mexico's natural lands.

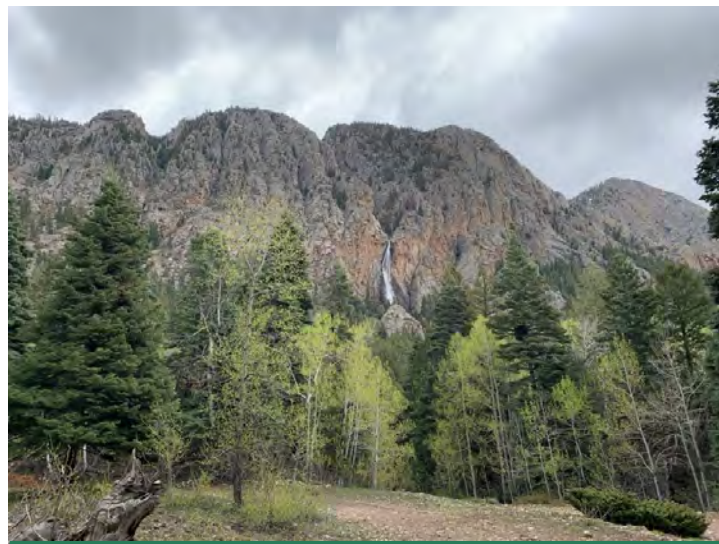
The partnership with University of Maryland and the University of New Mexico achieved its first milestone this year with the development a Carbon Monitoring System (CMS) that is trained on New Mexico data and provides cutting-edge estimates of forest carbon for the state. Forestry is continuing to work with partners on the development of the CMS to more accurately detect dead and diseased trees using satellite data. Forestry staff attended the 2024 NASA CMS Science Team Meeting and Applications Workshop in Washington DC to present on how CMS models are used to evaluate impacts of fire, climate change, and forest and watershed restoration efforts on New Mexico's natural and working lands.

The Land of Enchantment Legacy Fund was created in the 2023 Legislative Session, establishing separate expendable and permanent funds designed to support existing conservation programs that foster natural working lands across several state agencies. Forestry programs supported by these funds include the Forest and Watershed Restoration Act program and the Natural Heritage Conservation Act (NHCA). At current fund levels these programs received \$1.4 million per year beginning July 2024. This is the first time NHCA has received an appropriation since it was established, and the first time Forestry has received consistent funding for conservation easements.

| NATURAL HERITAGE CONSERVATION ACT (NHCA)

- \$1.4 million allocated annually
- 1 agricultural easement project selected for funding
- 2 new conservation easement project proposals under review

Forestry oversees the Natural Heritage Conservation Act Program. This program funds acquisition of conservation and agricultural easements and land restoration projects. The goal is to protect the land and water available for forests and watersheds, natural areas, wildlife and wildlife habitat, agricultural production on working farms and ranches, outdoor recreation and trails and land, and conduct habitat restoration and management.



Water falls from the Brazos Cliffs near Chama, NM. Photo by Jose Carrillo.

| 2024 FOREST LEGACY PROGRAM

- 6,780 acres conserved in the Brazos Cliffs Forest Legacy Project

The Forest Legacy Program is a federal partnership program that supports states' efforts to protect privately owned, environmentally sensitive forest lands. The program encourages and supports the acquisition of conservation easements that restrict development, require sustainable forestry practices, and protect other values in perpetuity. Landowners who own a minimum of 40 acres with at least 75% forested land can receive up to 75% of the appraised land value with a 25% donation.

The Brazos Cliffs Forest Legacy Project closed in June, conserving 6,780 acres from development within the Brazos area of Northern New Mexico. Two new projects are currently being drafted in anticipation of submission for possible funding. One for FY2025 Forest Legacy Program Inflation Reduction Act funding, and the other for FY2026 Forest Legacy Program Land and Water Conservation Act funding.

| 2024 LAND CONSERVATION INCENTIVES PROGRAM

- 584,628 acres of forest and rangeland conserved with state tax credits from 2004-2024
- 15,661 acres were conserved with the tax credit program in 2024
- 13 tax credits were issued

Forestry oversees the Land Conservation Investment Program that provides state tax credits for charitable donations of land or an interest in land for conservation purposes to a public or private conservation agency. A taxpayer has a maximum of 20 years to fully use the tax credit following the taxable year in which the donation took place, or the tax credit may be transferred (sold)



FORESTRY DIVISION LAND CONSERVATION PROGRAM			
2024		2004 TO PRESENT	
Acres Conserved	15,661	Total Acres Conserved	584,628
Appraised Value	\$7,155,000	Total Appraised Value	\$157,897,844
Tax Credits Issued	\$2,357,327	Total Tax Credits Issued	\$39,011,614

to another taxpayer. In 2024, 13 tax credits were issued ranging from \$55,000 - \$250,000.

| FOREST AND WATERSHED RESTORATION ACT

- \$3.4M allocated annually
- Additional \$5M of capital funds were received for FY25
- 13,506 total acres completed with FAWRA funding since Act passage in 2019; utilizing approximately \$5M out of \$8M allocated since 2019
- \$4.6M additional funds have been leveraged on FAWRA projects
- 27 projects underway or completed
- 4 projects continued from prior year to expand the acres treated
- 1 new project selected for funding

The Land of Enchantment Legacy Fund now provides \$1.4 million annually for the Forest & Watershed Restoration Act (FAWRA); this increases the annual recurring funding to approximately \$3.4 million.

The FAWRA Advisory Board met three times in 2024 to review and recommend projects to enhance the adaptability and resilience of New Mexico’s forests and watersheds to climate change and wildfires, improve water quality and support economic activity associated with wood harvest.

Projects recommended for FY25 funding include restoration of approximately 6,000 acres in the state’s largest wildlife management area (WMA), Marquez/L Bar WMA, with an emphasis on meadow restoration. Another project would ensure steady pace and scale for improved ecosystem resilience and wildfire risk reduction in the Santa Fe Fireshed, a 107,000-acre landscape that includes critical infrastructure for several communities, including Pueblo of Tesuque and the City of Santa Fe. The funding will be used to provide required archaeological clearances, thinning and preparing for use of beneficial fire.

Currently, project development exceeds the FAWRA budget resulting in projects being supplemented with other funding sources. The needs for this program in New Mexico are vast and the additional funds secured through the Land of Enchantment Legacy Fund will accelerate our ability to meet long term restoration funding needs.

| FOREST HEALTH PROGRAM

- 33,000 acres with bark beetle-killed trees in New Mexico.
- 224,000 acres with defoliation.
- 14 private landowners provided cost-share grants, totaling 9,709 acres of stewardship planning and 287 acres of forest health treatments.

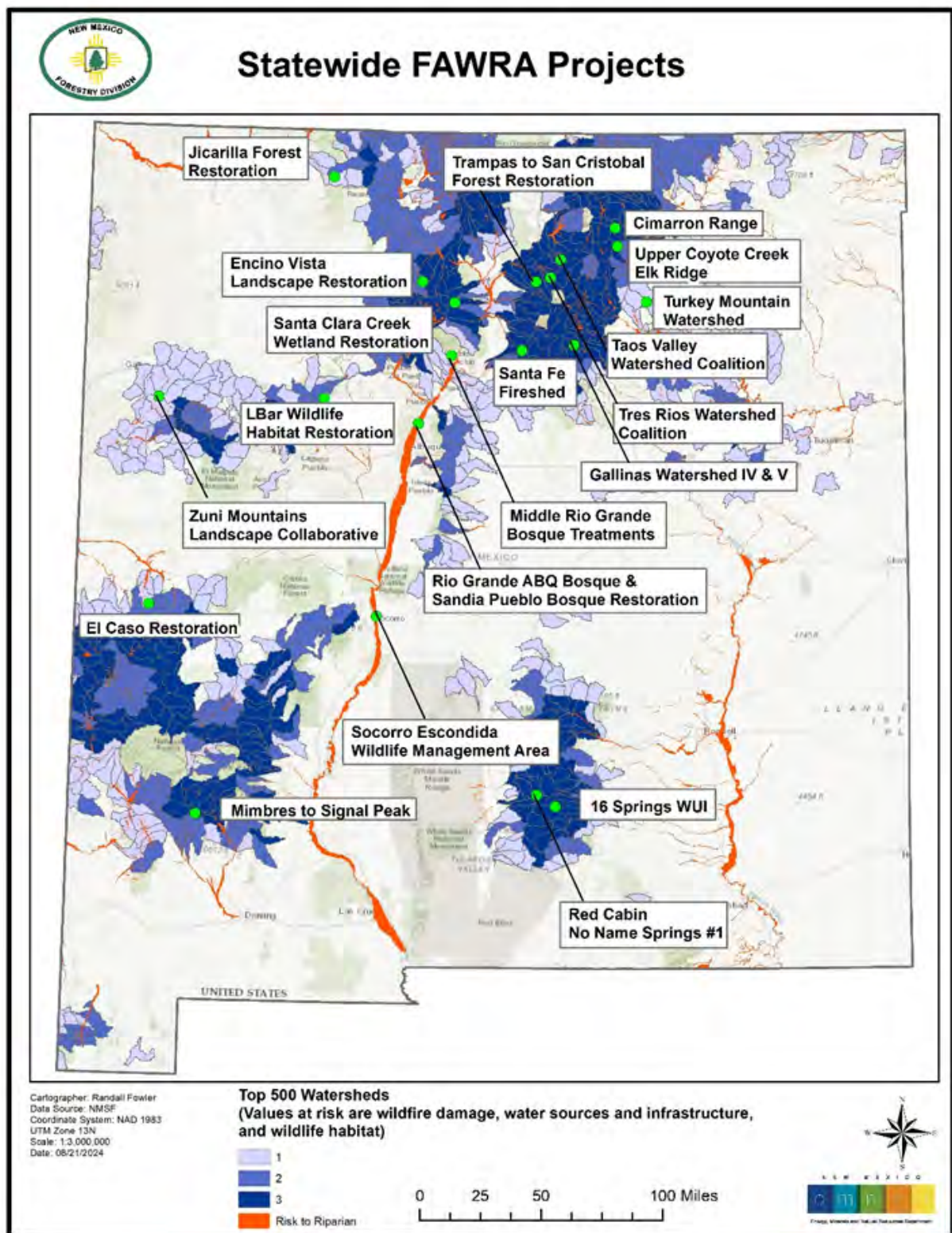
The Cooperative Forest Health Program delivers technical assistance and grant funding to landowners and managers to increase forest resilience to harmful insects and diseases. The program provides trainings, field visits, and education events that increase knowledge about native and invasive insect and disease outbreaks and improve management practices. Federal cost-share funding is administered to private landowners to improve forest resilience against bark beetles and other insects and diseases.

This year, extensive bark beetle-related mortality of ponderosa pine and Douglas-fir near burn scars throughout the state were observed and recorded from both ground and aerial surveys. Severe pinon defoliation caused by pinyon needle scale was severe in the areas east of Cloudcroft, Ruidoso, and in the Gila region. Douglas-fir tussock moth outbreaks were observed in Northern New Mexico near Taos, Santa Fe, Glorieta, Sandia Mountains, and Jemez Mountains, causing severe defoliation of



Left: Douglas-fir tussock moth defoliation of white fir at Hyde Memorial State Park.

Right: Trees killed by bark beetles near Gascon, NM by Hermits Peak Calf Canyon burn scar. Photos by: Victor Lucero



mixed conifer species. Western spruce budworm continues to be the primary defoliating pest of Douglas-fir, true firs, and spruce. The Tamarisk leaf beetle has caused widespread defoliation of salt cedar in riparian areas throughout much of New Mexico. Severe defoliation has occurred along the middle Rio Grande and Rio Puerco corridors.



Flowering *Hexalectris arizonica* (state endangered) individual at the new occurrence on private land in Cedar Crest, NM. Photo by: Marty Purdy.

| BOTANY & ENDANGERED PLANT PROGRAM

- 46 plants listed as state endangered
- 15 plants federally listed as endangered or threatened
- 25 Minimal Impact Exploration or Surface Disturbance Permit Applications or other project development reviewed
- 15 state endangered plants visited for monitoring or surveying
- 6 incidental take permits issued; 5 permits for Plant Collection or Scientific Study

Forestry's Botany and Endangered Plant Program maintains and updates the New Mexico Endangered Plant Species List, gathers information on the status and distribution of rare plants, and develops conservation measures necessary for the survival of rare and endangered plants.

This year, Botany program staff located additional Zuni Fleabane (*Erigeron rhizomatous*) plants. These new populations are a significant western range extension from what was previously known for this federally listed and state endangered species. With the help of citizen scientists and a private landowner, a new

occurrence of the state endangered Arizona crested coralroot orchid (*Hexalectris arizonica*) was documented on private land in Bernalillo County. This occurrence represents a 150-mile northern range extension for the species and its first documentation in the county.

In 2023, data from long-term monitoring and survey efforts for seven federally listed and state endangered species found and reinforced declining trends for some species (e.g., Mancos milkvetch and Sacramento Mountains thistle), while other species' trends improved. Holy Ghost ipomopsis (*Ipomopsis sancti-spiritus*), for instance, had the highest total number of plants recorded in transects since monitoring began in 2003. Major threats found to be impacting endangered plant species include drought, climate change, water diversions, degradation of natural wetlands, cattle grazing, and expansion of oil and gas and other energy projects. New funding was awarded by the US Fish & Wildlife Service for further monitoring of state and federally endangered species in 2024.

The State Botanist organized and hosted a meeting of the Rare Plant Technical Council to discuss collaborative efforts to improve rare plant conservation in New Mexico with partners from federal agencies, non-profits, universities and private citizens. The State Botanist is the chair of the Council and is responsible for the content on the New Mexico Rare Plants website and the listing of rare plants.

| INVASIVE PLANT PROGRAM

- 3 grants from 2022 have been successfully completed and closed out
- \$184,419 in active and current contracted grants with 8 entities
- 1 site visit and 6 progress check-ins completed and 2 check-ins awaiting reply

Forestry accepts grant applications for invasive plant management projects year-round. The U.S. Department of Agriculture regularly provides funds specifically to address areas where invasive plants threaten forested acres. If other federal money is not involved, eligible applicants can be non-federal governmental entities, including Tribes. Successful applicants are required to provide 1:1 matching funds.

Last year, processing and tracking methods for future Invasive Plant program applications were transferred to a new platform through the website Submittable. A new partnership with the New Mexico Department of Agriculture (NMDA) has been established to help potential applicants with raising matching funds for this program. NMDA has new funding for Noxious Weed projects and has set some funding aside for entities to apply for match assistance to meet the Invasive Plant Program 1:1 match requirement.

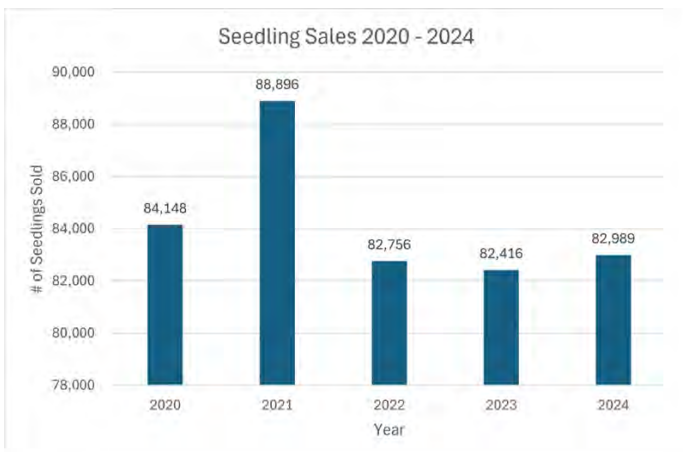
| CONSERVATION SEEDLING PROGRAM

- 82,989 seedlings sold
- 10,000 seedlings sold to Tribal organizations

Forestry's Conservation Seedling Program provides economically priced tree and shrub seedlings to landowners who own one acre or more of land in New Mexico. Through the program, tens of thousands of seedlings are planted each year for the establishment of windbreaks, erosion control, reforestation, crop and livestock protection, improvement or creation of wildlife habitat.

Seedling sales continued at a rapid rate from the Santa Fe treehouse, though seedling availability was limited during the fall season due to a lack of greenhouse space at the John T. Harrington Forestry Research Center. Approximately 10,000 seedlings of Ponderosa pine and Douglas-fir were sold to Trees, Water and People to be planted on the Jemez and Cochiti Pueblos.

Seedlings continued to be sold to many landowners who suffered loss of forest due to the Hermits Peak and Calf Canyon fire, Cerro Pelado fire and the recent South Fork fire. Sales numbers reflect data as of October 2024.



URBAN & COMMUNITY FORESTRY PROGRAM

- \$1,500,000 Inflation Reduction Act funding awarded for tree planting projects in New Mexico
- \$112,616 grant funding distributed for training, planting, inventories and tree management
- 6,000 volunteer hours logged in support of urban forestry initiatives
- 116 communities with ordinances or policies protecting urban trees
- 86 communities with active community tree advisory boards or advocacy organizations
- 9 communities recognized for Tree City USA by the Arbor Day Foundation
- 2 universities recognized as Tree Campuses by Arbor Day Foundation



Socorro District staff planting 64 trees in Magdalena, NM with the Tree New Mexico organization. Photo by Sarah Baldonado.

More than half of New Mexico's population lives in a community that manages or is developing an urban or community forest program. Forestry supports these communities' efforts to develop and sustain healthy resilient community forests for the benefit of current and future citizens because the forests have significant, positive impacts on quality of life. The trees in urban and community forests improve the air, soil, and water, mitigate stormwater runoff, enhance energy conservation and property values, and contribute to human health and well-being.

Forestry provides technical assistance because the trees in urban and community forests are challenged by inhospitable environments, lack of strategic care, drought, climate change, urban heat island effects, the concentration of air pollutants, and lack of management or planning. Forestry provided more than 100 technical assists in 2024.

The Urban and Community Forestry Program is guided by the 2020 Forest Action Plan and the advisement of the New Mexico Urban Forest Council. The program established partnerships by serving on the Urban Waters Steering Committee Board, Arid LID Coalition Board, Let's Plant Albuquerque Board, Think Trees Board, Western Urban and Community Forestry Co-Chair position, Arbor Day Foundation's Tree City Strategic Planning Working Group, and



A member of the Pueblo of Acoma shares stories about a thinning project on Acoma land for the Tribal Forestry and Fire Working Group. Photo by: Natalia Shaw

International Society of Arboriculture's Rocky Mountain Chapter New Mexico Director position. More than 100 organizations participated in the Urban Forestry Advisory Council.

| 2024 TRIBAL PARTNERSHIPS

- 1700 acres of thinning planned for Durfee-Bolander Wildlife Habitat & Stand Improvement project in conjunction with a timber crew contracted from Alamo Navajo
- 1250 acres planned for an RX (prescribed) burn and 500 acres planned for thinning on Santa Clara Pueblo.
- 33 acres treated on Sandia Pueblo using prescribed goat grazing
- 19 incidents assisted by Cochiti Lake Fire Department; 12 incidents in which their type 6 engine was mobilized.
- 28 fires in-state assisted by Zuni Pueblo Administratively Determined (ADs)-Emergency Hire wildland firefighters; 1 fire in Oregon.
- 6 individuals hired from Alamo Navajo onto the Mimbres fire crew.
- 9 tribes consistently attending the Forestry Tribal Working Group

Forestry actively collaborates with Tribes and has a designated Tribal Liaison who serves as the focal point for Division- wide initiatives and communication with Tribes. A new position, Tribal Resource & Restoration Coordinator, was created and will support the Tribal Liaison in outreach and engagement, and assistance with developing additional projects with tribal partners. This position also coordinates with the Tribal Forestry and Fire Working Group in partnership with the Forest Stewards Guild.

A reforestation project with Jemez Pueblo calls for 4,000-6,000 mixed conifer trees to be planted across 20-40 acres of culturally important area. This project also includes hazardous fuels reduction treatments, along with seed collection and area monitoring for the project's duration. Hazardous fuels reduction will begin on 2 acres during the of fall 2024 which will also assist in site preparation for future planting efforts. Invasive species thinning projects are ongoing in the Sandia Pueblo bosque area using goat grazing focused on area burned in 2012's Romero Fire. More than 33 acres were treated. On the lands of Santa Clara Pueblo, a combined prescribed burning and thinning project was scheduled to begin in late 2024; 1250 acres were slated to be treated by prescribed burn and an additional 500-600 acres thinned.

Forestry has deployed Tribal fire crews on fires across the state and one fire out of state. As part of the Resource Mobilization Plan (RMP) the town of Cochiti Lake's fire department was mobilized on 16 incidents, including 12 incidents in which the town's type-6 engine was mobilized. Six emergency hire firefighters from Zuni Pueblo were mobilized on 28 fires in-state and the Battle Mountain complex in Oregon. Six individuals from Alamo Navajo are part of the nearly formed wildland fire crew in the Socorro District. A timber crew was hired from Alamo Navajo to assist with the off-reservation Durfee Bolander thinning treatment project.

Forestry developed a Cultural Connections training program to complement the State Personnel Office's Building Cultural Equity with Tribal Nations effort. This Forestry-specific training covers the State-Tribal Collaboration Act, New Mexico tribes and their unique history, cultural customs and other information specific to New Mexico tribes and how these dynamics interplay with consultation, communication and collaboration between the Forestry Division and tribal nations.

Forestry combined its efforts on the Tribal Working Group to create the Tribal Forestry and Fire Working Group in collaboration with the Forest Stewards Guild. This group will continue to provide a forum for tribes, state, federal and other agencies to communicate regularly. The group discusses state-wide natural resource planning and implementation of prescribed and cultural burns, and forest and watershed management efforts where tribal entities can share knowledge across boundaries.

| SMOKEY BEAR HISTORICAL PARK

- 20,627 visitors to Smokey Bear Historical Park in FY24
- 194 Smokey Bear Historical Park Junior Ranger Program participants
- \$11,600 in grant funding awarded
- \$10,010 worth of free advertising donated

Smokey bear Historical Park was built in 1976 to honor an American black bear cub rescued from the Capitan Gap Fire in 1950. The cub became the living symbol of the Smokey Bear Cooperative Forest Fire Prevention program, which continues to educate the public nearly 80 years later. Today, visitors come from all over to visit Smokey's gravesite, learn about his story, forest health, fire ecology, restoration, and the history of fire prevention.

The park hosted a number of Special Events in 2024, including the Yeti Trail Run packet pickup, , Rudy Wendelin Smokey Bear art exhibit, and Smokey Bear's 80th birthday open house. Additional public outreach included Smokey Bear Days, and a 4th of July event, which attracted a combined 5,000 people to the Village of Capitan. Both events included cooperative wildfire prevention messaging from the Park staff and the Smokey Bear Ranger District prevention staff of the Lincoln National Forest.

Additional "off-campus" education programs were offered at the Dragonfly Festival in Roswell, the NM Balloon Museum in Albuquerque, and Ft. Lone Tree Bible Camp for Special Needs youth and families. Non-profit support groups, including the

South-central Mountain Resource Conservation and Development, the Capitan Public Library, and the Smokey Bear's Hometown Association, were awarded grant funds to support the Park with exhibits, publications, landscaping materials, and items to distribute at Park events totaling approximately \$11,600. In addition, the Lindmark Companies provided approximately \$10,010 worth of free digital advertising on wildfire prevention and events at the Park.

The Fallen Wildland Firefighters Memorial, installed in 2019, honors those who lost their lives fighting wildfires in New Mexico. For the second consecutive year, a commemorative event honoring firefighters fallen in the line of duty was held on Memorial Day. Thirty-four family members and friends of the fallen attended the 2024 event.



Smokey Bear visits the Smokey Bear Stampede Rodeo on the 4th of July in Capitan, NM. Photo by: Mary Lavin



LETTER FROM THE DIRECTOR

The mission of the Mining and Minerals Division at EMNRD is to ensure the responsible use, conservation, reclamation, and safeguarding of land and resources affected by mining.

This past year, MMD welcomed EMNRD's new Cabinet Secretary Designate, Melanie Kenderdine, to her new role. Secretary Kenderdine holds extensive expertise in developing initiatives for researching and developing transformational clean energy policies, energy security policies, and policies for electric grid infrastructure modernization. She is keenly aware of the role that New Mexico's mineral resources can play in all of those policy areas and recognizes the importance of the American mining industry in our growing and changing economy. She has long advocated for strong policies to protect American supply chains for key metals and minerals, and she supports developing and enhancing our domestic supply chain of mining products.

The Secretary often points out that the push towards renewable energy and electric vehicles requires significant amounts of copper, for example, New Mexico's deposits of copper play a significant role in meeting this increasing demand and positions the state as a key player in the global transition to a sustainable energy future.

In addition, the Secretary is also focused on critical minerals that are building blocks for the green and digital economy. Wind turbines, for example, need manganese, platinum and rare earth magnets. Electric vehicles require batteries made with lithium, cobalt & nickel. It is therefore important for New Mexico to continue being part of a resilient minerals value chain that adheres to the highest environmental and social standards.

The Secretary is committed to supporting industry participation in voluntary sustainability initiatives like Copper Mark, or the Initiative for Responsible Mining Assurance, among others. EMNRD is committed to playing our part in realizing the potential of New Mexico's mineral resources in a way that benefits stakeholders throughout New Mexico. MMD looks forward to working with Secretary Kenderdine in 2025 to foster a vibrant, sustainable, and responsible mining industry in New Mexico.

In 2024, MMD's Abandoned Mine Lands Program (AMLPL) used federal funding to safeguard and remediate the many hazardous abandoned mine features across New Mexico. AMLP's accomplishments drew national recognition, winning this year's national Small Project Abandoned Mine Land Reclamation Award given out by the federal Office of Surface Mining Reclamation and Enforcement. The recent passage of the federal Bipartisan Infrastructure Law has been beneficial for AMLP and New Mexico because it provides an additional \$2.4M/year for AMLP to safeguard and beautify our state.

MMD's Coal Mine Reclamation Program implements Title V of the federal Surface Mining Control and Reclamation Act within New Mexico to ensure that coal mining operations are conducted in an environmentally responsible manner and that the land is adequately reclaimed during and following the mining process. In the past year, CMRP processed bond release applications for various sections of land under reclamation at El Segundo, San Juan, La Plata, and Lee Ranch Mines. CMRP has also secured a contract with an outside environmental consultant to complete an independent study of the San Juan Coal Mine, as requested by the Legislature.

MMD's Mining Act Reclamation Program (MARPL) regulates hardrock mines on all non-tribal lands within New Mexico. Hardrock mines are all mines except for coal, potash, and construction aggregate mines. MARP reviews and approves reclamation plans, approves cost estimates for reclamation, and collects and maintains sufficient financial assurance to pay for reclamation if needed. MARP currently oversees over \$1.1 billion in financial assurance to ensure reclamation.

In the past year, MARP has seen an uptick in exploration activities, including exploration for lithium and copper near Lordsburg, exploration for silver and gold near Mogollon, and an increase in placer gold mining near Chloride. The MARP uranium coordinator position continues to assist MARP to address difficult issues around remediation and reclamation of historic uranium mining waste.

Finally, the MRRSP Program gathers and compiles comprehensive information on mineral resources, mine registrations, reclamation, and other MMD activities related to New Mexico's mineral extraction industry and mineral resources. 2024 was a busy and productive year for New Mexico's Mining and Minerals Division, and we look forward to continuing to build on the Division's successes in 2025.



ALBERT C.S. CHANG
Division Director
Mining and Minerals Division





STRATEGIC PRIORITIES

- Ensuring responsible mine reclamation by restoring lands back to beneficial use
- Protecting the public from physical and environmental hazards of abandoned mines
- Developing proactive mining and mine reclamation initiatives to ensure reclamation and safeguarding of mine sites
- Providing annual operator-reported information for New Mexico mines on mineral production, production value, employment, payroll, and revenue.

The Mining and Minerals Division's mission is to ensure the responsible utilization, conservation, reclamation, and safeguarding of land and resources affected by mining. By statute, MMD enforces and administers laws and regulations relating to mine safety, coal surface mine reclamation, and abandoned mine lands reclamation, and annually collects statistical information from mine operators related to mineral extraction.

STAFFING

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Office of the Director

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Abandoned Mine Land Program

5

Coal Mine Reclamation Program

1

Mine Registration, Reporting and Safeguarding Program

9

Mining Act Reclamation Program

PROGRAMS AND ACCOMPLISHMENTS

| OFFICE OF THE DIRECTOR

Formulates division resource development, policy, planning, and administrative and fiscal management. The Director administers laws and regulations pertaining to hardrock and coal mining, mine registration and safeguarding, and annual industry reporting. The Director represents New Mexico on the Interstate Mining Compact Commission and is an ex-officio member of the New Mexico Mining Safety Board.

ABANDONED MINE LAND PROGRAM

The AMLP works to identify and abate dangerous abandoned mines areas across the state. MMD estimates that more than 15,000 hazardous mine openings remain un-reclaimed throughout New Mexico. AMLP has started a comprehensive inventory of both coal and non-coal legacy mines in New Mexico, which will firm up the above estimated number of mine openings and better assess threats.

The U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement (OSMRE) is AMLP's primary source of funding through the Surface Mining Control and Reclamation Act (SMCRA). The law authorizing a fee on coal production to pay for reclamation work at abandoned mines expired on September 30, 2021. As part of the Infrastructure Investment and Jobs Act of 2021, the fee collection authority was reauthorized for 13 more years at a 20 percent lower rate. In addition, a one-time infusion



of \$11.3 billion was included for distribution to states and tribes based on historical coal production over 15 years. New Mexico's portion of this distribution is estimated to be \$2.4 million per year for coal reclamation work above and beyond the money received from the fee on coal production. In addition to OSMRE funding, the Program receives grants from the Bureau of Land Management to safeguard abandoned hardrock mines.

Since AMLP is federally funded, all project expenditures must comply with the National Environmental Policy Act (NEPA). Due to this requirement, AMLP, at any given time, has multiple projects in various stages of development, including obtaining landowner access permission, conducting archaeological and biological surveys, obtaining state and federal permits, and holding public meetings. AMLP develops engineering designs by working in coordination with the NEPA process. This year AMLP completed Environmental Assessments and Categorical Exclusions to abate mine hazards, including coal fire and subsidence issues in Raton (Yankee Mines) and Madrid (Madrid Stormwater Erosion Control Project). AMLP staff also is working to complete EAs for the Red Hill (Caballo Mountains) and Capitol Dome Mine (Florida Mountains) Safeguarding Projects, and a Categorical Exclusion for the La Ventana maintenance project near Cuba.



New Mexico Abandoned Mine Land Program staff accepting the Small Project Award from OSMRE Principal Deputy Director Sharon Buccino (Left to right: Lloyd Moiola, Matt Peralta, Sharon Buccino, Mike Tompson)

AMLP was awarded the 2024 Small Project Abandoned Mine Land Reclamation Award from the Office of Surface Mining Reclamation and Enforcement. This award recognized the Tin Pan Canyon Gob Reclamation Project located near Raton, New Mexico. The project was developed to stabilize steep slopes on two coal gob piles, approximately two acres in size, that had been contributing gob sediment to an adjacent ephemeral channel and to abate a head cut in the gob that was threatening the canyon access road. The construction work was carried out at the height of the COVID health emergency in 2020-2021. The award was presented to the AMLP team at the 2024 National Association of Abandoned Mine Land Programs Annual Conference held in Davis, West Virginia, in September.

COAL MINE RECLAMATION PROGRAM

The CMRP enforces regulations and inspects all coal mines on federal, state, and private lands within New Mexico, excluding Indian lands. CMRP's mandate is to protect the public, adjacent landowners, and the environment from the effects of coal mining.

CMRP oversees 65,000 acres of permitted mine lands and \$277 million in financial assurance to ensure that these mines will be properly reclaimed. New Mexico has 100 percent third-party surety bonds for all five actively permitted coal mines, two of which are in complete reclamation.

Westmoreland San Juan Mining LLC, San Juan Underground Mine officially stopped mining coal in September 2022. Peabody's Lee Ranch Surface Mine and El Segundo Surface Mine are currently extracting coal, while Chevron's McKinley Mine, along



El Segundo Mine Active Reclamation 2024



El Segundo Mine Active Reclamation 2024



with Westmoreland San Juan Mining LLC's La Plata Mine, are in reclamation.



McKinley Coal Mine reclamation vegetation, 2024

Evaluation of bond release applications continues to be a significant part of CMRP's workload. Bond release occurs in stages throughout the life of a mine. A coal operator is eligible for Phase I partial bond release as the affected lands are backfilled, regraded and drainage control has been established in accordance with the approved reclamation plan. Lands are eligible for Phase II and Phase III releases upon successful establishment of revegetation (Phase II) and after the minimum 10-year liability period and successful demonstration of the reclamation's capability to support post-mining land use (Phase III).

All current bond release applications are posted and available to the public on MMD's website at (<https://www.emnrd.nm.gov/mmd/public-notice/>).

San Juan Mine submitted its 2024 permit renewal and bond estimate applications. MMD reviewed and approved the San Juan permit renewal.



McKinley Coal Mine, 1999

MINE REGISTRATION, REPORTING AND SAFEGUARDING PROGRAM

This program provides comprehensive information on mineral resources, mine registration, reclamation, and safeguarding efforts, and other MMD activities related to New Mexico's mineral extraction industry and mineral resources. Decision-makers throughout New Mexico benefit from the valuable information compiled and disseminated through this program. Mining sector information reported by more than 150 operators for calendar year 2023 (latest information available) is provided in the Mineral Resources section of this report.

MMD provides public online web applications to enhance transparency and outreach and provides daily updated information for New Mexico mines. MMD Online links to the Mine Registrations and Permits web application which allows users to search by an individual parameter, or a multitude of combinations, with results exportable to Excel or to an Earth browser such as Google. (By statute, production information is held confidential.) The other link from the MMD Online web application page, Coal Mines Query, provides more extensive coal mine information including coal geology and quality, notices of violation, and water quality. Additional web applications are linked from the Mining Data and Statistics page including Registered Mines Web Map, Map Gallery, Abandoned Mine Land Program Story Map Journal, and the Legacy Uranium Dashboard.

In 2019, New Mexico enacted House Bill 651 to enhance the sharing, integration, and accessibility of water data. The act mandates the creation and maintenance of a comprehensive water data platform that integrates data from various state agencies, making it publicly accessible for better decision-making and resource management. The New Mexico Water Data Initiative (WDI), a key component of the act, aims to develop this integrated water data platform. As part of this initiative, EMNRD has developed the Water Data Act API project. This project is creating tools—application programming interfaces (API)—that make it easier for agencies to share water-related information across their varied information technology platforms.

| EXCELLENCE IN RECLAMATION AWARDS

The Excellence in Reclamation Awards are another important outreach program. Instituted in 1996, this program celebrates excellence and innovation in coal, hardrock and aggregate mine



reclamation, abandoned mine land reclamation projects, and other related efforts or initiatives deserving special recognition. The awards are presented annually at the New Mexico Mining Association's convention.

The 2024 Excellence in Reclamation awards were presented in August for mine reclamation work deserving special attention. The "Dutchman Canyon Maintenance and Stream Restoration AML Reclamation Project" was recognized as a collaborative project between designer and contractor improving a stream channel affected by an abandoned coal mine.

Oxbow Ecological Engineering was recognized for creating an exceptional engineering design to restore a stream channel affected by historic coal mining. Sweatt Construction, Inc. was acknowledged for utilizing innovative construction techniques at a challenging site while implementing the plan.

The Dutchman Canyon Maintenance and Stream Restoration AML project is located within the Vermejo Park Ranch, approximately 4.5 miles northwest of Raton, in Colfax County. The project site was a coal mine that produced coal between the 1860s and the 1950s.



Dutchman Canyon coal mine that produced coal between the 1860s and the 1950s.

In 2012, the New Mexico Abandoned Mine Land Program undertook a project to reclaim the mine. Large earth-moving equipment buried the gob pile in areas up and down the stream channel. Nearly 200,000 cubic yards of coal gob were moved and buried with two feet of clean cover material. The stream was recontoured into a winding route, and the buried gob and clean soil cap contoured into a geomorphic surface that blended in with the natural topography.

In 2013, a major storm damaged the work done within the channel at this site. The storm walloped newly planted seedlings before they could take root and keep the soil from eroding. The storm also undercut the geotextile fabric that was supposed to protect the



Heavy equipment at Dutchman Canyon coal mine burying the gob pile near the stream channel



2012 photo shows the stream recontoured into a winding route, and the buried gob and clean soil cap contoured into a geomorphic surface that blended in with the natural topography.

stream banks from erosion. As time went by, the stream channel continued to cut into the banks and threatened to continue eroding until the buried coal gob material underneath became exposed. Therefore, in 2019, Oxbow Ecological Engineering LLC of Flagstaff Arizona joined this project and designed a solution for the erosion issues to provide long-term stability for the stream channel.

George Cathey at Oxbow Ecological Engineering designed rock structures for each portion of the stream channel and placed them on a map for a construction contractor to build. Oxbow also created plans to move the stream flow away from the eroding banks and allow the water to deposit sediment by slowing it down in designated areas. Those areas would then grow vegetation and not be adversely affected during high river flow events.



Damage caused by storm in 2013



Erosion caused the coal gob material underneath to become exposed

Sweatt Construction Inc. of Artesia, NM, provided the construction services including earthwork, stream and upland stabilization structures, planting reclamation vegetation, seeding, and mulching. Before construction activities began, fish were moved from small pools to an unaffected area upriver. Large boulders were brought in as part of the design structures to slow the water down. The heavy equipment had very little room to work and maneuver at this project site. Therefore, heavy equipment guided by Global Positioning Systems had to be employed to ensure the construction was done with the necessary precision. Because this area was a historic coal mining community, there are historic cultural resources that also needed to be protected. The contractor took great care to avoid these archaeologically important areas.

Oxbow Ecological Engineering and Sweatt Construction did an excellent job with this project under particularly difficult conditions. This project was completed during the height of the COVID pandemic's most stringent social distancing restrictions, much of it during the middle of winter, which was exceptionally challenging. Reclamation projects that return mined lands back into thriving ecosystems are critical to this industry's social license to operate.



Large boulders were brought in as part of the design structures to slow the water down.



Construction of a cross-vane rock structure at the site, which is an engineered feature designed to create a pool, & slow water flow in the stream channel and prevent erosion.



Photos were taken from the same vantage point before and after the project took place. Notice the increase in vegetation. The photo on the right shows wetland plugs planted in the stream channel.



Cabinet Secretary Designate Kenderdine presenting Excellence in Reclamation Awards to George Cathey of Oxbow Ecological Engineering, LLC and Brad Larson of Sweatt Construction Inc.



MINING ACT RECLAMATION PROGRAM

MARP regulates and inspects all hardrock mines on federal, state, and private lands within New Mexico. MARP oversees the reclamation of all mining and exploration activities, excluding coal, potash, and aggregate mines. As of the end of 2022 (the latest data available due to operator reporting requirements), MARP has permitted approximately 682 mining and exploration projects and holds more than \$1.05 billion in financial assurance for active mines and mines in reclamation. The overall disturbed acreage under permit with MARP is approximately 26,903 acres as of December 2022. Since its 1994 inception the program has reclaimed approximately 7,609 acres. MARP permits and regulates new mining operations, exploration projects, and existing mining operations (both active and reclaimed).

| PROPOSED NEW MINING OPERATIONS AND EXPLORATION PROJECTS

MARP staff continued review of two large-scale permit applications under Part 6 (New Mining Operations) of the New Mexico Mining Act: one uranium mine, Laramide Resources' La Jara Mesa Mine in Cibola County; and one copper mine, New Mexico Copper Corporation's (NMCC) Copper Flat Mine in Sierra County. The La Jara Mesa Mine project remains in the early stages of permit development as the federal government is conducting an Environmental Impact Statement (EIS) evaluation and state permits are under review. Other proposed new projects are the Roca Honda Mine in McKinley County, the Summa Silver Mogollon Exploration Project in Catron County, and the Cibola Resources Cebolleta Exploration project in Cibola County.

| COPPER FLAT MINE

New Mexico Copper Corporation (NMCC) proposed a new regular copper mine in Sierra County near Hillsboro in 2010. The mine is proposed to be an open-pit, truck and shovel operation with onsite processing facilities including crushing, milling, floatation concentration, and tailing deposition. The mine is projected to have a 12-year mine life at a proposed processing rate of 30,000 tons of ore per day. After issuance of the Final EIS in April 2019, a Record of Decision approving the 30,000 ton per day alternative was issued by the BLM in August 2019. To operate and reclaim the mine, NMCC must secure approximately 6,100 acre-feet of groundwater rights and approximately 16,382 acre-feet of surface water rights to offset anticipated depletion of water from the Rio Grande/Caballo system. NMCC's vested water rights portfolio for the Copper Flat Mine is currently less than that required to operate and reclaim the mine, although litigation is ongoing. MMD will evaluate the mining permit upon NMCC's demonstration that the total water rights required have been secured and upon NMCC providing financial assurance for reclamation of the mine.

| LA JARA MESA MINE

After many years of dormancy, Laramide Resources Inc., approached the US Forest Service (USFS) and MMD to reinstate the permitting process to mine uranium in the Grants Mineral Belt. The original permit application was submitted in June 2009. MMD continues to collaborate with the USFS, NMED, and the operator on this mine. Laramide Resources conducted several agency meetings to restart the permitting process for state and federal agencies. MMD developed a Memorandum of Understanding with the USFS and NMED to coordinate federal and state permitting of the La Jara Mesa Mine. Coordination and resumption of review of the permit application began in the summer of 2023. The site is proposed as an underground uranium mine with above ground storage facilities and staging area comprising approximately 25 acres of surface disturbance.



Proposed La Jara Mesa Mine Location

| OPERATIONAL EXISTING MINES

MARP is processing permit applications for expansion and revised closeout plans at the state's four largest copper mines in Grant County. Freeport-McMoRan Inc. (FMI) proposes expansions at four of its New Mexico operations. Applications for Chino, Tyrone, Little Rock, and Continental mines include expansions, continued operation, and reclamation. As these existing mines expand, they must comply with new regulatory standards designed to address new mining impacts.

| CONTINENTAL MINE

Mining at the Continental Mine continued in 2024 with much of Hanover Mountain removed. In 2024, the Continental Mine drilled exploratory holes for mining expansions at the Hanover Mountain and Continental Pit and continued to evaluate test plots with waste rock and tailing blends to evaluate performance of vegetation establishment over the next several years. An updated Closure/Closeout Plan was submitted for the Continental Mine in 2023, which will be under review by MARP and other state cooperating agencies.



Continental Mine Hanover Mountain, 2023

| TYRONE AND LITTLE ROCK MINES

MMD is processing a revision for the proposed approximately 337-acre Tyrone Mine Emma Project mine expansion. A public hearing was held in Silver City on August 16, 2022, where MMD received comments from the Gila Resources Information Project (GRIP) and the public. The public voiced concerns over the impacts of the proposed Emma project on private wells, noise, dust, and viewshed impairments. The proposed Emma Project must meet Part 508 Requirements for New Units that include more comprehensive operational and reclamation requirements than for the existing Tyrone Mine areas. MMD expects to complete its review of the Emma project application and closeout plan in late 2024 or early 2025.

MINES IN RECLAMATION

MARP oversees reclamation in all stages, including planning, construction, monitoring/maintenance, and final release. MARP is also examining some of the state's older mine sites that have been under reclamation for over 12 years for reclamation release.

| MT. TAYLOR MINE

Throughout 2024, a substantial amount of work continued toward reclaiming the former Mt. Taylor Mine. Rio Grande Resources submitted an updated and revised Closeout/Closure Plan (CCP) in June 2022 to address the completion of reclamation at the site including an expansion of the waste disposal cell. MMD is processing an updated CCP under Revision 22-1 for expansion of the disposal cell. The Multicultural Alliance for a Safe Environment (MASE) and Amigos Bravos requested a public hearing, which is expected to be held in late 2024 or early 2025.

| QUESTA MINE

In 2024, reclamation and remediation continued at Chevron Mining Inc.'s (CMI) permanently closed Questa Mine in Taos County, a listed Superfund site. Three agencies-MMD, NMED, and the U.S. Environmental Protection Agency are working with CMI to develop reclamation plans and agreements that comply with the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. As part of the settlement between the U.S. Department of Justice, EPA, and the State of New Mexico, CMI will provide \$143 million for cleanup work. A portion of these funds were used to remediate Eagle Rock Lake. Other reclamation and remediation work will be implemented over decades. Completed projects include demolition of the mill area, construction of a water treatment plant, and removal and disposal of old mine waste (tailings) along the tailings pipeline corridor.



At the Questa Superfund site, 2024 marked the fourth growing season of a six-year monitoring program for the tailing facility cover demonstration project to evaluate a store-and-release cover of alluvial material placed over 275 acres of the 1,000-acre tailing facility. Soil cover performance evaluates vegetation success, soil chemistry, and water movement. The tailing pilot project results will shape the design and reclamation for the remaining unreclaimed tailing acreage.

A six-year monitoring period will take place to evaluate the effectiveness of the designed cover and, if successful, will be applied to the remaining portion of the tailings facility. In another area of the mine, CMI operates a water treatment plant and installed new, or upgraded existing, groundwater extraction systems. CMI continues operating a water treatment plant that decreases contaminants from the underground mine water, bedrock aquifers, alluvial aquifers, and impacted stormwater.

In the spring of 2021, CMI began construction of a pilot plot on two large waste rock piles, the Capulin and Goathill North, totaling approximately 109 acres, comprehensively named Group 1 Waste Rock Piles (Group 1 WRP). This study will determine best practices to reclaim the waste rock piles and will be used to address the remaining piles at the mine and will include the conversion of run-of-mine rock overburden materials to a viable store-and-release cover. By the fall of 2024, the pushdown of Capulin was complete and covering of Capulin with an evapotranspiration cover system is nearing completion. CMI anticipates submittal of a revised construction schedule that will delay the Group 1 WRP pilot project beyond its original 2024 completion date by two or three years.

EPA and MARP along with NMED are working toward a fourth amendment to the design administrative order on consent (4th Amendment-Design AOC). Once signed, the 4th Amendment-Design AOC will initiate submittals by CMI for agency review for areas not included in the existing pilot studies. These areas include the Dam 4 tailing regrade, soil contamination area south of the tailing facility, the long-term sludge repository, and the Group 2 Waste Rock Pile areas. The review of designs started in early 2024 and will likely continue throughout 2025.

MINERAL RESOURCES: CY2023

New Mexico remains a leading United States mineral producer in the 2023 commodity rankings provided by reports from the U.S. Geological Survey (USGS) and U.S. Energy Information Administration (coal):

- Potash: 1st (used primarily in fertilizer, and in lesser amounts for chemical and industrial applications)
- Perlite: 1st (used in building construction products, horticultural aggregate, and fillers)
- Zeolite: top 6 (used primarily in animal feed, odor control, and water purification applications)
- Copper: top 7 (used primarily in building construction, transportation equipment, and electrical and electronic products)
- Coal: 13th
- Nonfuel Mineral Production: New Mexico ranks 24th among the states, producing 1.38 percent of the U.S. total.



Capulin waste rock reclamation, June 2024



New Mexico Statute 69.26.2 states that mine operators shall submit an annual report to the Mining and Minerals Division regarding the previous calendar year's mine activities.

The rule in New Mexico Administrative Code 19.7.1.9 provides that calendar year reports are due by April 30 of the following year. Accordingly, the following mineral resources report covers the most recently reported mining data – for the calendar year 2022.

Mine operators reported mineral production value of more than \$1.6 billion extracted from New Mexico mining sites, a 14 percent decrease from 2022.

TABLE 1 New Mexico Summary of Commodity Production, Production Value, Employment, Payroll, Revenue, and Ranking: 2023

Mineral	Production ¹	Production Rank ²	Production Value \$	Employment ³	Reclamation Employment	Payroll \$ ⁴	Revenue Generated \$ ⁵	
							State	Federal
Coal	7,987,232	13	\$ 226,590,974	736	168	\$ 65,943,771	\$ 6,981,779	\$ 1,222,326
Copper	192,131,219	3 *	\$ 741,134,649	1,455	8	\$ 106,239,349	\$ 6,162,712	\$ -
Gold ⁶	8,677	-	\$ 16,854,876	-	-	-	\$ 144,216	\$ -
Industrial Minerals ⁷	2,214,946	-	\$ 198,056,823	197	11	\$ 8,292,018	\$ 212,575	\$ 661,207
Aggregates ⁸	20,902,520	-	\$ 149,839,248	1,194	83	\$ 34,180,034	\$ 6,587,280	\$ -
Other Metals	-	-	-	-	-	-	\$ -	\$ -
Molybdenum	-	-	-	-	-	-	\$ -	\$ -
Potash	506,533	1	\$ 300,586,193	683	10	\$ 65,434,546	\$ 2,619,038	\$ 6,544,009
Silver ⁶	157,022	-	\$ 3,675,263	-	-	\$ -	\$ 30,206	\$ -
Uranium ⁹	-	-	\$ -	22	4	\$ 816,878	\$ -	\$ -
TOTAL			\$ 1,636,738,026	4,287	284	\$ 280,906,596	\$ 22,737,806	\$8,427,541

Source: Operator reports submitted to the Mining and Minerals Division, unless otherwise noted

¹ Production is in short tons for coal, industrial minerals, aggregates, other metals, and potash; in pounds for copper; and in troy ounces for gold and silver.

² Production rank, where available, is based on 2023 production in relation to other states.

Sources: Copper and potash: Mineral Resources Program, United States Geological Survey;

Coal: Energy Information Administration, United States Department of Energy

* NM Bureau of Geology and Mineral Resources, Economic Impact of the Mineral Industry in New Mexico, 2024

³ Employment category includes direct and contract employees.

⁴ Payroll does not include benefits.

⁵ NM State Land Office revenue: mineral lease royalties, rentals, bonuses; NM Taxation and Revenue Department revenue: severance, resource excise, and conservation taxes.

Federal revenue includes 50% state share of federal royalties.

Sources: State data: New Mexico State Land Office, New Mexico Taxation and Revenue Department

Federal data: Office of Natural Resources Revenue

⁶ Gold and silver are by-products of copper production. Employment/payroll for gold/silver included in copper.

⁷ Category includes brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite; USGS ranks NM first in perlite and zeolite.

⁸ Category includes base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria and topsoil.

⁹ Employment/payroll numbers are for reclamation activities/maintenance at closed mines and mills.



Total federal and state revenues generated by 2023 mineral production in New Mexico decreased 7.5 percent from 2022 levels, to \$31. million. State revenue information is provided by the Taxation and Revenue Department and the State Land Office and includes state trust land mineral lease royalties, rentals and bonuses, and associated taxes. Federal revenue information is provided by the Department of Interior's Office of Natural Resources Revenue and includes a 50-percent state share of federal royalties. In any production year, these revenues only accrue if the lessee is mining and producing commodities on federal or state land.

Copper was the largest employer in New Mexico's mining industry, followed by sand and gravel operations, and coal operations. Reported industry payroll (excluding benefits) decreased almost 2 percent from 2022 to \$280.9 million. Overall, reported employment decreased or was maintained in 2023. By category, compared to 2022, direct employment increased 3.5 percent from 3,440 to 3,562 employees; contract employment decreased 5.1 percent from 764 to 725 employees; and reclamation employment increased 56 percent from 182 to 284 employees.

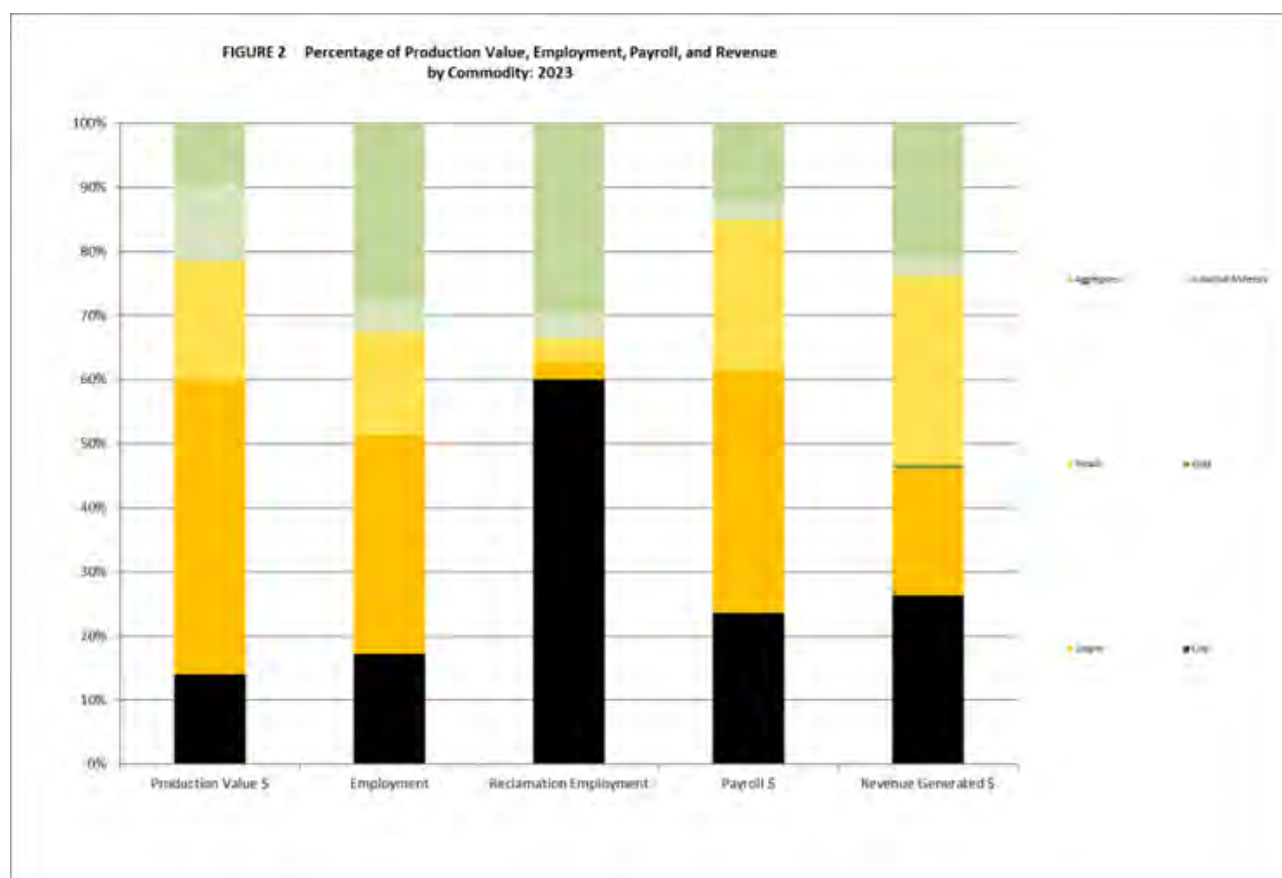




FIGURE 3 New Mexico Mineral Industry Employment, Payroll, and Capital Improvements: 2004-2023

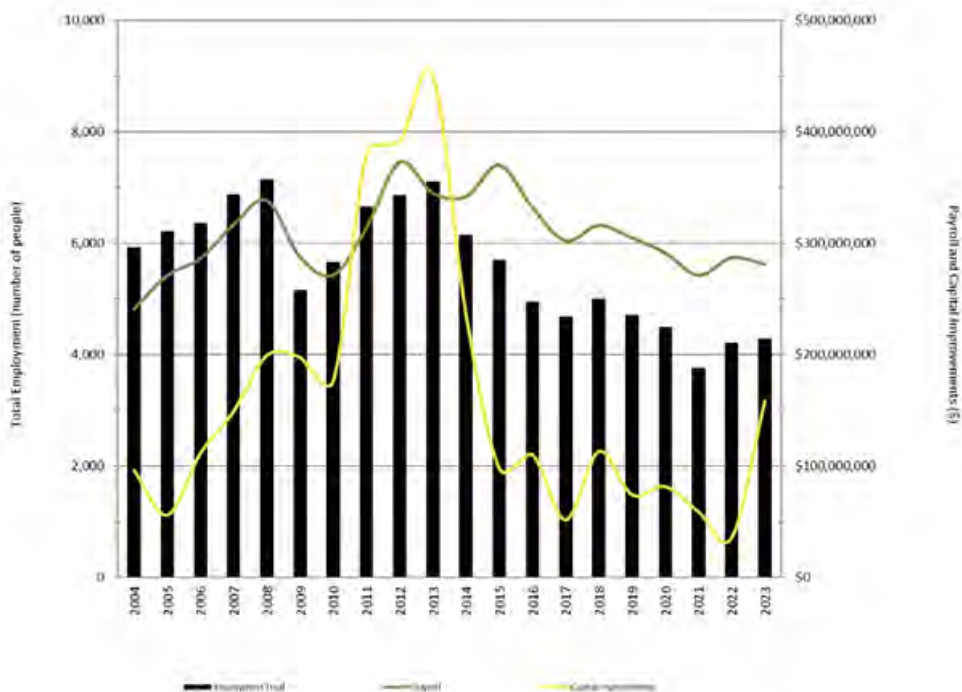
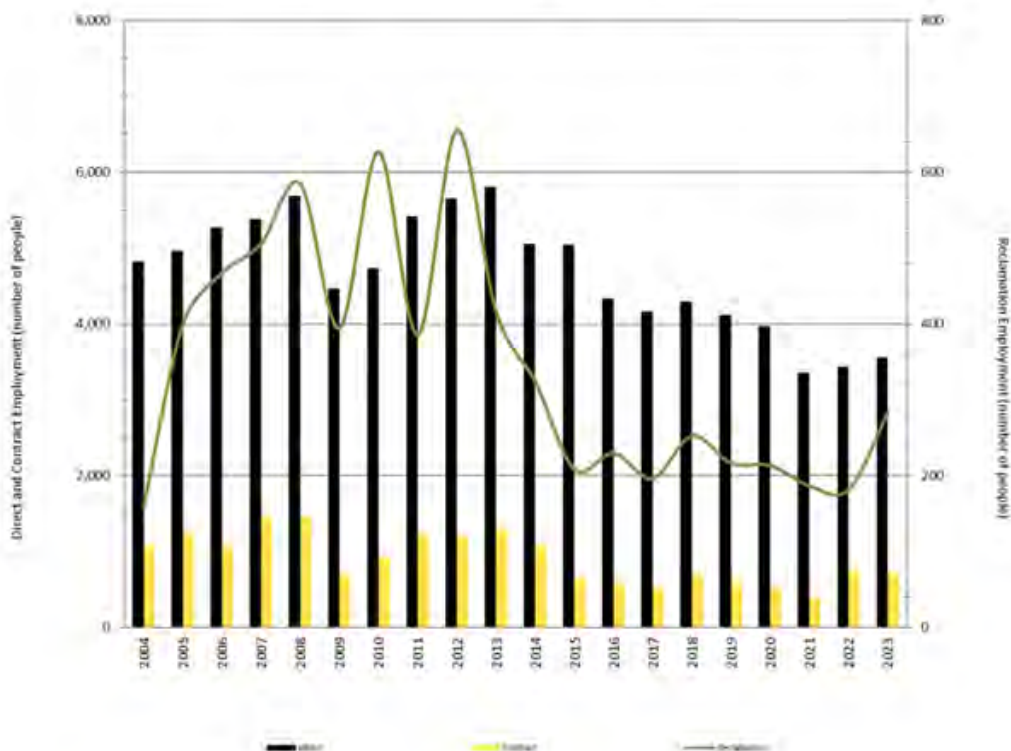


FIGURE 4 New Mexico Mineral Industry Employment: 2004-2023





Active mining and active reclamation-only operations in New Mexico in 2023 numbered approximately 401 including coal mines; potash operations (includes mines, refineries, and compaction plants); metal mines, mills, and solvent extraction and electrowinning (SX/EW – a copper extraction process) operations; industrial mineral mines and mills; stone and aggregate operations; and uranium mine reclamation operations.

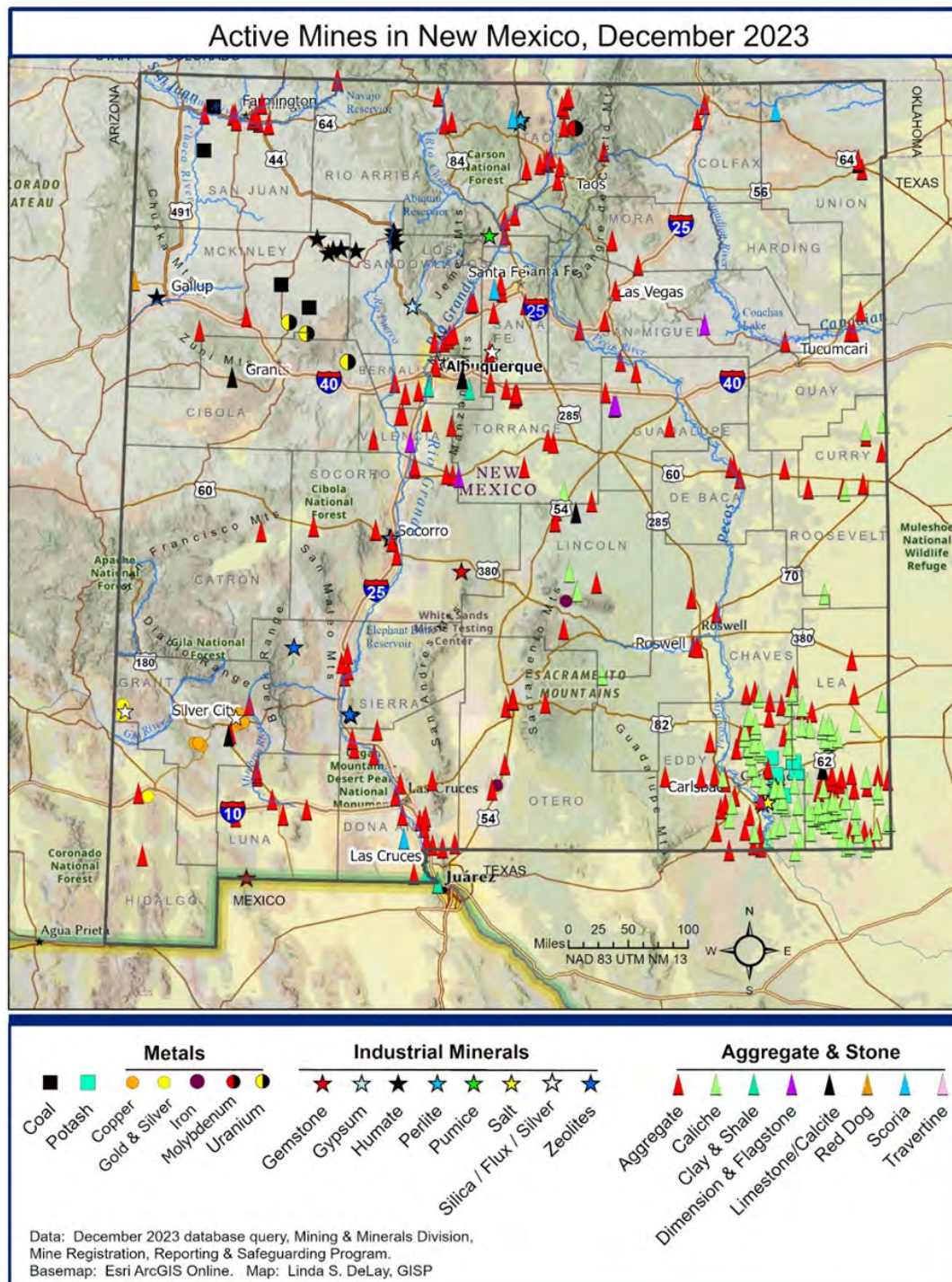


FIGURE 5 NM map of active mines (Any discrepancies are due to mine data run date)



Figures 6 through 10 provide 20-year snapshots of production amounts and sales values for coal, copper, potash, aggregate (base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, riprap, sand, scoria, and topsoil), and industrial minerals (brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite), respectively.

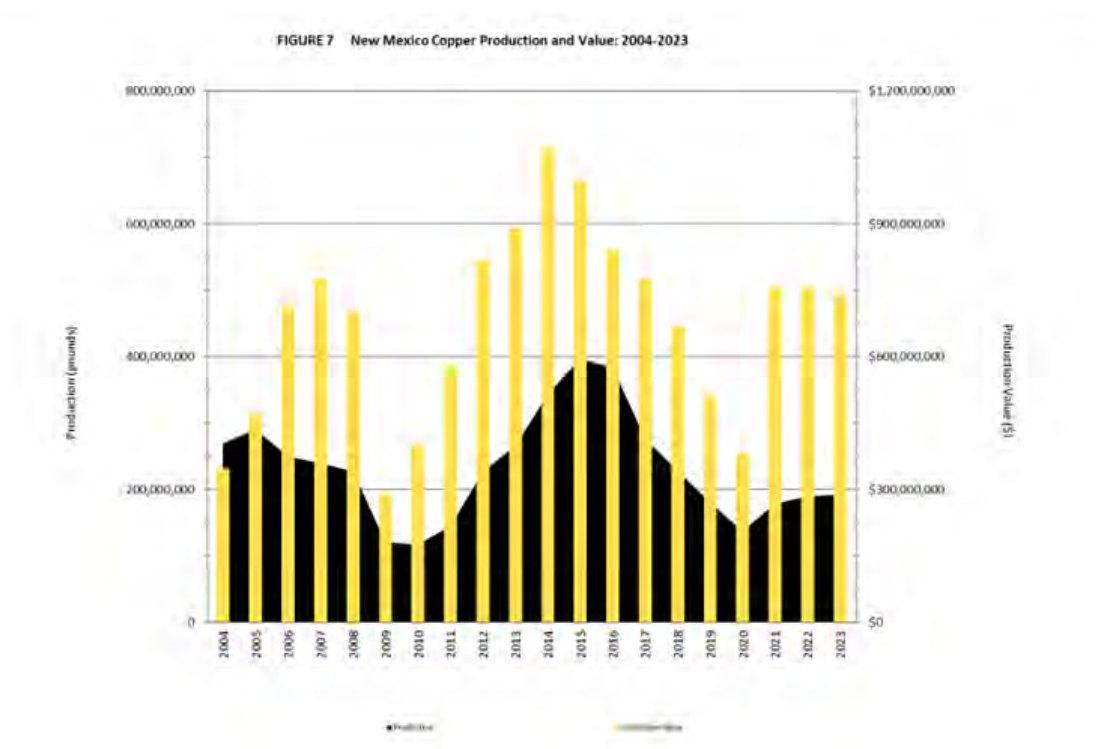
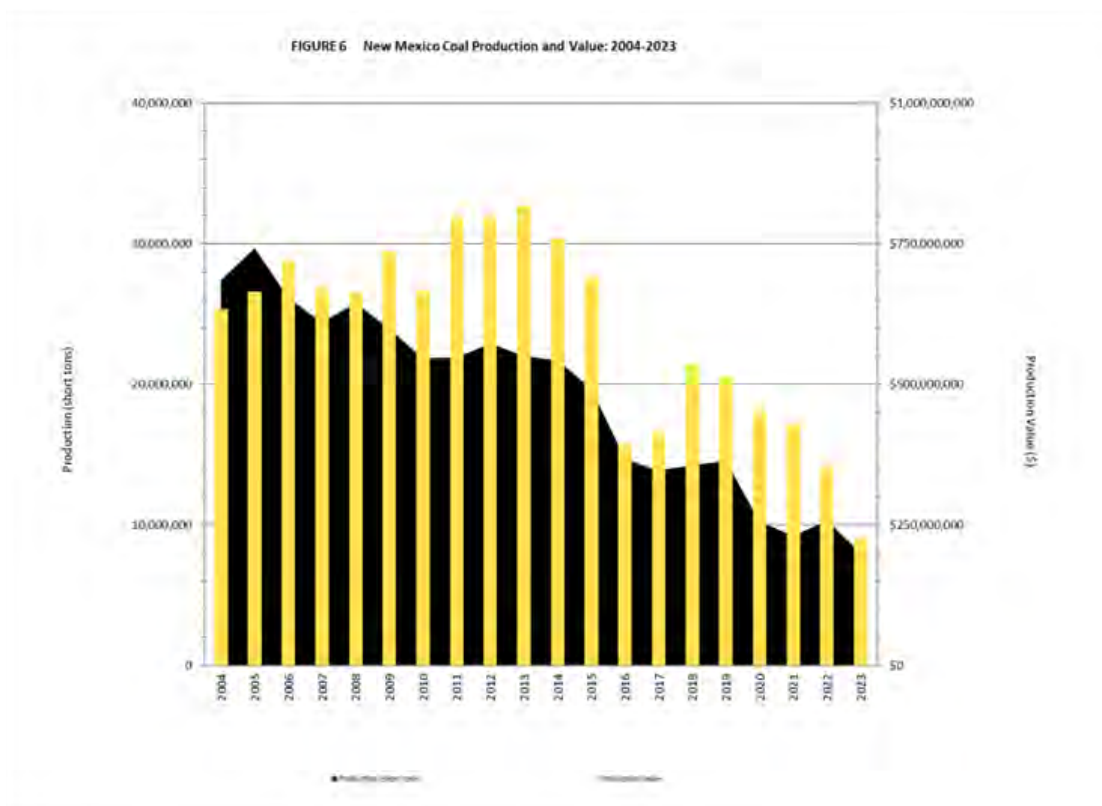




FIGURE 8 New Mexico Potash Production and Value: 2004-2023

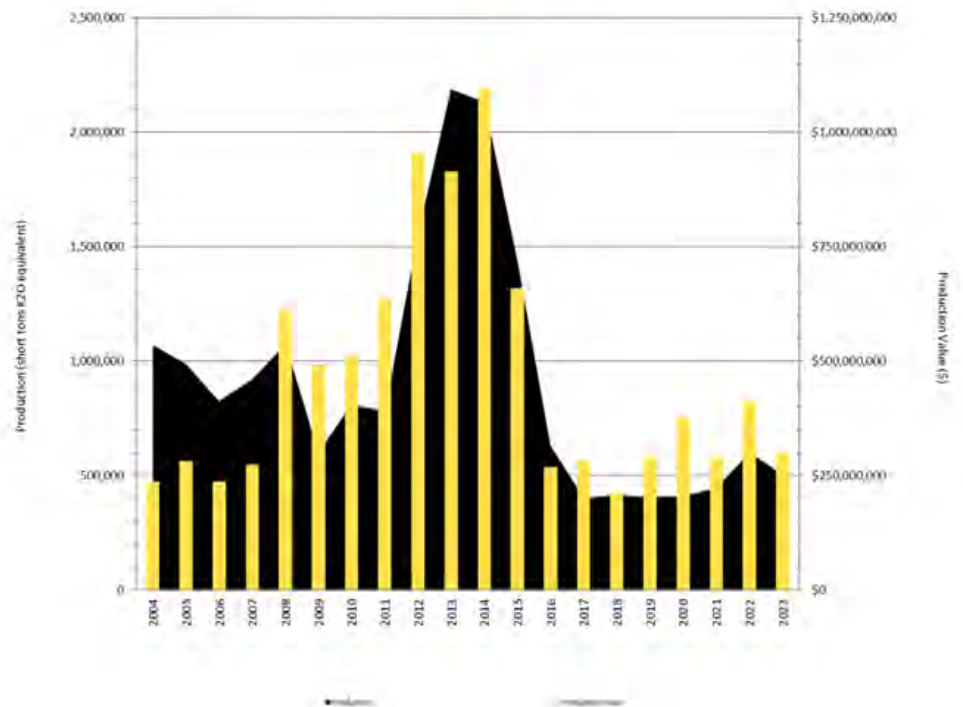


FIGURE 9 New Mexico Aggregate Production and Value: 2004-2023

Aggregate includes base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria, and topsoil

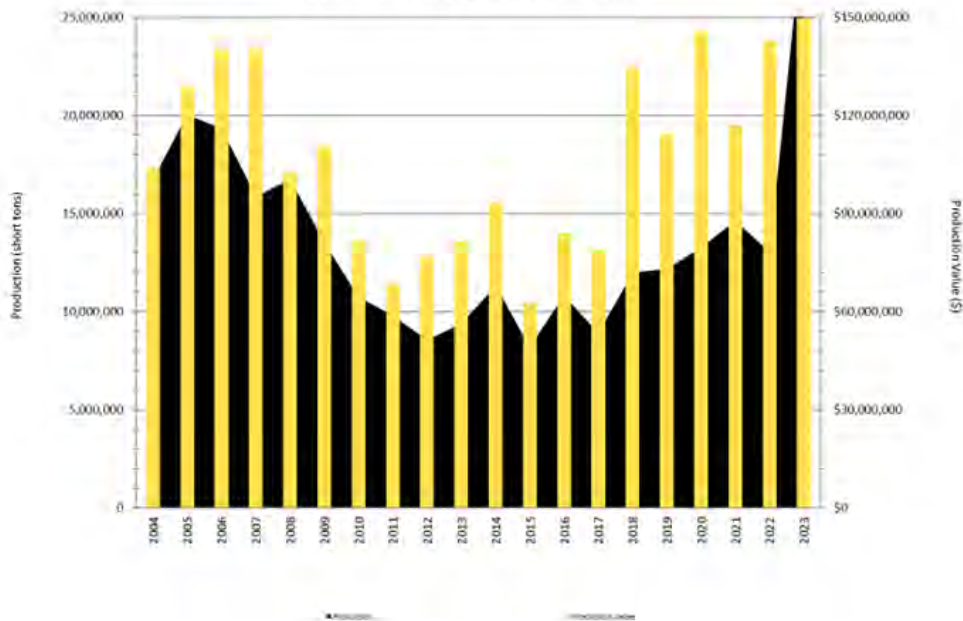
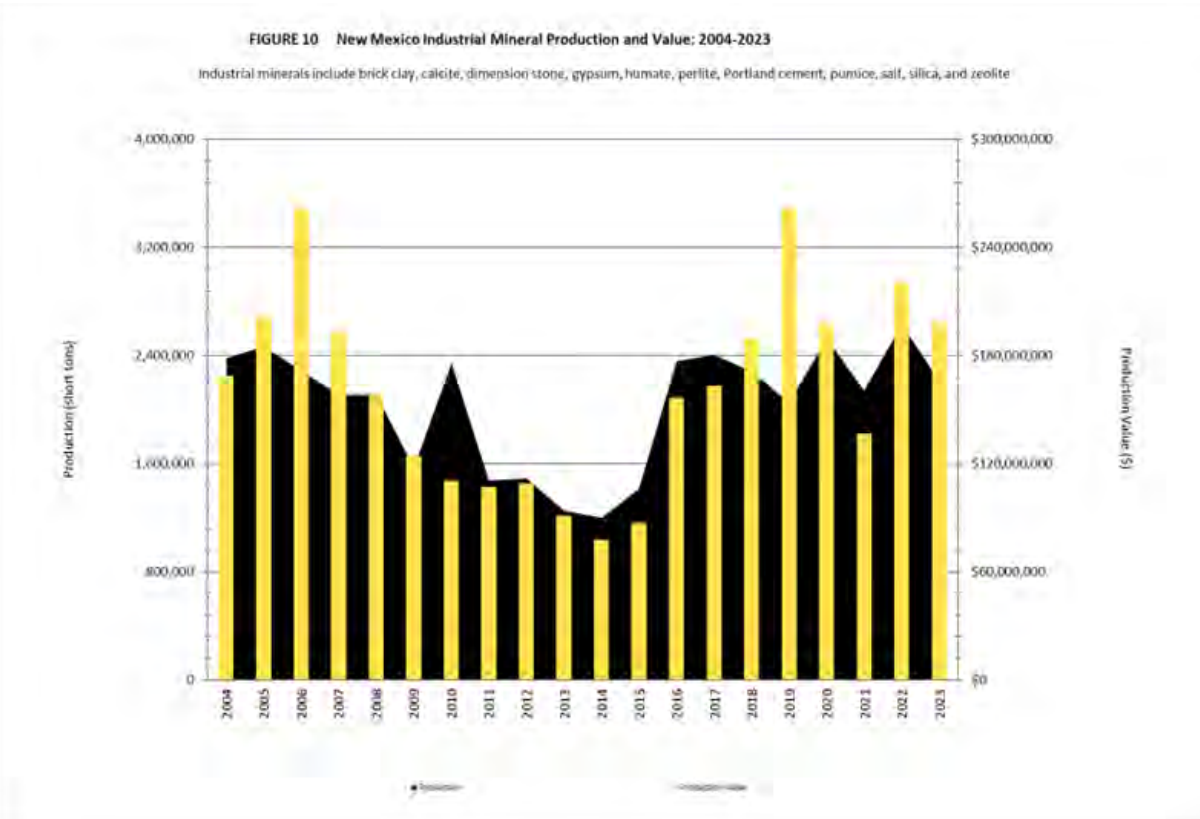




FIGURE 10 New Mexico Industrial Mineral Production and Value: 2004-2023

Industrial minerals include brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite





LETTER FROM THE DIRECTOR

In the past year the Oil Conservation Division (OCD) has once again risen to the challenge of overseeing significant increases in New Mexico oil and gas production, while ensuring that such development occurs in a manner that protects both human health and the environment.

The OCD has been particularly focused on the following:

- Implementing and enforcing its nation-leading waste rules.
- Updating its spill rules and induced seismicity protocol.
- Expanding its program for plugging orphan wells and cleaning up abandoned oil and gas production facilities.

The OCD has received national recognition for these programs—particularly the methane waste rules and the orphan wells plugging initiative. And I continue to be proud that our employees' hard work is being recognized.

An infusion of federal funds, via the Bipartisan Infrastructure Law (BIL), has allowed the OCD to accelerate the rate at which it plugs and remediates orphan wells and associated facilities. The BIL included \$4.8 billion in funding for states to clean up orphan oil and gas sites, with nearly \$100 million destined for New Mexico under the initial and formula grant programs.

New Mexico received a \$25 million initial grant on October 1, 2022. That enabled the plugging of 137 wells during the state's FY23 and FY24. In addition to the wells plugged using BIL funds, the OCD plugged an additional 13 wells in FY23 and 28 wells in FY24 using money from the New Mexico Reclamation Fund, and the Bureau of Land Management (BLM) provided grant funding to plug two wells in FY24.

Four of the wells plugged via the Reclamation Fund were Navajo allotted wells, which OCD plugged at the request of the Federal Indian Minerals Office (FIMO).

The OCD received an additional \$25 million through the BIL formula grant program in June 2024. The funding for these orphan well programs not only protect New Mexico's environment by preventing methane releases and protecting ground water, it also facilitates high-paying jobs in state's the oil and gas industry.

My vision for the Oil Conservation Division is to be an innovative, efficient, and transparent regulator serving the best interests of all New Mexico and ensuring oil and gas development continues to occur responsibly. I am proud of our accomplishments to date and look forward to the work still left to do.



GERASIMOS RAZATOS
Acting Director
Oil Conservation Division





MISSION

The Oil Conservation Division (OCD) regulates oil and gas activity in New Mexico. It gathers oil and gas well production data, permits new oil, gas and injection wells, enforces the division’s rules, develops administrative orders to which operators are subject, enforces the state’s oil and gas statutes, ensures abandoned wells are properly plugged and that the land is responsibly restored once production activities are done. The OCD’s goals are to promote balanced, consistent, fair and transparent regulation of the oil and gas industry, to prevent the waste of oil and gas resources within the state, to protect the correlative rights of resource owners, to foster efficient development, and to protect human health and the environment.

The OCD is organized into five bureaus responsible for different aspects of regulating the oil and gas industry and its approximately 60,000 active wells in New Mexico. The five OCD bureaus are:

- Engineering
- Environmental
- Hearings
- Projects
- Administration

OCD has offices in Hobbs, Artesia, Aztec, Albuquerque, and Santa Fe.

The Oil Conservation Division regulates oil and gas activity in New Mexico. The Division gathers well production data, permits new wells, enforces the division’s rules and the state’s oil and gas statutes, makes certain abandoned wells are properly plugged, and ensures the land is responsibly restored

Over the past several years oil and gas production within the state has increased significantly. In 2022, New Mexico alone was responsible for half of all U.S. production growth, resulting in record high production levels, and that trend continued through 2023 and 2024. The US Energy Information Agency (EIA) estimates Eddy and Lea Counties are responsible for nearly 30% of all oil production growth in the Permian Basin.

NUMBER OF WELLS		
WELL TYPE	APPROVED PERMITS	COMPLETED WELLS*
Carbon Dioxide	734	730
Gas	29,105	26,388
Injection	3,148	3,097
Misc	135	114
Oil	38,339	27,920
Salt Water Disposal	923	818
Water	46	45
Acid Gas Injection	18	15
Total	72,430	59,112

*Active, approved temporarily abandoned, expired temporarily abandoned, and plugged not released status
**Not included in well count total.

NUMBER OF WELLS BY LAND TYPE		
LAND TYPE	APPROVED PERMITS	COMPLETED WELLS*
Federal	42,168	31,233
All Tribal	2,602	2,541
Private	10,862	10,348
State	16,798	14,990
Total	72,430	59,112

*Active, approved temporarily abandoned, expired temporarily abandoned, and plugged not released status

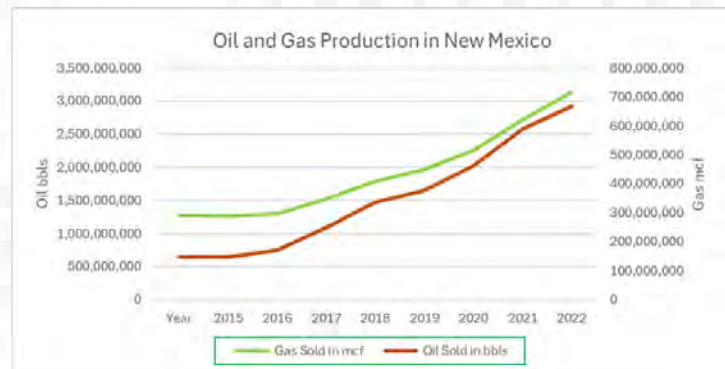


OIL & GAS SOLD BY VOLUME BY CALENDAR YEAR

YEAR	GAS SOLD*	YEAR	OIL SOLD**
2015	1,275,105,301	2015	148,094,993
2016	1,264,414,225	2016	146,633,625
2017	1,294,217,612	2017	172,347,962
2018	1,516,892,565	2018	249,249,982
2019	1,795,463,615	2019	336,542,268
2020	1,967,270,010	2020	376,294,649
2021	2,261,348,796	2021	463,261,037
2022	2,709,040,288	2022	588,028,568
2023	3,128,445,386	2023	667,222,633

*Measured in MCF

**Measured in BBLs



OCD BUREAUS

| ENGINEERING BUREAU

Manages the OCD's administrative permitting, Underground Injection Control (UIC), and inspections programs. The bureau's primary objective is ensuring program goals and regulatory objectives are met. The bureau provides the technical expertise needed to:

- Design and develop programs that address new issues arising from advances in the oil and gas industry.
- Process administrative permit applications pursuant to the New Mexico Oil and Gas Act.
- Act as technical examiners for protested applications and for applications requiring an adjudication process.
- Oversee activities such as application processing for the UIC program.
- Inspecting facilities to ensure industry activities comply with OCD rules and regulations, and do not result in the waste of oil and gas resources while protecting human health and the environment.

The Engineering Bureau monitors and enforces the UIC program in coordination with personnel from the Field Inspections group, who conduct inspections and document conditions for UIC wells.

| ENVIRONMENTAL BUREAU

Manages the administrative permitting, incidents, and projects and compliance programs of the OCD to ensure program goals

and regulatory objectives are met. It enforces both the State's Oil and Gas Act and Water Quality Act to protect public health, groundwater, surface water, and the environment in relation to the activities of the oil and gas industry in New Mexico. This involves complex technical issues of geology, hydrology, and engineering.

| HEARINGS BUREAU

Manages the OCD and Oil Conservation Commission hearings, organizing the dockets for protested applications and for applications requiring an adjudication process, acting as hearing examiners and assisting in the preparation of orders.

| PROJECTS BUREAU

Plans, coordinates, and evaluates the day-to-day operational and administrative activities of multiple OCD programs. Current projects this bureau is managing include the Carlsbad Brine Well remediation project, implementation of the federal orphan well grant programs, establishment of the marginal well plugging program (also federally funded) and any projects assigned by the Engineering and Environmental Bureau program coordinators.

| ADMINISTRATION BUREAU

Manages the administrative compliance program and the administrative functions within the OCD. As part of these responsibilities, the Administration Bureau works with operators to develop agreed upon orders to attain compliance with rules and regulations. The bureau tracks statistics, provides administrative support, tracks operator financial assurance, and production reports.



OCC & RULEMAKING

| OIL CONSERVATION COMMISSION (OCC)

The OCC is a three-member commission chaired by the OCD Director with a designee of the Commissioner of Public Lands and a designee of the Cabinet Secretary of the Energy, Minerals and Natural Resources Department. The OCC promulgates rules governing oil and gas production in New Mexico, conducts hearings on matters of significant interest, and hears appeals of OCD examiner decisions.

| OCD RULEMAKING

The OCD works with representatives from diverse groups to identify areas where rules need to be updated. The Division is actively involved in federal, state, and industry organizations to share information on new technologies and discuss best practices on issues such as hydraulic fracturing and horizontal well drilling. We are committed to promulgating regulations based on science and technology and include university researchers in workgroups as needed for rule modification and development.

In 2023, a third-party petitioner filed a petition for rulemaking that, if granted, would prohibit the use of PFAS chemicals in oil and gas drilling and would impose changes in certain rules concerning disclosure. The Oil Conservation Commission held a hearing on the petition in November 2024. The commission could render a decision in 2025.

OCD PERFORMANCE

| INSPECTION & PLUGGING

In fiscal year 2024, the OCD performed 39,640 inspections on oil and gas wells and facilities out of 59,107 completed wells in the state. Inspections consist of site inspections of oil and gas wells, associated facilities, releases, and general site conditions. UIC well inspections are conducted to meet the goals set by the federal UIC program, overseen by the US Environmental Protection Agency. These inspections are performed to verify wells are operating under the terms of their permits and are tested to ensure integrity of the well bores for the protection of underground sources of drinking water.

The OCD has made great strides in the overall effectiveness of inspections. This has been done by prioritizing inspections using a risk-tiered system. The higher risk inspections include but are not limited to public complaint responses, witnessing well work and testing, and following up on compliance issues. This resulted

in 5,138 compliances issued to operators in fiscal year 2024. In FY24 the OCD plugged 104 abandoned oil and gas wells, exceeding the legislative goal of 50 wells during the fiscal year. This represented a significant increase over prior year and OCD expects to accelerate that pace in the coming year, thanks to the \$25 million in grant funding that came at the end of 2022 and the additional \$25 million in 2024 under the federal Bipartisan Infrastructure Law.

OIL & GAS INSPECTIONS BY YEAR				
	FY21	FY22	FY23	FY24
Yearly Total	35,757	35,757	29,522	39,640

| APPLICATIONS FOR PERMIT TO DRILL

In FY24, the OCD approved 72.82% of all APDs within 10 business days of receipt.

| CARLSBAD BRINE WELL REMEDIATION

Since 2009, EMNRD has been the lead agency in characterizing and monitoring a large and unstable brine well cavern that had threatened a developed portion of the City of Carlsbad in Eddy County. This cavern was created beginning in 1978 when the operator began injecting freshwater into the subsurface salt formation to produce saturated brine used for oil and gas operations. The most recent operator, I&W, went bankrupt while failing to monitor or remediate the cavern.

Given the size and characteristics of the cavern, the potential for catastrophic failure was significant and could have resulted in serious disruption to local infrastructure, tourism, oil and gas logistics, and agriculture, as well as contaminating groundwater. Using the Oil Reclamation Fund and I&W's liquidated bankruptcy estate, OCD completed an assessment of the cavern in 2014 using multiple geophysical techniques. The OCD also installed and maintains an automated ground movement monitoring system integrated directly into the local emergency response infrastructure.

During the 2017 and 2018 legislative sessions a fund to remediate the cavern was established, along with the creation of the Carlsbad Brine Well Remediation Authority, to oversee future actions relating to the brine well. The Authority has representation from the City of Carlsbad, Eddy County, the Carlsbad Irrigation District, the Office of the Attorney General, the Office of the State Engineer, the Department of Transportation, and the Environment Department, with the Secretary of the Energy, Minerals and Natural Resources Department serving as chair.

OCD's contractor successfully completed primary remediation

activities in 2022. In 2023, OCD's focus was on successful brine well depressurization, demobilization, site restoration, the implementation of the post remediation monitoring, and the restoration of prior traffic flow patterns. Active work on site has been completed with the leased parcels restored and returned to the landowners. Monitoring continues for any potential ground movement. Oil and gas exploration and development activities have been allowed to conditionally resume in the area. In 2024, the bulk of activity associated with the brine well was monitoring long-term stability after backfilling was completed. The remaining void has remained stable.

| PLUGGING OF ABANDONED WELLS

Unplugged and improperly plugged oil and gas production wells which are no longer in use can be a source of methane emissions into the atmosphere and potentially impact groundwater. Methane is a potent greenhouse gas adversely contributing to climate change. The OCD requires the operators of idle wells to either properly maintain them or plug them. Unfortunately, a significant number of wells have been abandoned after their operators became financially insolvent.

The OCD can then step in to plug these abandoned wells using the financial assurance that is available along with a portion of the state production severance tax that is provided to the OCD's Reclamation Fund which was specifically created for this purpose. Historically, the OCD had been able to plug about 50 wells each year using the Fund and the small amounts of financial assurance it was able to forfeit in connection with such work. In the most recent year, OCD's cost to plug wells averaged \$164,000 per well, while remediation and reclamation costs are more variable and can cover a wide range from \$50,000 to restore the surface around a plugged well, to several million dollars for the cleanup of large tank batteries with extensive contamination.

In the Fall of 2021, the federal Bipartisan Infrastructure Law was enacted, providing New Mexico and other states a significantly greater amount of funding with which to plug abandoned wells and to remediate and restore associated facilities. New Mexico received an initial grant of \$25M with an additional \$72M to follow. The division currently estimates there are more than 1,700 abandoned wells located on state-owned or private surface.

A separate \$14M grant from the federal Department of Energy and the US Environmental Protection Agency was recently awarded to New Mexico to partner with operators of marginally economic wells with methane leaks where cost sharing with the operator can ensure the safe and permanent plugging of those wells. One of the goals of this program is to expend at least 40% of the funds in socioeconomically disadvantaged communities.

The OCD has also been awarded \$4M from the Bureau of Land Management to plug abandoned wells which previously produced oil and gas from federal mineral leases.



PARTNERSHIPS AND COLLABORATION

| NEW MEXICO PRODUCED WATER RESEARCH CONSORTIUM

The New Mexico Produced Water Consortium is an effort with New Mexico State University, the New Mexico Environment Department (NMED), other state and federal agencies, our national labs, and the private sector to develop a basis for regulating the reuse of produced water outside of the oil and gas industry to ensure protection of public health and the environment. OCD is a member of the Governmental Advisory Board overseeing the Consortium's research and outreach. The Consortium is in its third year of operation and in February of 2022 published its Research



Plan and Gap Analysis for Produced Water Reuse in New Mexico. The plan discusses current needs and challenges in infrastructure planning and development, the collection of water quality data, toxicology, treatment technology performance, cost/benefit analyses, and public outreach. The New Mexico Produced Water Act (Chapter 70 NMSA 1978) requires a person to obtain a permit from the NMED prior to using produced water, even if treated, for activities unrelated to the production of oil and gas. Produced water utilized for completions operations within the oil and gas industry is allowed and regulated by the OCD.

**Data in the chart below represents the amount and types of water that are being used within oil and gas completions operations in New Mexico. Drinking water (water < 1K mg/L) use has steadily decreased since tracking began.*

YEAR	PRODUCED WATER	TDS < 1K MG/L	TDS 1-10K MG/L	TDS > 10K MG/L	TOTAL WATER
FY24	8,565,078,235	640,081,207	2,717,029,962	3,089,833,498	15,012,022,902
FY23	11,804,198,946	751,162,100	4,451,222,892	1,974,215,042	18,980,798,980
FY22	10,773,747,111	1,073,025,670	5,420,686,646	1,076,253,321	18,343,712,748
FY21	4,770,499,985	1,647,963,778	3,300,893,115	357,241,217	10,076,598,095

| NEW MEXICO BUREAU OF GEOLOGY AND MINERAL RESOURCES

The OCD provides funding to the New Mexico Bureau of Geology and Mineral Resources for a variety of projects that assist the OCD. These projects include:

- Development of a 3-dimensional model in ArcGIS of the Pecos Slope and Delaware basin aquifers containing information on the depth to groundwater, water quality, and volume. One of the benefits of this work is to reduce possible interference by the oil and gas industry with freshwater zones not only during the drilling and completion of production wells but also in the investigation and remediation of spills and releases. OCD also provides geologic data for the model from the online library of well logs.
- Mapping of the stratigraphic intervals from the Siluro-Devonian to crystalline basement in the NM portion of the Delaware Basin. This task is achieved through analysis of formation tops interpreted from OCD well logs and completion reports. The project supports the OCD in evaluating and minimizing the potential for induced seismicity.
- A spatial analysis of produced water injection. This project is a companion to the Siluro-Devonian mapping effort and aids in the OCD's ability to quantify and evaluate and further make decisions regarding disposal in the Delaware basin.
- The Bureau's Seismological Observatory for the monitoring and analysis of seismicity and induced seismicity in the NM Permian Basin. Additional seismic monitors have been installed to provide better fidelity of data within specific areas of interest.
- The scanning, cataloguing, and archiving of the OCD's legacy hearing orders dating back to the formation of the division.

| GROUND WATER PROTECTION COUNCIL

The Ground Water Protection Council (GWPC) is a non-profit organization whose members consist of state regulatory agencies working together for the protection and conservation of groundwater. The GWPC promotes effective regulations and the use of best management practices with a focus on matters of energy, water quality, water availability, and sustainability. The GWPC has had a significant impact on national policies in underground injection.

| INTERSTATE OIL & GAS COMPACT COMMISSION

The OCD Director represents New Mexico on the Interstate Oil & Gas Compact Commission (IOGCC) which was chartered in 1935 with New Mexico as a founding member. The Commission works to promote sound regulatory practices for the conservation and efficient recovery of oil and natural gas resources while protecting health, safety, and the environment.

| US ENVIRONMENTAL PROTECTION AGENCY

The EPA funds and provides oversight of the state's UIC program initiated as part of the federal Safe Drinking Water Act. New Mexico has regulatory primacy to permit produced water disposal wells, brine production wells, refinery wastewater disposal wells, and remedial injection wells to ensure the protection of underground sources of drinking water.

| NATIVE AMERICAN COMMUNITIES

When requested, the OCD assists tribal entities on issues of oil and gas development and the response of operators to spills and releases.



LETTER FROM THE DIRECTOR

To the Citizens and Visitors of New Mexico:

As the New Mexico State Parks system completes its 91st year, it's timely to acknowledge that State Parks are a valuable and cherished resource with far-reaching benefits. For example, State Parks play a crucial role in bolstering local, regional, and state economies by offering multifaceted benefits that extend beyond outdoor recreational opportunities, and significantly impact various economic dimensions.

The 35 State Parks found in 25 of 33 counties across the state are vital economic engines, attracting visitors who spend money on entrance fees, camping and park activities. This spending extends to businesses, including hotels, restaurants, concessions, and retail shops, generating substantial economic activity. State Parks can stimulate job creation within the community, from park maintenance and management to service-related positions and capital improvement contracts. Furthermore, local governments benefit from increased sales tax revenues and economic diversification, enhancing the financial stability of smaller villages, towns, and communities.

State Parks contribute significantly to tourism and recreation industries. They serve as focal points for local, regional, and out-of-state tourism, drawing visitors from surrounding areas and creating a ripple effect of economic benefits. This influx of tourists supports regional infrastructure, including transportation networks, hospitality services, and other service industries. Additionally, State Parks can serve as venues for events and festivals that attract large crowds throughout the year, further stimulating regional economic activity. The increased demand for regional resources often leads to investment in infrastructure and service improvements, enhancing the overall quality of life in the region.

State Parks contribute to job creation across a range of sectors such as, environmental conservation and education, tourism, construction, and park management. Additionally, State Parks play a role in enhancing property values, and real estate development due to their attractive natural amenities. Moreover, residents and tourists benefit from improved wellness associated with increased physical activity and mental well-being, as parks promote healthy lifestyles and environmental stewardship.

The diverse landscapes and cultural heritage represented in State Parks are integral to the state's identity, enhance state pride, and offer residents and visitors a connection to the natural and cultural history of New Mexico.

This year, the New Mexico State Parks Division focused on initiatives that would better support and emphasize the economic value of State Parks. The following report reflects the division's accomplishments this year and recognizes the people, partners, and programs dedicated to protecting and enhancing natural and cultural resources, providing first-class recreational and education facilities and opportunities, and promoting public safety to benefit and enrich the lives of visitors.



Sinceramente,

TOBY VELÁSQUEZ
Division Director
State Parks Division



DIVISION OVERVIEW

Established in 1933, the New Mexico State Parks Division has grown into a 35-park system that includes 19 lakes and nearly 189,942 surface acres of land and water. State Parks' mission is to protect and enhance natural and cultural resources, provide first-class recreational and education facilities and opportunities, and promote public safety to benefit and enrich the lives of visitors. State Parks is committed to its mission, which it accomplishes by employing professional, dedicated staff to ensure that parks are cared for and preserved to the highest professional standards. State Park programs provide safe, fun, and educational experiences for the whole family.

State parks can be found in 25 of New Mexico's 33 counties where outdoor recreation is a driving force in New Mexico's economy. Connected to communities statewide, these 35 state parks attract on average 5.0 million visitors each year and are essential economic drivers for local businesses, towns, and cities. Many rural communities rely on a state park as a major source of economic development.



Coyote Creek State Park – First Cabin Campground in the New Mexico State Parks System.

New Mexico State Parks mission is to protect and enhance natural and cultural resources, provide first-class recreational and education facilities, and promote public safety to benefit and enrich the lives of visitors.

STAFFING

328 Full Time & Seasonal Employees comprised of the following:

27

Operations, Administrative & Program Support located in the Santa Fe Office.

153

Field Operations Management at 35 State parks.

10

Operations & Administrative Support at 5 Region offices.

45

Field Operations positions that support up to 138 seasonal hires system wide.

ADMINISTRATIVE SERVICES BUREAU

The Administrative Services Bureau provides program support to personnel and programs that provide administrative, business service, policy, and mission support for the State Parks Division. The bureau is an essential piece of the Division's mission, as it provides staff who ensure that visitors are safe and have great recreational and educational experiences in parks. The bureau offers guidance, review, and support for revenue, visitation, procurement, fixed assets, property acquisition/disposition, telecommunication services, and fleet services. This bureau is a resource for the Division's 41 decentralized locations and departmental program support services and coordinates with other local, state, and federal agencies.

The bureau has six staff members with specializations supporting the Division. However, all work closely together toward the shared mission. The Administrative Service Bureau also issues park passes to the public. State Parks provided 2,157 Veteran Passes to support the Department of Veterans Services' mission to provide free day access to State Parks and three days of camping for New Mexico Resident Veterans rated 50% or more disabled.



Due to its central location in the state, the Santa Fe Office sells many Annual Camping Passes and Annual Day-Use Passes. Last year, State Parks sold passes to over 1,100 visitors at its Santa Fe location. The receptionist handles many daily calls regarding reservations, questions about campsites, the temperature of the water and fishing conditions, and various other questions related to recreating at any of the 35 State Parks.

State Parks participates in an annual auction to dispose of out-of-date, high-mileage property that has been replaced. Last year, the auction brought in \$235,000.00. The auction requires months of preparation and state-wide coordination to be successful.

The Administrative Services Bureau helped bring 31 new full-time employees on board last year. The bureau also helped with efforts to recruit by placing advertisements and participating in career fairs at local colleges and other venues across the state.

The bureau directly supports the Recreational Boating Safety, Education and Law Enforcement statewide programs by seeking out federal funding and overseeing the expenditure of any federal funds received.

The staff provides customer service to the public, including providing information and advise about tourism in New Mexico.

FIELD OPERATIONS BUREAU

The Field Operations Bureau consists of 35 State Parks supported by five region offices each assigned a Region Manager and Region Administrator. The Field Operations Bureau Chief works with the Region Managers to oversee daily administration, management, and operation of State Parks to ensure that park resources, grounds and facilities are maintained, and that services are provided in accordance with established standards. The region offices are critical to success; they serve as the conduit for information transfer between parks and administration.

State Parks made significant progress in recruiting and retaining field personnel in 2024. One successful strategy has been to ensure that all field positions are appropriately classified and compensated for the work they perform. These measures ensure employees are appropriately compensated, which improves recruitment and retention.

In addition to classifying positions appropriately, State Parks increased its presence at career fairs across the state. Division staff participated in career fairs and recruiting events at universities including New Mexico State University, New Mexico Highlands University, and Eastern New Mexico University. The Division also coordinated with the Department of Workforce Solutions to bolster recruitment.

The Field Operations Bureau continues to develop training strategies to ensure institutional knowledge is passed on through the years. The Division continues to hold its annual fall training and a weekly training session for all staff. The weekly sessions are targeted 30-minute trainings focused on a specific topic. These sessions are recorded and added to a training library that staff can access at any time.

In 2024, the State Parks Division completed a study to evaluate park fees. The study revealed New Mexico park fees were significantly lower than neighboring states and were not keeping up with inflation. Division charges and compare them to surrounding states and inflation. This study revealed our fees were significantly behind our neighbors and needed adjustment to keep pace with inflation. Division management used this information to propose a new fee schedule.

An outreach campaign, which included 12 in-person information session around the state, was developed to inform the public about the proposed fee changes. More than 400 people attended the information sessions and more than 900 submitted written comments on the initial fee proposal.

That feedback prompted the division to present a revised fee schedule at second series of information sessions. The revised proposal was well received, and the new fees were scheduled to take effect on January 1, 2025.

The division is now developing an economic impact study of the State Park System. This study will be coordinated with the NMSU Arrowhead Center and will evaluate the economic impact, both at the state and local level, related to visitors coming to state parks.

| LAW ENFORCEMENT AND BOATING SAFETY BUREAU

In 2024, State Parks partnered with the National Safe Boating Council to host the International Boating and Water Safety Summit (IBWSS) for the first time ever in New Mexico. The IBWSS attracted boating safety professionals from all over the world to discuss trends, technology updates and best practices related to boating and water safety.



Manuel Overby, retired Chief, Law Enforcement & Boating Safety Bureau, accepts a plaque on behalf of NM State Parks from the National Safe Boating Council (NSBC) for recognition of the Division's commitment and contribution to recreational boating safety. Photo courtesy: NSBC.

State Parks also partnered with the National Association of State Boating Law Administrators (NASBLA) to host an Officer Water Survival Train-the-Trainer course in Albuquerque. This course is the national standard accepted by the United States Coast Guard to prepare marine law enforcement officers for survival in the water—from either an unexpected fall or an altercation. This course enabled State Parks to certify new instructors and bring new approaches to training from outside agencies and other states.

In addition to NASBLA's Officer Water Survival Instructor course, State Parks delivered two Officer Water Survival courses to twelve law enforcement staff across the state. State Parks also delivered a Boating Under the Influence course that introduced the seated battery of Standardized Field Sobriety Tests to six law enforcement staff across the state.



Rangers entering pool

State Parks delivered its annual Inland Boat Operation and Marine Patrol Fundamentals Course at the Richard Cooper Training Center at Elephant Butte Lake State Park. In recent years this curriculum has become the national standard in training for inland boat

operations and patrol. Through this course, nine state parks employees received instruction in how to safely operate a state parks motorboat.



MEO basic training

Finally, the Law Enforcement and Safety bureau is working with NASBLA to host Boating Incident Investigations training in Carlsbad in January 2025. This course will provide State Parks marine law enforcement officers the opportunity to develop and refine their skills to conduct a thorough and comprehensive recreational boating incident investigation.

Higher than normal run-off levels statewide translated into increased use of other bodies of water outside of and within the State Parks system in 2024. As a result, marine law enforcement officers spent additional time patrolling and educating the public on bodies of water such as the Rio Grande and Chama River, Cochiti Lake, Santa Cruz Lake, Abiquiu Lake, and Carlsbad Lake. In support of statewide recreational boating safety, education, and enforcement, State Parks will continue to work with external agency partners such as the New Mexico State Police, county law enforcement, local fire departments, Army Corps of Engineers, Bureau of Land Management, United States Forest Service, New Mexico Department of Game and Fish, and the Bureau of Reclamation.

This year, park law enforcement officers spent just over 1,000 hours patrolling navigable waters across the state. Some of the highlights from these dedicated efforts include:

- 1,713 Recreational Boating Safety Compliance Inspections
- 285 Vessels Assisted; 798 Persons Assisted
- 44 Boater Education Courses
- 905 Boater Education Students (online and in-person)
- 1,601 Citations Issued



Scott Chalmers, Boating Safety & Education Program Coordinator, presents information on the proper use of a life jacket during a boating safety press conference next to the Rio Grande in Albuquerque.

State Parks continues to upgrade law enforcement field equipment with the purchase of 16 new Law Enforcement vehicles. The emblems have been upgraded on the units which now display the Law Enforcement badge on each door.

The division purchased new firearm accessories and flashlights for all officers. Fifteen new Park Law Enforcement Officers (9 Recruits and 6 laterals) were added with more new hires expected.

The Law Enforcement and Safety Bureau continues to focus on providing growth and training opportunities for officers. Three new general police instructors, 5 Reality Based Training Instructors, and 3 new Boating Crash Investigators were added to the list of certified instructors for the agency.

DESIGN AND DEVELOPMENT BUREAU

The Design and Development Bureau is responsible for the planning, design and construction of park facilities and infrastructure statewide, including park buildings and recreation facilities, roads, trails, and water-wastewater projects. The following are key construction projects from 2024.

| BROAD CANYON RANCH

Feasibility Study

DESCRIPTION: The State Parks Division prepared a feasibility study considering the establishment of a state park at Broad Canyon Ranch, a property owned by State Parks and comprised of three parcels in Doña Ana County along the Rio Grande in southern New Mexico, approximately 20 miles north of Las Cruces. The Feasibility Study assesses natural and cultural resources, potential recreational opportunities, and the suitability of lands for recreational development within each parcel. The study presents three development and management alternatives.

The alternative selected by State Parks involves the development of two parcels as either a day-use state park or a recreation area that functions as a satellite of Leasburg Dam State Park, with multiple non-development options for the third parcel. This alternative meets the Land and Water Conservation Fund (LWCF) goals identified when Broad Canyon Ranch was purchased, which include permanent public access to the property with parking and comfort station, non-intrusive trail alignment with the proposed Rio Grande Trail, and future development of additional trails to support wildlife viewing. This alternative also allows for phased development if State Parks decides to pursue further recreational development of Broad Canyon Ranch in the future.

Total project cost: \$73,185.00



View from Broad Canyon Ranch looking northeast to Selden Hills.

| BOTTOMLESS LAKES STATE PARK

Lea Lake Recreation Area Renovations

DESCRIPTION: This phase of the renovations focused on the campground. Improvements included installation of a new wastewater lift station that services both the campground and the day-use area, along with a new wastewater line from the campground comfort station. New trash receptacles were installed in conjunction with a new trash dumpster enclosure. The electrical service was upgraded and new electrical campsite pedestals along with all the wiring, associated equipment, and enclosures were installed.

Total project cost: \$2,399,758.62



Renovated Lift Station at Lea Lake Recreation Area

| BRANTLEY LAKE STATE PARK

RV Dump Station Septic System

DESCRIPTION: Improvements to the existing RV Dump Station, including abandonment and plugging of two existing monitoring wells, removal and disposal of existing leach field, existing septic tank, and associated piping, and installation of a new 4,000-gallon septic tank and new evapotranspiration pond/leach field. The new system is powered by solar panels.

Total project cost: \$809,641.88



Foreground new 4,000-gal septic tank; background 120 ft by 120 ft evapotranspiration bed, underlain by impermeable liner



Evapotranspiration Bed end view of distribution bundles

| CABALLO LAKE STATE PARK

Upgrade Water Treatment Plant

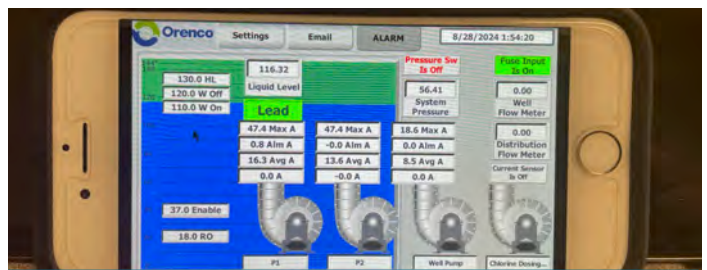
DESCRIPTION: Upgrade of the existing water treatment plant and storage tank adjacent to the Palomino Campground at Caballo Lake State Park. This project involved replacing all the existing distribution supply equipment, including pressure tank, booster pumps, and associated valving, installing a new disinfection treatment system (sodium hypochlorite - NaOCl) and automatic control systems, and repairing the existing 10,000-gallon tank. The water treatment plant operations can now be monitored over a cell phone.

Total project cost: \$420,481.85



At Left: New pressure tanks

At Right: Two new booster pumps and hypo chlorinator



Cellphone display of remote system monitoring showing four pump's operating status and level in storage tank

| COYOTE CREEK STATE PARK

Electrical Upgrades

DESCRIPTION: Electrical system renovations include relocating existing overhead electrical lines that traverse the length of the park to inground service that runs beneath the existing park roads. New transformers, meters, and conductors reconnect the existing and new facilities to the upgraded system.

Total project cost: \$513,153.25

| ELEPHANT BUTTE LAKE STATE PARK

Lakeshore Drive Federal Lands Access Program (FLAP) Project

DESCRIPTION: State Parks, in partnership with the Bureau of Reclamation, and the Federal Highway Administration completed an \$18,800,000 road safety improvement project on Lakeshore Drive at Elephant Butte Lake State Park. Lakeshore Drive is a primary access route for the western side of Elephant Butte Reservoir, which is managed by New Mexico State Parks through a lease from the Bureau of Reclamation.

In addition to providing general access to the reservoir area, this road leads to several recreational areas that are popular with State Park visitors. Those areas include day-use facilities at the

South Monticello Campground and Rock Creek Marina. There also are private residences and businesses located along the road. Lakeshore Road also serves as an alternative route to I-25 in the event the interstate is closed for an emergency.

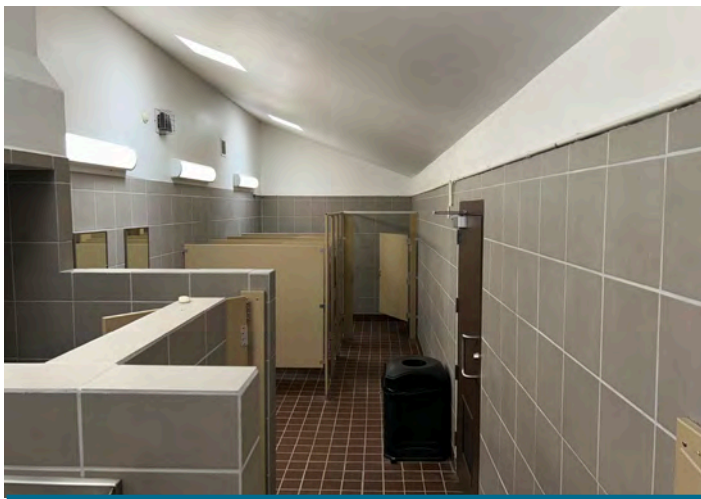
The project replaced undersized culverts at the Hot Springs Landing and Rock Canyon sites with larger box culverts and with a 110-ft-long span bridge at the Cedar Canyon site. The existing culverts at the Long Point site were replaced with a 70-ft-long span bridge and approximately 700 linear feet of the road will be reconstructed west of the current road alignment to straighten the roadway and improve the site distance.

Total Project cost: \$18,800,000

Comfort Station Renovations

DESCRIPTION: This project involved renovation of the comfort stations on Ridge Road and in the Desert Cove Campground, and the demolition of the comfort station at the main entrance because the building was in poor condition and the Division is working on plans to construct a new visitor point of contact at that location. Renovation of the comfort stations included replacement of the plumbing systems including drains and fixtures, new lighting, wall and floor finishes, restroom accessories, fencing, and signage. The Desert Cove comfort station also received a new roof.

Total project cost: \$1,091,336.35



Ridge Road Comfort Station Interior

| FENTON LAKE STATE PARK

Vault Toilet Replacement Phase I

DESCRIPTION: Five vault toilets were replaced on the north side of the park along the main park road and on the south side along Lake Fork Road including a total of two double vaults and three single vaults. The new vault toilets have a solar powered fan for venting and a downward directed low visual impact light for visibility at night. The work also included the installation of

accessible parking at some of the new vault toilet locations, concrete walkways, new bear proof trash receptacles, rock walls, swales and grading for positive drainage and reseeded with native grass mix for all disturbed areas.

Total project cost: \$1,293,981.94



Single vault toilet with sidewalk & trash receptacles



Double vault toilet with Americans with Disabilities Act (ADA) approved parking & trash receptacles

Lake Fork Road Improvements

DESCRIPTION: Regraded road for proper driving surface and drainage, spread, compacted and graded 800 tons of road base. Corrected drainage and cross-slope on the road to the day use area, installed erosion prevention measures and improved driving surface for ease of use and durability. Cut back bank to eliminate rockfall hazard and increase visibility for safety. Established low water crossing at ephemeral stream where culvert had been filled by debris from fire.

Total project cost: \$39,136.06



Lake Fork Road Improvements Looking South

Water Line Installation

DESCRIPTION: A new waterline was installed from the existing well to the shop and office building, water hydrant near day use/boat launch parking area, two park staff mobile homes, hydrants at nearby campground and at the camp host site. The new line was needed due to constant discoloration, leaking and the deteriorating condition of the existing pipes. The work also included replacing the actual water hydrants at day use/boat launch parking area, five campsites and the camp host site.

Total project cost: \$39,136.06

| HERON LAKE STATE PARK

Water Line Replacement

DESCRIPTION: This project involved abandoning and capping an existing 2-inch potable water distribution line that had failed and replacing it with approximately 577 linear feet of new 2-inch DR-11 HDPE water line from the Dam Elevator Shaft House to the Water Treatment Building at Heron Lake State Park. The project included installing approximately 577 linear feet of ¾-inch Schedule 80PVC Conduit Pipe for Electrical Wiring offset from the waterline in the same location.

Total project cost: \$150,621.67



Lake Fork Road Improvements Looking North



Heron Lake Water Treatment Plant in background

| HYDE MEMORIAL STATE PARK

Road Improvements

DESCRIPTION: Regraded roads and parking areas in main campground loop, Overflow Area and Group Shelter 2 for proper driving surface and drainage. Constructed extensive rock and brush check dams throughout Overflow Area to reduce erosion, increase infiltration of stormwater runoff, and create an opportunity to plant native species to improve wildlife habitat. Restored retaining wall and Campsite 31. Replaced culvert and restored bridge at Group Shelter 1.

Total project cost: \$52,218.52



Rock check dams to reduce erosion and increase infiltration of stormwater runoff

| LIVING DESERT ZOO AND GARDENS

Install Fire and Intrusion Alarm Systems

DESCRIPTION: A fire alarm system and intrusion alarm panels for security were installed within the park perimeter. The fire alarm system covers the visitor center, veterinary building, maintenance building, two cat exhibits, two hoof stock barns, animal kitchen and reptiles building and includes twelve months of fire alarm monitoring. The intrusion system includes the installation of intrusion alarm panels on the maintenance buildings, veterinary building and animal kitchen and the replacement of the panel at visitor center. Also includes the installation of cameras in parking lot and front courtyard of visitor center.

Total project cost: \$247,277.00

Door and Hardware Repair and Replacement for Animal Exhibits and Facilities

DESCRIPTION: This work included the repair and replacement of doors, hardware and locks for various animal exhibits, off exhibit

areas, and park facilities including Pronghorn, Bobcat, Mountain Lion, Aviary, Black Bear, Raven, Burrowing Owl, Nocturnal Building, Aviary dock and unloading area, and Animal Kitchen.

Total project cost: \$129,727.42



Cat Off-Exhibit Doors

Electrical and Plumbing Repair work for Animal Exhibits and Visitor Center

DESCRIPTION: This work included the repair and replacement of miscellaneous electrical and plumbing work for animal exhibits and park facilities including heated and automatic water bowls, electrical outlets in exhibit areas, transformer replacement and installation of lightening arrestor for hoof stock barn, bathroom fixture replacements for visitor center public and staff bathrooms, mini split replacement in reptile building, new shutoff valves, water line leaks and breaks throughout park, and repair of various animal exhibit, staff parking area and animal kitchen drains.

Total project cost: \$120,253.24

| OLIVER LEE MEMORIAL STATE PARK

Visitor Center Roof

DESCRIPTION: Replaced the roof on the Visitor Center with TPO membrane and metal roofing.

Total project cost: \$152,966.52

| STORRIE LAKE STATE PARK

Road Improvements

DESCRIPTION: Constructed a new wide radius road lane beyond the visitor center so the left turn to the campground would be easier and safer for visitors with RVs and large camp trailers.

Total project cost: \$18,235.00



New wide radius lane to improve access to the campground

| SUGARITE CANYON STATE PARK

Cabins

DESCRIPTION: This project included the construction of five log cabins in a meadow area off the Wapiti Trail near Lake Maloya. The five log cabins were constructed with standing dead spruce logs set on concrete piers to minimize disturbance to the project site. Each cabin contains four windows, woodstove, sleeping platforms, front porch with railing and a bench, an outdoor area protected by the roof overhang, picnic table, and storage unit for wood. The cabins will have a door with a coded lockset and shutters for safety and protection during off season.

Total project cost: \$1,133,546.07



Cabin Overlooking Lake Maloya



Cabin Interior



Cabin Front Porch

Little Horse Campground

DESCRIPTION: This project included the installation of eleven tent campsites, a parking area with twelve spaces, a single vault toilet, and a natural surface trail along Soda Pocket Road. The tent campsites were constructed along the edge of a meadow area with low modular block walls to create a level area for pitching a tent and each site contains a fire ring, bear proof storage locker, and an identification number post. The parking area, vault toilet and bear proof trash receptacles are located below the tent campsites along Soda Pocket Road and a trail connects the two areas as well as the individual campsites.

Total project cost: \$585,848.11



Little Horse Tent Campsite



Little Horse Tent Campsite

| SUMNER LAKE STATE PARK

Accessible Campsite

DESCRIPTION: This project included the renovation of an existing campsite to upgrade the facilities and make it more accessible. The original gravel driveway and two-pole shelter were removed and replaced with a concrete drive pad and picnic table/shelter pad along with a concrete sidewalk that connected the new shelter with an existing comfort station. A new shelter was built and includes a picnic table, fire ring, and water hydrant. All the site amenities were chosen for maximum accessibility and ease of use. A new upgraded pedestal amp was also installed. New

grading work and the installation of a naturalized channel around the project area facilitate positive drainage.

Total project cost: \$266,742.92



Eastside Campsite Accessibility Upgrade Shelter



Eastside Campsite Accessibility Upgrades

PROGRAM SUPPORT BUREAU

The Program Support Bureau consists of six primary areas of expertise that support state parks, as well as regional and Santa Fe offices. Those areas of support focus on volunteer engagement, natural and cultural resource protection and compliance, outdoor education, business enterprises, workplace safety and loss control, and the Land and Water Conservation Fund (LWCF) federal grant program.

The bureau chief also reviews and tracks research and film permit requests. For 2024, the bureau approved 26 research permits for parks. Most requests were for the Rio Grande Nature Center in the central region, although the northeast region is represented with one at Bluewater Lake and three for Navajo Lake.

This year was also busy for film permit requests at 13, with most associated with New Mexico True and the Tourism Department. One scene for a larger-scale independent film, "Gone in June", was shot along the river at Mesilla Valley Bosque State Park.

| VOLUNTEER PROGRAM

Park volunteers include camp hosts and day volunteers who assist with operational needs, staff visitor centers, provide educational programming, maintain landscape grounds and trails, clean camp sites, assist campers, staff gift shops, and many other critical needs.

This year park visitation increased, and our volunteers returned to the parks with great enthusiasm and effort. State Parks benefited from the work of hundreds of dedicated volunteers who contributed thousands of hours of service to park operations. For example, the volunteers at Rio Grande Nature Center State Park spent many productive hours this year planting young cottonwoods and willows in the park.

In addition, State Parks also received vital support from seventeen park Friends Groups throughout the year. Friends Groups hosted park events and raised funds to complete park projects. These efforts help offset budget and staff shortfalls.



Volunteer planting a Mexican elderberry tree sapling at Rio Grande Nature Center State Park

| RESOURCE PROTECTION

As part of its mission, State Parks documents and preserves the unique cultural and natural resources within its park system. This year, much of the focus was on a series of new, maintenance, and repair projects. State Parks staff and contractors reviewed multiple large and small park projects requiring compliance with various state and federal laws including the National Environmental Policy Act, National Historic Preservation Act, Clean Water Act, Endangered Species Act, and New Mexico's own Cultural Properties Act. In meeting these compliance requirements, Parks Resource Protection staff successfully coordinated with partner and regulatory agencies that were critical to the compliance process, in addition to coordinating with EMNRD's Tribal Liaison for compliance with related federal and state regulations and policies.

In addition to regulatory compliance, State Parks continued important resource protection projects and partnerships with a variety of local, state, and federal entities. For example, State Parks continues to work with the State Historic Preservation Office's SiteWatch program at several parks as a means of further protecting cultural resources. This important program pairs trained volunteers with archaeological sites that are at risk of damage from unauthorized excavations. The volunteers document any new damage at the sites they oversee and pass that information on to the State's Historic Preservation Division and State Parks. State Parks also continues to analyze many of the collections of cultural materials that are on display at various parks. This is an ongoing commitment to ensuring that interpretation is kept fresh and relevant and that the displays are up to date both in terms of information but also in the way they are cared for as new technologies become available to better manage our cultural materials. For example, the State Parks archaeologist and Program Support bureau chief are working closely with Design and Development staff on proposed renovations to the historic U.S. Customs House at Pancho Villa State Park and the historic Oliver Lee Dog Canyon ranch house at Oliver Lee Memorial State Park. Other projects include replacing vault toilets at Fenton Lake State Park, additional parking at the Ute Lake main boat ramp, and new entrance gates and RV turnarounds at Manzano Mountain State Park and Oliver Lee Memorial State Park.



Historic 1902 U.S. Customs House, Pancho Villa State Park

| OUTDOOR EDUCATION PROGRAM

State Parks provide quality outdoor interpretive experiences and educational programming for visitors. In 2024, State Parks had over 450 formal programs presented to over 7,000 park visitors, including the April 3 partial solar eclipse event at those parks with the best viewing in the southeastern portion of the state (e.g., Living Desert Zoo and Gardens, Brantley Lake, Bottomless Lakes). Rio Grande Nature Center, an urban area state park in Albuquerque, alone had 4,700 visitors attend 44 different educational and wildlife programs.

State Park staff also draw on the expertise of two consultants, New Mexico Raptors and the New Mexico Wildlife Center—as well as volunteer groups such as the New Mexico Wildlife Rescue—to provide programming for park visitors and school groups.

NM Raptors provided 15 programs at parks across the state. The New Mexico Wildlife Center returned to providing programs for the parks this year and presented 18 programs at 11 different parks for over 380 kids and adults. The following information highlights just a few of the many special and popular state park outdoor interpretation and education programs that occurred this year:

- Oliver Lee Memorial State Park – Tularosa Elementary School students learning about the natural environment of Sacramento Mountains and Dog Canyon riparian area. The park hosted over 200 area school kids this year, and one group of 34 from the Canon City High School in Canon City, Colorado.
- Rio Grande Nature Center State Park – Albuquerque Public Schools brought 4th graders to the park to study the bosque to better understand water use and conservation. The park is a very popular destination for area schools, and many use the Kids in Parks transportation grants for these trips.
- Ute Lake State Park – Annual Chuck Wagon Cook-off, featuring the State Parks restored historic chuck wagon, always a very popular event in the northeastern part of the state!
- Cerrillos Hills, City of Rocks, Clayton Lake, and Leasburg Dam State Parks – A variety of ongoing Night Sky Programs at their observatories.
- Living Desert Zoo and Gardens – Annual Zoo Camp for kids split over two weeks (July 15-19 and July 22-26) due to public interest, plus two native New Mexican animal awareness events, Vulture Awareness Day on September 7 and Wolf Awareness Week from October 20-26. The fall season at the park also includes the always popular Boo in the Zoo on October 26 for the Halloween season.
- Oasis State Park – The park held its annual Catfish Derby event on August 31, with 122 derby entrants. Prizes were based on weight of the catfish in junior and adult categories.

State Parks was proud to provide the seventeenth year of Kids'n

Parks Transportation Grants, a component of the highly successful New Mexico Outdoor Classroom Program (OCP). Kids 'n Parks gives teachers the opportunity to take their students on field trips to a state park, where hands-on, minds-on experiences introduce and reinforce the standards and benchmarks being taught in the classroom.

State Parks pays the transportation costs of such field trips, fully or in part through an outstanding partnership with the New Mexico Museum of Natural History Foundation and Sandia Mountain Natural History Center. These grants result in lasting partnerships with schools, providing teachers with consistent program planning support. In the 2023–2024 school year, the Kids'n Parks Transportation Grants program awarded \$11,414.15 in grant funds to 15 school districts with awards ranging from \$180–\$2,500. In total, 717 school kids were able to enjoy state parks as part of their school's outdoor education programming, including a group of Taos high school kids at Sugarite Canyon State Park.

State Parks participated in the 6th Annual Girl Scouts Love State Parks national event again this year, which was held September 14–15, 2024. The theme for this year was “Creating a Cleaner Planet.” Seven state park locations offered programs and camping for the scouts over the September weekend, hosting 173 attendees who participated in wildlife and environment events, nature hikes, fishing, and other fun events. The Girl Scouts of New Mexico Trails manager noted that “the feedback on the [follow up] surveys has been very positive, girls loved the Rangers and the beautiful parks and said they had a great time.”

State Parks is proud to partner with the Girl Scouts USA to assist scouts in activities required to earn the Girl Scouts Love the Outdoors Challenge Patch among several other patches.

Today's children truly represent the next generation of outdoor recreation in New Mexico. The knowledge and experience gained through State Parks' OCP will shape the future of resource protection and recreation.



New Mexico Wildlife Center presenting a native animals of New Mexico program at Caballo Lake State Park.



Oliver Lee Memorial State Park hosting a school group from Tularosa Elementary.



Park volunteer Carol Belski and local school kids enjoying their time at Living Desert Zoo and Gardens State Park in Carlsbad for this year's annual Zoo Camp.

BUSINESS ENTERPRISE

State Parks had another successful fiscal year working with the Reserve America online reservation system. State Parks continued to build its online inventory of reservable campsites on Reserve America with a goal of 84% of total campsite inventory available online. Some parks are now at 100% during their busy seasons. This increase was initiated to meet customer demand for making reservations online, and to reduce the amount of cash handling required by park staff.

State Parks through Reserve America accounted for 135,957 resident and 113,786 non-resident visitors, for a total of 249,743 camping visitors to our state parks, with an average stay of 2.67 nights. When in-park onsite camping and day-use visitor tracking numbers are added, more than 5,000,000 individuals visited a New Mexico state park in 2024. Revenue from online reservations and pass sales for FY 2024 was just over \$5.0 million compared to

\$3.6 million in FY 2023. Donations to State Parks through Reserve America were up for FY 2024, with \$35,391 donated compared to \$34,972 in FY 2023.

State Parks thanks everyone that donated through Reserve America. Lastly, the top five parks in total nights booked and revenue generated on Reserve America for FY 2024, in order, are Navajo Lake, Elephant Butte Lake, Caballo Lake, Bottomless Lakes, and Hyde Memorial; the latter two parks are new entrants this year compared to FY 2023. Clearly, New Mexico's lakes, reservoirs, and mountains are top draws for in state and out-of-state visitors. State Parks relies heavily upon relationships with private business concessionaires to provide services that would not otherwise be available. For example, a new operator took over the marina at Elephant Butte Lake State. Peter Meiusi (Marina Vista New Mexico) purchased the existing Marina del Sur operation and immediately began improvements and public welcome events at the marina. Contract and concession businesses generate important additional revenue for the agency.



The new Marina del Sur operator, Marina Vista New Mexico, holding a public welcome event at Marina del Sur on July 27, 2024.

State Parks currently administers 124 contracts and concessions, including 101 fishing and guide permits (who logged 743 trips), four marinas (and two inactive marinas), two boat storage yards, one boat service center, four food/food truck operations, one RV rental through AirBnB, four cell tower leases, one Internet provider, one ski rental shop, two shuttle service, and one septic service.

Total revenue from all contracted and concession sources was \$3,811,460. That breaks down as follows:

- Revenue from fishing guide permits: \$50,300
- Revenue from contracts and concessions: \$1,356,639
- Revenue from Reserve America: \$2,404,521.

These numbers indicate that revenue generated from use of the state parks is holding steady year-over-year.



Park volunteer Carol Belski and local school kids enjoying their time at Living Desert Zoo and Gardens State Park in Carlsbad for this year's annual Zoo Camp.

| SAFETY AND LOSS CONTROL PROGRAM

The Division's Safety and Loss Control Program continued in its leadership role to provide a safe environment for staff and visitors. A new safety and compliance officer is busy conducting safety inspections, reviewing incident reports, and scheduling safety training events for park staff.

The Bureau continues to monitor and improve on all aspects of safety and loss control across the division by carrying out regular physical inspections; providing reporting and follow-up on sub-standard safety practices or conditions; tracking, coordinating, and providing required safety training (e.g., First Aid/CPR/AED); and coordinating with Risk Management on a variety of property loss claims. Overall, this program is critical to the safety of staff and visitors and benefits efforts to reduce and manage excessive property loss and related incidents. Two notable incidents occurred this year that involved the Safety and Loss Control Program, which are unique occurrences.

These are the removal and cleanup efforts associated with the removal of two sunken cars at Bluewater Lake and Bottomless Lakes State Parks. By working with the park staff, NMDOT, State Police, and contractors to safely remove the cars and clean-up minor fluid releases from the car at Bluewater Lake, State Park staff mitigated potential environmental and safety hazard risks at these two parks.



Removal of car from Lazy Lagoon sinkhole at Bottomless Lakes State Park by tying floats to it to raise it 60 feet to the surface.

| LAND AND WATER CONSERVATION FUND

State Parks received its annual stateside apportionment from the Land and Water Conservation Fund (LWCF) administered by the Department of the Interior and the National Park Service for federal fiscal year 2023 in the amount of \$3,193,100 and recently \$3,510,000 for federal fiscal year 2024.

Recent State Parks system infrastructure projects benefit greatly from this program, including campground and infrastructure improvements at Coyote Creek State Park and Eagle Nest State Park. In addition, these funds are used to support the re-establishment of New Mexico's annual LWCF Local Assistance Program, which provides matching funding opportunities to New Mexico municipalities, counties, tribal organizations, and other state subdivisions.

State Parks solicited proposals from eligible entities (state subdivisions and tribes) for the federal fiscal year 2023 and announced the opening of the 2024 application cycle on September 2, 2024. For 2023, State Parks received five applications requesting a total of \$1,589,309 in grant awards that have been reviewed by a scoring committee and are ready for processing by State Parks staff.

Applicants from the 2021 and 2022 rounds who received notices of award from the NPS in 2024, include the following entities:

- The cities and towns of Albuquerque, Bernalillo, Carlsbad, Farmington, Las Cruces, Red River, Santa Rosa, and Socorro
- Curry County



State Parks also processed an LWCF Outdoor Recreation Legacy Partnership (ORLP) program grant of \$858,644 to Albuquerque for its Officer Daniel Webster Park and submitted two applications from Albuquerque and Carlsbad for the most recent ORLP call for applications by the NPS.

MARKETING AND COMMUNICATIONS BUREAU

The Marketing and Communications Bureau coordinates the advertising, marketing, promotional, and public relations efforts of the New Mexico State Parks System. The department currently employs two people in the Santa Fe office, including one Marketing and Public Relations Manager and one Assistant Marketing Manager/Art Director.

Administrative functions include coordinating radio and television public service announcements; preparing and distributing promotional literature; coordinating print and photographic material for publications; cooperation and coordinating with partners such as the New Mexico Department of Tourism.

| ACCOMPLISHMENTS

- Collaborated with the State Parks law enforcement program to fund and successfully complete two 30-second recruitment videos. Both advertisements are currently running on local television stations and websites in English and Spanish.
- Partnered with the State Parks Boating Safety Program to produce public safety messaging for television and radio stations, statewide publications, multiple websites, and social media. In 2024, advertising funding and frequency of messaging was increased to encourage the public to wear life jackets on New Mexico waterways.
- Maintained the State Parks website, which combined with the full EMNRD website, included the following.
 - Total Visitors: 622,970.
 - Unique Visitors: 425,527.
 - Top 3 Park Pages Visited: Elephant Butte Lake, Bottomless Lakes, City of Rocks.
- Social media accounts (Facebook, Instagram, X/Twitter, and YouTube) continue to enhance the image of the parks and promote events and activities. Social media remains the primary means of sharing information and promoting State Parks events. The number of followers continues to increase year to year.

- Total Followers: 80,329 - 2% Increase.
- Facebook Followers: 45,955 - 3% Increase.
- Instagram Followers: 31,880 - 1% Increase.
- X (Twitter) Followers: 2,494 - 1% Increase.
- Distributed the monthly e-newsletter to more than 800,000 subscribers via the Aspira/Reserve America reservation system partnership.
 - Aspira sent 11 newsletters and delivered over 842,000 emails to subscribers.
 - Average unique open rate is 40%, which is above the 37% industry standard.
 - Average unique click rate is 3.12%, which is right around the 2% industry standards.
- Produced an updated State Parks bi-lingual overview brochure to be distributed to all 35 parks and various outlets across the state, including the NMED, Discover Clayton NM, San Juan County, City of Albuquerque, and other tourism-related organizations to inform the public of the amenities and features offered at each park.
 - 70,000 overview brochures distributed
 - 10,000 to NM Tourism Department
- Partnered with Santa Barbara-based Entertainment Marketing Group to develop two educational brochures for children featuring Nickelodeon's Dora the Explorer and a new book called Finding Family about a mallard duckling raised by a pair of loons. This book is a good fit for New Mexico State Parks as the state is one of the major migration routes for hundreds of species of birds and many of our parks feature bird blinds and other wildlife viewing areas. The trifold-style pamphlets contain information about conservation, and outdoor recreation and provide interactive elements such as word finds and puzzles that children can work on with their families.
- Attended trade shows, conferences, and other events as an exhibitor to distribute marketing materials and New Mexico State Park branded giveaway items and to promote the parks. This includes the 2024 New Mexico State Fair which draws an estimated half-million visitors over a 10-day period.

| FUTURE MARKETING EFFORTS

A State Park Ambassador Program is planned to encourage visitors to share their photos, videos, and blogs on social media to assist in promoting the parks. A Passport Program is also in the works to encourage visitors to get a special passport book stamped for each park they visit. Marketing our new and existing campgrounds and facilities will continue to be a priority as we encourage the public to get out and enjoy their State Parks on a year-round basis.

STATE OF NEW MEXICO
COUNTY OF SANTA FE
FIRST JUDICIAL DISTRICT COURT

RAÚL TORREZ, ATTORNEY GENERAL, *ex rel.*
THE STATE OF NEW MEXICO; and the NEW
MEXICO ENERGY, MINERALS, & NATURAL
RESOURCES DEPARTMENT, OIL
CONSERVATION DIVISION,

Case No.:

Plaintiffs,

v.

ACACIA OPERATING COMPANY, LLC; ACACIA
RESOURCES, LLC; REMNANT OIL OPERATING,
LLC; REMNANT OIL COMPANY, LLC; WS OIL
AND GAS, LTD.; FIRST GRAY CORPORATION; RS
RESOURCES, LTD; STITZEL CORPORATION;
GILMORE OIL & GAS, LP; BLUEBIRD ENERGY
CORPORATION; CIBOLO ENERGY RESOURCES,
LLC; SOLIS PARTNERS, LLC; PECOS SLOPE
HOLDINGS, LLC; NEW ERA ENERGY & DIGITAL,
INC.; EVERETT WILLARD GRAY II; ROBERT K.
STITZEL; and MARQUIS REED GILMORE Jr.,

Defendants.

**COMPLAINT FOR CIVIL PENALTIES, RESTITUTION, DAMAGES, AND
DECLARATORY AND INJUNCTIVE RELIEF FOR VIOLATIONS OF THE OIL AND
GAS ACT, UNIFORM VOIDABLE TRANSACTIONS ACT, FRAUD AGAINST
TAXPAYERS ACT, AND FOR UNJUST ENRICHMENT AND CIVIL CONSPIRACY**

COME NOW Plaintiffs the State of New Mexico, by and through Attorney General Raúl Torrez (“New Mexico” or “the State”), and the Oil Conservation Division (“OCD”) of the Energy, Minerals and Natural Resources Department (“EMNRD”) (collectively, “Plaintiffs”), and bring this action against Defendants Acacia Resources, LLC; Acacia Operating Company, LLC (“Acacia Companies” or “Acacia”); Remnant Oil Company, LLC; Remnant Oil Operating, LLC (“Remnant Companies” or “Remnant”); WS Oil and Gas, Ltd.; First Gray Corporation; RS Resources, Ltd.;

Stitzel Corporation; Gilmore Oil & Gas, LP; Bluebird Energy Corporation; Cibolo Energy Resources, LLC; Solis Partners, LLC; Pecos Slope Holdings, LLC; New Era Helium, Inc. and New Era Energy & Digital, Inc. (“New Era”), (collectively, “Corporate Defendants”); and against Defendants Everett Willard Gray II, Robert K. Stitzel, and Marquis Reed Gilmore Jr. (“Individual Defendants”), in their individual capacities, for all remedies recoverable at law or in equity, including for declaratory and injunctive relief, to remedy Defendants’ violations of law.

In support of their Complaint, Plaintiffs state as follows:

I. INTRODUCTION

1. This lawsuit chronicles a fraudulent scheme by three individuals (and a series of shell corporations, LLCs, and partnerships they created) to pocket the revenues from hundreds of oil and gas wells in New Mexico and attempt to dump the associated environmental liabilities on the State and its taxpayers, in violation of New Mexico statutes and regulations.

2. The scheme began with the formation of the Remnant Companies by the three Individual Defendants—Gray, Stitzel, and Gilmore. The Individual Defendants used the Remnant Companies to acquire hundreds of low- and non-producing oil and gas wells in New Mexico, and then drove Remnant into bankruptcy, during which proceedings they attempted to keep Remnant’s best wells, market and sell off wells with the highest overhead costs, and dump the worst wells and their environmental liabilities on the State. Once this plan was foiled by various creditors and the bankruptcy was converted to a liquidation, Gilmore and Stitzel created Acacia to acquire Remnant’s assets for next to nothing.

3. At the same time as Stitzel and Gilmore created Acacia, Gray created Solis Partners to receive Remnant’s best wells. This meant that the most profitable wells from the Remnant portfolio were segregated from the inactive and marginal oil wells in Acacia’s portfolio, thus

ensuring that Acacia would not be able to meet its environmental obligations.

4. The Individual Defendants then sought to achieve through Acacia what they had been unable to execute through the Remnant bankruptcy: having enriched themselves with the profits from Solis Partners' and Acacia's oil and gas production, the Individual Defendants are once again seeking to walk away from the plugging and remediation costs for which Acacia is now liable by attempting to abandon these obligations in Acacia's bankruptcy liquidation, leaving the State of New Mexico on the hook.

5. Importantly, the Individual Defendants, through their individual partnerships, LLCs, and corporations, intentionally underfunded Acacia Resources and Acacia Operating so that those companies could liquidate through bankruptcy and avoid their environmental liabilities when pressed. Those liabilities started to catch up with Acacia in December 2024, when Acacia was sued over a demand to plug just six wells located on State land. Right on schedule and according to plan, Acacia filed for bankruptcy soon afterwards and is currently in the process of liquidation. Now, unless this civil action is successful, most of the remaining wells on private and State land will need to be plugged and remediated at the State's expense.

6. This suit seeks: (i) an assessment of civil penalties under the Oil and Gas Act; (ii) an assessment of civil penalties and damages under the Fraud Against Taxpayers Act; (iii) a declaration that the transfer of the most profitable wells from Acacia to Solis Partners was fraudulent and voidable and should be set aside by this Court; (iv) recovery of whatever value remains in the set of former Remnant wells to satisfy Acacia's well-plugging requirements and other obligations; (v) reimbursement of any costs of plugging and remediation expended by the State on Remnant's and Acacia's wells; (vi) joint and several liability among the Individual Defendants for the financial cost of Remnant's and Acacia's present and future plugging,

remediation, and other environmental liabilities and penalties; and (vii) injunctive relief preventing the perpetrators of this scheme from active operations in the oil and gas industry in New Mexico, unless and until all of Remnant's and Acacia's past, present, and future plugging, remediation, and environmental liabilities are satisfied.

II. PARTIES

7. Plaintiffs are represented by the Honorable Raúl Torrez, Attorney General of the State of New Mexico, who has the statutory authority to enforce laws for the protection of the public and to act on behalf of the State in all actions when the interests of the State require action in his judgment. NMSA 1978, § 8-5-2(B).

8. The Attorney General is specifically authorized to bring suit to enforce the provisions of the Oil and Gas Act. NMSA 1978, § 70-2-28.

9. The Attorney General is also authorized to investigate and prosecute Fraud Against the Taxpayers Act claims under NMSA 1978, § 44-9-4.

10. OCD is statutorily authorized to bring civil actions, including for injunctive relief, for violations of the Oil and Gas Act, NMSA 1978, § 70-2-31, and may seek sanctions such as civil penalties, plugging and remediation of wells, and the forfeiture of financial assurance, 19.15.5.10(B) NMAC.

11. OCD is also statutorily authorized to bring a civil suit against an operator "for indemnification for all costs incurred by the division in plugging the well or restoring and remediating the well site and associated production facilities." NMSA 1978, § 70-2-38(B).

12. Defendant Remnant Oil Company, LLC, is a foreign limited liability company, formed in Texas in January 2016. As of March 14, 2025, Remnant Oil Company is listed as

“inactive” with the Texas Secretary of State and its charter was forfeited under Section 171.302 of the Texas Tax Code.

13. Defendant Remnant Oil Operating, LLC, is a foreign limited liability company, originally formed in Texas in 2015 under the name WS Oil and Gas Operating, LLC, and registered in New Mexico in 2015 as WS Oil and Gas Operating, LLC. WS Oil and Gas Operating changed its name to Remnant Oil Operating, LLC, in 2016. Its registered agent is CT Corporation System, 206 S. Coronado Ave, Española, NM 87532.

14. The Remnant Companies went through a consolidated bankruptcy liquidation that closed on February 3, 2025.

15. The Remnant bankruptcy was reopened on July 22, 2025, in response to the U.S. Trustee’s motion to reopen for the limited purpose of pursuing recovery from a single named creditor.¹ The order reopening the bankruptcy did not reimpose the Section 362 stay on litigation against the debtor.

16. Defendant Acacia Resources, LLC, is a foreign limited liability company, formed in Texas in June 2020 by Houston-based attorney, Harold N. “Hap” May, and registered in New Mexico in July 2020. Its original business address was 1500 South Dairy Ashford, Suite 325, Houston, TX 77077. In 2021, Acacia Resources’ manager changed from Karl Winter (its initial manager) to Reed Gilmore, Jr., who has an 80% interest in this company. Its business address is now 505 N. Big Spring St., Suite 303, Midland, TX 79701. Its registered agent is Corporation Service Company, 110 E. Broadway St., Hobbs, NM 88240.

¹ Order Granting Motion to Reopen Case, *In Re: Remnant Oil Company, LLC*, No. 19-70106-SMR (Bankr. W.D. Tex. July 22, 2025), ECF No. 556. Remnant Oil Operating’s bankruptcy proceedings, No. 19-70107-SMR, was consolidated with the Remnant Oil Company proceedings. Hereinafter, references to the case title, *In Re: Remnant*, refer to the consolidated docket at 19-70106, where the cases are jointly administered.

17. Defendant Acacia Operating Company, LLC, is a domestic limited liability company, formed in New Mexico in August 2020. Its registered agent is Corporation Service Company, 726 E. Michigan Dr., Ste. 101, Hobbs, NM 88240. Its place of business is 1500 Dairy Ashford, Suite 325, Houston, TX 77077. Its articles of incorporation list attorney Hap May as the manager and organizer, and list Acacia Resources as its single member. In July 2022, its mailing and place of business address was changed to 505 N. Spring St., Suite 303, Midland, TX 79701.

18. On December 27, 2024, Acacia Operating Company, LLC, filed for Chapter 7 bankruptcy liquidation in the United States Bankruptcy Court for the Western District of Texas. The Acacia Operating bankruptcy has been assigned Docket No. 24-70194. The Acacia Operating bankruptcy proceeding is ongoing.

19. Also on December 27, 2024, Acacia Resources, LLC, filed for Chapter 7 bankruptcy liquidation in the United States Bankruptcy Court for the Western District of Texas. The Acacia Resources bankruptcy has been assigned Docket No. 24-70195. The Acacia Resources bankruptcy proceeding is ongoing.

20. Defendant WS Oil and Gas Ltd. (a similarly named company to WS Oil and Gas Operating, LLC), is a Texas limited partnership, formed in 2005. Its registered agent is Everett W. Gray II, and its address is 2002 Bedford Dr, Midland, TX 79701. Its general business partner is First Gray Corporation. Upon information and belief, Everett W. Gray II is its limited partner. Sarah R. Hughes-Gray was listed as a member in Public Information Reports up until 2021; she was removed as a member in or before early 2022. WS Oil and Gas owns a one-third interest in both Remnant Companies.

21. Defendant First Gray Corporation is a Texas for-profit corporation, formed in Texas in 2005. Its mailing address is PO Box 5375, Midland, TX 79704. Its registered agent is

Everett W. Gray II. Its physical address is 1302 Ohio, Midland, TX 79701. Its two directors are Everett W. Gray II and Sarah R. Hughes-Gray.

22. Defendant RS Resources Limited is a Texas limited partnership, formed in Texas in December 2015. Its mailing address is 4512 Cardinal Lane, Midland, TX 79707. Its general partner is Stitzel Corporation, also with a mailing address of 4512 Cardinal Lane, Midland, TX 79707. Robert Stitzel is a limited partner. RS Resources owns a one-third interest in both Remnant Companies.

23. Stitzel Corporation is a Texas for-profit corporation, formed in Texas in December 2015. Its registered agent is Robert Stitzel, and its registered office is 4512 Cardinal Lane, Midland, TX 79707. Its two directors are Robert Stitzel and Roxie Stitzel.

24. Gilmore Oil and Gas Limited is a Texas limited partnership, formed in Texas in January 2016. Its registered agent is Marquis Reed Gilmore Jr., and its address is 3410 Bluebird Lane, Midland, TX 79707. Its general partner is Bluebird Energy Corporation. Gilmore Oil and Gas owns a one-third interest in both Remnant Companies.

25. Defendant Bluebird Energy Corporation is a Texas for-profit corporation, formed in Texas in January 2016. Its registered agent is Marquis Reed Gilmore Jr., and its address is 3410 Bluebird Lane, Midland, TX 79707. Its two directors are Reed Gilmore and LuAnn Gilmore.

26. Defendant Cibolo Energy Resources, LLC, is a foreign limited liability company, formed in Texas in December 2019 by sole manager Marquis Reed Gilmore Jr., and registered in New Mexico in July 2020. Its address is 505 North Big Spring Street Suite 303, Midland, TX 79701. Its email address is hap.may@may-firm.com. Its registered agent is Corporation Service Company, 726 E. Michigan Dr., Ste. 101, Hobbs, NM 88240.

27. Defendant Solis Partners, LLC, is a foreign limited liability company, formed in Texas in May 2020, and registered in New Mexico in June 2020. The contact email for the company is will.gray@solispartnersllc.com. Its registered agent is CT Corporation System, 206 S. Coronado Ave, Española, NM 87532. Its mailing address is PO Box 5790, Midland, TX 79704. Recent filings from Solis Partners with OCD show a mailing address of 4501 Santa Rosa Drive, Midland, TX 79707. Solis Partners is a wholly owned subsidiary of New Era Helium, Inc. (aka New Era Energy & Digital, Inc.).

28. Defendant Pecos Slope Holdings, LLC, is a foreign limited liability company, incorporated in Texas in March 2021. It has two mailing addresses: P.O. Box 5375, Midland, TX 79704; and 28012 Palos Verdes Drive, E, Ranchos Palos Verdes, CA 90275. Its registered agent is listed as Everett Willard Gray II, who is also its sole member. Its office address is 2800 N. Garfield St., Midland, TX 79705.

29. Defendant New Era Energy & Digital, Inc., (formerly, New Era Helium, Inc.), is a publicly traded foreign corporation, incorporated in Nevada in June 2024, and headquartered in Texas. The address of its principal executive offices is 4501 Santa Rosa Drive, Midland, TX 79707. New Era Helium was rebranded as New Era Energy & Digital, Inc., in August 2025. New Era's registered agent is VCorp Services, LLC, 701 S. Carson Street Suite 200, Carson City, NV 89701.

30. Defendant Everett Willard Gray II, also known as "Will Gray" and "E. Will Gray," is a resident of Texas. Upon information and belief, he resides at 4501 Santa Rosa Drive, Midland, TX 79707. He also uses P.O. Box 5375, Midland, TX 79704, for business correspondence. Gray is the CEO of New Era Helium, the President, Secretary and Treasurer of New Era Energy & Digital; the manager and sole shareholder of Pecos Slope Holdings; the owner of WS Oil and Gas;

the organizer, CEO, and managing member of Solis Partners; a Director of First Gray Corporation; and the founder and CEO of the Remnant Companies.

31. Defendant Marquis Reed Gilmore, Jr., also known as “Reed Gilmore,” is a resident of Texas. Upon information and belief, he resides at 3410 Bluebird Lane, Midland, TX 79707. Gilmore is a member of Remnant Oil Company, the President of Remnant Oil Operating, and the President and CEO of Acacia Operating. He is also the sole manager of, and an 80% shareholder in, Acacia Resources. He is the Manager of Cibolo Energy Resources and the President of Bluebird Energy Corporation, which is the sole general partner of Gilmore Oil and Gas.

32. Defendant Robert K. Stitzel, also known as “Bob Stitzel,” is a resident of Texas. Upon information and belief, he resides at 4512 Cardinal Lane, Midland, TX 79707. Stitzel is a member of Remnant Oil Company and is the Chief Operating Officer for Acacia Operating. He is a limited partner of RS Resources Limited, and is a director of Stitzel Corporation, which is the general partner of RS Resources Limited.

III. JURISDICTION & VENUE

33. This Court has personal jurisdiction over Corporate Defendants and Individual Defendants because the Defendants’ acts, practices, and conduct that gave rise to this civil action occurred in the State of New Mexico and the Defendants purposefully availed themselves of the benefits of their acts, practices and conduct therein.

34. This Court has subject matter jurisdiction because the claims at issue arose solely under the statutes and common law of the State of New Mexico.

35. Venue is proper in Santa Fe County because Defendants Remnant, Acacia, and Solis Partners are “admitted to do business and . . . maintain a statutory agent in this state” and so suits against those Defendants “shall only be brought in the county where the plaintiff resides.”

NMSA 1978, § 38-3-1(F); *see* NMSA 1978, § 8-5-1 (providing that the office of the Attorney General is located at the seat of government).

IV. FACTUAL ALLEGATIONS

The Problem of Marginal and Inactive Oil and Gas Wells; Defendants' General Practices

36. Plaintiffs re-allege and incorporate the allegations set forth above.

37. The average productive life cycle of a conventional oil and gas well is between 20 and 30 years. Over the course of a well's profitable production cycle, oil and gas production steadily dwindles, and the wells become decreasingly profitable. Near the end of their life cycle, wells that are still producing small amounts of oil and gas but that are not yet inactive are called marginal wells, or "stripper" wells.²

38. New Mexico regulations define a "[s]tripper well property" as "an oil producing property" that, during the preceding year, "produced a daily average of less than 10 barrels of oil . . . per day," or "a gas producing property" that "produced a daily average of less than 60,000 cubic feet of gas . . . per day." 19.15.6.7(M) NMAC.³ If a well produces both oil and gas, then a stripper well is one with "a daily average of less than 10 barrels of oil . . . per day . . . , as determined by converting the volume of gas the well produced to barrels of oil by using a ratio of 6000 cubic feet to one barrel of oil." *Id.*⁴

39. Marginal and inactive oil and gas wells are capable of emitting toxic and hazardous gases such as methane and hydrogen sulfide, as well as volatile organic compounds, including

² United States Environmental Protection Agency (EPA), *Marginal Conventional Wells*, <https://www.epa.gov/natural-gas-star-program/marginal-conventional-wells> (last visited June 12, 2025).

³ The United States Internal Revenue Service defines a stripper well property as one that produces 15 or less barrels-of-oil equivalent per day. 26 U.S.C. § 613A(c)(6)(E).

⁴ Because one barrel of oil is roughly equivalent to 6,000 cubic feet (6 MCF) of natural gas, an industry standard is to compare a well's natural gas production with oil production by dividing the number of MCF of gas by six: this gives a "barrel of oil equivalent" (BOE) unit.

benzene and toluene.⁵ These emissions present major public health threats, because exposure to volatile organic compounds such as benzene has been linked to increased risks for leukemia, asthma, and low birth weight.⁶ While the health impact of living near marginal wells has not been fully studied, living in proximity to producing wells is correlated with worse respiratory, cardiovascular, and reproductive outcomes.⁷

40. Marginal and inactive wells also pose a major threat to public safety through the pollution of groundwater: Gas from abandoned wells can leak into tap water, causing a risk of explosion⁸; improperly plugged wells in the vicinity of injection wells have repeatedly contaminated groundwater with toxic levels of injected fluids⁹; and degraded well casing or cement can leak oil, gas, drilling mud, or salty water into the groundwater or up to the surface.¹⁰

⁵ J.A. Deighton et al., *Measurements show that marginal wells are a disproportionate source of methane relative to production*, 70 J. OF AIR & WASTE MGMT ASS'N 10, 1030 (Sept. 3, 2020), <https://doi.org/10.1080/10962247.2020.1808115>; EPA, *Marginal Conventional Wells*, <https://www.epa.gov/natural-gas-star-program/marginal-conventional-wells> (last visited July 15, 2025) (citing R. Bowers, *Quantification of Methane Emissions from Marginal (Low Production Rate) Oil and Natural Gas Wells* (2022)); Townsend-Small et al., *High rates of hydrogen sulfide emissions measured from marginal oil wells near Austin and San Antonio, Texas*, 6 ENVIRON. RES. COMMUN. 9, 5, <https://doi.org/10.1088/2515-7620/ad75f0>.

⁶ Ningrui Liu et al., *Health effects of exposure to indoor volatile organic compounds from 1980 to 2017: A systematic review and meta-analysis*, 32 INDOOR AIR 5 (May 2022), <https://onlinelibrary.wiley.com/doi/10.1111/ina.13038>.

⁷ J.E. Johnston et al., *Respiratory health, pulmonary function and local engagement in urban communities near oil development*, 197 ENVIRON. RES. J., 7 (June 2021), <https://doi.org/10.1016/j.envres.2021.111088>; J.E. Johnston et al., *Cardiovascular health and proximity to urban oil drilling in Los Angeles, California*, 34 J. EXPO. SCI. ENVIRON. EPIDEMIOL., 508 (Aug. 8, 2023), <https://doi.org/10.1038/s41370-023-00589-z>; V.D. Balise et al., *Systematic review of the association between oil and natural gas extraction processes and human reproduction*, 106 FERTIL. STERIL. 4, 817 (Sept. 15, 2016), <http://dx.doi.org/10.1016/j.fertnstert.2016.07.1099>.

⁸ Nicholas Kusnetz, PROPUBLICA, *Deteriorating Oil and Gas Wells Threaten Drinking Water Across the Country* (Apr. 4, 2011), <https://www.scientificamerican.com/article/deteriorating-oil-gas-wells-threatening-americas-drinking-water/>.

⁹ Abrahm Lustgarten, PROPUBLICA, *Injection Wells: The Poison Beneath Us* (June 21, 2012), <https://www.propublica.org/article/injection-wells-the-poison-beneath-us> (“When injection wells intersect with fracked wells and abandoned wells, the combined effect is that many of the natural protections assumed to be provided by deep underground geology no longer exist.”); see also Government Accountability Office, *Drinking Water Safeguards Are Not Preventing Contamination from Injected Oil and Gas Wastes* (July 1989), <https://www.gao.gov/assets/rced-89-97.pdf>.

¹⁰ E. Allison and B. Mandler, AMERICAN GEOSCIENCES INSTITUTE, *Abandoned Wells: What Happens to oil and gas wells when they are no longer productive?* (2018), <https://profession.americangeosciences.org/reports/petroleum-environment-2018/abandoned-wells> (citing Ground Water Protection Council, *State Oil and Gas Agency Groundwater Investigations and Their Role in Advancing Regulatory Reforms – A Two-State Review: Ohio and Texas* (2011), <https://www.documentcloud.org/documents/20462569-state-oil-gas-agency-groundwater-investigations/>); New

41. For example, one of Acacia’s wells (North Square Unit #198; API #30-015-33047) was found to be leaking produced water on top of a historical oil spill in 2023:



*Fig. 1: Photograph of North Square Unit #198 (API #30-015-33047), Charlie Barrett, Nov. 29, 2023.*¹¹

42. Other allegedly “active” Acacia wells show both historic and recent staining and soil contamination:

Mexico Energy, Minerals and Natural Resources Division (EMNRD), *Annual Report 2024* at 58, https://www.emnrd.nm.gov/officeofsecretary/wp-content/uploads/sites/2/emnrd_annual_report_2024.pdf.

¹¹ See Charlie Barrett, Earthworks, *How Enforcement of Oil & Gas Pollution Should Work!* (Dec. 15, 2023), <https://earthworks.org/blog/how-enforcement-of-oil-gas-pollution-should-work/>.



Fig. 2: Photograph of North Square Unit #124 (API # 30-015-24580), Charlie Barrett, Aug. 13, 2025.



Fig. 3: Photograph of North Square Lake Unit # 125 (API #30-015-04945), Charlie Barrett, Aug. 13, 2025.

43. Although marginal wells produce a very small share of oil and gas in the United States, they make an outsized contribution to oil and gas methane emissions.¹² In New Mexico, an average unplugged well emits roughly 120 kg of methane each year, while an average plugged well emits less than 0.1 kg per year.¹³

44. Methane emissions from inactive wells also contribute substantially to climate change, given that methane traps 82.5 times as much heat in the atmosphere as the same amount of carbon dioxide over a twenty-year period.¹⁴

¹² See, e.g., Mark Omara et al., *Methane emissions from US low production oil and natural gas well sites*, 13 NATURE COMMS. 2085 (Apr. 19, 2022), <https://doi.org/10.1038/s41467-022-29709-3> (defining “low production well sites” as producing ≤ 15 BOE per day, and concluding that the cumulative methane emissions of low production wells sites “account for about one-half . . . of US O&G production site CH₄ emissions”); J.A. Deighton et al., *Measurements show that marginal wells are a disproportionate source of methane relative to production*, 70 J. OF AIR & WASTE MGMT ASS’N 10, 1030 (Sept. 3, 2020), <https://doi.org/10.1080/10962247.2020.1808115> (“We estimate that oil and gas wells in this lowest production category emit approximately 11% of total annual CH₄ from oil and gas production in the EPA greenhouse gas inventory, although they produce about 0.2% of oil and 0.4% of gas in the US per year.”); Amy Townsend-Small et al., *Emissions of coalbed and natural gas methane from abandoned oil and gas wells in the United States*, 43 GEOPHYSICAL RESEARCH LETTERS 5, 2289 (Mar. 2016), <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2015GL067623> (“Our . . . estimate indicates that including abandoned oil and gas wells in the inventory would increase national CH₄ emissions from oil and gas activity by 1.9-4.3%.”).

¹³ See Tianyang Lei et al., *A global inventory of methane emissions from abandoned oil and gas wells and possible mitigation pathways*, 12 NATIONAL SCIENCE REVIEW 7, 9 (July 2025), <https://doi.org/10.1093/nsr/nwaf184> (citing Supplementary Data for New Mexico, calculated by converting the methane emission factor inventories for the average New Mexico well, measured in grams per hour, to emissions amounts in kilograms per year, <https://academic.oup.com/nsr/article/12/7/nwaf184/8137905#supplementary-data>); see also EPA, *Inventory of Greenhouse Gas Emissions and Sinks 1990-2022* at 3-117 (2024), https://www.epa.gov/system/files/documents/2024-04/us-ghg-inventory-2024-main-text_04-18-2024.pdf.

¹⁴ P. Forster et al., Intergovernmental Panel on Climate Change, *The Earth’s Energy Budget, Climate Feedbacks and Climate Sensitivity*, Chapter 7 in *Climate Change 2021 – The Physical Science Basis: Working Group I Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* at 923–1054, 1017 CAMBRIDGE UNIVERSITY PRESS (2023), <https://www.ipcc.ch/report/ar6/wg1/chapter/chapter-7/>; New Mexico Environment Department, *New Mexico Oil and Gas Greenhouse Gas Emissions Inventory for Year 2020* at 11 (Aug. 31, 2022), <https://www.env.nm.gov/air-quality/wp-content/uploads/sites/2/2022/12/NewMexico-2020-Oil-and-Gas-GreenhouseGas-Inventory-2022-08-31.pdf> (listing inactive oil and gas wells as a category of industry for which NMED monitors greenhouse gas emissions).

45. Methane poses hazards to human health and is a primary contributor to ground-level ozone formation (colloquially known as “smog”), which is linked with reduced lung function, asthma, and early death from respiratory and cardiovascular disease.¹⁵

46. Upon information and belief, several of Acacia’s wells currently emit natural gas, including methane, and have emitted hydrogen sulfide in the past. For example, the North Square Lake Unit #198 well pictured in Figure 1, *supra*, triggered a hydrogen sulfide monitor alarm set for 20 parts per million,¹⁶ before the leak was addressed by OCD inspectors.

47. Forward Looking Infrared (FLIR) Optical Gas Imaging (OGI) camera readings taken on August 14, 2025, showed another of Acacia’s wells emitting natural gas, though these emissions are invisible to the naked eye. *Compare* Fig. 4, *with* Fig. 5, *infra*.¹⁷



Fig. 4: Photograph of Pumpjack at South Red Lake II Unit #57 (API # 30-015-36116), Charlie Barrett, Aug. 14, 2025.

¹⁵ United Nations Environment Programme, *Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions* (2021), https://www.ccacoalition.org/sites/default/files/resources//2021_Global-Methane_Assessment_full_0.pdf.

¹⁶ The U.S. Occupational Safety and Health Administration (“OSHA”) advises that 20ppm is the general industry ceiling limit for hydrogen sulfide exposure. See OSHA, *Hydrogen Sulfide: Hazards*, <https://www.osha.gov/hydrogen-sulfide/hazards> (stating that exposure to 20ppm hydrogen sulfide may cause “fatigue, loss of appetite, headache, irritability, poor memory, [and] dizziness”).

¹⁷ FLIR imaging cameras are capable of detecting hydrocarbon compounds such as methane and other harmful volatile organic compounds such as benzene. Earthworks, *FLIR Gasfinder 32 Optical Gas Imaging Camera* (June 17, 2025), <https://earthworks.org/resources/flir-gasfinder-320-infrared-camera/>.



Fig. 5: Stills from FLIR Video of South Red Lake II Unit #57, Charlie Barrett, Aug. 14, 2025.

48. The emissions shown from the well pictured in Figures 4 and 5 are not an anomaly. This well has been emitting significant amounts of natural gas since at least November 2023. See Earthworks, *Remnant Oil Operating – South Red Lake II Unit 57, Eddy County, NM (November 2023)* (filmed Nov. 28, 2023), <https://youtu.be/SzrnzN374Us?si=W2fhm7luBEoQ61QZ>. After the August 14, 2025 site visit, investigators returned to document emissions from this well again on September 28, 2025, and October 29, 2025: on both those occasions, too, the well showed emissions.

49. In March 2025, one of Acacia’s inactive wells (Tolmac State #002, API #30-005-61551) was discovered to have a significant methane leak, and OCD issued an emergency plugging order so that it could plug the well using money from the Oil and Gas Reclamation Fund. See also ¶ 62, *infra*.

50. Remnant’s (and now Acacia’s) well inventory has been harming New Mexico’s environment—both its soil and air quality—over the course of many years, and will continue to do so until the wells are plugged.

51. Like other states, New Mexico requires inactive wells to be plugged and remediated within a certain time period, as detailed more fully below.

52. An oil and gas operator’s duty to plug an oil and gas well and reclaim and remediate the site at the end of its productive life can also be called an asset retirement obligation (“ARO”). AROs are often referred to as “plugging and abandonment” or “P&A” obligations. AROs have existed under the common law and have been codified in New Mexico statutes since 1935, when the Oil and Gas Act created OCD and empowered it to make rules to require the plugging and reclamation of oil and gas wells. N.M. Laws 1935, Ch. 78 § 10(1).

53. Unfortunately, some oil and gas operators do not take their AROs seriously. Instead, after drilling and operating the wells, these bad actors transfer their declining wells to smaller operators, who similarly operate the wells for a time before sending them to even smaller operators.

54. Knowing they can easily pass the buck, these companies deliberately neglect to account for, or maintain sufficient funds in reserve for, plugging and abandonment. Money that should be earmarked for well-plugging is instead used for other purposes, such as being paid out in distributions to owners or dividends to shareholders. At some point, the value of the remaining oil and gas revenues for a well invariably falls below its clean-up costs.¹⁸

55. As explained in more detail below, the cost of complying with AROs is reasonably calculable, foreseeable, and should be accounted for by oil and gas operators from the moment a well is drilled: the industry group, the New Mexico Oil and Gas Association, publicly acknowledges the importance of AROs, noting on its website that “[a]fter production operations are complete, well plugging, facility decommissioning, and site reclamation are essential.”¹⁹ These

¹⁸ See generally, EPA, *Regulatory Impact Analysis of the Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review*, 4-20 (Dec. 2023), https://www.epa.gov/system/files/documents/2023-12/eo12866_oil-and-gas-nsps-egclimate-review-2060-av16-ria-20231130.pdf.

¹⁹ New Mexico Oil and Gas Association, *The Reclamation Fund*, https://www.nmoga.org/issue_reclamation_fund (last visited Oct. 7, 2025).

duties are well known to the oil and gas industry at large, and well known to oil and gas operators in particular.

56. As also detailed below, Remnant's and Acacia's officers knew about these obligations, but declined to meet them while their oil and gas wells were producing economic value. Then, using the bankruptcy proceedings as cover, redistributed the producing wells while attempting to orphan the non-producing wells to the State.

Regulatory Background

57. As in other states, New Mexico's Oil and Gas Act and its implementing regulations require that, once a well has been inactive for a certain period of time, its operator must plug and remediate the well to mitigate environmental harms. Specifically, oil and gas operators have a duty to "either properly plug and abandon a well or place the well in approved temporary abandonment in accordance with 19.15.25 NMAC within 90 days after . . . a period of one year in which a well has been continuously inactive." 19.15.25.8(B) NMAC.

58. Relevant here, operators of between 101 and 500 wells are out of compliance with OCD regulations if they have more than five wells out of compliance with the plugging requirements of 19.15.25.8 NMAC. *See* 19.15.5.9(A) NMAC.

59. For OCD to determine whether a well is inactive and what an operator's appropriate bonding requirements are, operators are required to report their wells' production on a monthly basis to OCD. 19.15.7.24 NMAC. This reporting informs OCD's list of inactive wells, which is updated daily.²⁰ 19.15.5.9(B) NMAC; *see* <https://wwwapps.emnrd.nm.gov/oed/oedpermitting/>

²⁰ OCD includes wells on its inactive well list that: have shown no production or injection for the last 15 months; are not plugged in accordance with 19.15.25.9–11 NMAC; are not in approved temporary abandonment status in accordance with 19.15.25.12–14 NMAC; and are not subject to an agreed compliance or final order setting a schedule for bringing the well into compliance. 19.15.5.9(B)(1) NMAC. OCD does not maintain historical records of the inactive well list, which is a snapshot in time, and may change on a daily basis.

[reporting/Compliance/InactiveWells.aspx](#). OCD regulations provide a “rebuttable presumption” that, if a well is inactive for more than 15 months, “the well is out of compliance with 19.15.25.8 NMAC.” 19.15.5.9(B)(2) NMAC.

60. OCD may order any well to be plugged and declare it abandoned by the operator if it is out of compliance with any statute or rule. NMSA 1978, § 70-2-14. OCD may also seek compliance, penalties, and injunctive relief through civil actions. NMSA 1978, § 70-2-31(A)(2).

61. It costs OCD on average \$163,000 to plug an oil and gas well, while the cost of remediation and reclamation is “more variable and can cover a wide range from \$50,000 to restore the surface around a plugged well, to several million dollars” where there is extensive contamination from tank batteries, for example.²¹

62. A small percentage of the oil and gas conservation tax is appropriated to the state’s Oil and Gas Reclamation Fund—which OCD administers—to survey, plug, and remediate abandoned well sites. NMSA 1978, §§ 7-1-6.21, 7-30-4, 70-2-38. Financial assurances are also deposited into the Reclamation Fund, following forfeiture. NMSA 1978, § 70-2-14(D). When an operator defaults on its plugging obligations, money from the Reclamation Fund may be used to cover the shortfall between the actual plugging costs and any financial assurance collected. However, industry’s contributions are insufficient to tackle the scope of the State’s well-plugging liability.²²

63. At the end of the day, to address environmental harm from leaking wells, avoid waste, and allow land to be put to other productive uses, the State of New Mexico must assume

²¹ Energy Minerals and Natural Resources Division, *Annual Report 2024* at 58, [emmrdrd_annual_report_2024.pdf](#). See also OCD, *Orphan Well Plugging & Site Remediation Update* at 3 (Dec. 1, 2023), <https://www.nmlegis.gov/handouts/RHMC%20120123%20Item%202%20EMNRD%20OCD%20-%20Orphan%20Well%20&%20Financial%20Assurance.pdf>

²² OCD, *Orphan Well Plugging & Site Remediation Update* at 3.

responsibility for plugging wells whose operators have defaulted. The State therefore serves as plugger of last resort for these wells.

64. Every day that these thousands of oil and gas wells idle unplugged, New Mexico residents suffer from adverse health risks and bear the brunt of these environmental harms.

OCD Oversight of Operator Registration and Well Transfers Depends on Operators' Truthful Representations

65. OCD's regulations are designed to identify and prevent the registration of new operators that are insiders of existing noncompliant operators: OCD "may deny registration as an operator if . . . an officer, director, partner in the applicant or person with an interest in the applicant exceeding 25 percent, is or was within the past five years an officer, director, partner or person with an interest exceeding 25 percent in another entity that is not currently in compliance with Subsection A of 19.15.5.9 NMAC." 19.15.9.8(B)(2) NMAC; *see* 19.15.9.8 NMAC ("Prior to commencing operations, an operator of a well or wells in New Mexico shall register with the division as an operator."). The new operator registration requirements thus incorporate the limitation on the number of inactive wells an operator may have out of compliance with plugging requirements under 19.15.5.9(A) NMAC.

66. OCD's regulations are also written to identify and prevent the *transfer* of wells²³ to operators that are noncompliant: OCD may deny a Change-of-Operator application if "(1) the new operator is not in compliance with Subsection A of 19.15.5.9 NMAC; or (2) the new operator is acquiring wells, facilities or sites subject to a compliance order requiring remediation or abatement of contamination, or compliance with 19.15.25.8 NMAC, and the new operator has not entered

²³ Unless otherwise stated, "transfer of wells" in this complaint refers to the transfer of operating authority and attendant obligations for oil and gas wells.

into an agreed compliance order setting a schedule for compliance with the existing order.”
19.15.9.9(C) NMAC.

67. Further, OCD requires that owners or officers of transferee operators not be the same owners or operators of existing non-compliant operators. To effect a transfer, an officer or representative of the transferee company must certify and initial several statements and declarations on OCD’s C-145 Change-of-Operator form, including the declaration that “[n]o person with an interest exceeding 25% in the undersigned company is, or was within the last 5 years, an officer, director, partner or person with a 25% or greater interest in another entity that is not currently in compliance with Subsection A of 19.15.5.9 NMAC.”

68. OCD’s regulatory system relies on operators being truthful when applying to transfer wells: the C-145 form requires the applicant to certify that the initialed statements “are true and correct and a condition precedent to the Oil Conservation Division accepting this Change of Operator.”

69. As explained in more detail below, the Individual Defendants made false, misleading, or fraudulent statements on various C-145 forms to effect the transfer of wells from Remnant to Acacia.

70. But for these statements, OCD would not have approved the transfer of these wells to Acacia, or would have imposed other terms and conditions (such as additional financial assurance to cover the actual cost of AROs for Remnant’s significant marginal and inactive well inventory, and a compliance schedule).

Remnant Emerged as a Buyer of Marginal and Inactive Wells, Then Quickly Fell Out of Compliance

71. Since its inception as WS Oil and Gas Operating in 2015 (through 2017), Remnant acquired around 580 wells from a handful of oil and gas operators. When Remnant acquired those wells, the portfolio exhibited its peak production output, declining precipitously thereafter.

72. Gray (together with Gray's then-wife, Sarah), Stitzel, and Gilmore—through their respective partnerships and corporations, WS Oil and Gas Ltd., First Gray Corporation, RS Resources, Stitzel Corporation, Gilmore Oil & Gas, and Bluebird Energy Corporation—contributed wells, cash, or financing to establish Remnant, resulting in a one-third ownership interest for each Remnant Officer.

73. The diagram below fairly represents some of the Defendants' various relationships and interests:

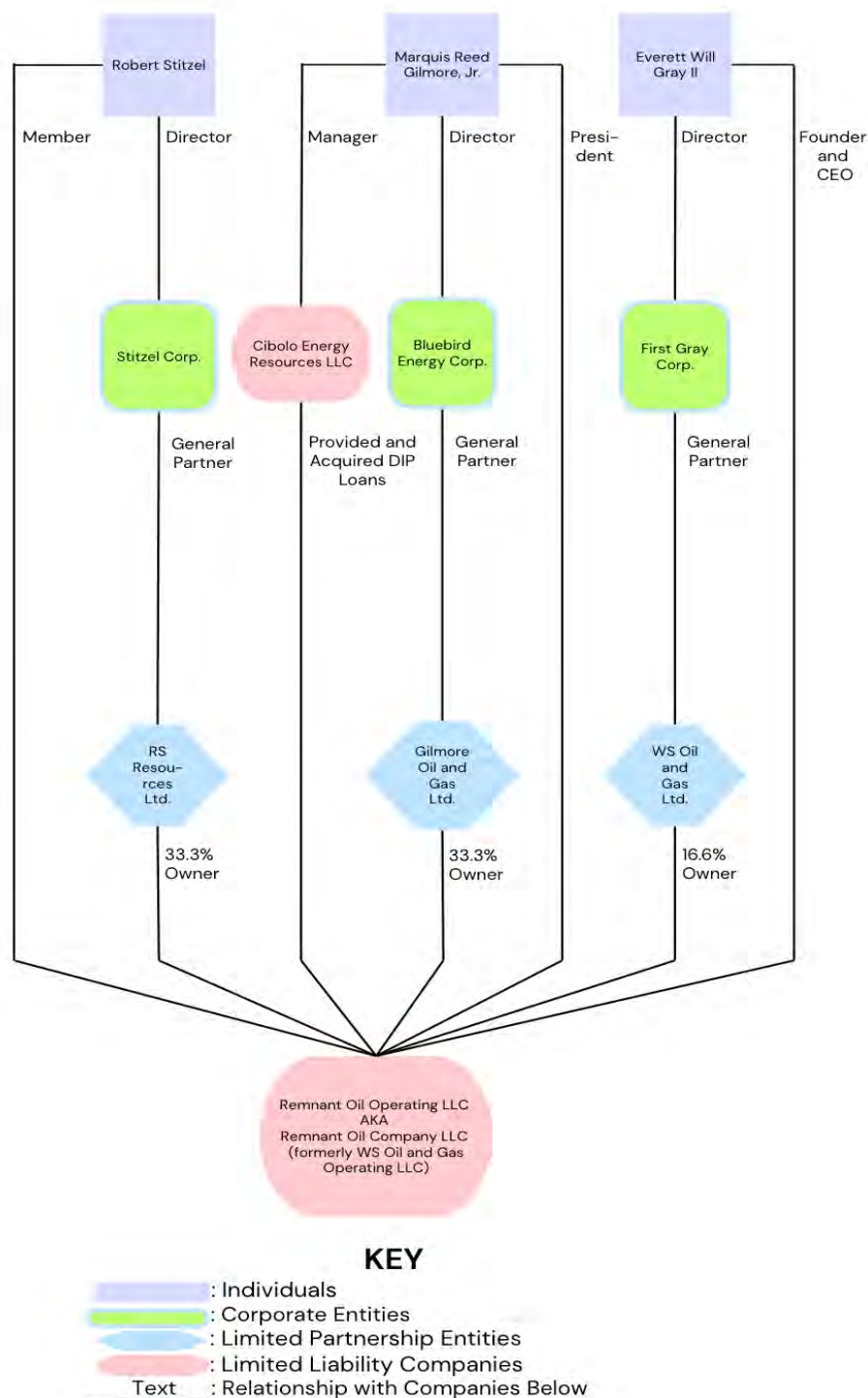


Fig. 6: Diagram Showing Some of Individual Defendants' and Companies' Ownerships and Interests²⁴

²⁴ Sarah Hughes-Gray is the remaining 16.6% owner of Remnant Oil Operating. Sarah Gray is also a co-director of First Gray Corp.; LuAnn Gilmore is a co-director of Bluebird Energy Corp.; and Roxie Stitzel is a co-director of Stitzel Corp.

74. In February 2018, the New Mexico Legislature passed Senate Bill 189, which authorized OCD to raise the blanket bond amount from \$50,000 to \$250,000.

75. Remnant was unable to comply with these new bonding requirements.

76. Remnant also had too many inactive wells for the size of its portfolio: by December 2018, 52 out of Remnant's 492 wells were out of compliance with New Mexico regulations set forth at 19.15.25.8 NMAC.

77. Under the terms of a settlement agreement OCD entered into with Remnant in December 2018 ("Settlement Agreement"), Remnant stipulated that it was out of compliance with regulations, and agreed to return to "production, plug and abandon, or temporarily [abandon] forty (40) wells in accordance with 19.15.25.10 NMAC, at a minimum rate of 3 per month over 7 months between the signing of this Agreement and July 31, 2019."

78. The Settlement Agreement provided for civil penalties should Remnant not comply with its terms by the July 31, 2019, deadline. The Settlement Agreement was signed by "E. Will Gray II," as CEO of Remnant.

79. On February 27, 2019, shortly after the Settlement Agreement was reached, Remnant Oil Company secured a \$2,869,397.73 loan from FirstCapital Bank, which renewed, extended, and replaced a previous note dated May 17, 2016.

80. After receiving this loan, Remnant did not plug and abandon any of its inactive wells, nor did it post the required financial assurance, place the wells in temporary abandonment, or otherwise comply with the terms of the Settlement Agreement.

81. Between August 2018 and July 2019, Remnant Oil Operating made payments totaling \$468,733.93 to Gray, through Gray's company, WS Oil and Gas Limited, allegedly for consulting services and expenses.

Remnant Unsuccessfully Tries to Offload Its Worst Assets and Liabilities in Bankruptcy

82. On July 16, 2019, just two weeks before the Settlement Agreement's compliance deadline of July 31st, Remnant filed for Chapter 11 bankruptcy. Remnant's bankruptcy filing was signed by Gray, and witnessed by Remnant's other two managers, Marquis Reed Gilmore, Jr. and Robert K. Stitzel.

83. According to a deposition taken of Gray during the bankruptcy proceedings, Remnant Oil Company and Remnant Oil Operating were "one and the same." There was no operating agreement between Remnant Oil Company and Remnant Oil Operating, and no board meetings were held for those companies.

84. Also on July 16, 2019, Gray filed a declaration in the Remnant bankruptcy proceedings stating that Remnant operated "142 wells that are offline and not capable of producing economically at today's prices."

85. In its initial schedule of assets filed in bankruptcy in August 2019, Remnant claimed that its oil and gas assets had a market value of \$22,000,000.

86. In November 2019, various creditors filed a joint motion to convert the Chapter 11 proceedings to a Chapter 7 liquidation because "Debtors [Remnant Oil Company and Remnant Oil Operating] have been grossly mismanaged," are "experiencing substantial and continuing losses," and "current management is conflicted." Specifically, the creditors asserted that "[c]urrent management seeks to pay insider equity contributions as legitimate debt and received significant transfers of money in the one-year period prior to bankruptcy."

87. In April 2020, the bankruptcy court granted the creditors' conversion motion and ordered the proceedings converted to a Chapter 7 bankruptcy liquidation. This meant that Remnant

would not be able to reorganize and continue as a company; instead, an independent liquidating trustee would be appointed, Remnant's assets liquidated, and the companies would dissolve.

88. After the conversion, the Individual Defendants created a placeholder company—"Newco Energy Resources, LLC"—to bid on certain of Remnant's wells.

89. The provider of the surety bonds pledged by Remnant to OCD to satisfy Remnant's financial assurance obligations—Lexon Insurance Company—objected that the proposed sale to Newco "seeks to only sell a portion of the Debtors' assets, and appears to exclude, or otherwise abandon, assets covered by at least 11 of the Lexon Bonds. Based on the above, the Debtors' estates may be left without the capabilities to perform their environmental obligations."

90. In other words, Lexon observed that splitting up Remnant's inventory of wells to skim off and segregate the higher-producing wells would make it much more likely that the remaining wells would be abandoned to the State, which would then have the right to forfeit the financial assurance provided by Lexon.

91. Lexon's objection was ultimately addressed at a June 23, 2020, hearing, at which the judge ordered (or the Remnant trustee agreed to), changes to the sale order to include language clarifying that the sale would include not just the subset of wells identified in the proposed sale order, but "substantially all of the assets of the Debtors," thereby keeping Remnant's productive wells together with its net-liability wells.

92. During the course of the Remnant bankruptcy, Remnant partner Gilmore provided two debtor-in-possession (DIP) loans to Remnant, and acquired a third DIP loan: The First DIP Loan—provided by Gilmore Oil & Gas, LP—totaled \$350,000, and expressly allowed salary payments to Gray and Stitzel of \$15,000 per month, each; the Second DIP Loan was originally provided by Colorado Waterston, LLC, but was later acquired by Gilmore's Cibolo Energy

Resources, LLC, and totaled \$750,000; and the Third DIP Loan—provided by Cibolo Energy—totaled \$250,000. Through his companies, Gilmore therefore held all three DIP loans, totaling \$1,350,000.

93. Shortly after Remnant’s bankruptcy was converted to a liquidation, and while its various creditors were objecting to Remnant’s attempts to sell off only part of its inventory and abandon its environmental liabilities in bankruptcy, the Individual Defendants formed three new companies. These companies were designed, once again, to split Remnant’s assets in a way that would separate producing wells from high-liability wells, ensuring that some or all of those liabilities would be passed on to the State once those undercapitalized companies defaulted or filed for bankruptcy.

Acacia Created to Receive Remnant’s Marginal and Inactive Wells and Liabilities

94. After the conversion, in June 2020—at the same time the Individual Defendants were bidding on the Remnant assets through Newco—Gilmore’s Houston-based attorney, Hap May, formed Acacia Resources to acquire Remnant’s assets and replace Newco.

95. Acacia Resources’ initial manager was Karl Winter, May’s business associate, who was also the initial manager for Newco. Only after the bankruptcy court approved the sale of Remnant’s assets to Acacia did Gilmore replace Winter as manager.

96. Acacia Operating was formed in New Mexico in August 2020. Acacia Resources is the sole member and 100% shareholder of Acacia Operating.

97. Gilmore has an 80% interest in Acacia Resources, and Robert Stitzel has a 20% interest.

98. In stark contrast to Remnant’s inflated August 2019 valuation of its oil and gas assets at \$22,000,000, by June 2020 (after the conversion to a liquidation), those assets had

precipitously declined in value, with the final sale terms requiring Acacia to pay \$402,000 cash and assume liens valued at \$5,545,636.33, including three liens held by Gilmore and his companies.

99. The final sale order expressly provided that the sale of wells to Acacia was made subject to certain specified debts, but none of these enumerated debts or liens included any debt to Gray, WS Oil and Gas, or First Gray Corporation. The order expressly provided that beyond the specified debts, the sale was “free and clear of liens, claims, interests and encumbrances.”

100. Acacia also acquired the wells subject to Remnant’s existing environmental liabilities. The final approved sale order contained the following provision:

Nothing in this Order or the Asset Purchase Agreement releases, nullifies, precludes, or enjoins the enforcement of any police or regulatory liability of a governmental unit that any entity would be subject to as the post-sale owner or operator of property after the date of entry of this Order. Nothing in this Order or the Asset Purchase Agreement authorizes the transfer or assignment of any governmental (a) license, (b) permit, (c) registration, (d) authorization, or (e) approval, or the discontinuation of any obligation thereunder, without compliance with all applicable legal requirements and approvals under police or regulatory laws.

101. The sale was also made subject to any “contingent liabilities to . . . governmental entities related to owning, operating and plugging the wells.” Acacia therefore acquired the Remnant wells subject to all obligations and requirements imposed by New Mexico’s oil and gas regulatory program, and all obligations and requirements imposed by the 2018 Settlement Agreement with OCD, including civil penalties.

102. The bankruptcy court approved the sale to Acacia on June 30, 2020, and Remnant’s estate received deposits totaling \$402,000 from Hap May in July 2020.

103. The Remnant bankruptcy trustee ultimately approved payment of \$208,706.18 to Cibolo Energy out of the bankruptcy estate, in resolution of Cibolo’s claim for \$350,000 in

repayment of its DIP loan. This payment to Cibolo on September 13, 2024 was by far the largest single payment out of Remnant's estate. Recently, the trustee approved an additional \$45,316.44 disbursement to Cibolo, after the bankruptcy was reopened in July 2025 for the sole purpose of disbursing additional funds of \$49,092.48, which were owed to the estate by a creditor. *See* ¶ 15, *supra*.

104. Though money was transmitted from Acacia Resources to Remnant's bankruptcy estate in July 2020 (and the sale was recorded on July 27, 2020), the wells could not be operated by Acacia or formally transferred until: (i) Acacia registered as a new operator; (ii) Remnant and Acacia filed the required C-145 Change-of-Operator applications with OCD; and (iii) OCD approved those applications. *See* 19.15.9.9(B) NMAC ("The new operator shall not commence operations until the division approves the application for change of operator.").

Stitzel Establishes Acacia Operating as a New Operator through Misleading Statements and Omissions

105. Upon information and belief, Acacia Operating reached out to OCD to register as a new operator in September 2020.

106. Acacia Operating's registration was approved by OCD on February 5, 2021; but, almost a year passed before Acacia applied to transfer any of Remnant's wells.

107. According to an email written by Stitzel to OCD on January 7, 2022, Acacia delayed its operations because: "Three debts survived the bankruptcy and had to be settled prior to operating. This took almost seven months to settle."

108. Upon information and belief, Stitzel was referring to: Remnant's debt to Gilmore for the DIP loans, which were assumed by Acacia in the Remnant bankruptcy final sale order; and a purported \$400,000 debt from Remnant to Gray's WS Oil and Gas, which was *not* assumed by Acacia in the final sale order.

109. Upon information and belief, the Individual Defendants sought to satisfy that alleged debt to Gray by transferring Remnant's best gas wells to Solis Partners, as discussed further below. That bill of sale was signed on July 14, 2021.

110. During his correspondence to establish Acacia Operating, at no time did Stitzel inform OCD that Gilmore was a majority owner of Acacia Resources, the sole member of Acacia Operating, nor did he inform OCD that he, Stitzel, was an officer of Remnant. Rather, he distanced himself from Remnant in his correspondence with OCD by describing Remnant as "negligent in filing production," and asserting that Acacia was "out of compliance due to forces outside its control" because of "[p]revious operators [sic] nonfiling." Thus, he petitioned OCD for a "fresh start" for Acacia.

111. For the next two years, the Individual Defendants engineered and carried out a series of transfers designed to siphon off Remnant's best wells, including by transferring the best gas wells to Solis Partners. This series of tiered transfers obfuscated the fact that Acacia would ultimately be left insolvent and unable to satisfy plugging and remediation obligations for the remaining Remnant wells, leaving the State responsible for these costs.

112. From its bankruptcy filing until around September 2025, Acacia was the operator for 219 inactive wells, which all need to be plugged and remediated.²⁵ Of these 219 inactive wells, only six (2.74%) were transferred to Acacia in the initial Tier 1 Transfers, with the overwhelmingly vast majority transferred over two-and-a-half years later in the Tier 2 Transfers.

²⁵ The exact number of inactive wells has increased since September to 383 inactive wells, but this number may be subject to further change depending on Acacia's production reporting during the bankruptcy and other factors.

Tier 1 Transfers: Acacia Prioritizes Transferring Remnant's Best Oil Wells

113. Stitzel (on behalf of Acacia, as transferee) and Gilmore (on behalf of Remnant, as transferor) submitted six C-145 Change-of-Operator applications to OCD in 2022 and 2023.

114. Stitzel signed four C-145 applications on behalf of Acacia Operating that were approved by OCD in January and February 2022.²⁶

115. In each of these applications, Stitzel initialed the declaration described in paragraphs 66–67, *supra*, and affirmed the truth of those statements, even though:

- a. At the time of these statements, Gilmore had an 80% interest in Acacia Resources, which was the sole member of Acacia Operating, so that Gilmore had an 80% interest in Acacia Operating;
- b. At the time of these statements, Remnant was out of compliance with Subsection A of 19.15.5.9 NMAC; and
- c. Gilmore was a director, officer or partner of Remnant.

116. Gilmore signed as President of the previous operator and transferor, Remnant Oil Operating, and so was aware of Stitzel's representations on the C-145s.

117. Based on these signed statements, OCD approved the transfer from Remnant to Acacia of 72 wells in January and February 2022 (the "Tier 1" transfers) in those four applications.²⁷ These Tier 1 wells represented Remnant's best oil assets, and so Stitzel and Gilmore prioritized transferring these more valuable (though still marginal) wells to Acacia first.

118. Based on this transfer of mostly producing wells, OCD had no reason to question whether Acacia would be able to satisfy associated well plugging and remediation obligations.

²⁶ Permit #305249, submitted on January 11, 2022 and approved on January 12, 2022; Permit #306385, submitted on January 18, 2022, and approved on January 19, 2022; Permit #306631, submitted on February 9, 2022, and approved on February 10, 2022; and Permit #306629, submitted on February 11, 2022 and approved on February 11, 2022.

²⁷ Those four applications transferred: sixty-nine (69) wells from Remnant to Acacia on January 12, 2022 (Permit #305249); one (1) well from Remnant to Acacia on January 19, 2022 (Permit #306385); one (1) well on February 10, 2022 (Permit #306631); and one (1) well on February 11, 2022 (Permit #306629).

119. Stitzel and Gilmore also submitted an application to transfer one additional well on February 15, 2022, Permit #306627, which was rejected by OCD on February 16, 2022. OCD rejected the transfer of this well because, after the transfer of the 72 wells, Acacia had reached its maximum number of inactive wells.

Gray Creates Solis Partners to Receive Remnant's Best Gas Wells

120. At the same time Stitzel and Gilmore created Acacia, Solis Partners was formed in June 2020 to receive Remnant's best assets—a set of gas wells that represented one of the few consistent sources of revenue from Remnant's portfolio.

121. Upon information and belief, Gray was the de facto organizer and owner of Solis Partners.

122. According to New Era's 2024 10K filing with the SEC, Gray "was the managing member of Solis Partners, LLC beginning in 2020."

123. Gray listed his own contact email (with a domain name belonging to Solis Partners—will.gray@solispartnersllc.com) when he registered Solis Partners with the New Mexico Secretary of State. Gray also directed that any correspondence regarding Solis Partners' registration, including its certificate, be sent to his email. Initially, Solis Partners' three partners were listed as Joel G. Solis, Casey Solis, and Robert Solis.

124. In July 2020, Solis Partners registered with OCD as a new operator, with Gray's name as its point of contact.

125. Also in July 2020, after Remnant's sale of its assets to Acacia was approved and \$402,000 was transferred to Remnant's estate, Gray became the CEO of Solis Partners' now-parent company, New Era.

126. In December 2020, Solis Partners began the process of acquiring 87 wells from Acacia. Karl Winter, acting on behalf of Acacia, authorized Hap May or Gilmore to sell the wells to Solis Partners in exchange for a \$400,000 payment. That authorization was executed on December 29, 2020, but was not recorded with the Chaves County clerk until July 13, 2021.

127. It is currently unknown what consideration Acacia actually received for the 87 wells transferred to Solis. The bill of sale for the transaction (signed on July 14, 2021, and recorded on July 26, 2021) lists a purchase price of \$10. That bill of sale was signed by Gilmore on Acacia's behalf.

128. It is known that Gray believed that Remnant owed him at least \$400,000. In a deposition filed in the Remnant bankruptcy, Gray explained that WS Oil and Gas assumed a \$400,000 note that Remnant owed to Stitzel's company, RS Resources, and therefore Remnant allegedly owed Gray's partnership, WS Oil and Gas, \$400,000.

129. This alleged debt was not addressed directly in the Remnant bankruptcy. The final sale order approving Acacia's acquisition of Remnant's wells provided that, apart from specified liens and debts enumerated there (which did not include this debt), the sale was free and clear of any "liens, claims, interests and encumbrances."

130. Upon information and belief, if Solis Partners did not directly pay Acacia \$400,000 in cash or cash equivalent for the gas wells, the transfer of the 87 wells from Acacia to Solis Partners was intended to satisfy what Gray perceived to be Remnant's outstanding debt to him, as fairly represented by this diagram:

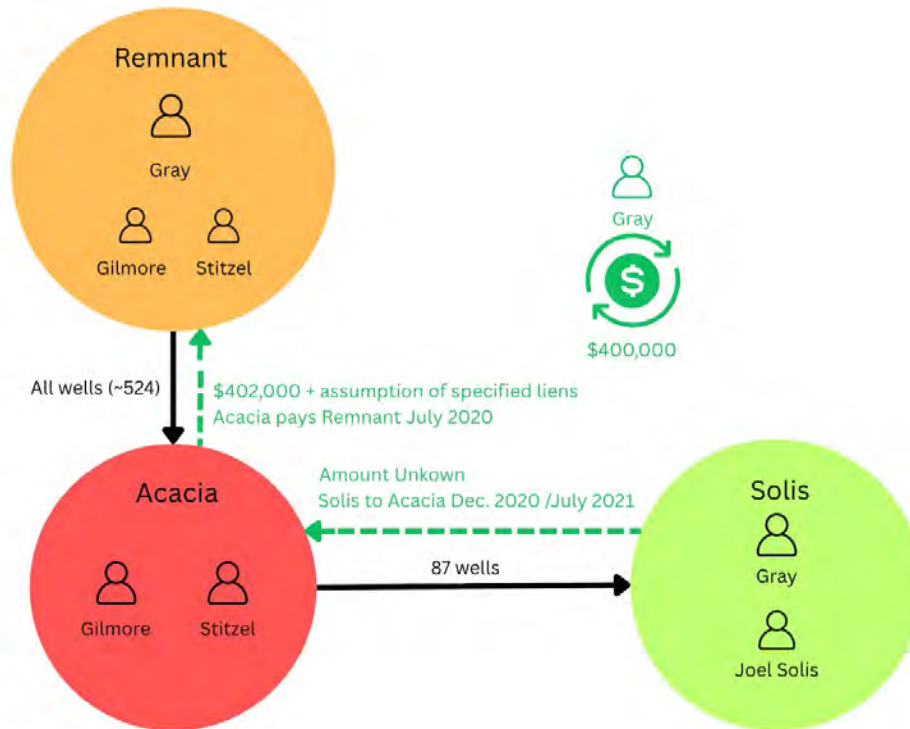


Fig. 7: Relationships and Transfers between Remnant, Acacia, and Solis Partners

131. At the same time as Remnant and Acacia submitted the C-145 applications to OCD to transfer the Tier 1 wells, Gray made an application to OCD to transfer Remnant’s best gas wells to Solis Partners. These wells had already been sold to Acacia in the Remnant bankruptcy, but no transfer application had previously been submitted to OCD, so OCD records still listed Remnant as the operator.

132. Unlike the Remnant-to-Acacia transfer applications (which were signed by Gilmore on behalf of Remnant as transferor), the C-145 Change-of-Operator application (Permit # 307103) to Solis Partners was signed on behalf of transferor Remnant by Gray as Remnant’s “Managing Member,” on January 25, 2022. The form was signed for transferee Solis Partners by Joel Solis as “Managing Partner.”

133. At the time of the C-145 application, Gray attempted to conceal his involvement in Solis Partners by directing Joel Solis to sign on behalf of Solis Partners.

134. Unaware that Solis Partners was associated with Remnant or the Individual Defendants, OCD approved the transfer of 87 wells from Remnant to Solis Partners on February 2, 2022.

135. Transfer of the 87 wells to Solis Partners was not complete until OCD approved the transfer application on February 2, 2022.

136. At some point in early 2022, Gray started drawing a \$273,000 salary from Solis Partners, including health insurance benefits.

137. In later C-145 transfer applications between Solis Partners and other entities, Gray signed on behalf of Solis Partners.

138. Because, at the time the 87 wells were transferred to Solis Partners, the Individual Defendants had not yet filed any application to transfer Remnant's remaining low-production and inactive wells to Acacia, the ultimate impact of the loss of these producing gas wells on Acacia's revenue (and therefore its ability to satisfy its full suite of well plugging and remediation obligations) was not immediately apparent.

139. The loss to Acacia from the transfer of its valuable natural gas wells to Solis Partners, and its assumption of Remnant's well plugging and remediation obligations (as well as over \$5 million in liens and other financial commitments), rendered Acacia functionally insolvent.

140. Upon information and belief, Gray dominated and controlled Solis Partners since its inception in June 2020 to the present, and Solis Partners is an alter ego of Gray.

Tier 2 Transfers: Acacia Delays Transfer of Remnant's Most Unprofitable and Inactive Wells

141. On September 14, 2023, more than 18 months after the Tier 1 and Solis Partners transfers, Stitzel and Gilmore submitted an application to transfer another set of 146 wells (Permit #350071) from Remnant to Acacia, including many inactive wells.

142. OCD rejected the transfer that same day, because Acacia: already had four inactive wells out of a portfolio of 69 wells, in violation of 19.15.5.9(A)(4)(a) NMAC; needed additional financial assurance to cover its requested portfolio of wells; and needed prior approval from the Bureau of Land Management (BLM) for the transfer of wells with federal leases.

143. At some point in Spring 2024, Acacia informed OCD for the first time that it had acquired all of Remnant's assets in bankruptcy.

144. On July 8, 2024, OCD agreed to manually approve the batch transfer and waive the \$150 filing fee, because each inactive or problematic well required a separate C-145, and Acacia could not afford to pay a \$150 filing fee for each of the hundreds of wells it still needed to transfer.

145. Gilmore signed a batch C-145 on behalf of Acacia on July 15, 2024, to transfer all 332 remaining wells (the "Tier 2" wells), which included the other rejected application from February 15, 2022.

146. Gilmore initialed the declaration, "No person with an interest exceeding 25% in the undersigned company is, or was within the last 5 years, an officer, director, partner or person with a 25% or greater interest in another entity that is not currently in compliance with Subsection A of 19.15.5.9 NMAC."

147. Of those 332 wells transferred in the batch C-145, 136 were wells on State lands, and a further 23 were wells for which the State owns the mineral rights.

148. On August 5, 2024, OCD approved the transfer of the Tier 2 wells listed in the batch C-145.

149. Tier 2 contained the overwhelming majority of Remnant’s inactive and marginal wells—including 12 wells that OCD had already approved for plugging using State funds; it also included 43 of the 52 wells that were included in the Settlement Agreement between Remnant and OCD.

150. This graph shows the average BOE production per well across the 2019–24 period, for the two transfer tiers:

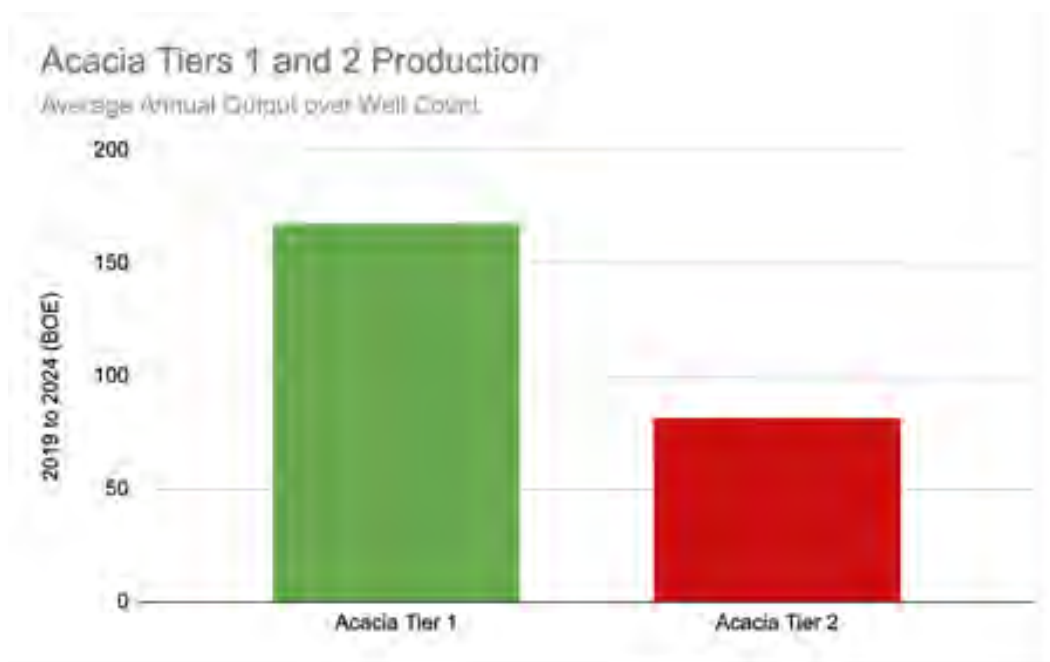


Fig. 8: Average BOE production per well for the Tier 1 and Tier 2 wells for 2019–24. ²⁸

151. By the time Acacia received the Tier 2 wells and their plugging liabilities in August 2024, and the reality of Acacia’s imbalanced portfolio of low-production and high-liability wells

²⁸ This chart shows average production data from Tier 2’s oil and gas “type” wells only, and does not include injection or saltwater disposal wells in the denominator, which would make Tier 2’s BOE average even less.

became apparent, the transfer of producing natural gas wells to Solis Partners had been complete for more than two-and-a-half years.

Well Production Data Shows Solis Partners Got the Best Wells From the Remnant Portfolio

152. While still marginal, the wells Solis Partners received from Remnant show a higher average annual BOE production per well than the wells transferred to Acacia. This graph compares the average production of Solis Partners wells to the two tiers of wells transferred to Acacia:

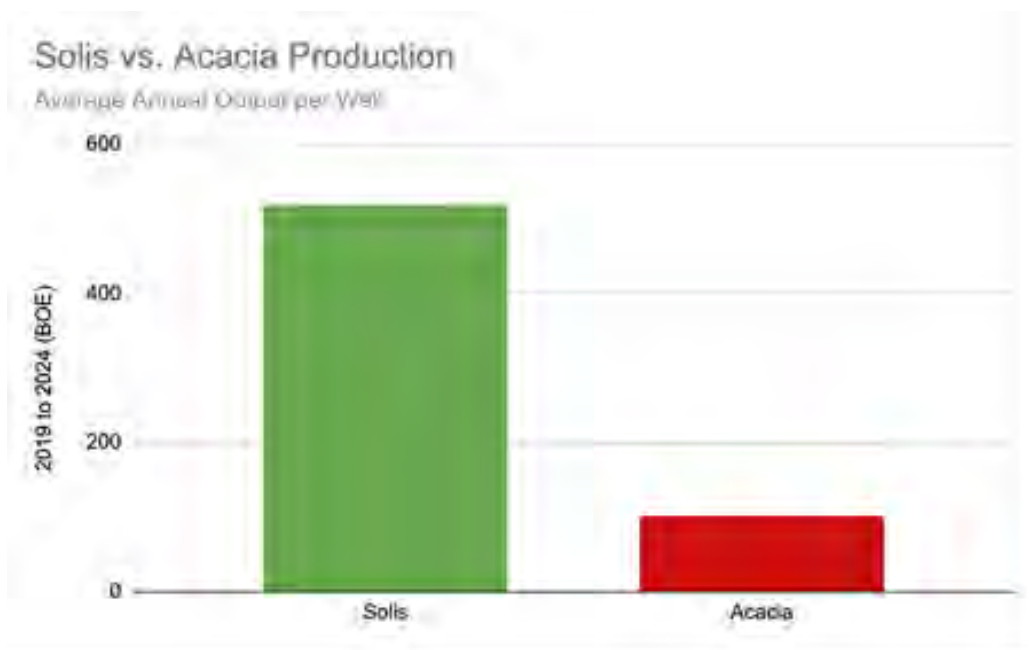


Fig. 9: Average BOE production per well for Solis Partners and Acacia wells for 2019–24.²⁹

153. Gray thus ensured that his company, Solis Partners, would obtain the best of Remnant’s gas assets, while Acacia would assume the marginal oil wells, along with the plugging and remediation liabilities for all of the remaining wells.

154. Had the producing gas wells remained with Acacia, Acacia could have put the revenue generated by those wells towards satisfying its well-plugging obligations.

²⁹ This chart shows average production data from Solis Partners’ and Acacia’s oil and gas “type” wells only, and does not include injection or saltwater disposal wells in the denominator.

New Era Helium and New Era Energy & Digital

155. According to Gray's LinkedIn profile (as of June 20, 2025), Gray has been New Era Helium's CEO (now, New Era Energy & Digital) since July 2020.

156. On February 6, 2023, Solis Partners and New Era Helium entered into a Reorganization Agreement and Plan Share Exchange.

157. In February 2024, Solis Partners mortgaged its assets for \$500,000, for the benefit of New Era Helium, using money from creditor and mortgagee John Lipman.

158. In January 2025, Solis Partners again mortgaged its assets, this time for up to \$10,000,000, for the benefit of New Era Helium, using money from creditor and mortgagee ATW AI Infrastructure.

159. New Era Helium was listed as a publicly traded company in January 2025.

160. Gray receives a salary of \$475,000 per year, plus benefits, as CEO of New Era.

161. New Era's sole revenue source is its producing gas wells in New Mexico, which are composed, in part, of the gas wells Solis Partners received from Remnant via Acacia.

162. Gray owns shares in New Era through his company, Pecos Slope Holdings, LLC.

163. In August 2025, Gray "rebranded" New Era Helium as New Era Energy & Digital, Inc., to reflect the reality that New Era was not producing any helium but was partnering with AI companies.

Acacia's Bankruptcy

164. On December 27, 2024, Acacia Operating and Acacia Resources filed for Chapter 7 bankruptcy liquidation in the Western District of Texas, completing the final and inevitable act in the Defendants' scheme: dumping Acacia's negative-value assets and environmental liabilities

in bankruptcy, so that neither Remnant, Acacia, Solis Partners, nor the Individual Defendants, would have to pay for those liabilities.

165. In Acacia Operating's bankruptcy documents filed earlier this year, Stitzel conceded that Acacia's oil and gas wells have "zero market value."

166. Schedules of assets and liabilities filed by Stitzel on behalf of both Acacia Operating and Acacia Resources list Gilmore's Cibolo Energy Resources as the single holder of a secured claim. That claim is listed as \$3,240,000 in the filings for each Acacia entity. Upon information and belief, that amount includes the DIP liens carried over from the Remnant bankruptcy.

167. In Acacia Operating's Schedule of Creditors, Stitzel lists among Acacia's property a "Letter of Credit from Community National Bank to NM OCD" worth \$250,000.

168. This letter of credit was provided by Acacia to OCD in satisfaction of financial assurance requirements owed to OCD, and is not the property of Acacia.

169. In the same filing, Stitzel identifies that letter of credit to OCD as Acacia's property, and subject to a lien held by Gilmore's Cibolo Energy Resources to secure part of Cibolo's \$3,240,000 lien.

170. According to the Statement of Financial Affairs filed in the Acacia bankruptcy, neither Acacia Resources nor Acacia Operating had any accountant or bookkeeper who maintained books and records for those companies since 2022. Similarly, neither company could identify any firm or individual that was "in possession of the debtor's books of account and records." Neither company had issued a financial statement in the past two years, and no inventories of property had been taken. Neither company paid any salary or compensation, loans, or credits on loans.

171. Despite the lack of paperwork for either of the Acacia Companies, in the 90 days before filing for bankruptcy, Acacia Operating had made payments to creditors as diverse as Amazon, Walmart, Christian Care Ministries, KFC, Natural Foods, O'Reilly Auto Parts, Sirius XM Radio, TikTok, and a Taqueria, indicating that Acacia Operating's account was being used as a personal account by Gilmore and/or Stitzel.

172. Acacia's filing of bankruptcy triggered the start of OCD's and the Attorney General's investigation and suspicion that Acacia was set up for fraudulent purposes—to dump Remnant's and Acacia's environmental liabilities on the State by orphaning those wells in bankruptcy.

173. Acacia's bankruptcy came two weeks after ConocoPhillips filed a lawsuit against Acacia in Lea County. That suit, filed on December 11, 2024, sought to enforce Acacia's "duty to plug six inactive oil and gas wells and remediate and reclaim the affected lands."³⁰ The wells in question are located on New Mexico State land, and ConocoPhillips' suit came in response to plugging demands made by the New Mexico State Land Office (SLO) in letters sent to ConocoPhillips as leaseholder, and Acacia as operator. The relief sought by ConocoPhillips in the lawsuit included a declaration that Acacia is "responsible for plugging the above wells and remediation and reclamation of the related well pits," as well as recovery of costs related to its plugging and remediation of those wells.

174. Some of Acacia's wells are on public lands managed by SLO or BLM. Acacia operates these wells under contract with the named leaseholders. The bankruptcy court has allowed various actions by these leaseholders to proceed, so that those third parties can plug and remediate some of Acacia's wells to satisfy their own contractual obligations to SLO and BLM. However,

³⁰ Complaint at 1, *ConocoPhillips Co. v. Acacia Resources, LLC*, D-506-CV-2024-01193 (1st Jud. Dist. N.M. Dec. 11, 2024).

these actions, if successful, would only plug a small portion of Acacia's inactive and marginal wells.

175. The State is, and will be, the plugger of last resort for all of Acacia's inactive wells on state and private land, in addition to Acacia's remaining inventory of mostly marginal wells that will need to be plugged and remediated in the coming months and years, if not imminently.

V. CAUSES OF ACTION

COUNT I VIOLATIONS OF THE NEW MEXICO OIL AND GAS ACT (Against ACACIA OPERATING and ACACIA RESOURCES)

176. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

177. Acacia Operating and Acacia Resources are "person[s]" under the Oil and Gas Act. NMSA 1978, § 70-2-33(A)(1).

178. As an operator of between 101 and 500 wells, Acacia must have no more than five wells out of compliance with the plugging requirements of 19.15.25.8 NMAC.

179. Under 19.15.25.8 NMAC, an operator must either plug a well or secure "temporary abandonment" status for that well within 90 days after the well has been continuously inactive for one year. In other words, a well that has been inactive for a period of 15 months and remains unplugged and not in temporary abandonment status is in violation of New Mexico's regulatory program.

180. At the time of Acacia's filing for bankruptcy and until about September 2025, Acacia Operating had approximately 219 inactive wells out of a total well count of 395. None of Acacia's wells are in temporary abandonment status. The number of inactive wells has increased dramatically during the bankruptcy.

181. Currently, 45 of Remnant's and Acacia's wells have already been approved for plugging using money from the Reclamation Fund, at the State's expense.

182. Acacia Operating is out of compliance with and is violating the Oil and Gas Act.

183. OCD therefore seeks civil penalties against Acacia Operating under 19.15.5.10(D) NMAC for violations of Acacia's plugging and remediation requirements, bonding requirements, and reporting requirements.

184. OCD seeks reimbursement or indemnification for all costs incurred by OCD in plugging Defendants' wells and/or restoring and remediating any well sites and production facilities pursuant to § 70-2-38(B).

185. OCD requests injunctive relief requiring the Individual and Corporate Defendants to plug and remediate any wells operated by Acacia that are not plugged and remediated by any other entities, such as former operators or lessees.

186. Alternatively, OCD seeks a plugging order for all of Acacia's inactive wells and any of their marginal wells that pose a threat to the environment, including forfeiture of financial assurance and an escrow deposit for the plugging and remediation of any wells and production facilities that will not be plugged and remediated by other entities.

187. OCD seeks a revocation of Acacia's authorization to transport oil and gas, and a suspension of Individual Defendants' respective present and future operator registrations.

188. OCD also requests that the Court enjoin all Individual Defendants from operating or owning any oil and gas interests in the State of New Mexico until Remnant's and Acacia's past and present plugging and remediation obligations are satisfied, and until a sufficient escrow deposit has been provided for their future obligations.

COUNT II
VIOLATIONS OF THE UNIFORM VOIDABLE TRANSACTIONS ACT
NMSA 1978, § 56-10-18(A)(1) – FRAUDULENT TRANSFER³¹
(Against ACACIA COMPANIES, SOLIS PARTNERS, and INDIVIDUAL
DEFENDANTS for transfer of wells from Acacia to Solis Partners)

189. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

190. The Acacia Companies, Solis Partners, Gilmore, Stitzel, and Gray are all “persons” under the Uniform Voidable Transactions Act (UVTA). NMSA 1978, § 56-10-15(K).

191. Plaintiffs are also “persons” under the UVTA because the State of New Mexico is “a government” and OCD, a division of EMNRD, is a state “governmental . . . agency.” NMSA 1978, § 56-10-15(K).

192. The State of New Mexico, represented by the Attorney General, has a “claim” under the UVTA against Defendants because New Mexico has a “right to payment” that is unliquidated and contingent. NMSA 1978, § 56-10-15(C). The State is a contingent creditor as to Acacia and the Individual Defendants, because the State will eventually have to pay for the plugging and remediation of wells that are not plugged and remediated by Defendants or other entities, whether using money from the Reclamation Fund or other state sources. The State has a right to recover those costs.

193. OCD also has a claim against Acacia and the Individual Defendants under the UVTA because OCD has a right to payment for civil penalties arising from the 2018 Settlement Agreement (that were not discharged in the Remnant bankruptcy), and for civil penalties arising from Acacia’s violations of the Oil and Gas Act’s regulations since then.

³¹ Counts II and III are pled under New Mexico’s UVTA because Acacia’s and Solis Partners’ sole place of business is New Mexico. See NMSA 1978, § 56-10-24(A)(2). Should Texas law apply, the relevant provisions of the Texas Uniform Fraudulent Transfer Act are comparable, if not identical, to the UVTA.

194. OCD also has a claim for reimbursement or indemnification against Acacia and the Individual Defendants for costs already incurred by OCD in plugging, restoring or remediating Remnant's and Acacia's well sites and associated production facilities pursuant to NMSA 1978, § 70-2-38(B).

195. Acacia, Remnant's successor, is a "debtor" under the UVTA because it is liable on these claims. *See* NMSA 1978, § 56-10-15(F).

196. At all relevant times, transferee Solis Partners was controlled and managed by an insider of Remnant, Gray, who provided contractual services for Solis Partners since its inception in June 2020. Since 2022, Gray has been a salaried member of Solis Partners.

197. The transfer of 87 gas wells from Acacia to Solis Partners that was initiated in December 2020 and completed with OCD's approval of the C-145 transfer on January 25, 2022, is voidable as to creditors OCD and the State of New Mexico, because Acacia and the Individual Defendants transferred the wells to Solis Partners with actual intent to hinder, delay or defraud creditors of Acacia.

198. The transfer was not complete until OCD approved the transfer on January 25, 2022.

199. In determining Acacia's and the Individual Defendants' actual intent to defraud, pursuant to § 56-10-18(B), the following factors should be considered:

- a. The transfer of wells from Acacia to Solis Partners, via Remnant, was made to an insider of the debtor, Gray, because Gray was Remnant's CEO and manager, owned a one-third interest in the Remnant Companies, and signed the C-145 Change-of-Operator application on behalf of the transferor, Remnant, not Solis Partners;
- b. The assets were transferred to Solis Partners, which was formed, managed and controlled by Gray.

- c. Gray officially became a member of Solis Partners shortly after the transfer was submitted to OCD, and also became the manager and CEO of Solis Partners shortly thereafter;
- d. Gray has been CEO of Solis Partners' parent company, New Era Helium/New Era Energy & Digital, since July 2020—before the transfer of wells from Acacia to Solis Partners;
- e. The transfer of wells from Acacia to Solis Partners was concealed from the bankruptcy court and interested parties in the Remnant bankruptcy;
- f. Upon information and belief, the transfer of wells from Acacia to Solis Partners was to satisfy a debt to Gray that was not disclosed or discharged in the Remnant bankruptcy;
- g. Solis Partners' connection to Remnant and the Individual Defendants was concealed from OCD in the C-145 transfer application;
- h. The transfer to Solis Partners was of substantially all of Remnant's and Acacia's *valuable* oil and gas assets;
- i. Upon information and belief, Solis Partners and Gray paid below market value for the wells, if they paid anything at all;
- j. Before the wells' transfer to Solis Partners, the sum of Acacia's debts was greater than the sum of its assets, and it was undercapitalized and underfunded by its members. Acacia was therefore functionally insolvent at the time of the transfer. Remnant was also insolvent because it was in bankruptcy;
- k. The transfer of valuable gas wells from Acacia to Solis Partners further contributed to Acacia's functional insolvency;
- l. Upon information and belief, Acacia transferred the wells without a reasonably equivalent value in exchange.

200. Plaintiffs did not have reason to investigate the transfer of wells from Acacia to Solis Partners until after Acacia filed for bankruptcy on December 27, 2024.

201. Plaintiffs were unaware of Remnant's connection with Solis Partners at the time of the C-145 application, and only became aware of this connection when Acacia's bankruptcy

triggered the start of Plaintiffs' investigation into the circumstances surrounding Acacia's acquisition of Remnant's assets.

202. Plaintiffs seek a declaration that the transfer of 87 wells from Acacia to Solis Partners is voidable or fraudulent.

203. Plaintiffs are entitled to seek avoidance of the transfer so that any positive-value assets may be transferred back to Acacia's estate.

204. Plaintiffs are entitled to certain additional remedies, including without limitation, a judgment to satisfy Plaintiffs' claims, adjusted as the equities may require.

205. Plaintiffs seek injunctive relief enjoining all Individual Defendants from operating or owning any oil and gas interests in the State of New Mexico until Acacia's past and present plugging and remediation obligations are satisfied, and until sufficient financial assurance or escrow deposit has been provided for its future obligations.

COUNT III
VIOLATIONS OF THE UNIFORM VOIDABLE TRANSACTIONS ACT
NMSA 1978, § 56-10-18(A)(2) – CONSTRUCTIVE FRAUDULENT TRANSFER
(Against ACACIA COMPANIES, SOLIS PARTNERS, and INDIVIDUAL
DEFENDANTS for transfer of wells from Acacia to Solis Partners)

206. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

207. The Acacia Companies, Solis Partners, Gilmore, Stitzel, and Gray are all "persons" under the Uniform Voidable Transactions Act (UVTA). NMSA 1978, § 56-10-15(K).

208. Plaintiffs are also "persons" under the UVTA because the State of New Mexico is "a government" and OCD, a division of EMNRD, is a state "governmental . . . agency." NMSA 1978, § 56-10-15(K).

209. The State of New Mexico, represented by the Attorney General, has a "claim" under the UVTA against Defendants because New Mexico has a "right to payment" that is unliquidated and contingent. NMSA 1978, § 56-10-15(C). The State is a contingent creditor as to Acacia and

the Individual Defendants, because the State will eventually have to pay for the plugging and remediation of wells that are not plugged and remediated by Defendants or other entities, whether using money from the Reclamation Fund or other state sources.

210. OCD also has a claim against Acacia and the Individual Defendants under the UVTA because OCD has a right to payment for civil penalties arising from the 2018 Settlement Agreement (that were not discharged in the Remnant bankruptcy), and for civil penalties arising from Acacia's violations of the Oil and Gas Act's regulations since then.

211. OCD also has a claim for reimbursement or indemnification against Acacia and the Individual Defendants for costs already incurred by OCD in plugging, restoring or remediating Remnant's and Acacia's well sites and associated production facilities pursuant to NMSA 1978, § 70-2-38(B).

212. Acacia is a "debtor" under the UVTA because it is liable on these claims. *See* NMSA 1978, § 56-10-15(F).

213. The transfer of 87 wells from Acacia to Solis Partners on January 25, 2022, is voidable as to creditors OCD and the State of New Mexico, because Acacia failed to receive reasonably equivalent value in exchange for the assets transferred and:

- a. Acacia was engaged in a business—operating oil and gas wells under New Mexico's oil and gas regulatory program—for which its remaining assets were unreasonably small in relation to the business, including as a result of the well plugging and remediation obligations imposed under New Mexico law;
- b. Acacia, Gilmore, and Stitzel intended to incur, or believed or reasonably should have believed that they would incur, debts beyond its ability to pay as they became due, including the obligation to plug and remediate all of Acacia's wells;
- c. While likely undercapitalized from its formation onwards, Acacia became insolvent as a result of the transfer of 87 gas wells to Solis Partners.

214. Plaintiffs seek a declaration that the transfer of 87 wells from Acacia to Solis Partners is voidable or fraudulent.

215. Plaintiffs did not have reason to investigate the transfer of wells from Acacia to Solis Partners until after Acacia filed for bankruptcy on December 27, 2024.

216. Plaintiffs are entitled to seek avoidance of the transfer so that any positive-value assets may be transferred back to Acacia's estate.

217. Plaintiffs are entitled to certain additional remedies, including without limitation, a judgment to satisfy Plaintiffs' claims, adjusted as the equities may require.

218. Plaintiffs seek injunctive relief enjoining all Individual Defendants from operating or owning any oil and gas interests in the State of New Mexico until Acacia's past and present plugging and remediation obligations are satisfied, and until sufficient financial assurance or escrow deposit has been provided for its future obligations.

COUNT IV
VIOLATIONS OF FRAUD AGAINST TAXPAYERS ACT, NMSA 1978, § 44-9-3(A)(4),(8)
"REVERSE" FALSE CLAIMS against REMNANT, STITZEL, GILMORE & GRAY for
C-145 applications to transfer wells from Remnant to Acacia

219. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

220. Remnant and the Individual Defendants operated wells on State lands. As oil and gas operators in New Mexico, Remnant had established statutory and regulatory duties to plug and abandon inactive wells. *See* 19.15.25.8(B) NMAC; NMSA 1978, § 70-2-12(B)(1).

221. An oil and gas operator's duty to plug, restore, and remediate oil and gas wells and production facilities on State lands is "an obligation to pay or transmit money or property to the state" under the Fraud Against Taxpayers Act (FATA). NMSA 1978, § 44-9-3(A)(4),(8).

222. OCD's approval of a C-145 application perfects the transfer of both the transferor's interest in oil and gas operations, as well as any environmental liabilities (such as plugging and abandonment obligations) that come with it.

223. Submitting a C-145 as a transferor therefore functions as a request to "avoid or decrease" that operator's "obligation to pay or transmit money or property to the state" in the form of plugging, restoring or remediating well sites and production facilities on State lands. NMSA 1978, § 44-9-3(A)(4),(8).

224. Civil penalties, such as those arising from the 2018 Settlement Agreement between Remnant and OCD are also an "obligation to pay or transmit money or property to the state." NMSA 1978, § 44-9-3(A)(4),(8).

225. Gray, Gilmore, Stitzel, and Remnant Oil Operating are all "person[s]" as defined by FATA. § 44-9-2(D).

226. Gray, Stitzel, and Gilmore are officers, directors, or partners of Remnant Oil Operating.

227. In January and February 2022, Remnant was out of compliance with Subsection A of 19.15.5.9 NMAC because of its high number of inactive wells. At that time, Remnant was also subject to, and out of compliance with, the 2018 Settlement Agreement with OCD.

228. Remnant therefore had an obligation to pay or transmit money or property to the State that was not discharged in bankruptcy but was transferred to Acacia in the bankruptcy sale. But, because the transfer of those obligations was not complete until OCD approved the C-145, those obligations would not have transferred if the C-145 was denied, leaving Remnant liable to the State for plugging and remediating its inactive wells.

"Reverse" FATA Claim for Tier 1 Transfers

229. Stitzel signed four C-145 applications on behalf of transferee Acacia Operating that were approved by OCD in January and February 2022: Permit #305249, submitted on January 11, 2022 and approved on January 12, 2022; Permit #306385, submitted on January 18, 2022, and approved on January 19, 2022; Permit #306631, submitted on February 9, 2022, and approved on February 10, 2022; and Permit #306629, submitted on February 11, 2022 and approved on February 11, 2022.

230. Of the wells transferred in these applications, ten were wells on State lands with State mineral rights.

231. In each of these applications, Stitzel initialed the declarations described in paragraphs 66–67, *supra*, and affirmed the truth of those statements, including that “[n]o person with an interest exceeding 25% in the undersigned company is, or was within the last 5 years, an officer, director, partner or person with a 25% or greater interest in another entity that is not currently in compliance with Subsection A of 19.15.5.9 NMAC.”

232. Stitzel knowingly made a false, misleading or fraudulent record or statement to avoid or decrease Remnant’s obligation to pay or transmit money and/or property to the State of New Mexico, because:

- a. Gilmore had an 80% interest in Acacia Resources, which was the sole member of Acacia Operating, so that Gilmore had an 80% interest in Acacia Operating;
- b. At the time of these statements, Remnant was out of compliance with Subsection A of 19.15.5.9 NMAC; and
- c. Gilmore was a director, officer or partner of Remnant within five years of Stitzel making that statement.

233. Gilmore signed as President of transferor Remnant Oil Operating, and so was aware of Stitzel’s false, misleading or fraudulent statements on the C-145s.

234. Upon information and belief, Gray, Stitzel, and Gilmore conspired to make false, misleading or fraudulent records or statements in the C-145 transfer applications from Remnant to Acacia, in violation of Section 44-9-3(A)(4). Those statements or records enabled Remnant and its officers to avoid civil penalties—including those arising from the 2018 Settlement Agreement—and environmental liabilities, and to avoid transferring property or money to the State in the form of plugging and remediating wells and production facilities on State lands.

235. Because of these false, misleading or fraudulent statements, OCD approved the transfer of 72 wells from Remnant to Acacia in four applications in January and February 2022.

236. But for these declarations, OCD would not have transferred the 72 wells to Acacia, or would have imposed conditions or secured guarantees sufficient to ensure that Acacia would be financially able to plug, restore, and remediate its wells and production facilities when those requirements came due.

“Reverse” FATA Claim for Tier 2 Transfers

237. Gilmore also signed a C-145 on behalf of Acacia Operating on July 15, 2024, for the transfer of all of Remnant’s remaining 332 wells. He also initialed the declarations described in paragraphs 66–67, *supra*, and affirmed the truth of those statements.

238. Of these 332 wells transferred in the batch C-145, 136 were for wells on State lands, and a further 23 were for wells for which the State owns the mineral rights.

239. Gilmore knowingly made a false, misleading, or fraudulent record or statement to avoid or decrease Remnant’s obligation to pay or transmit money to the State of New Mexico, because:

- a. Gilmore had an 80% interest in Acacia Resources, which was the sole member of Acacia Operating, so that Gilmore had an 80% interest in Acacia Operating;

- b. At the time of these statements, Remnant was still out of compliance with Subsection A of 19.15.5.9 NMAC; and
- c. Gilmore was a director, officer or partner of Remnant within five years of making that statement.

240. Upon information and belief, Gray, Stitzel, and Gilmore conspired to make a false, misleading or fraudulent record or statement in the C-145 transfer applications from Remnant to Acacia that enabled Remnant to avoid civil penalties—including those arising from the 2018 Settlement Agreement—and environmental liabilities, and to avoid transferring property or money to the State in the form of plugging and remediating wells and production facilities on State lands, in violation of Section 44-9-3(A)(4).

241. Because of these false, misleading or fraudulent statements, OCD approved the transfer of 332 wells from Remnant to Acacia in August 2024.

242. But for these declarations, OCD would not have transferred the 332 wells to Acacia, or would have imposed conditions or secured guarantees sufficient to ensure that Acacia would be financially able to plug, restore, and remediate its wells and production facilities when those requirements came due.

243. Plaintiffs seek civil penalties against the Remnant Companies and Individual Defendants for each violation of FATA, including attorneys' fees and costs.

244. Plaintiffs also seek three times the amount of damages sustained by New Mexico and OCD because of these violations in an amount to be proven at trial.

245. Plaintiffs seek joint and several liability among the Individual Defendants pursuant to NMSA 1978, § 44-9-13.

COUNT V
VIOLATIONS OF FRAUD AGAINST TAXPAYERS ACT, NMSA 1978, § 44-9-3(A)(1)-(3)
FALSE CLAIMS against ACACIA COMPANIES, STITZEL, GILMORE & GRAY
for C-145 applications to transfer wells from Remnant to Acacia

246. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

247. A transferee's C-145 application for a permit to operate oil and gas wells on State land is a "claim for . . . approval" under FATA, NMSA 1978, § 44-9-3(A)(1), because it is a "request . . . for . . . services when all or a portion of the . . . services requested or demanded issues from or is provided . . . by the state," § 44-9-2(A).

248. A permit to operate wells within the State of New Mexico, whether on State, federal, or private property is also a "claim" under FATA because the operator permit provides "services" to operators to support their oil and gas production, and those services "issue[] from" the State. A permit to operate also gives an operator access to, and authority to use, mineral rights.

249. Gray, Gilmore, Stitzel, and Acacia Operating are all "person[s]" as defined by FATA. § 44-9-2(D).

250. Gray, Stitzel, and Gilmore are officers, directors, or partners of Remnant Oil Operating.

251. Stitzel and Gilmore are officers, directors, or partners of Acacia Operating.

252. In January and February 2022, Remnant was out of compliance with Subsection A of 19.15.5.9 NMAC because of its high number of inactive wells. At that time, Remnant was also subject to, and out of compliance with, the December 2018 Settlement Agreement with OCD.

FATA Claim for Tier 1 Transfers

253. Stitzel signed four C-145 applications on behalf of Acacia Operating that were approved by OCD in January and February 2022: Permit #305249, submitted on January 11, 2022 and approved on January 12, 2022; Permit #306385, submitted on January 18, 2022, and approved

on January 19, 2022; Permit #306631, submitted on February 9, 2022, and approved on February 10, 2022; and Permit #306629, submitted on February 11, 2022 and approved on February 11, 2022.

254. In each of these applications, Stitzel initialed the declarations described in paragraphs 66–67, *supra*, and affirmed the truth of those statements, including that “[n]o person with an interest exceeding 25% in the undersigned company is, or was within the last 5 years, an officer, director, partner or person with a 25% or greater interest in another entity that is not currently in compliance with Subsection A of 19.15.5.9 NMAC.”

255. Stitzel thus knowingly presented to OCD a false or fraudulent claim for approval of the C-145 Change-of-Operator application in violation of Section 44-9-3(A)(1), and knowingly made or caused to be made a false, misleading or fraudulent record statement to obtain or support the approval of a false or fraudulent claim in violation of Section 44-9-3(A)(2), because:

- a. Gilmore had an 80% interest in Acacia Resources, which was the sole member of Acacia Operating, so that Gilmore had an 80% interest in Acacia Operating;
- b. At the time of these statements, Remnant was out of compliance with Subsection A of 19.15.5.9 NMAC; and
- c. Gilmore was a director, officer or partner of Remnant within five years of Stitzel making that statement.

256. Gilmore signed as President of the previous operator and transferor, Remnant Oil Operating, and so was aware of Stitzel’s misleading or fraudulent statements on the C-145s.

257. Upon information and belief, Gray, Stitzel, and Gilmore conspired to make a false, misleading or fraudulent record or statement in the C-145 transfer applications from Remnant to Acacia to obtain approval of the C-145 Change-of-Operator applications, in violation of Section 44-9-3(A)(3).

258. Because of these false, misleading or fraudulent statements or claims, OCD approved the transfer of 72 wells from Remnant to Acacia in four applications in January and February 2022.

259. But for these declarations, OCD would not have transferred the 72 wells to Acacia, or would have imposed conditions or secured guarantees sufficient to ensure that Acacia would be financially able to plug, restore, and remediate its wells and production facilities when those requirements came due.

FATA Claim for Tier 2 Transfers

260. Gilmore also signed a C-145 on behalf of Acacia Operating on July 15, 2024, for the transfer of all Remnant's remaining 332 wells. He also initialed the declarations described in paragraphs 66–67, *supra*, and affirmed the truth of those statements.

261. Gilmore thus knowingly presented to OCD a false or fraudulent claim for approval of the C-145 Change-of-Operator applications, and knowingly made or caused to be made a false, misleading or fraudulent statement to obtain or support the approval of a false or fraudulent claim, because:

- a. Gilmore had an 80% interest in Acacia Resources, which was the sole member of Acacia Operating, so that Gilmore had an 80% interest in Acacia Operating;
- b. At the time of these statements, Remnant was still out of compliance with Subsection A of 19.15.5.9 NMAC; and
- c. Gilmore was a director, officer or partner of Remnant within five years of making that statement.

262. Upon information and belief, Gray, Stitzel, and Gilmore conspired to defraud the state by obtaining approval on a false or fraudulent claim for approval of the C-145 Change-of-Operator applications from Remnant to Acacia, in violation of Section 44-9-3(A)(3).

263. Because of these false, misleading or fraudulent statements or claims, OCD approved the C-145 application and transferred 332 wells from Remnant to Acacia in August 2024.

264. But for these declarations, OCD would not have approved the C-145 application or transferred the permits for the 332 wells to Acacia, or would have imposed conditions or secured guarantees sufficient to address liability for the plugging and remediation of these wells.

265. But for these false, misleading or fraudulent statements, OCD would not have approved the transfer of the wells to Acacia.

266. Plaintiffs seek civil penalties against the Remnant Companies, Acacia Companies, and Individual Defendants for each violation of FATA, including attorneys' fees and costs.

267. Plaintiffs seek joint and several liability among the Individual Defendants pursuant to NMSA 1978, § 44-9-13.

COUNT VI
UNJUST ENRICHMENT
(Against SOLIS PARTNERS, PECOS SLOPE HOLDINGS, NEW ERA, GILMORE,
STITZEL, and GRAY)

268. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

269. Individual Defendants, Solis Partners, Pecos Slope Holdings, and New Era have knowingly and unjustly benefited from the State of New Mexico by fraudulently obtaining the State's permission to transfer operation of the highest producing wells from Remnant and Acacia to their respective portfolios, leaving the State on the hook, without just compensation, for retirement of the inactive wells they abandoned.

270. Defendants thus received significant revenue (possibly into the millions of dollars) that they knew would be required to address Remnant's and Acacia's AROs under state law. This has forced the State to step in to plug and remediate Remnant and Acacia's inactive wells, at the State's and taxpayers' expense, without compensation from Defendants.

271. Allowing the Individual Defendants, Solis Partners, Pecos Slope Holdings, and New Era to retain the benefit of the State's plugging and remediation of the abandoned wells without compensation to the State and its taxpayers would be against equity and good conscience.

272. Plaintiffs seek restitution from the Individual Defendants, Solis Partners, Pecos Slope Holdings, and New Era for the State's past, present, and future costs to plug and remediate the wells that they abandoned to Remnant and Acacia, as just compensation for New Mexico's performance as well-plugger of last resort.

273. As a result of the unjust enrichment of Individual Defendants, Solis Partners, Pecos Slope Holdings, and New Era, Plaintiffs request restitution in an amount to be proven at trial.

274. Defendants will continue to be unjustly enriched as the State will have to step in and plug and remediate Remnant's and Acacia's wells in the future.

COUNT VII
CIVIL CONSPIRACY to Commit UVTA Violations
(Against ACACIA, SOLIS PARTNERS, and INDIVIDUAL DEFENDANTS for transfer of
gas wells from Acacia to Solis Partners)

275. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

276. Upon information and belief, Remnant, Acacia, Gray, Stitzel and Gilmore conspired to transfer to Solis Partners the most valuable oil and gas assets Acacia acquired from Remnant, with actual intent to hinder, delay or defraud creditors of Remnant.

277. Gray, Gilmore and Acacia conspired to transfer the wells to Solis Partners, via Remnant, with actual intent to hinder, delay or defraud creditors of Acacia, because:

- a. Both Gray and Gilmore knew that the transfer of wells from Acacia to Solis Partners was made to an insider of the debtor, Gray;
- b. Gray and, upon information and belief, Gilmore, knew that Gray would become a member of Solis Partners shortly after the transfer was submitted to OCD; became the manager and CEO of Solis Partners; and that Gray had been CEO of Solis Partner's parent company, New Era Helium, since July 2020;

- c. Upon information and belief, Gray, Stitzel and Gilmore knew that the transfer of wells from Acacia to Solis Partners was concealed from the bankruptcy court;
- d. Upon information and belief, Gray, Stitzel and Gilmore knew that the transfer to Solis Partners was of substantially all of Remnant's and Acacia's *valuable* oil and gas assets;
- e. Upon information and belief, Gray and Gilmore knew that Solis Partners paid below market value for the wells, if it paid anything;
- f. Gray, Stitzel and Gilmore knew that Remnant was insolvent at the time of the transfer because it was in bankruptcy, and the transfer of wells to Solis Partners further contributed to Acacia's functional insolvency;
- g. Upon information and belief, Gray, Stitzel, and Gilmore knew that Acacia transferred the wells without a reasonably equivalent value in exchange.

278. Gray, Gilmore, Acacia, and Solis Partners conspired to transfer the wells to Solis Partners without providing Acacia with reasonably equivalent value for the wells transferred and with awareness that:

- a. Acacia was engaged in a business—operating oil and gas wells under New Mexico's oil and gas regulatory program—for which its remaining assets were unreasonably small in relation to the business, including as a result of the well plugging and remediation obligations imposed under New Mexico law;
- b. Acacia intended to incur, or believed or reasonably should have believed that it would incur, debts beyond its ability to pay as they became due, including the obligation to plug and remediate all of its wells;
- c. Acacia was insolvent, including as a result of the transfer of the 7 gas wells to Solis Partners.

279. Gilmore signed the bill of sale for the 87 gas wells on behalf of Acacia on July 14, 2021, which was recorded with the Chaves County clerk on July 26, 2021.

280. Upon information and belief, Solis Partners, Gray, Stitzel, and Gilmore conspired to transfer Acacia's best-producing gas wells to Solis Partners, thus segregating Acacia's best assets from Acacia's large environmental liabilities.

281. As a result of these Defendants' conspiracy, Plaintiffs have sustained damages in an amount to be proven at trial.

COUNT VIII
CIVIL CONSPIRACY to Commit FATA Violations
(Against REMNANT, ACACIA, GRAY, GILMORE, and STITZEL)

282. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

283. Upon information and belief, Remnant, Acacia, Gray, Stitzel, and Gilmore conspired to submit false, misleading, or fraudulent records or statements to OCD to avoid or decrease Remnant's and the Individual Defendants' obligations to pay or transmit money or property to the State of New Mexico and OCD.

284. Remnant, Acacia, Gray, Stitzel, and Gilmore also conspired to defraud the State by presenting or causing to be presented, a false, or fraudulent claim for OCD to approve the transfer of Remnant's wells to Acacia.

285. As a result of Defendants' conspiracy, Plaintiffs have sustained damages in an amount to be proven at trial.

COUNT IX
PIERCING CORPORATE VEIL/ALTER EGO
(Against REMNANT COMPANIES, GILMORE OIL AND GAS, RS RESOURCES, WS
OIL AND GAS, FIRST GRAY CORPORATION, BLUEBIRD ENERGY, STITZEL
CORPORATION, GRAY, GILMORE, and STITZEL)

286. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

287. Gray, Gilmore, and Stitzel created and manipulated the Corporate Defendants involved in the Remnant Companies to further their own interests.

288. Gray, Stitzel and Gilmore were officers, directors and/or partners of the Remnant Companies.

289. The interest in the wells owned by the Remnant Companies in 2015 was equally split between the three limited partnerships of WS Oil and Gas, Ltd., RS Resources, Ltd., and Gilmore Oil and Gas, Ltd.

290. Upon information and belief, Gray, Stitzel, and Gilmore each created alter ego limited partnerships (WS Oil and Gas, Ltd., RS Resources, Ltd., and Gilmore Oil and Gas, Ltd.), in an attempt to improperly insulate themselves from reasonably foreseen and knowable environmental liabilities for their concerted actions taken on behalf of principal Remnant.

291. Business formation documents for the three limited partnerships list only 2 directors for each of the general partners consisting of Gray, Stitzel, and Gilmore and their then spouses.

292. Upon information and belief, Gray, Stitzel and Gilmore enjoyed complete control of RS Resources, Gilmore Oil & Gas, and WS Oil and Gas, and managed the day-to-day business activities and coordinated decision-making on behalf of each of these shell entities to facilitate fraudulent and deceptive transfers from Remnant to the Acacia Companies, and from Acacia to Solis Partners.

293. The limited partnerships and their respective general partners, Stitzel Corporation, Bluebird Energy Corporation, and First Gray Corporation, were alter egos of Stitzel, Gilmore, and Gray.

294. Upon information and belief, WS Oil and Gas, RS Resources, and Gilmore Oil & Gas did not function independently from the Remnant Companies and their funds were commingled with Remnant's funds and Gray's, Gilmore's and Stitzel's personal funds.

295. Upon information and belief, there was a commingling of corporate funds and shareholder funds between Remnant Oil Operating, Remnant Oil Company, and the Corporate Defendants involved in the Remnant Companies. As Gray explained in his deposition in the Remnant bankruptcy, his partnership, WS Oil and Gas, had assumed a \$400,000 note that Remnant owed to Stitzel's partnership, RS Resources, which Gray therefore believed Remnant allegedly owed WS Oil and Gas \$400,000 – a debt that was not addressed in the Remnant bankruptcy. *See* ¶ 127.

296. Upon information and belief, WS Oil and Gas, RS Resources, and Gilmore Oil & Gas did not keep minutes or adhere to formal business or accounting practices. Likewise, Gray has testified that the Remnant Companies did not have “board meetings” and “never [had] an official annual meeting.” According to the Remnant bankruptcy proceeding, there also were no written agreements as to substantial amounts paid for consulting and “accrued” consulting fees to WS Oil and Gas and RS Resources and informal arrangements for expense reporting by the three partnerships.

297. Upon information and belief, WS Oil and Gas, RS Resources, and Gilmore Oil & Gas also were not operated in a legitimate fashion, but were operated under the domination and control of Gray, Stitzel and Gilmore, who owned the partnerships and acted as their respective managing members and/or directors, despite being limited partners.

298. Gray, Gilmore, and Stitzel and the Corporate Defendants involved in Remnant have unjustly profited from oil and gas production and are now attempting to dump their environmental liabilities on the State in the Acacia bankruptcy, after failing to do so in the Remnant bankruptcy. Defendants' cooperative efforts here were nothing more than a scheme to become judgment proof.

299. Gray's, Gilmore's and Stitzel's domination and control of the Remnant Companies and the Corporate Defendant partnerships for the improper purposes described above (*i.e.* to fraudulently transfer Remnant's negative assets and environmental liabilities to bankrupt-destined Acacia Companies) has proximately caused Plaintiffs' injuries, the risks of which were known and deliberately ignored by the Individual Defendants. The inability of the State to recover for AROs and environmental liabilities is itself a harm proximately and actually caused by Gray's, Gilmore's and Stitzel's abuses of the corporate form.

300. The Individual Defendants schemed to use the Corporate Defendants of Remnant to perpetrate a fraud on the State, and to circumvent New Mexico's oil and gas regulations. As such, the corporate veils of Remnant and their respective partnerships should be pierced.

301. In the interests of justice, liability for Remnant's (and in turn Acacia's) environmental liabilities should also be imposed on the Individual Defendants, Gray, Gilmore, and Stitzel.

COUNT X
PIERCING CORPORATE VEIL/ALTER EGO
(Against ACACIA COMPANIES, GILMORE, AND STITZEL)

302. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

303. Gilmore and Stitzel, in coordination with Gray, created and manipulated the Acacia Companies to further their own individual interests:

- a. Upon information and belief, the Acacia Companies were not operated in a legitimate fashion, but were operated under the domination and control of Gilmore, who owned 80% of the company and was its managing member.
- b. Neither Acacia Resources nor Acacia Operating had any accountant or bookkeeper who maintained books and records for those companies since 2022 and neither company could identify any firm or individual that holds these records. Neither company has issued a financial statement in the past two years, and no inventories of property have been taken. Neither company paid any salary or compensation, loans, or credits on loans.

- c. Despite the lack of paperwork for either of the Acacia Companies, in the 90 days before filing for bankruptcy, Acacia Operating had made payments to creditors as diverse as Amazon, Walmart, Christian Care Ministries, KFC, Natural Foods, O'Reilly Auto Parts, Sirius XM Radio, TikTok, and a Taqueria, indicating that Acacia Operating's account was being used as a personal account by Gilmore and/or Stitzel.
- d. Upon information and belief, there was a commingling of corporate funds, individual, and shareholder funds in the Acacia Companies, and the Corporate Defendants involved in the Acacia Companies.
- e. Upon information and belief, Acacia Resources and Acacia Operating did not function independently from each other.
- f. Upon information and belief, no minutes were kept for the Acacia Companies. This and other formalities were regularly discarded in favor of enriching the Individual Defendants at the ultimate expense of the State.

304. The Acacia Companies were set up for an improper purpose; namely, to receive Remnant's negative-value assets and to be deliberately undercapitalized so that, should any plugging enforcement be brought, Acacia would discharge its obligations in bankruptcy.

- a. Upon information and belief, the Acacia Companies were deliberately underfunded and undercapitalized in light of their alleged purpose of operating wells in accordance with State law. This was a deliberate choice Gilmore and Stitzel made to make Acacia "judgment proof," as they had done once already with Remnant.
- b. Upon information and belief, to accomplish this wrongful purpose, Gilmore and Stitzel schemed with Gray to ensure that Acacia would be left with the least productive wells, unable to fund its AROs, which the Individual Defendants planned to discharge in bankruptcy.
- c. To that end, Gilmore fraudulently signed the OCD Change-of-Operator application on behalf of Acacia, to transfer Remnant's wells. Gilmore at the time held an 80% interest in the Acacia Companies, even though he had also been a director, officer, or partner of Remnant, and even though his business owned 33% of Remnant. Gilmore knew that Remnant was not in compliance with OCD regulations, but he hid his Remnant insider status from OCD to gain its approval for the transfer of the wells to Acacia.

305. Gilmore's and Stitzel's domination and control of the Remnant and Acacia Companies for the improper purposes described above has proximately caused Plaintiffs' injuries,

the risks of which were known and deliberately disregarded by the Individual Defendants. The inability of the State to recover for AROs and environmental liabilities is itself a harm proximately and actually caused by Gilmore's and Stitzel's abuse of the corporate form.

306. Recognizing the Acacia Companies' corporate form in this circumstance would result in an injustice, because Gilmore and Stitzel schemed to profit from oil and gas production and are now attempting to dump their environmental liabilities on the State in the Acacia bankruptcy, after failing to do so in the Remnant bankruptcy. Defendants' cooperative efforts here were a deliberate effort to become judgment proof.

307. The Individual Defendants schemed to use Acacia to perpetrate a fraud on the State, and to circumvent New Mexico's oil and gas regulations.

308. In the interests of justice, the separate corporate forms of the Acacia Companies should be disregarded, and Gilmore and Stitzel should be held accountable along with their alter ego entities. The assets of the Acacia Companies, Gilmore, and Stitzel should, thus, be made available to satisfy the plugging, remediation, and other environmental obligations of Remnant and Acacia, as well as any additional liability Gilmore and Stitzel have incurred as a result of the wrongful activities alleged in this Complaint.

COUNT XI
PIERCING CORPORATE VEIL/ALTER EGO
(Against SOLIS PARTNERS, PECOS SLOPE HOLDINGS, and GRAY)

309. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

310. Upon information and belief, Gray created, controlled, and dominated Solis Partners, LLC, and Pecos Slope Holdings, LLC, as mere instrumentalities for his personal use and benefit. Factors demonstrating domination and control of Solis Partners by Gray include:

- a. Gray, a Remnant insider, created Solis Partners in June 2020 to receive Remnant's most profitable gas assets, knowing it would deprive Remnant and Acacia of critical funds needed to satisfy its existing AROs. Gray listed

his own contact email when he registered Solis Partners with the New Mexico Secretary of State in June 2020. Gray directed the registration certificate and other business documents be sent to him, and he subsequently represented to the SEC that he “was the managing member of Solis Partners, LLC beginning in 2020.”

- b. In July 2020, Gray also registered Solis Partners with OCD as a new operator, again listing himself as Solis’ point of contact. Also in July 2020, Gray became the CEO of New Era, which Gray would later use to wholly acquire Solis Partners.
- c. Despite Gray’s domination and control over Solis Partners, in January 2022 he signed on behalf of the transferor, as Remnant’s “Managing Member,” on OCD’s C-145 Change-of-Operator application and, upon information and belief, directed Joel Solis to sign the form on behalf of the transferee, Solis Partners. On OCD’s form, Joel Solis claimed he was “Managing Member” of Solis Partners, despite Gray’s subsequent sworn statement to the SEC that Gray was, in fact, the Managing Member of Solis as early as 2020. Upon information and belief, Gray and Joel Solis misrepresented Gray’s role to OCD to hide Gray’s insider status from the agency.
- d. Gray, likewise, is the sole owner and manager of Pecos Slope Holdings, LLC, which he uses as his personal holding company. New Era’s August 19, 2025, SEC filing treats Gray and Pecos Slope Holdings as one in the same person, listing Gray as beneficial owner of the same shares owned by Pecos Slope Holdings. Gray signed that SEC filing as CEO, COO, CFO, CAO, and as “Attorney-in-fact.”
- e. Gray treated the assets and finances of Solis Partners and Pecos Holdings as interchangeable with his own. At some point in 2022, the same year he signed the Remnant to Solis Partners change in operator application as Remnant’s Managing Member, he began drawing a salary of \$273,000 from Solis Partners as a member of that entity. Later, in February 2023, Gray coordinated a reorganization and plan share exchange agreement with New Era, whereby Solis became a wholly owned subsidiary of New Era. Solis Partners quickly mortgaged more than \$10 million of its assets to benefit New Era. New Era later granted Gray a salary of \$475,000.
- f. Gray ignored Solis Partner’s corporate formalities as it suited him, using the entity’s “Managing Member” title when making disclosures to the SEC on New Era’s behalf, but having Joel Solis sign as “Managing Member” of the same entity at the same time when Gray needed to hide his insider status from OCD.

311. Solis Partners was deliberately set up by Gray for an improper purpose: Upon information and belief, Gray's use of Solis Partners and Pecos Slope Holdings were part of a scheme concocted with his Remnant partners, Stitzel and Gilmore, designed to syphon any remaining value from Remnant and its successor in interest, Acacia, by separating those companies' productive assets from their liabilities to drive them into bankruptcy and discharge their asset retirement obligations. Factors showing an improper purpose include:

- a. Gray, a Remnant insider, orchestrated the sale of the 87 wells to Solis Partners, first through Remnant's bankruptcy proceeding in which the 87 wells were sold by Remnant to Acacia in July 2020, then quickly sold again by Acacia—which was controlled by his two Remnant partners, Gilmore and Stitzel—to Solis Partners in July 2021. The bill of sale listed a purchase price of \$10.
- b. The wells that Gray orchestrated to be transferred from Remnant, through Acacia, to Solis Partners were among the most productive of the wells in Remnant's portfolio were sold for little or no consideration. When taken together with the transfer of the rest of the productive wells to entities controlled by Stitzel and Gilmore, Gray's scheme purposefully left Remnant and its successor in interest, Acacia, severely undercapitalized and ensured that neither entity would be able to fund its AROs in accordance with New Mexico law.
- c. To effect this transfer of the 87 wells and reap their profits, Gray then fraudulently orchestrated OCD's approval of the Change-of-Operator application for the 87 wells from Remnant to Solis Partners, signing as transferor on behalf of Remnant and directing Joel Solis to sign as transferee on behalf of Solis Partners. Upon information and belief, Gray and Joel Solis both knew that Remnant was out of compliance with OCD's asset retirement regulations and both, thus, fraudulently signed OCD's attestation knowing that Gray was a "person with an interest exceeding 25% in the undersigned company [who is] an officer, director, partner or person with a 25% or greater interest in another entity that is not currently in compliance."
- d. By orchestrating this scheme, Gray's purpose was to shield valuable assets and income from the State's reach, to perpetuate a fraud on the State and on creditors, and to evade the oil and gas regulations that require operators to fund plugging and remediation of their wells. These acts were done in bad faith and for Gray's personal gain, rather than any legitimate business purpose of the corporate entities.

312. Upon information and belief, Pecos Slope Holdings and Solis Partners are not operated as independent businesses and are not being managed properly or independently, but are alter egos of Gray. Gray has personally profited from this abuse of the corporate form:

- a. After draining Remnant and Acacia of all of their assets, leaving them unable to meet their state-mandated AROs and driving them into bankruptcy, and after fraudulently orchestrating the transfer of 87 of Remnant's best wells through Acacia to Solis Partners, Gray became Managing Member of Solis Partners and then CEO of its new parent, New Era.
- b. As Managing Member of Solis Partners, he drew a salary of \$273,000; and as CEO of New Era, he drew a salary of \$475,000. New Era's revenues are primarily drawn from the very wells Gray diverted out of Remnant and Acacia to Solis Partners.
- c. Gray thus used the corporate entities to enrich himself using assets that rightfully should have been available to satisfy Remnant's and Acacia's AROs, and he did so through fraudulent means.

313. Gray's domination and misuse of Solis Partners and Pecos Slope Holdings for the improper purposes described above was the direct and proximate cause of a significant injury to Plaintiffs:

- a. By stripping Remnant and Acacia of their profitable wells and undercapitalizing those entities while funneling assets and value to Gray-controlled Solis Partners and New Era, Gray ensured that Remnant and Acacia would become insolvent and unable to meet their state-law obligations to plug and remediate its wells.
- b. As a foreseeable result of this scheme, Remnant and Acacia lacked the resources to address their environmental liabilities, and the State of New Mexico was left to bear the financial burden of plugging and remediating these wells.
- c. The State's assumption of these costs—presently and in the future—is a harm that was not only foreseeable to Gray but was in fact the intended outcome of his conduct. But for Gray's abuse of the corporate form and diversion of assets, Remnant or Acacia would have retained revenue-producing wells or equivalent value with which to fulfill their environmental obligations. The inability of the State to recover the costs of

addressing Remnant's and Acacia's wells is thus directly attributable to Gray's wrongful acts through his alter ego entities.

314. In the interest of justice, the separate corporate forms of Solis Partners and Pecos Slope Holdings should be disregarded, and Gray should be held accountable along with his alter ego entities. The assets of Solis Partners, Pecos Slope Holdings, and Gray should, thus, be made available to satisfy the plugging, remediation, and other environmental obligations of Remnant and Acacia, as well as any additional liability Gray has incurred as a result of the wrongful activities alleged in this Complaint.

COUNT XII
PIERCING CORPORATE VEIL/ALTER EGO
(Against GILMORE and CIBOLO ENERGY RESOURCES)

315. Plaintiffs re-allege all prior paragraphs of this Complaint as if fully set forth herein.

316. Gilmore set up Cibolo Energy in December 2019 for an improper purpose: to provide and acquire the DIP loans for Remnant, knowing that those liens would be transferred to an insider company also run by Gilmore—Acacia—thus allowing Remnant to discharge certain debts and liabilities in bankruptcy, but otherwise continue to operate as Acacia.

317. Cibolo Energy's improper purpose and Gilmore's financial domination and control of Acacia through Cibolo Energy is evident in Acacia's representations in the Acacia bankruptcy that Cibolo Energy is not an insider of Acacia, and that a letter of credit from Community National Bank made out to OCD is subject to a lien held by Cibolo Energy. This misrepresentation further shows that Cibolo Energy was created for an improper purpose.

318. Upon information and belief, Cibolo Energy is not operated as an independent business and is not being managed properly or independently, but is an alter ego of Gilmore, used to coordinate the transfer of Remnant's negative value assets to Acacia and ensure secured claims are carried over from the Remnant bankruptcy for Gilmore's interest.

319. The interests of justice require that the assets of Gilmore and Cibolo Energy Resources be made available to satisfy Remnant's and Acacia's past, present, and future environmental liabilities, and Gilmore's individual liability for the violations of the Oil and Gas Act, FATA, and the UVTA, as listed above.

VI. REQUEST FOR RELIEF

WHEREFORE, Plaintiffs respectfully pray that this Court grant the following relief:

- A. Assess civil penalties under the Oil and Gas Act;
- B. Order forfeiture of financial assurances, reimbursement, and indemnification against Acacia Operating for past plugging and remediation costs that OCD or the State has already incurred;
- C. Declare that the transfer of 87 wells from Acacia to Solis Partners is avoidable and/or fraudulent, and adjust the remedies for the fraudulent transfer as the equities may require;
- D. Declare that the corporate form and limited liability of Acacia, Remnant, WS Oil and Gas Ltd., First Gray Corporation, Gilmore Oil and Gas, Bluebird Corporation, Stitzel Corporation, and RS Resources Ltd. be disregarded in the interests of justice so that Gray, Gilmore, and Stitzel may be held individually liable for Remnant's and Acacia's past, present and future environmental liabilities and AROs, and for civil penalties;
- E. Declare that Cibolo Energy was set up for an improper purpose and that its corporate form should be disregarded in the interests of justice;
- F. Declare that Gray, Gilmore and Stitzel conducted a civil conspiracy to commit FATA and UVTA violations and are jointly and severally liable for the costs of plugging and remediating Remnant's and Acacia's wells and for the civil penalties against Acacia, as well as for any penalties or damages arising from their violations of FATA and the UVTA;

G. Enjoin Defendants from assigning the Letter of Credit made out to OCD to any other entities, including Cibolo Energy;

H. Enjoin Corporate and Individual Defendants from conducting business in New Mexico until they have jointly or severally plugged and remediated all their inactive wells, brought those wells into compliance with regulations, set aside money sufficient to cover future plugging and remediation costs into an escrow account, reimbursed Plaintiffs for costs already spent on plugging and remediating Remnant's and Acacia's wells, and paid damages, civil penalties, and all costs and penalties incident to this suit;

I. Assess penalties and damages under FATA;

J. Award attorneys' fees under FATA;

K. Award costs under FATA; and

L. Award such other relief as the Court deems just and proper.

VII. DEMAND FOR JURY TRIAL

Plaintiffs hereby demand trial by 12-person jury on all issues so triable.

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LATEST NEWS

The Rising Cost of the Oil Industry's Slow Death

Unplugged oil and gas wells accelerate climate change, threaten public health and risk hitting taxpayers' pocketbooks. ProPublica and Capital & Main found that the money set aside to fix the problem falls woefully short of the impending cost.



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By Mark Olalde, ProPublica, and Nick Bowlin, Capital & Main



In the 165 years since the first American oil well struck black gold, the industry has punched millions of holes in the earth, seeking profits gushing from the ground. Now, those wells are running dry, and a generational bill is coming due.

Until wells are properly plugged, many leak oil and brine onto farmland and into waterways and emit toxic and explosive gasses, rendering redevelopment impossible. A noxious lake inundates **West Texas ranchland**, oil bubbles into a **downtown Los Angeles** apartment building and gas seeps into the yards of **suburban Ohio homes**.

But the impact is felt everywhere, as many belch methane, the second-largest contributor to climate change, into the atmosphere.

There are more than 2 million unplugged oil and gas wells that will need to be cleaned up, and the current production boom and windfall profits for industry giants have obscured the bill's imminent arrival. **More than 90% of the country's unplugged wells** either produce little oil and gas or are already dormant.

By law, companies are responsible for plugging and cleaning up wells. Oil drillers set aside funds called bonds, similar to the security deposit on a rental property, that are refunded once they decommission their wells or, if they walk away without doing that work, are taken by the government to cover the cost.

But an analysis by ProPublica and Capital & Main has found that the money set aside for this cleanup work in the 15 states accounting for nearly all the nation's oil and gas production covers less than 2% of the projected cost. That shortfall puts taxpayers at risk of picking up the rest of the massive tab to avoid the environmental, economic and public health consequences of aging oil fields.

The estimated cost to plug and remediate those wells if cleanup is left to the government is \$151.3 billion, according to the states' own data. But the actual price tag will almost certainly be higher — **perhaps tens of billions of dollars more** — because some states don't fully account for the cost of cleaning up pollution. In addition, regulators have yet to locate many wells whose owners have already walked away without plugging them, known as orphan wells, which states predict will number at least in the **hundreds of thousands**.

"The data presents an urgent call to action for state regulators and the Department of the Interior to swiftly and effectively update bond amounts," said Shannon Anderson, who tracks the oil industry's cleanup as organizing director of the Powder River Basin Resource Council, a nonprofit that advocates for Wyoming communities. Anderson and nine other experts, including petroleum engineers and financial analysts, reviewed ProPublica and Capital & Main's findings, which were built using records from 30 state and federal agencies.

"We have allowed companies intentionally to do this," said Megan Milliken Biven, who reviewed the data and is a former program analyst for the Bureau of Ocean Energy Management, a federal regulator of offshore oil rigs, and founder of True Transition, a nonprofit that advocates for oil field workers. "It is the inevitable consequence of an entire regulatory program that is more red carpet than red tape."

It Could Cost \$151.3 Billion to Clean Up the Country's Major Oil Fields
These 15 states, which produce 99% of the country's oil, have \$2.7 billion available to plug wells if that work falls to them.



Sources: State oil regulators and the Department of the Interior, via public records requests by ProPublica and Capital & Main; Enverus.

Regulatory agencies in several states maintain that they have adequate tools to protect taxpayers, such as the authority to require companies to post larger bonds as their wells stop producing. Other states are **working to reform their bonding systems**. Industry representatives, meanwhile, say they have done their part by paying fees on oil production that help fund states' well-plugging efforts.

"Our industry is taking action every day to address the permanent closure of historic oil and natural gas wells and the remediation of historic well sites in accordance with applicable federal and state laws," Holly Hopkins, a vice president of the American Petroleum Institute, the industry's major trade group, said in a statement.

A graveyard of rusting wells rising from once-picturesque sand dunes near Artesia, New Mexico, tells a more complicated story.

Around the corroding skeletons of pump jacks, the ground is stained black from spills. Leaking hydrogen sulfide, which reeks of rotten eggs, has turned the air toxic, making each breath burn. At the base of **one salt-caked well**, a sign indicates who is responsible for the mess. Barely legible beneath splattered oil, it reads "Remnant Oil Operating."

The story of Remnant is the story of the American oil industry.

The industry's household names — Chevron, ExxonMobil and others — often reap the biggest profits from any given oil field. As the booms fade and production falls, wells are sold to a string of ever-smaller companies, many of which let the infrastructure fall into disrepair while violations and leaks skyrocket. The number of idled wells soars too, as companies warehouse them to avoid costly cleanup. By this point, regulators' hands are tied because the bonds states demand to use as leverage are so small. Seeing little incentive to plug wells and get their tiny bonds back, companies slip into bankruptcy court, where executives are protected from their environmental liabilities. When the dust settles, the government is on the hook for the now-orphaned wells.

The practice is so tried-and-true that researchers and activists call it "the playbook."

As the company's name implies, Remnant gathered the industry's dregs into a portfolio of several hundred wells. Drilled decades ago by larger companies, their most productive days were behind them. When Remnant arrived in 2015, it briefly boosted production, but regulatory violations, bad bets and the oil fields' age caught up with the company. Within four years, Remnant filed for bankruptcy protection, and its leadership shuffled assets and liabilities between companies the executives managed.

Remnant representatives did not respond to ProPublica and Capital & Main's requests for comment.

Over their lifespans, the wells that remain in the hands of Remnant and a related company generated roughly \$2 billion in revenue, when adjusted for inflation, enough to cover the cost of their cleanup many times over. This is according to estimates produced from state production data by ProPublica, Capital & Main and Texas-based petroleum reservoir engineer Dwayne Purvis.

The New Mexico State Land Office sent letters in 2023 demanding that cleanup begin. Remnant's executives have yet to comply.



Thousands of pumps, drills, and oil rigs connected by strings of dirt roads in the Permian Basin in Western Texas.
Photo: Jasmin Pawlowicz/Getty Images

Seeking Fortunes

As wildcatters scoured Texas for oil in the 1920s, one hopeful investor christened their well in honor of Saint Rita of Cascia — **the patron saint of impossible causes** — asking for a miracle. The gusher that followed ignited a drilling frenzy in the Permian Basin, from West Texas to southeastern New Mexico.

By the late 1940s, the Square Lake Pool had come alive among New Mexico's sand dunes. Anadarko Production Company — now part of the \$50 billion Oxy Petroleum — took over **the oil field in the 1960s** and increased production. To keep the oil and gas flowing, Anadarko turned to unconventional methods: fracturing underground rock, **injecting wells with gelled water and frac sand** and **waterflooding**. The **chemical treatments continued into the 1980s**, but production steadily declined as the wells aged and underground oil reservoirs were depleted.

In 1995, Xeric Oil & Gas Corp. acquired much of the field. Two years later, Xeric transferred the wells to GP II Energy Inc. In the two decades that followed, the wells ping-ponged to CBS Operating Corp., Boaz Energy LLC, Memorial Production Operating LLC, Marker Oil and **finally, in 2017, to Remnant**.

Remnant was the brainchild of Everett Willard Gray II, Robert Stitzel and Marquis Reed Gilmore Jr., oilmen out of Midland, Texas, the heart of the Permian. They set up

shop north of downtown, their office surrounded by those of other oil companies, a politician and banks in a six-story office building rising above a parking lot full of white pickup trucks.

Initial investments in the wells succeeded in reversing the declining production and squeezed out tens of millions of dollars of additional revenue, estimates based on state data show.

But Gray, Stitzel and Gilmore — who did not respond to requests for comment — reduced the workforce that serviced the wells and limited repairs to cut costs. Regulators noted 146 infractions in the years Remnant and a related company operated the wells, according to New Mexico Oil Conservation Division data. Among them: leaks and spills, degraded wells, a lack of infrastructure to contain spills and “contaminated material on location.” The records show Remnant only brought two of the infractions into compliance, but it continued pumping.

Peer-reviewed studies have found that wells emit methane, a greenhouse gas that in the short term has 85 times the warming impact of carbon dioxide, at a higher rate as they move down the oil industry food chain, from majors to thinly capitalized operators like Remnant.

Transferring wells between companies has historically been approved automatically in New Mexico, as long as the company receiving the wells is in compliance with inactive-well rules and has a bond, according to Oil Conservation Division acting Director Dylan Fuge.

As oil fields age and are passed between companies, it’s also common to let wells stand inactive temporarily to wait out a price dip or complete maintenance. But idling is often a prelude to a well being orphaned, and after a few months of inactivity, the chance that a well never produces again rises significantly.

Across the country, more wells are idle than producing, according to an analysis of data from energy software company Enverus.

Despite a New Mexico law that requires companies to plug, restart or get approval to temporarily idle wells that haven’t produced for 15 months, ProPublica and Capital & Main identified more than 3,100 oil and gas wells in the state — 4% of the state’s portfolio — that sit unproductive and out of compliance, a step away from being orphaned.

A bill introduced in this year’s legislative session — written by the Oil Conservation Division, the industry and certain environmental groups — would’ve reformed New Mexico’s Oil and Gas Act, giving the agency more authority to intervene to stop transfers that pose a risk of leaving wells orphaned. The bill died on the floor of the state’s House of Representatives.

Any reforms would likely come too late for the oil fields in Remnant’s hands, where numerous wells are already idle.

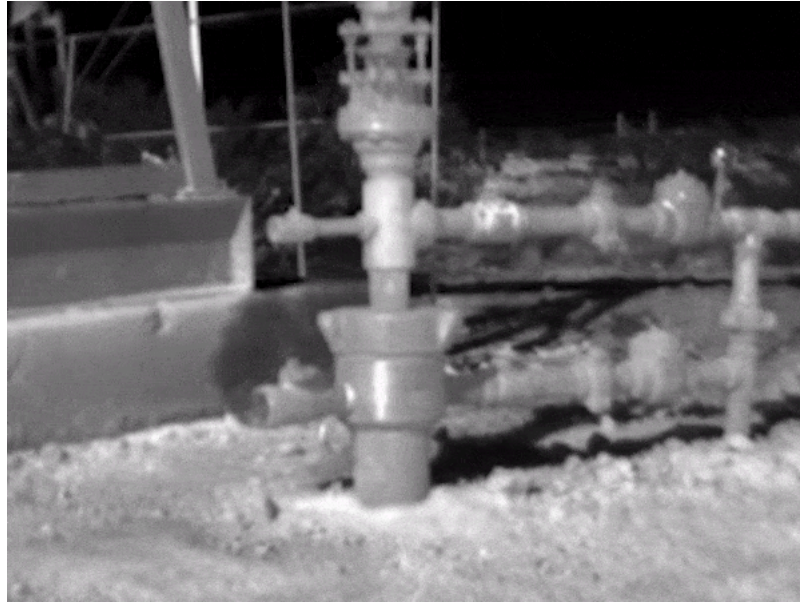
Hesitant to Regulate

On a brisk November day, ProPublica and Capital & Main reporters examined a Remnant well that, like the company, was listed in state records as inactive. Oil

coated the wellhead, rust crept across the pump jack and a faded sign bore Remnant's coat of arms — a bird of prey with outstretched wings perched on a shield.

Suddenly, the well creaked to life, producing for a dead company. A haze appeared. Methane, typically invisible to the naked eye, leaked in such a high concentration that the air shimmered. A handheld gas detector aimed at the wellhead screeched a warning — the amount of escaping methane had made the air explosive.

That day's production and emissions never appeared in state records.



Methane leaks from a Remnant well listed as inactive in state records. The gas is invisible to the naked eye but detectable as a black plume using specialized infrared camera technology. Credit: FLIR footage courtesy of Charlie Barrett/Earthworks

ProPublica and Capital & Main reporters visited dozens of Remnant wells and tank batteries — facilities used for oil storage and early stages of processing — scattered across this rural stretch of New Mexico. Multiple sites emitted explosive levels of methane, with one leak clocked at 10 times the concentration at which the gas can explode.

Several wells belched sour hydrogen sulfide at concentrations that maxed out the gas detector, registering levels three times as high as what is “immediately dangerous to life or health,” according to the National Institute for Occupational Safety and Health.

Oil Conservation Division inspectors hadn't visited some of the wells since 2017, according to agency records.

Two hundred fifty miles northwest of these oil fields, New Mexico's Democrat-controlled government in Santa Fe has for years made big promises on climate change and the environment. But there has been little action to regulate the industry in ways that could hit the bottom line of the state's petroleum companies and oilmen like Remnant's Gray, Stitzel and Gilmore. The taxes and royalties the industry pays, which the state has tied to public education funding, typically account for more than a quarter of the state's general fund, earning it a nickname — “golden goose.”

This close relationship to the industry cuts across parties. When Republicans were in power, the head of the New Mexico Environment Department left to run the New Mexico Oil and Gas Association. Now, the state's Democratic leaders take major fossil

fuel donations, publicly assert that they will not target the industry with aggressive regulations, and block reform.

State Rep. Joanne Ferrary, a Las Cruces Democrat who has worked on oil legislation, had a simple explanation for what dooms these efforts: money. She pointed to the industry's spending on lobbying as well as the threat of losing taxes and royalties. "We do get a lot of money from them," she said, "but those are our resources and they're not doing us any favors."

Consider the state's Office of Natural Resources Trustee, which pursues polluters for financial settlements to clean up the environment. The agency has secured millions of dollars from mines, an Army munitions depot and a wood treatment facility. But it completed just one action for petroleum pollution in decades. Even then, the office only had jurisdiction to pursue a small settlement because a tanker truck flipped on an icy road, spilling refined gasoline and diesel into the Cimarron River.

Legislators attempted to expand the office's authority in 2009, 2010, 2011, 2013 and again last year. All those efforts failed.

Ferrary, who sponsored the 2023 bill to grant the trustee more authority over petroleum and certain cancer-causing substances, said the oil and gas industry has "such strong lobbying that we have to negotiate whatever we are trying to do. It always seems to get negotiated down."

In a recent four-year period, the state's oil and gas industry spent \$11.5 million to influence policy, in addition to employing dozens of lobbyists, according to research from two government accountability nonprofits.

"Lawmakers and regulators appropriately balance the need to hold industry accountable while also ensuring oil and gas operations remain viable," Frederick Bermudez, the vice president of communications for the New Mexico Oil and Gas Association, said in a statement. He added that Remnant is not a member of the trade group and that "bad actors in the industry should be held accountable."

Regulators argue they're underfunded and understaffed, while environmental activists point out agencies are sometimes tasked with simultaneously overseeing and advancing the industry. New Mexico records, for example, show that the Oil Conservation Division inspects roughly half the state's wells annually, but many go years without a visit. Meanwhile, it quickly greenlights requests to drill new wells, generally granting approval for more than 90% of permits within 10 days.

The state does even worse at preparing for the industry's decline. The division secured about 7% of the tens of millions of dollars of additional bonds it requested from companies in violation of idle well rules, according to a ProPublica and Capital & Main analysis of the agency's data. (The division said some companies no longer need to hand over the requested bonds because they have since left their wells as orphans for the state to plug. The state has already labeled more than 1,700 wells as orphans.)

The Oil Conservation Division has "limited bandwidth" and has to triage enforcement, Fuge, its acting director, said, adding that a mix of enforcement actions and business decisions lead companies to plug many of their own wells. "We don't prioritize inactive well actions when the chute's too deep because we want to devote the resources that we have to other enforcement initiatives."



Oil wells cover the landscape near Loco Hills, New Mexico, which sits in the Permian Basin, a major oil- and gas-producing area in West Texas and southeastern New Mexico. Credit: Jim WEST/REPORT DIGITAL-REA/Redux

“Ill-Prepared for This Last Phase of Life”

By the time regulators took notice of Remnant’s myriad violations and idle wells, it was too late.

Core to oil regulators’ power are bonds, the financial assurances oil companies must set aside to guarantee that wells are plugged. Proper cleanup is expensive, so when bonding levels are low, companies have no incentive to finish cleanup and retrieve their bonds.

To decommission a typical orphan well in New Mexico costs the state about \$167,000, according to documents the Oil Conservation Division submitted to the U.S. Department of the Interior. That translates to an \$11.8 billion shortfall between the potential future cleanup costs and bonds that companies set aside with the agency, ProPublica and Capital & Main found.

“The state of New Mexico is short,” Fuge said. “We don’t hold sufficient bonding to cover likely plugging liabilities.”

Fuge suggested the shortfall might be smaller, deferring to [an environmental group’s lower projection](#). Elsewhere in state government, [the State Land Office in 2022 estimated](#) the gap between bonds and cleanup costs was \$8.1 billion.

Based on the per-well cleanup costs Fuge’s agency submitted to the federal government, the wells belonging to Remnant and a related company could cost the state \$67 million if they are orphaned. The companies have only set aside about \$1.5 million in bonds across three state and federal agencies.

Under current New Mexico rules, companies only need to put up a single bond worth a maximum of \$250,000 — no matter how many wells they have — with the Oil Conservation Division. The failed reform bill would’ve increased that cap to \$10 million. The division can request additional bonds to cover the increased risk from idle wells, but when it asked Remnant and a related company for about \$3 million, the operators put up less than a tenth of that and kept pumping oil.

Weak bonding rules and an unwillingness to take on the industry have created similar shortfalls across the nation.

The Pennsylvania General Assembly in the 1990s, for example, forced the state's oil regulators to hand back money that oil companies had set aside to plug wells drilled prior to 1985, which numbered in the tens of thousands of wells.

Oklahoma allows oil companies that prove they're worth at least \$50,000 — about the price of one of the ubiquitous pickup trucks cruising the oil fields — to set aside no money to plug their wells.

And Kansas gives companies, no matter how many wells they own, the option of paying a flat \$100 annual fee instead of setting aside a bond, as long as they have not committed recent infractions. Seven out of eight companies in the state take this route, leaving an average of less than \$13 in bonds for each of the state's 150,000 unplugged wells. The state's estimated cleanup costs — which experts said may be low — would mean the state faces about a \$1 billion shortfall between the bonds and plugging costs.

"Regulations that may have worked well enough in the past have left the public and the industry ill-prepared for this last phase of life for millions of old wells," Purvis, the petroleum reservoir engineer, said. "Left unchanged, current regulations and practices will continue to accrue liabilities that will ultimately fall on taxpayers."

All told, oil drillers have set aside only \$2.7 billion in bonds with the 15 states that account for nearly all the country's oil and gas production and \$204 million with the Bureau of Land Management, the main federal oil regulator. The expected cost to plug and clean up wells in those states is \$151.3 billion.

ProPublica and Capital & Main obtained and analyzed more than a thousand pages of [states' applications for funding to plug orphan wells](#) as part of the Biden administration's Infrastructure Investment and Jobs Act. The documents reveal for the first time states' own estimates of the cleanup costs in a way that allows states to be compared.

"You can give us probably the entire infrastructure act funding — \$4.7 billion — and we'd probably spend that in Pennsylvania," Kurt Klapkowski, head of the commonwealth's Office of Oil and Gas Management, told a national meeting of regulators in October.

Some states acknowledged that accumulated costs from unplugged wells are high but said they could be mitigated by additional money in the states' orphan well funds — which often contain several million dollars and were not included in this study — and by tools meant to ensure companies, rather than taxpayers, plug the wells. For example, Wyoming significantly increases the bonds required of operators when wells go idle.

"Wyoming is fully bonded to be protective of the wells" under state oversight, Tom Kropatsch, oil and gas supervisor of the Wyoming Oil and Gas Conservation Commission, said in an email, pointing to the fact that most wells that have been plugged in Wyoming were plugged by the industry, not the state. "The bonds we hold are adjusted on an ongoing basis as our agency conducts an annual bond review of each operator."

North Dakota regulators, with the luxury of a still highly profitable industry, have resources to more rigorously police oil. Lynn Helms, director of the North Dakota

Department of Mineral Resources, said this includes enough inspectors to observe well plugging, determine whether idle wells require additional bonding and scrutinize proposed well transfers to smaller operators, which are “the biggest risk.”

Helms said the state aims to cover as much as 10% of future plugging costs through bonds and orphan well funds, although his department is still working to reach that level.

Both North Dakota and Wyoming hold more bonds and face lower impending liability than New Mexico.

“When the bottom goes out of this oil and gas production economy, who’s going to be left holding that bag?” New Mexico Commissioner of Public Lands Stephanie Garcia Richard asked.



Wind turbines have sprung up around oil wells near Odessa, Texas. Credit:Lalo de Almeida/Folhapress/Panos/Redux

“I Got Big-Time Screwed Over”

In July 2019, less than four years after Gray, Stitzel and Gilmore began buying up wells, Remnant was in bad shape. Its wells were deteriorating and production was declining. The owners had made a costly gamble on an oil sale and the company’s bank demanded payment on a debt, according to court testimony from Gray.

So Remnant employed a tactic that has saved the oil industry billions — **its owners filed for Chapter 11 bankruptcy protection** with a court in Texas.

The Bankruptcy Code is meant to protect jobs, creditors and the economy by allowing companies to stabilize during rough patches. But bankruptcy court is a key step in the industry’s playbook, as it **has become an oil field escape hatch**, effectively allowing companies with aging wells to sell off valuable assets while orphaning wells in need of immediate cleanup. Companies can also stop the clock on many enforcement actions.

Between 2015 and 2021, 256 oil and gas producers entered bankruptcy protection across the country, carrying with them about \$175 billion in debt, **according to Haynes and Boone**, a law firm that produced the most comprehensive research on oil

field bankruptcies. (Haynes and Boone is representing ProPublica in several Texas lawsuits.)

Court records show the bankrupt Remnant companies owed millions of dollars to hundreds of creditors — oil field service companies, the New Mexico Taxation and Revenue Department, counties, banks, trucking companies and a local air conditioning and heating company.

But in the year leading up to the bankruptcies, court filings show, Remnant paid hundreds of thousands of dollars in consulting fees to companies belonging to at least two of the men who ran the company and cut numerous paychecks to a daughter, son, cousin and daughter-in-law of various executives.

In April 2020, unsecured creditors who were owed millions of dollars had the case converted to Chapter 7, meaning a trustee would take over, liquidate the company's assets and pay back creditors where possible.

Debts relating to cleaning up the environment or repaying labor “get pretty low priority” in bankruptcy cases, explained Josh Macey, a law professor at the University of Chicago who studies bankruptcy and reviewed ProPublica and Capital & Main's findings. To Macey, one solution to unfavorable bankruptcy rules is bonds, as they're protected even in bankruptcy.

“Bonding requirements have not proven to be sufficient,” he said, “but if they were, it would make bankruptcy irrelevant.”

Arturo Carrasco was one of Remnant's unsecured creditors, meaning a long list of debts would have to be settled before he saw any money. Carrasco, now retired, owned Art's Hot Oil Services, an oil field maintenance company with a handful of drivers and trucks out of Lovington, New Mexico. By the time Remnant hired Carrasco's company to work on its wells, most were “already depleted,” he said.

Remnant only paid him a little at a time and never the full amount it owed, Carrasco said.

Carrasco filed claims for more than \$165,000 in the bankruptcy, according to court records, and that didn't include another \$50,000 in unpaid expenses like fuel, he said. Concerned his company might go under, Carrasco worked “double time” to make up for the lost income. With no expectation of recovering money via the bankruptcy, he briefly fantasized about throwing a chain around Remnant's pump jacks and pulling them down.

“I got big-time screwed over,” he said.

Graveyards of Wells

Three months after the judge ordered that Remnant liquidate, a buyer called Acacia Resources LLC wired \$402,000 to the trustee, **completing the purchase of Remnant's assets.**

The new company was run by familiar names — Stitzel and Gilmore, Remnant's former chief operating officer and president, **state records show.** Business filings and his LinkedIn profile suggest Gray left the venture to launch a helium and natural gas company.

“All they did was file bankruptcy. Then they went to the bank and bought it at a cheaper price, and they’re still producing,” Carrasco said. “How can that be allowed?”

Fuge, the New Mexico oil regulator, said the companies are the “subject of prime enforcement attention” but did not comment further. And a Bureau of Land Management spokesperson said Remnant had no outstanding violations and the agency was not preparing to forfeit the company’s bonds.

The details of Acacia’s operations are murky. The on-the-ground situation doesn’t always match New Mexico’s data, while state records don’t align with federal records.

But Remnant’s business practices are similar to those of any number of undercapitalized drillers holding portfolios of old wells. So the State Land Office began a campaign to bring such operators into compliance to protect the state from shouldering the burden of even more orphan wells.

Buried amid pages of infractions in Remnant’s files, agency staff noted that satellite imagery appeared to show a spill at a Remnant well in the Drickey Queen Sand Unit. In November, the agency wrote to Gray, Stitzel and others, demanding they begin plugging wells in the field.

Jaclyn McLean, an attorney representing Acacia, responded with a proposal — Acacia would plug a few wells per year and pay back some money it owed for pumping oil on expired leases if the state would renew those leases and reduce the amount the company owed. With Gilmore, who was a manager of both Remnant and Acacia, copied on the letter, McLean blamed prior management’s “severe inaction” and promised that “the new management team seeks to maintain professionalism, integrity, and authenticity.” (McLean did not respond to a request for comment.)

“Tell your client to get serious,” the agency responded.

Still unplugged, Remnant’s wells in the Drickey Queen Sand Unit stood eerily silent during a recent site visit, the bellowing and bleating of cattle the only sound as they grazed among the apparent orphans. At one of the pump jacks, which **had not drawn oil in more than eight years**, pieces of metal had corroded and fallen off. Lines used for collecting oil in preparation for sale lay in the dirt. They connected to nothing.

Methodology

To investigate what leads to oil and gas wells being orphaned, ProPublica and Capital & Main filed more than 55 public records requests with state and federal agencies and toured oil fields in New Mexico, Texas and California. We interviewed dozens of petroleum engineers, researchers, community members and government officials, including the leadership of oil agencies in Louisiana, North Dakota, Pennsylvania and elsewhere.

To determine the magnitude of the shortfall between cleanup costs and bonds, we needed to answer several questions: how many wells are unplugged, how much money have companies set aside in bonds and how much does it cost to plug and remediate a well. The analysis focused on the top 15 oil- and gas-producing states because, according to U.S. Energy Information Administration data, they accounted for 99% of the country’s output in recent years. Those states are Texas, Pennsylvania, New Mexico, Oklahoma, North Dakota, Louisiana, Colorado, West Virginia, Ohio, Wyoming, Alaska, California, Arkansas, Utah and Kansas.

With *petroleum reservoir engineer Dwayne Purvis*, we analyzed data from energy software company *Enverus* to determine the number of unplugged wells in each state, conservatively defining them as either clearly active or in some stage of idling. We checked these figures against previous estimates, such as what *states self-reported to the Interstate Oil and Gas Compact Commission*.

To calculate plugging costs, we used the estimates that states reported to the U.S. Department of the Interior in their notices of intent to apply for Infrastructure Investment and Jobs Act funds. We checked these figures against states' next round of applications, Native American tribes' applications and hundreds of orphan well plugging contracts from across the country. The agreements showed the detailed mechanics of the work, such as where cement plugs were placed, how surface infrastructure was removed and what post-remediation environmental monitoring was completed. Plugging costs varied widely depending on the depth, condition and geography of the well, but costs ballooned to the high six figures or even the seven-figure range when projects faced unanticipated obstacles, such as cannonballs having been dropped into a well as an improvised plug, wells igniting and the need to tear up city streets to plug some wells.

For bonding figures, we obtained the 15 states' datasets of all active bonds tied to oil and gas well plugging, remediation and reclamation. We relied on *figures reported by the Government Accountability Office* for the value of bonds held by the Bureau of Land Management. We requested, but did not receive, that agency's data, and the Bureau of Indian Affairs didn't answer questions about bonds on tribal land. We didn't include other jurisdictions' bonds, as those are much smaller. (For example, New Mexico's State Land Office requires bonds but only holds \$20,000 for Remnant's wells.)

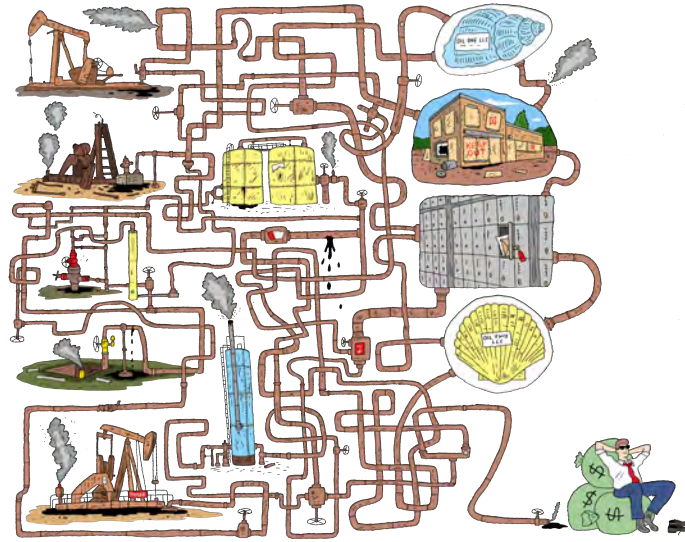
To check our methodology, we gave a 10-member panel of petroleum engineers, law professors and former regulators an opportunity to comment on the findings. These experts have worked or currently work with the California Geologic Energy Management Division, the Bureau of Ocean Energy Management, Texas Christian University, the Carbon Tracker Initiative and other research organizations. They widely accepted the final methodology. The lead oil regulatory agency from all 15 states also had a chance to review the findings. Some states' data showed slightly different numbers of unplugged wells than Enverus' data, but we used the Enverus data because it is standardized and not all states provided well counts. Regulators also emphasized that bonds are an insurance policy not meant to cover 100% of the cost, that states won't have to plug every well because the industry will plug many and that other agencies also hold bonds.

When estimating the total revenue generated by Remnant's and Acacia's wells, we used New Mexico Oil Conservation Division data to tell us how much oil and gas each well produced. Because some production wasn't assigned a year, we worked with Purvis to model a likely production decline curve. We multiplied that by each year's oil and gas prices, mainly found in Energy Information Administration data, and adjusted that for inflation, using Bureau of Labor Statistics figures.

Finally, our emissions testing fieldwork was completed using a handheld *Bascom-Turner Gas Explorer Detector*. We consulted *Amy Townsend-Small*, a professor of environmental sciences at the University of Cincinnati, to formulate the testing plan. We checked the readings with the manufacturer, whose employees said they had never seen their equipment register such high levels. They gathered in an office to call our reporter and ask if he was all right (he was because he wore an acid gas and organic vapor respirator around the wells).

Graphics by Jason Kao. Mollie Simon contributed research, and Agnel Philip contributed data reporting.

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Environment

The American Oil Industry's Playbook, Illustrated: How Drillers Offload Costly Cleanup Onto the Public

Oil executive Tom Ragsdale walked away from his old wells, making the pollution left behind the state of New Mexico's problem. His tactics, however, are ubiquitous in the industry.

by **Mark Olalde**, illustrations by **Peter Arkle**, special to **ProPublica**

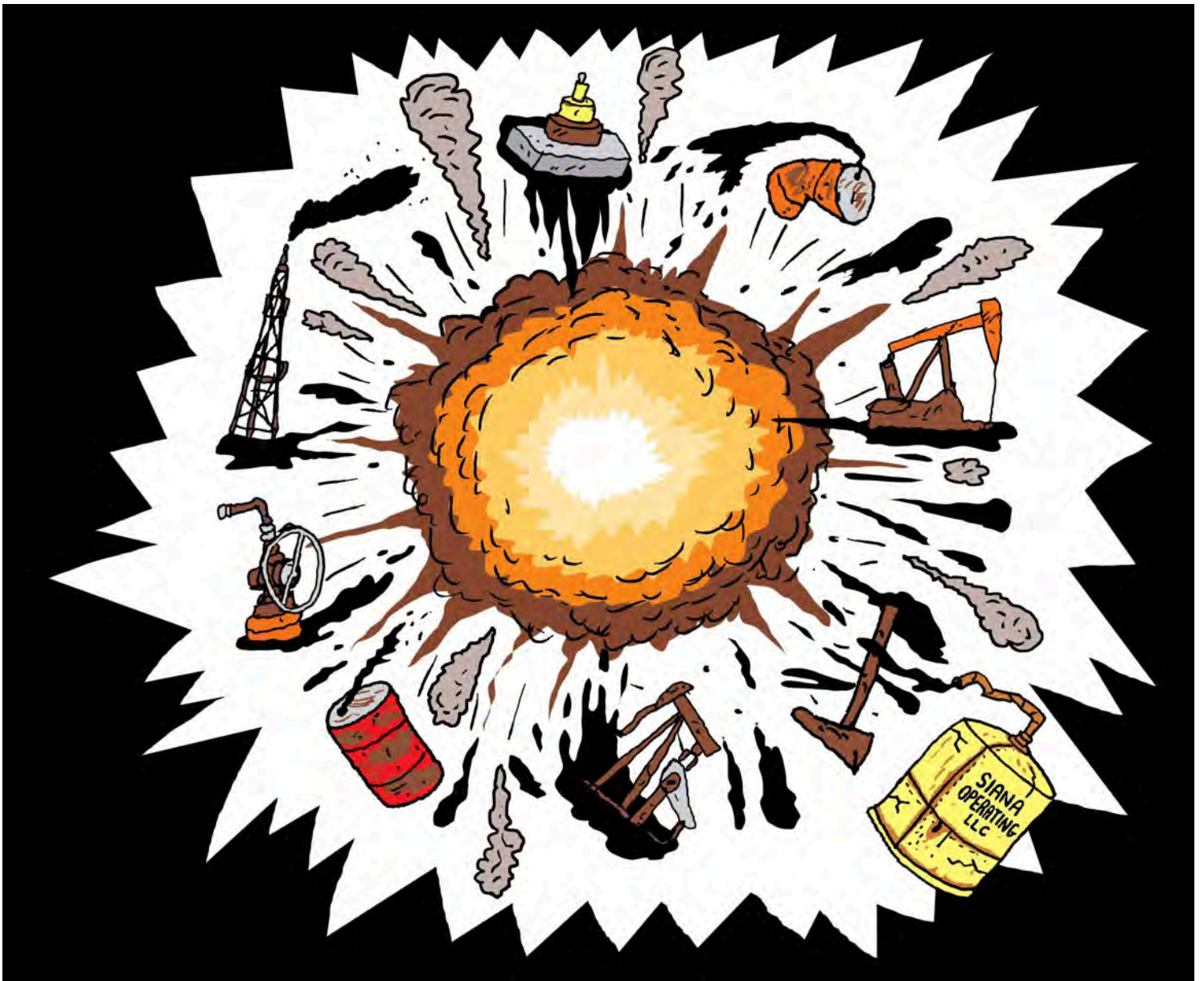
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In December 1990, officials in the federal agency tasked with regulating offshore oil and gas drilling received [a memo with a dire warning](#): America faced a ticking time bomb of environmental liability from unplugged oil and gas wells, wrote the agency's chief of staff. Those wells and their costly cleanup obligations were being concentrated in the hands of cash-strapped drillers at the same time as production was shrinking. (The document, unearthed by public interest watchdog organization Documented, was shared with ProPublica and Capital & Main.)

More than three decades later, little action has been taken to heed that warning, and the time bomb is threatening to explode.



More than 2 million oil and gas wells sit unplugged across the country. Many leak contaminants like brine, methane and benzene into waterways, farmland and neighborhoods. The industry has already left hundreds of thousands of old wells as orphans, meaning companies walked away, leaving taxpayers, government agencies or other drillers on the hook for cleanup.

America's oil fields are increasingly split between a small number of wells producing record profits and everything else. Researchers estimate roughly 90% of wells are already dead or barely producing.

Consider the Permian Basin, the world's most productive oil field, stretching from West Texas across southeastern New Mexico.

“The Permian is the oil patch’s Alamo — that’s where it’s retreating to,” Regan Boychuk, a Canadian oil cleanup researcher, said of the oil industry. “That’s their last stand.”

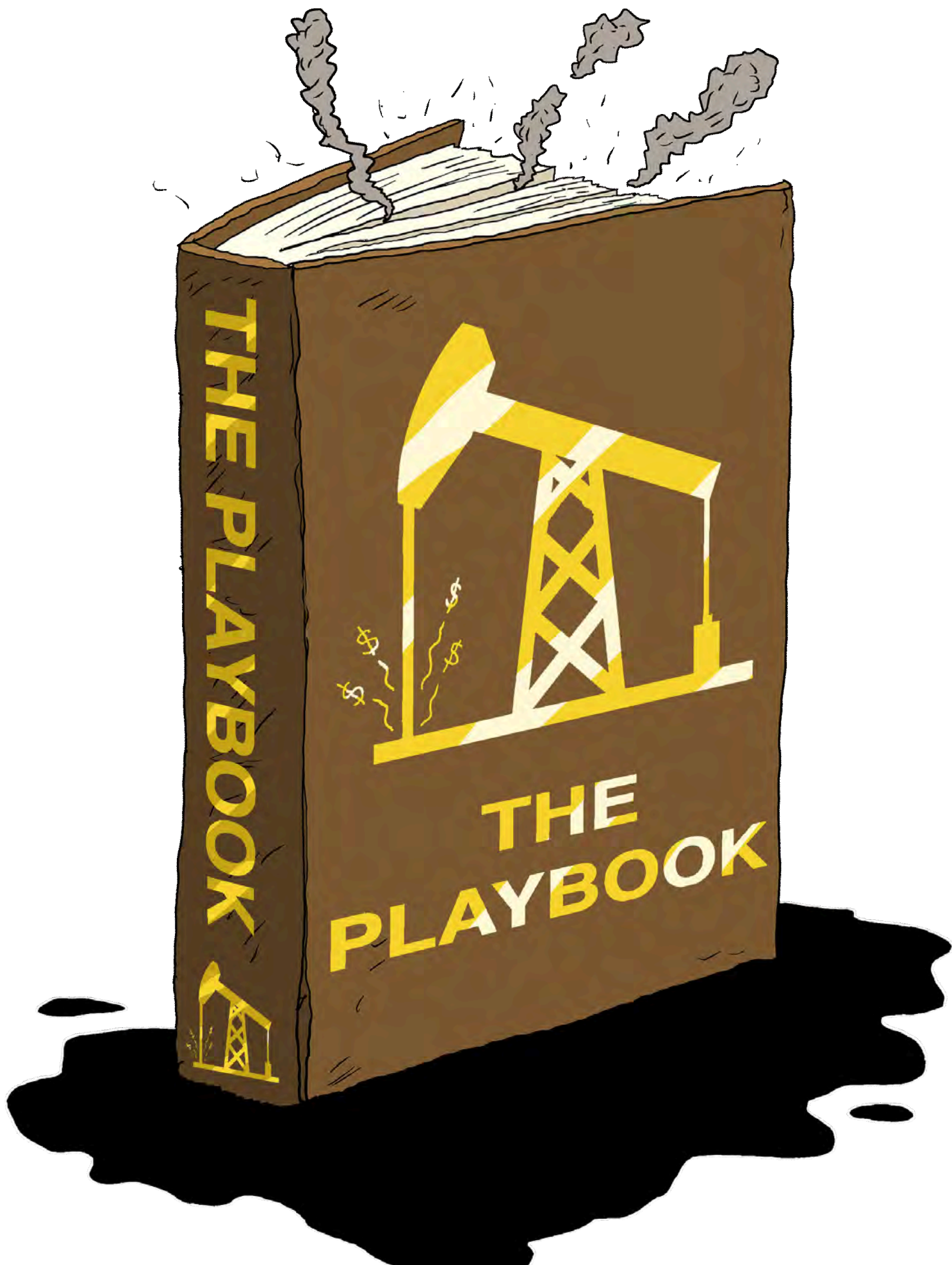
Even here, many wells sit idle and in disrepair. It's time to plug them, according to a growing chorus of researchers, environmentalists and industry representatives.



The question of who pays for cleanup remains unanswered. Time and again, oil companies have offloaded their oldest wells. Their tactics are not written down in one place or peddled by a single law firm — but companies follow an unmistakable pattern. The strategy, which is legal if followed properly, has become such a tried-and-true endeavor that researchers and environmentalists dubbed it “the playbook.”

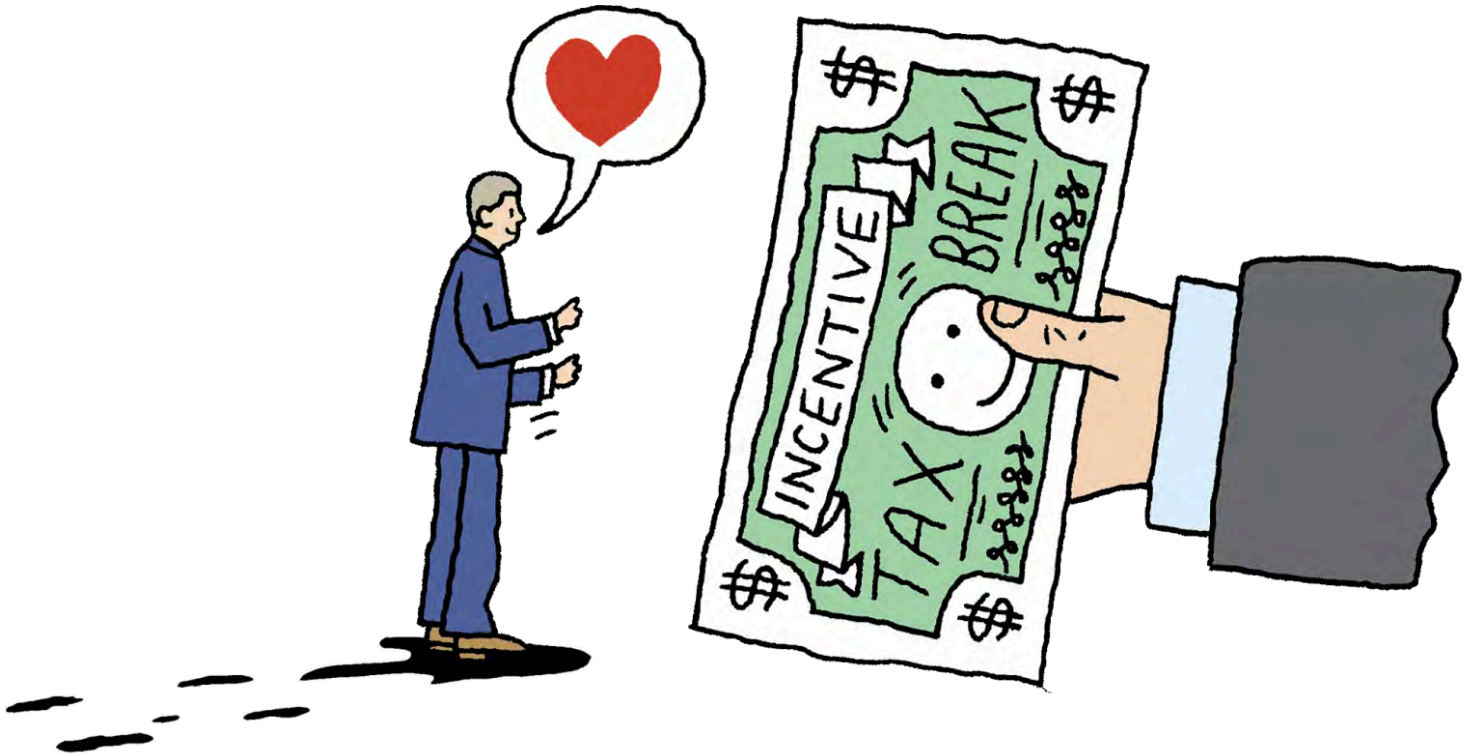
Clark Williams-Derry, an analyst with clean-energy-focused think tank the Institute for Energy Economics and Financial Analysis, studies fossil fuel companies’ cleanup costs. “There’s almost a cheerleading squad for shedding your liabilities, like a snake sheds its skin and just slithers away,” he said.

Should you want to become an oil executive and try this strategy yourself, here’s how it works ...

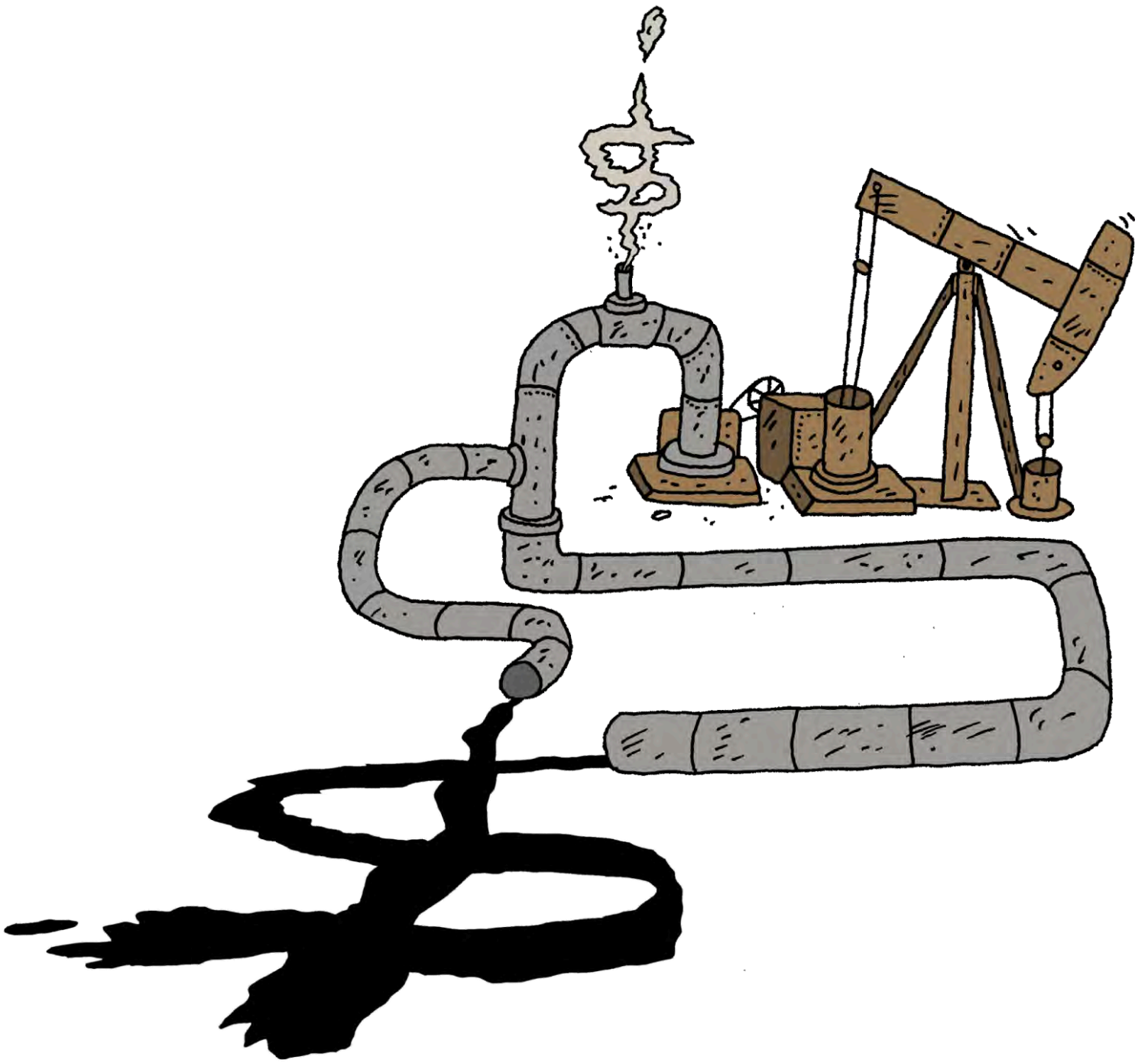




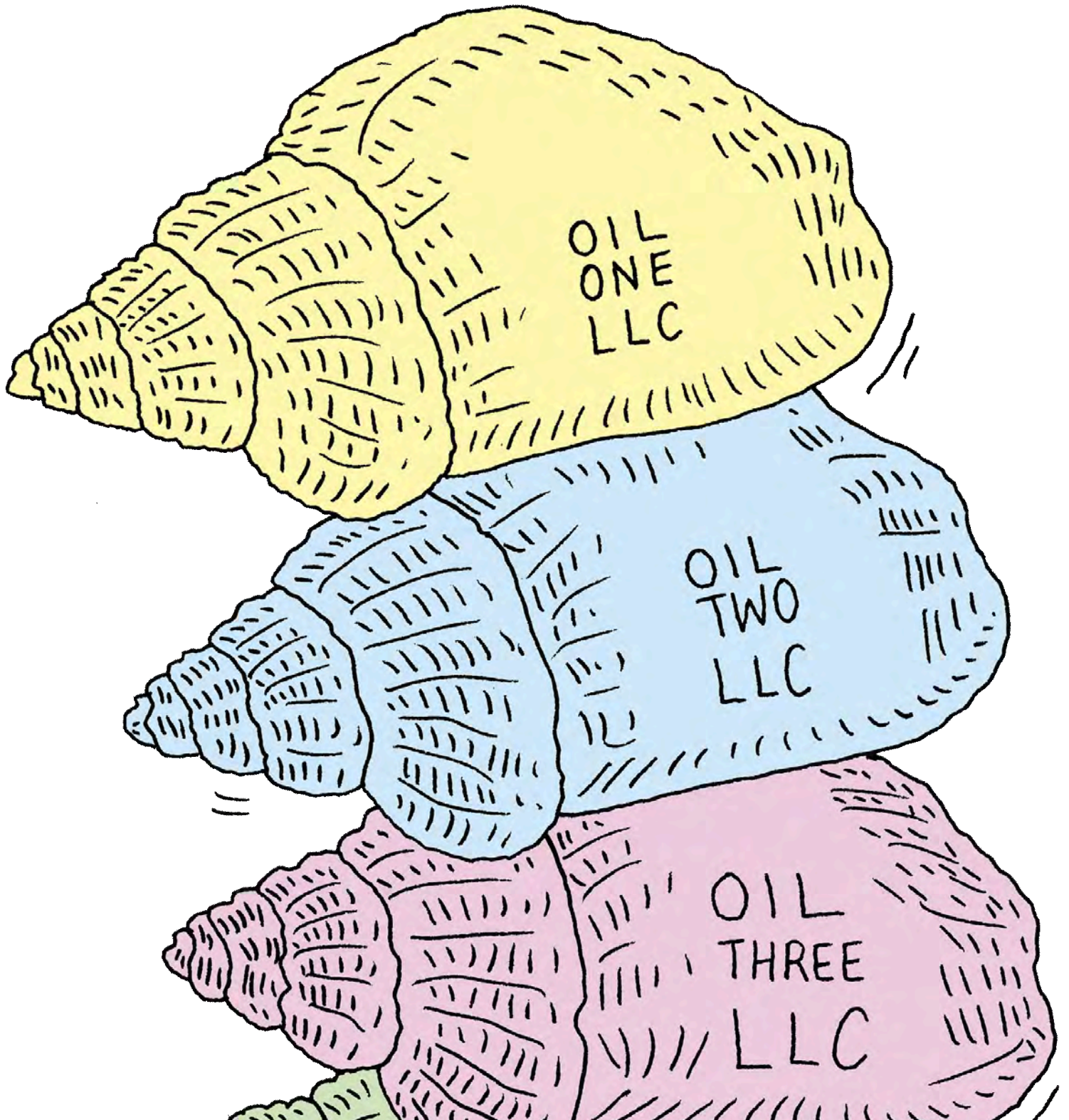
As you launch your business, begin by collecting subsidies, [tax breaks](#) and other incentives from the government to guarantee you can pump oil and gas profitably. Globally, fossil fuel subsidies total in the trillions each year, [according to organizations such as the International Monetary Fund](#).



Next, start pumping and profiting.

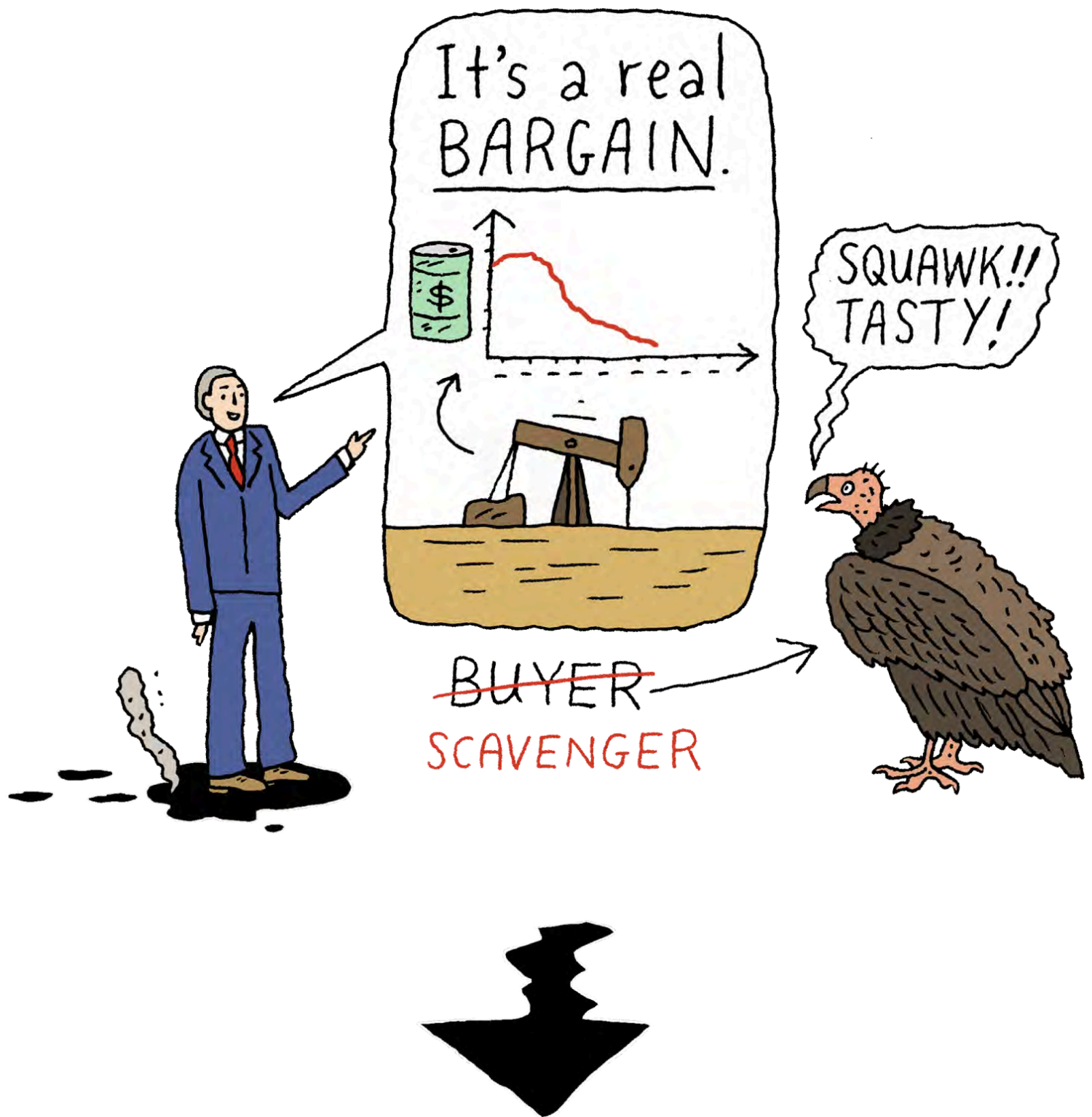


As you set up your business, create layers of shell companies. Down the road, they'll provide a firewall between you and your liabilities — key among them, cleanup costs.





Once oil and gas production slows, sell low-producing wells. Smaller drillers operating on thinner margins, known in the business as “scavenger companies,” will be happy to take them off your hands.



Rinse and repeat by selling wells as their profits slow to a trickle. They'll be sold again to ever-smaller companies that teeter on the edge of insolvency. Maintenance and environmental stewardship will usually fall by the wayside as companies eke out a profit. Studies show that [the number of environmental violations rises](#) as wells pass to less-capitalized drillers. But these wells aren't your problem any longer.



Then, idle the wells — pausing production, but not plugging them or cleaning up — and walk away. Regulators are typically tasked with ensuring that as much oil as possible is pumped out of the ground, so rules allow wells to sit idle, instead of being plugged, in case prices surge and it becomes profitable to restart them. However, [a study in California found that](#), after wells are inactive for only 10 months, there's a 50-50 chance they will never produce again.

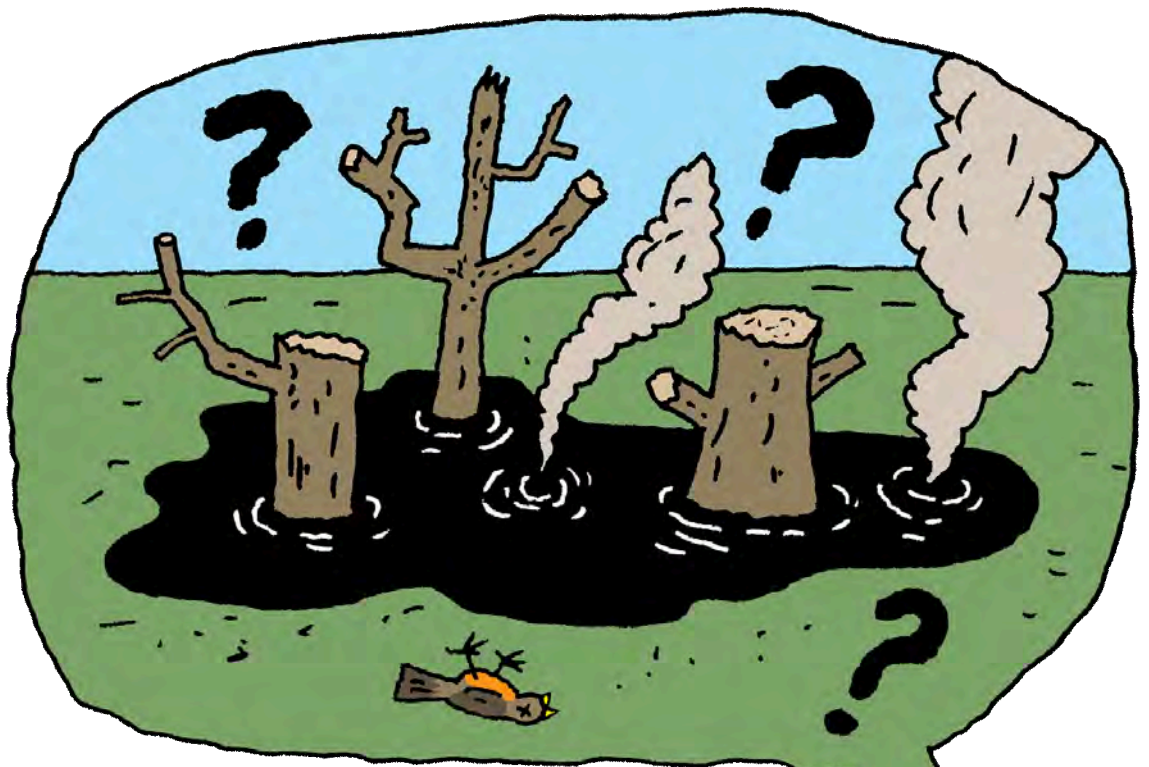


Regulators will likely grow tired of asking you to clean up your wells, but you can make the case for leaving them unplugged for now. Pitch grand plans, as other drillers have — maybe [repurposing the wells for bitcoin mining](#), [carbon sequestration](#) or [the synthesis of hydrogen fuel](#) — that require the wells to remain open.



When regulators' patience has reached its limit, remind them what will happen if they come down hard on you. Fines or other extra costs could force your business into bankruptcy, leaving your unplugged wells as orphans and taxpayers on the hook. Ask them if they want to be responsible for that catastrophe.

"The root of the problem is there's no regulator of the oil industry across North America," Boychuk said, adding that "the rule of law has never applied to oil and gas."

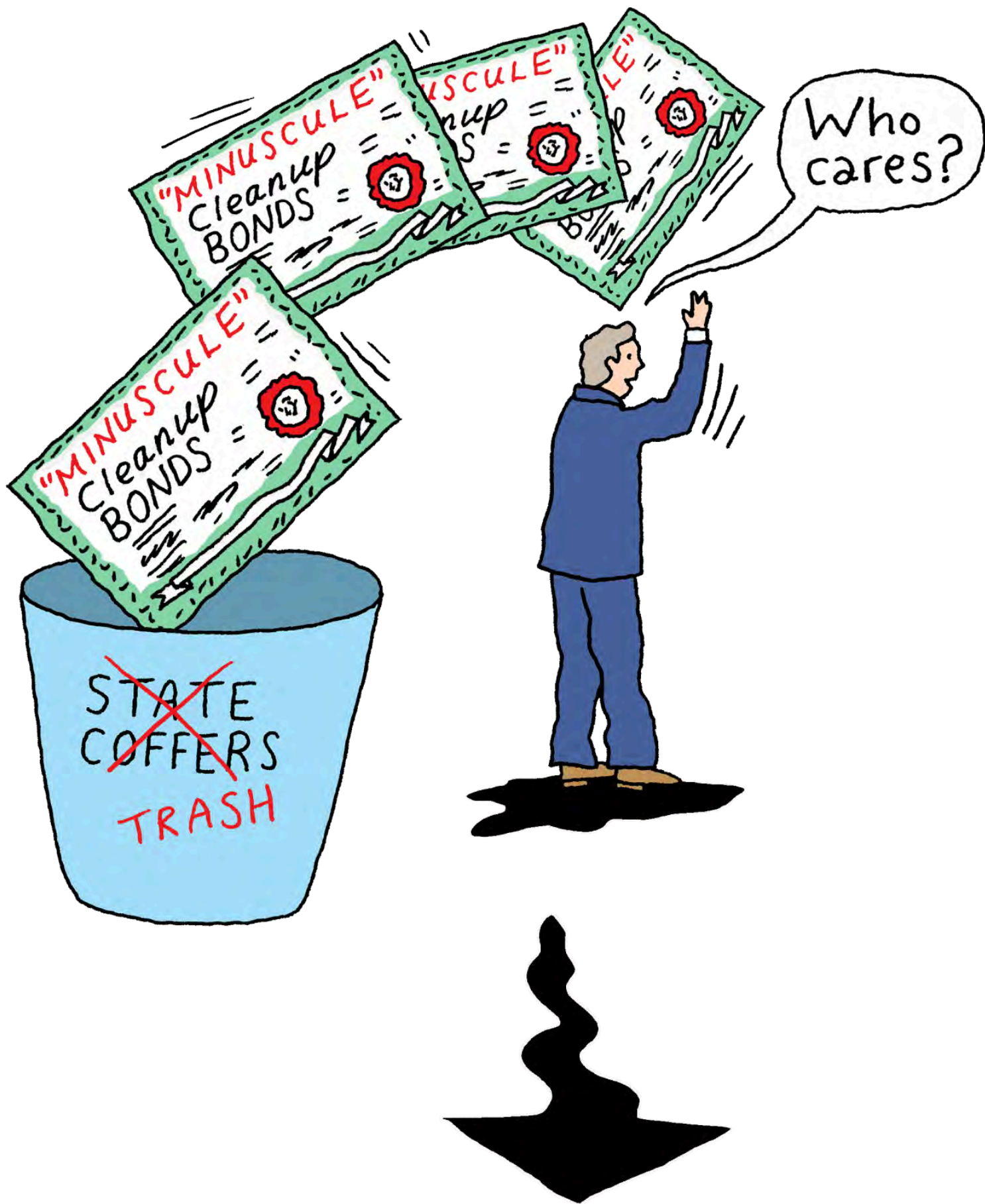




When regulators finally act, declare bankruptcy. The Bankruptcy Code is meant to protect businesspeople like you who took risks. More than 250 oil and gas operators in the U.S. filed for bankruptcy protection between 2015 and 2021, according to law firm Haynes Boone. (Industry groups estimate there are several thousand oil companies in the country.)



Regulators only require oil and gas companies to set aside tiny bonds that act like a security deposit on an apartment. Because you didn't clean up your wells, you'll lose that money, but it's a fraction of the profits you've banked or the cost of the cleanup work. ProPublica and Capital & Main found that [bonds typically equal less than 2% of actual cleanup costs.](#)



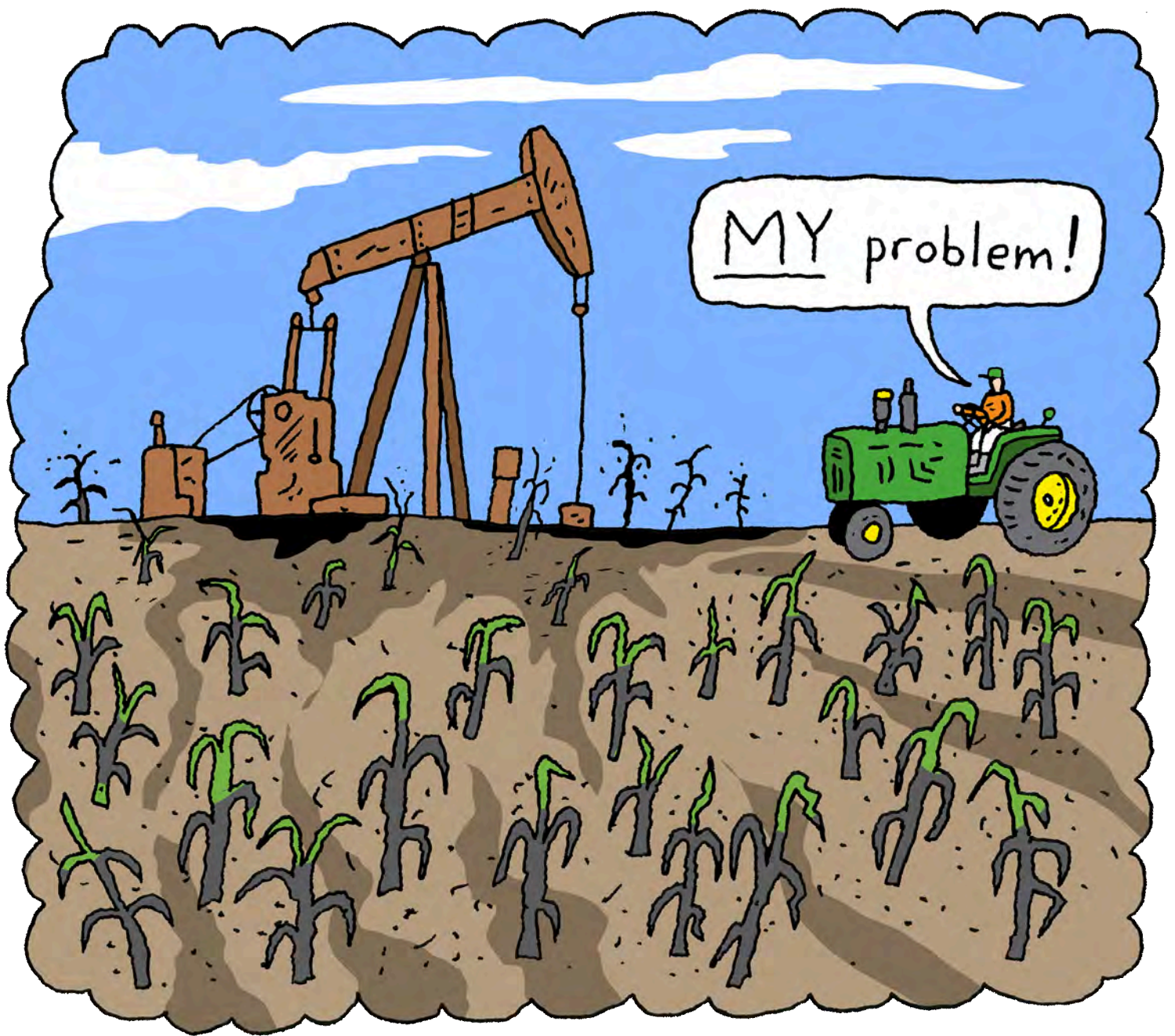
And as you finalize your exit, the labyrinth of shell corporations you set up should act as corporate law intends, protecting you from future responsibility. Such companies, little more than stacks of paper, will be responsible for your

liabilities, not you. Even if regulators know who is behind a company, it becomes increasingly difficult to penetrate each layer of a business to go after individual executives.

“It’s the essence of corporate law,” Williams-Derry said.



Now that you’ve offloaded your wells, you’re free to start fresh — launch a new oil company and buy some of your old wells for pennies on the dollar, [a proven option](#). Maybe you leave oil entirely — [that’s also tried-and-true](#). Or become a vintner and open a winery just down the road from the wells you left as orphans — [you wouldn’t be the first](#).

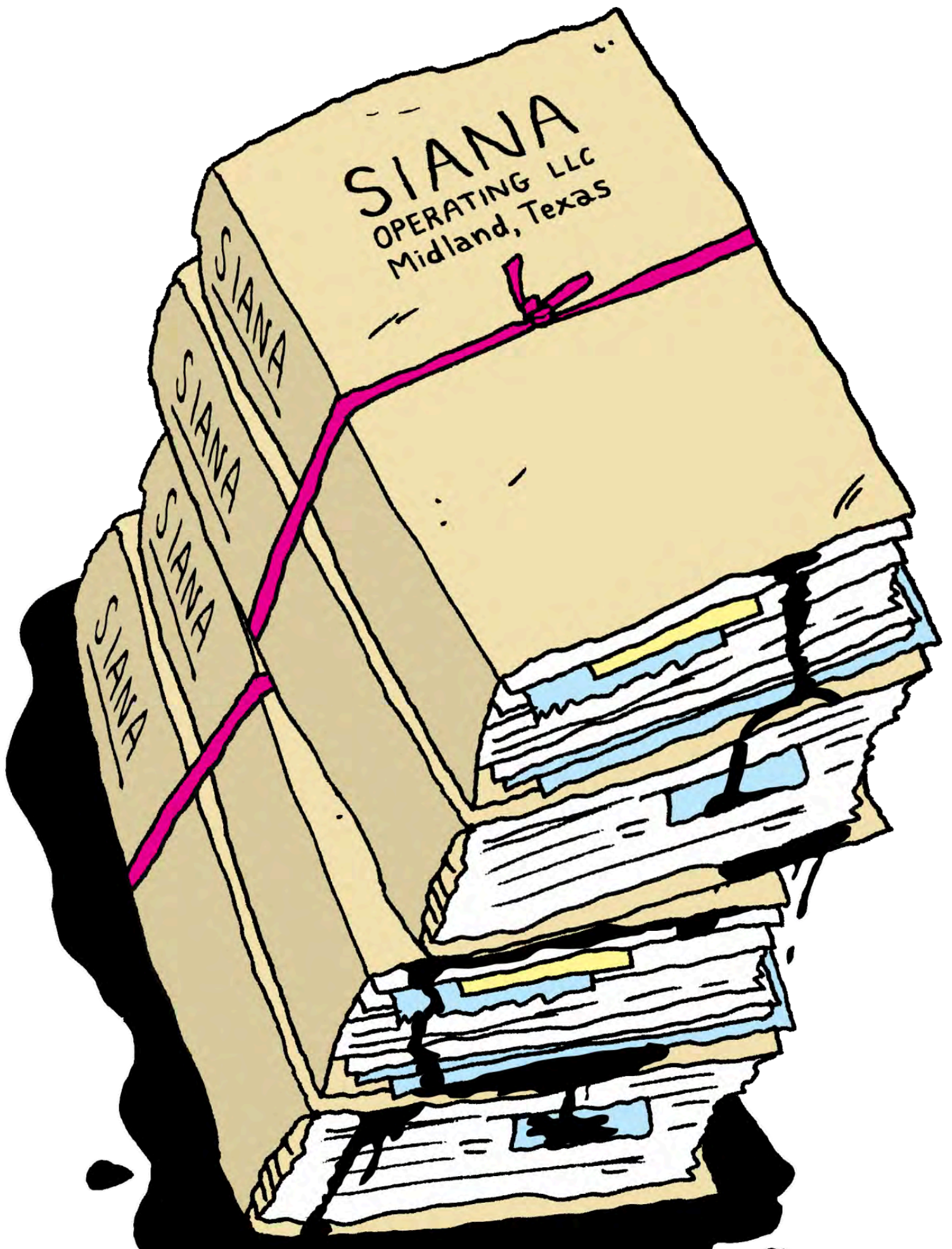




For its part, the oil industry downplays the so-called playbook and the country's orphan well epidemic. "There's a general trend, which is there are very few orphan wells," said Kathleen Sgamma, who has been among oil companies' most vocal proponents as president of the Western Energy Alliance, an industry trade group. Plus, she said, companies' bonds and states' orphan well funds help pay for plugging.

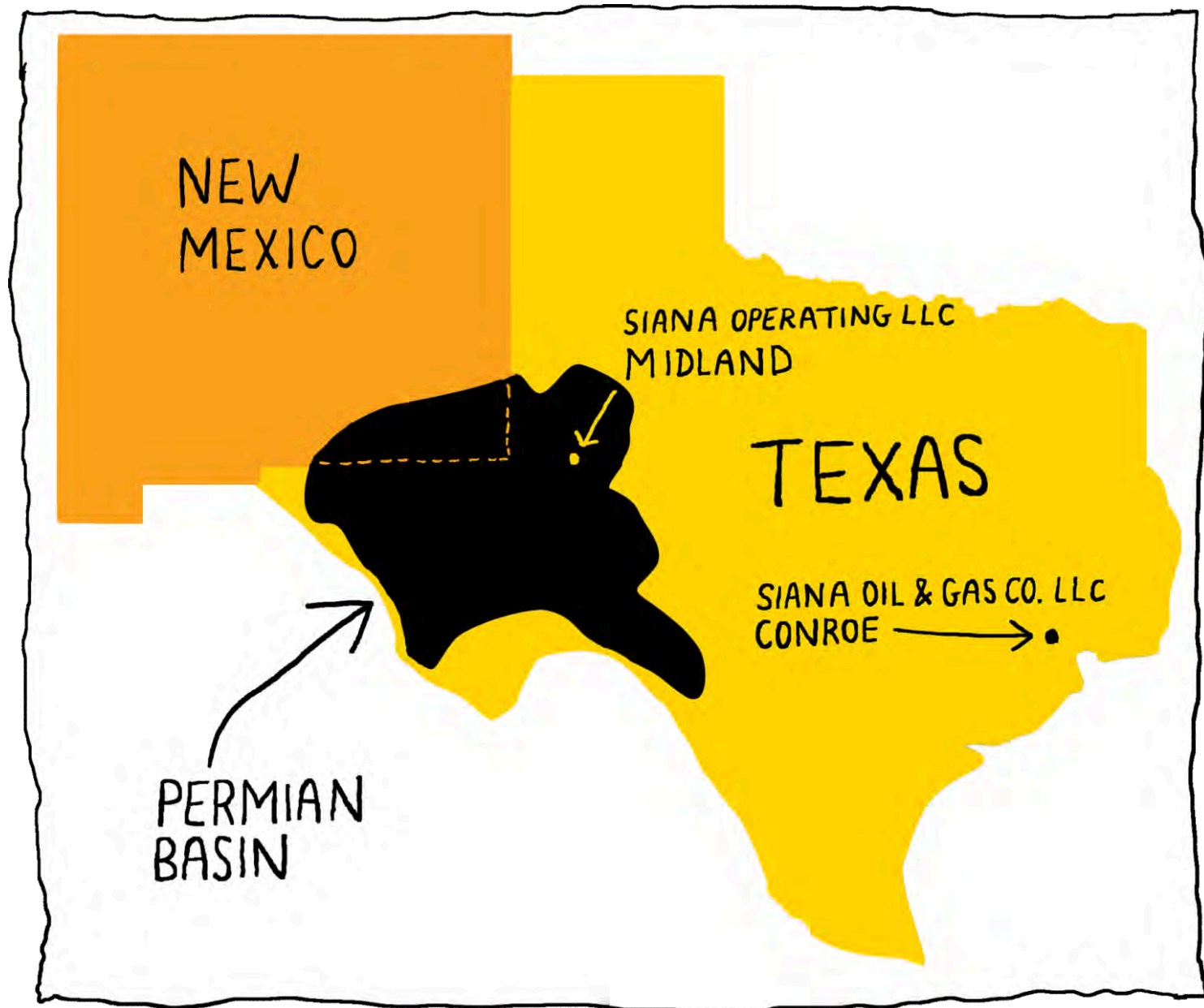
But those tasked with addressing the reality of the country's orphan wells disagree. "We have a welfare system for oil and gas. I hope you understand that," said New Mexico Commissioner of Public Lands Stephanie Garcia Richard, who oversees the state's public lands. New Mexico has already documented more than 1,700 orphan wells across the state. "We have oil and gas welfare queens."

In New Mexico, Garcia Richard is trying to hold accountable one of the myriad drillers that have followed key steps in the playbook, the oil company known as Siana.





Siana is made up of two related entities — Siana Oil and Gas Co. LLC and Siana Operating LLC — based in Midland and Conroe, Texas. The company operated 11 wells in southeastern New Mexico in the heart of the Permian Basin.



In reality, Siana is the corporate shield for a man named Tom Ragsdale. After he aggregated his few wells, he generated cash through a trickle of oil and gas production and set up a business injecting other companies' wastewater into his wells to dispose of it. But the state worried that Ragsdale's operations were polluting the environment and that he was refusing to pay royalties and rental fees he owed the state, according to State Land Office staff.

Ragsdale did not respond to repeated requests for comment from ProPublica and Capital & Main. He also did not appear for a pretrial conference [after the state brought legal action against Siana, court records show](#), and a state court judge ruled against his companies.



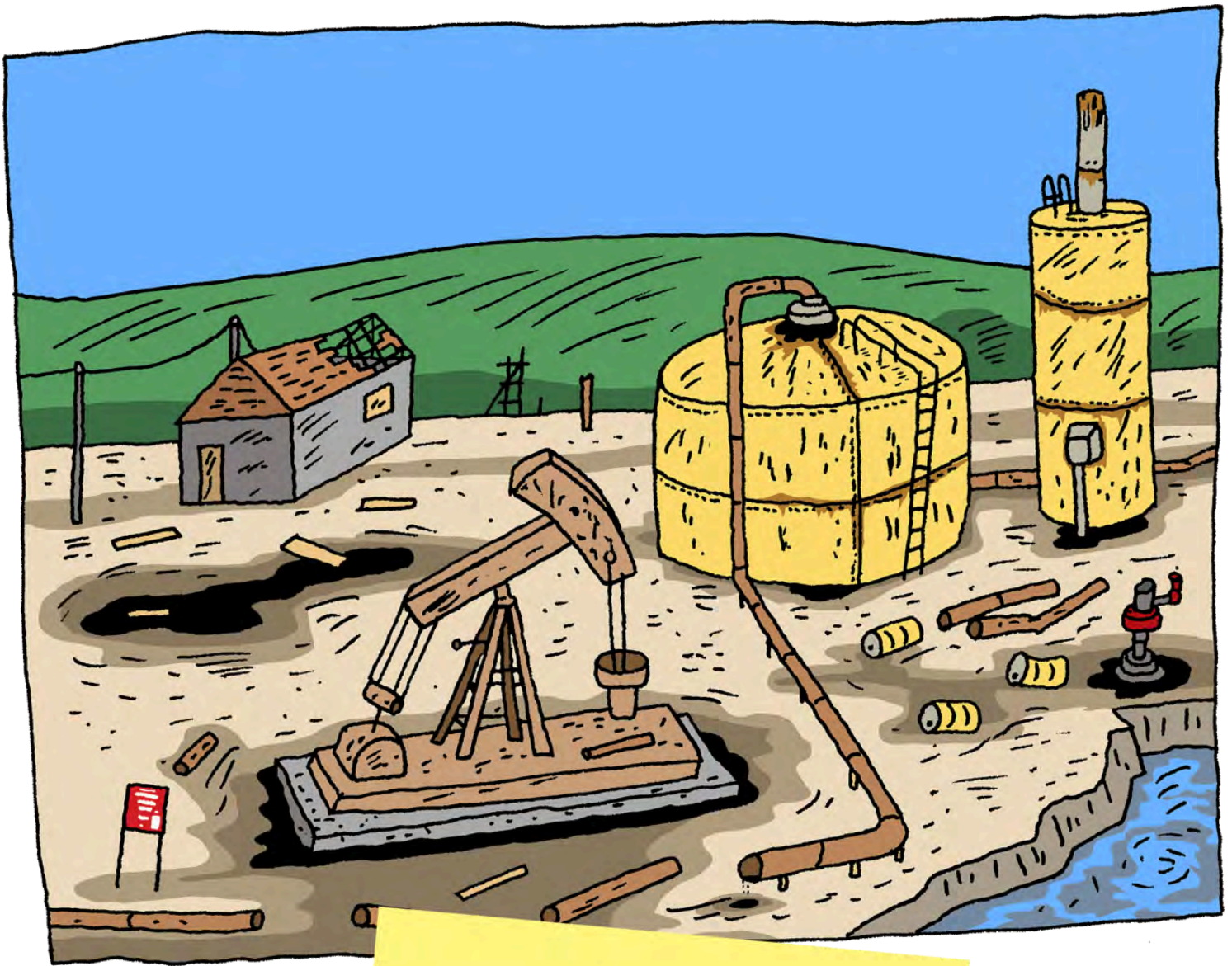
Siana was responsible for at least 16 spills, [according to New Mexico Oil Conservation Division data](#), mainly spilling what's called produced water, a briny wastewater that comes to the surface alongside oil and gas. "Corrosion" and "Equipment Failure" were among the causes.

The State Land Office hired an engineering firm to study the damage. The firm produced [a damning 201-page report in 2018](#), finding oil and salt contamination exceeding state limits at Siana's most polluted site. At high enough levels, these substances can kill plants, harm wildlife and impact human health.



The State Land Office estimated that cleaning up that site alone would cost about \$1 million.

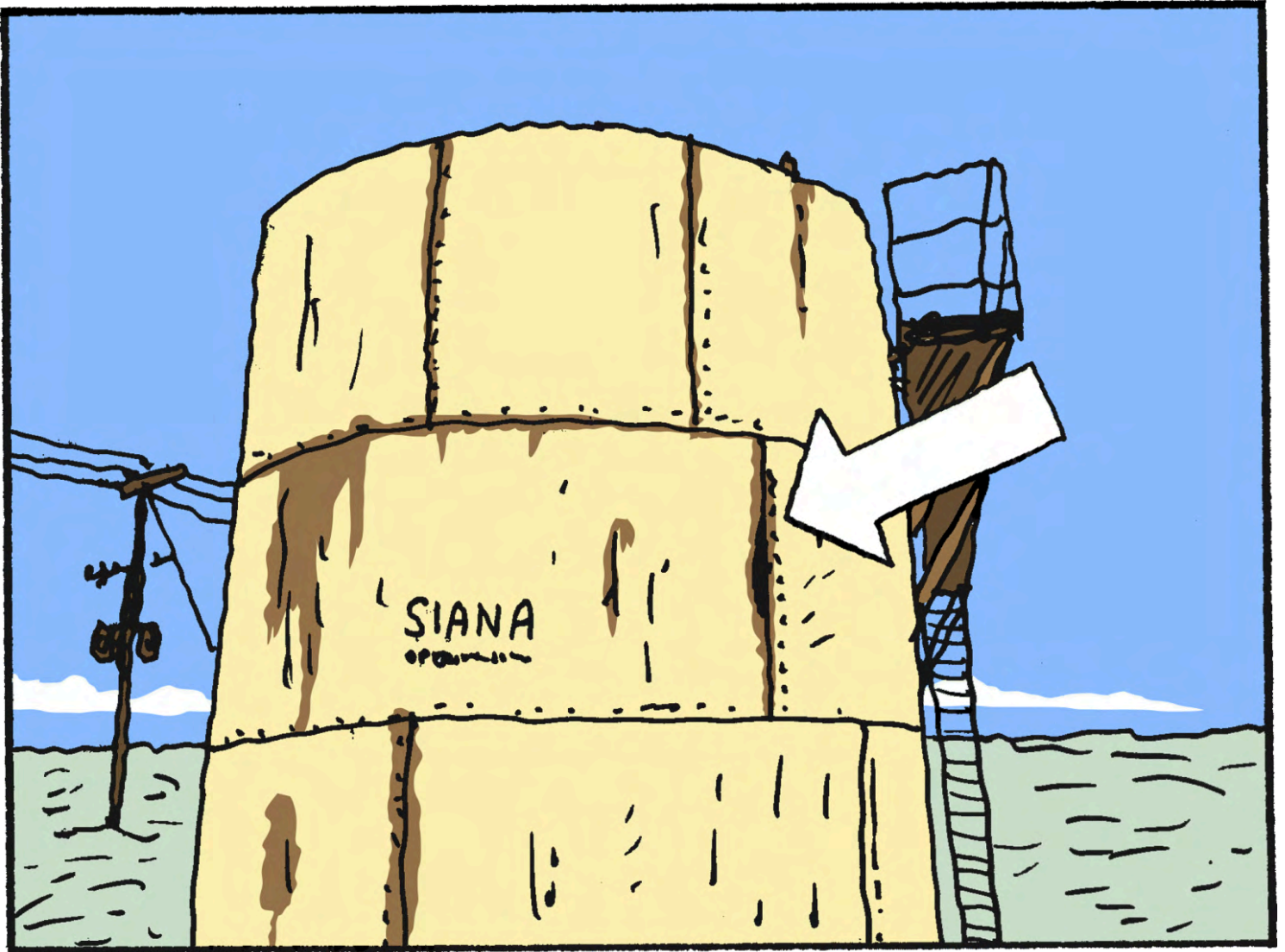
In 2020, New Mexico [won a judgment against Ragsdale's companies](#) that, with interest, is now worth more than \$3.5 million. But it won't cover the cleanup cost. Between a small bond and the judgment, the state has been able to recover a mere \$50,000 or so from Siana and related entities.



COST:
\$1 million
AVAILABLE:
\$50,000

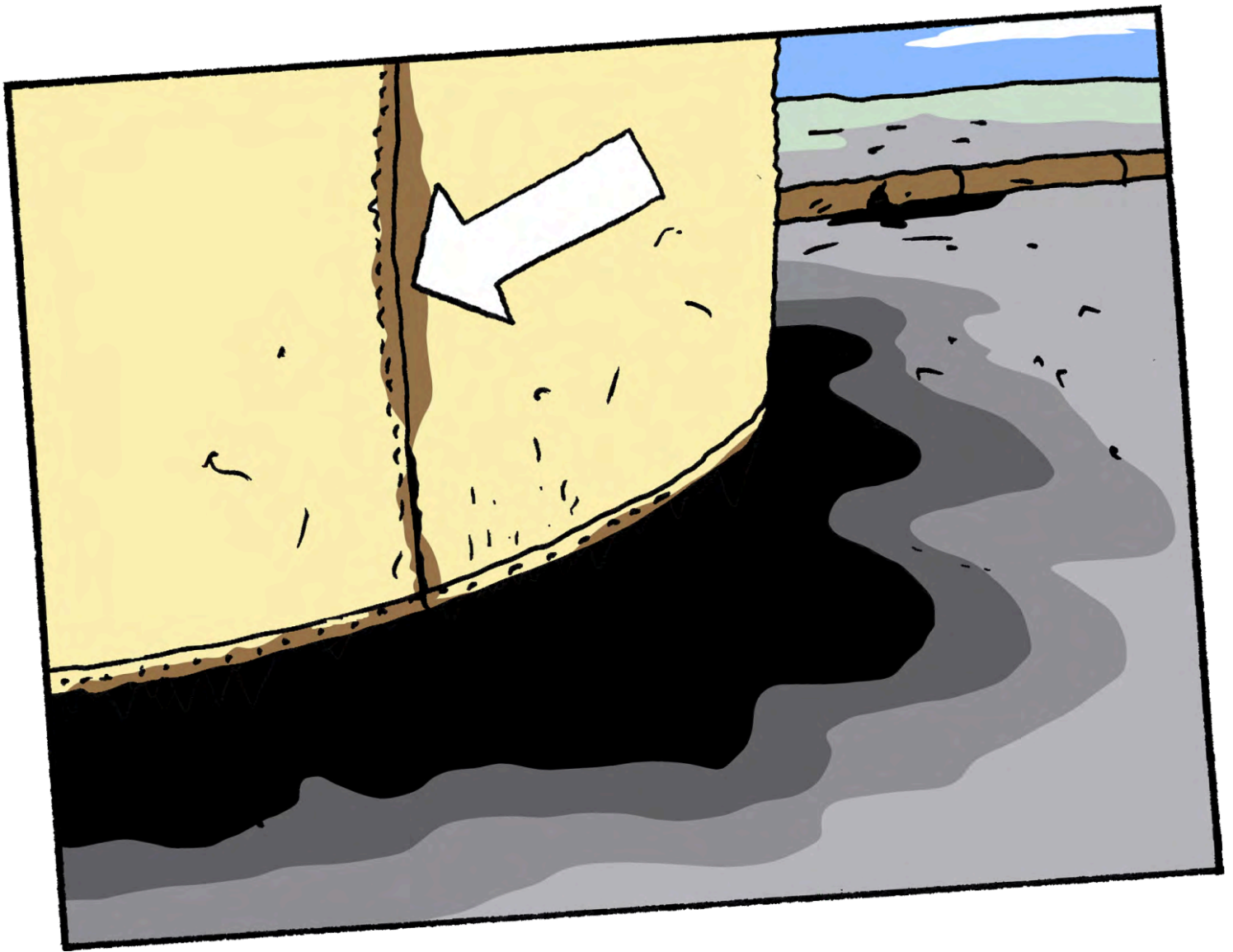
When the state tried to collect the rest, Ragsdale placed Siana Oil and Gas [in bankruptcy protection in June 2023](#). Although he listed the company as having millions in assets at the time of the bankruptcy, the company had only

\$20,500 in a bank account. [Court records](#) show Siana is responsible for between \$1 million and \$10 million in liabilities, including money owed to the state of New Mexico, other oil companies, various counties and others.



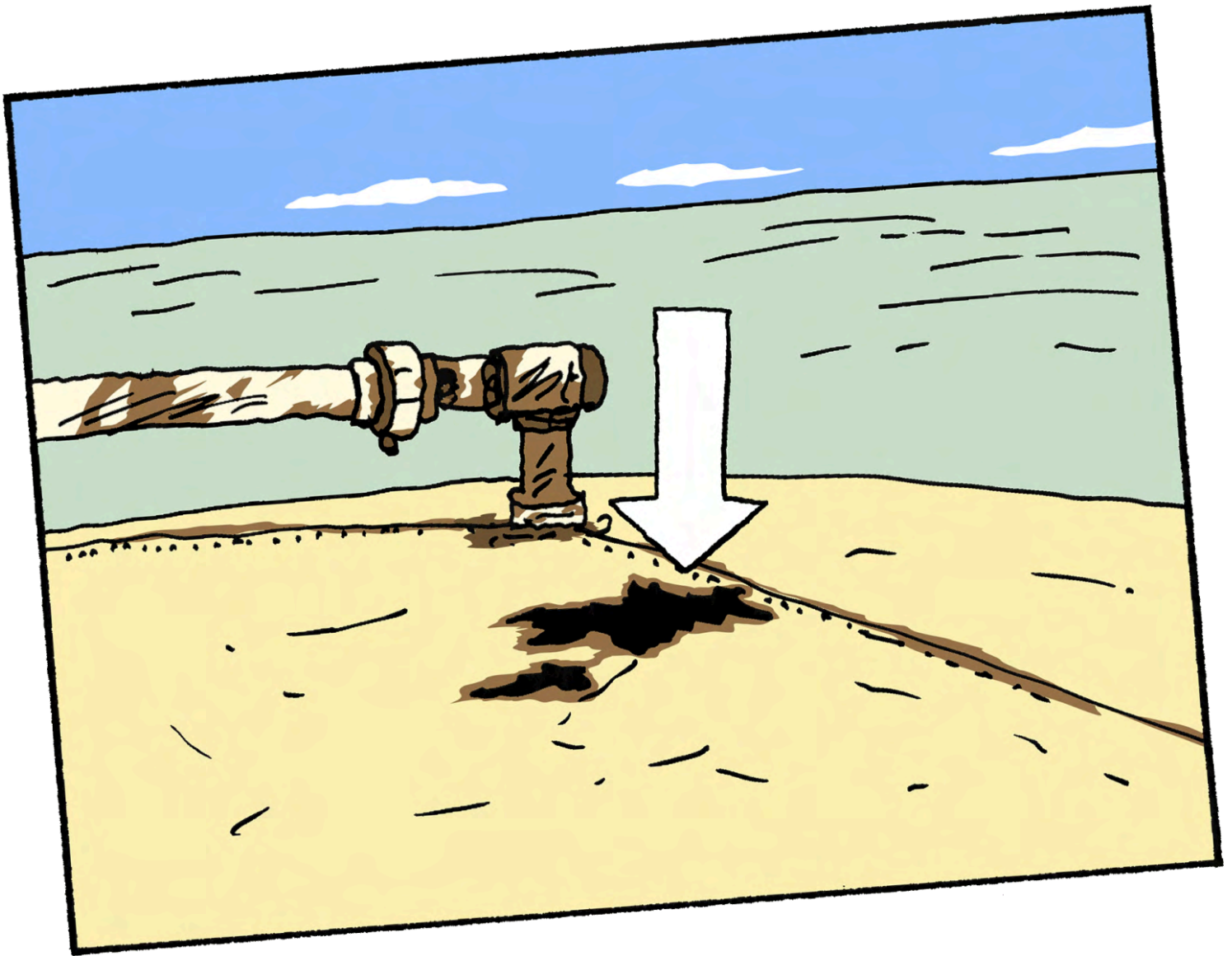
Stickers plastered around Siana's drill sites — on which the company's name is misspelled — provide phone numbers to call in case of leaks or other emergencies. None went to Ragsdale or Siana employees. A man named William Dean answered one number. He owned a local oil field services company called Dean's Pumping that was contracted to work on Siana's wells, but Ragsdale stopped paying its bills, ultimately owing his company tens of thousands of dollars, Dean said.

"He was trying to half-ass things," Dean said of Ragsdale. "I don't know what happened to Tom."



Siana's bankruptcy case is ongoing, but Ragsdale has been largely unresponsive even in those proceedings.

Siana is, Garcia Richard said, "an exemplar of how our system has failed." Although he was very nearly free of his old wells, Ragsdale flouted the playbook and ignored the bankruptcy judge's demands that he participate in the case. In an unusual move, the judge in late September [issued a warrant for Ragsdale's arrest](#) to compel him to hand over certain data. The U.S. Marshals Service was investigating Ragsdale's whereabouts but had not taken him into custody as of mid-December, according to an agency representative.



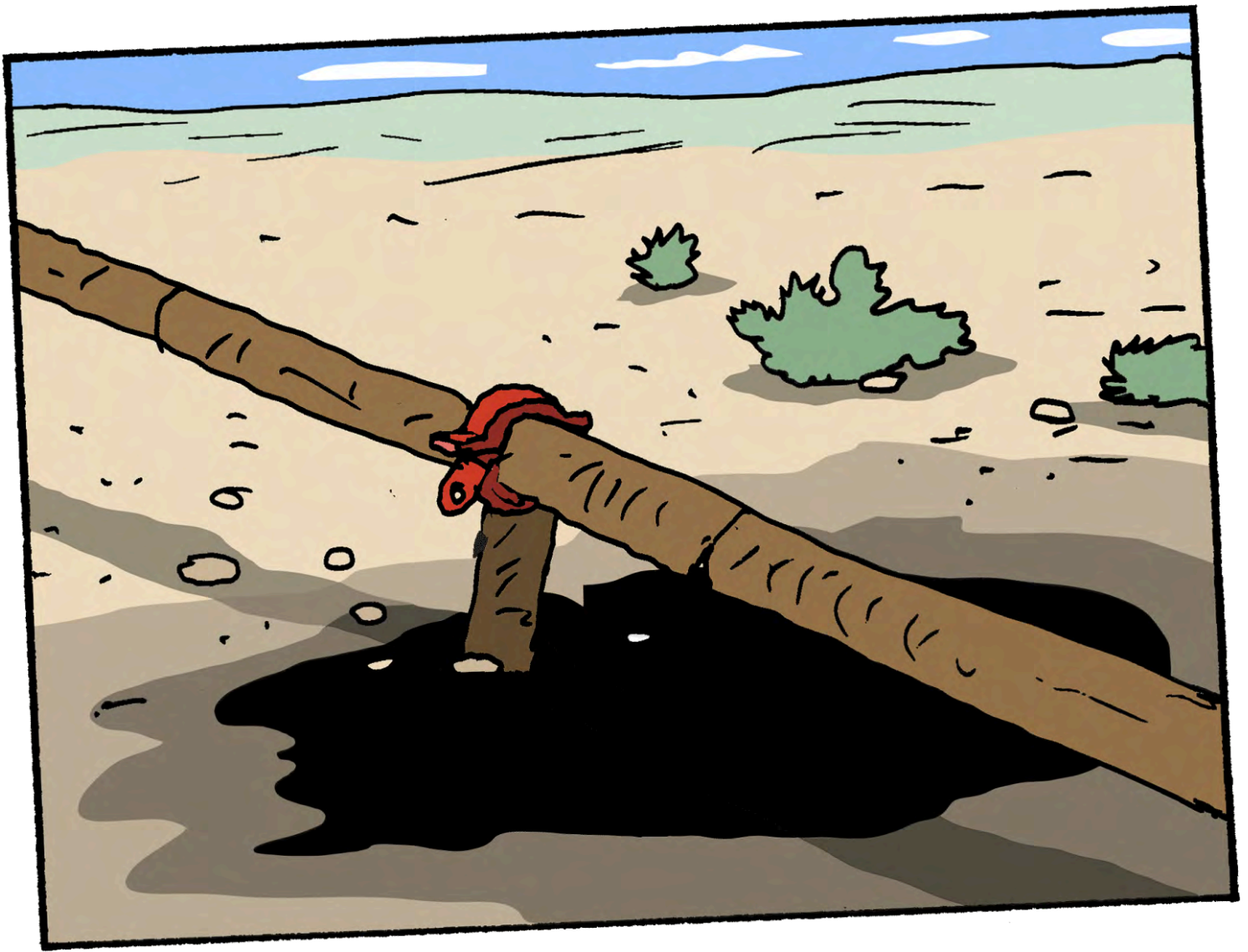
The day after the judge issued the arrest warrant, [the bankruptcy trustee filed a complaint](#) alleging Ragsdale had committed fraud, siphoning about \$2.4 million from Siana to purchase real estate in Houston.

That money could have gone toward cleaning up the mess left to New Mexico taxpayers.

ProPublica and Capital & Main visited Siana's 11 wells in late 2023. At one drill site, methane leaked from a wellhead that had also stained the surrounding land black from spilled oil. The air was sour with the smell of toxic hydrogen sulfide. A nearby tank that held oil for processing was rusted through. Another had leaked an unidentified liquid. There appeared to be hoofprints where cattle had tracked through the polluted mud.

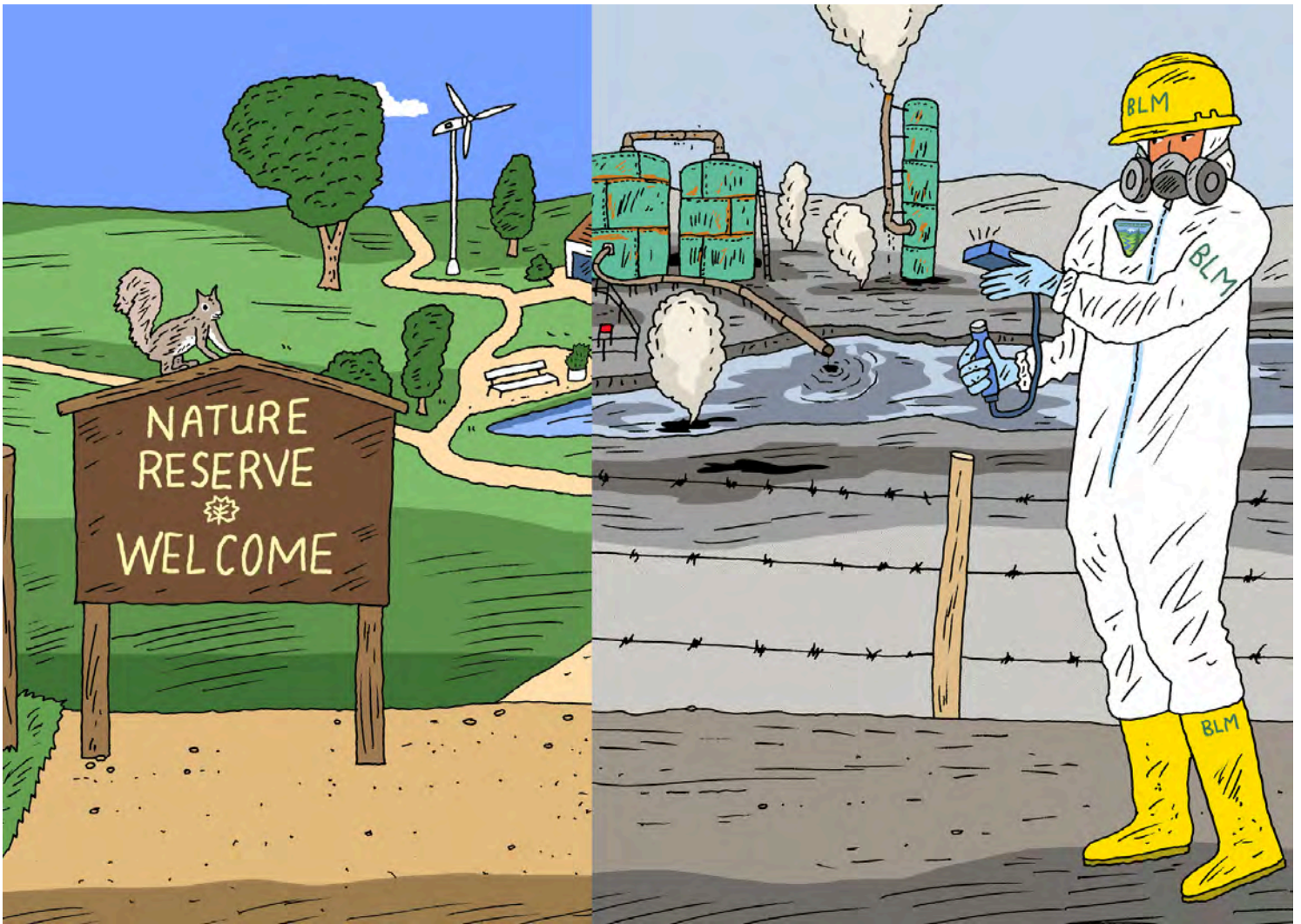


ProPublica and Capital & Main found oil spills at multiple Siana wells. At others, the idle pump jacks stood silent — corroded skeletons at the end of the line, the detritus of another run through the playbook.

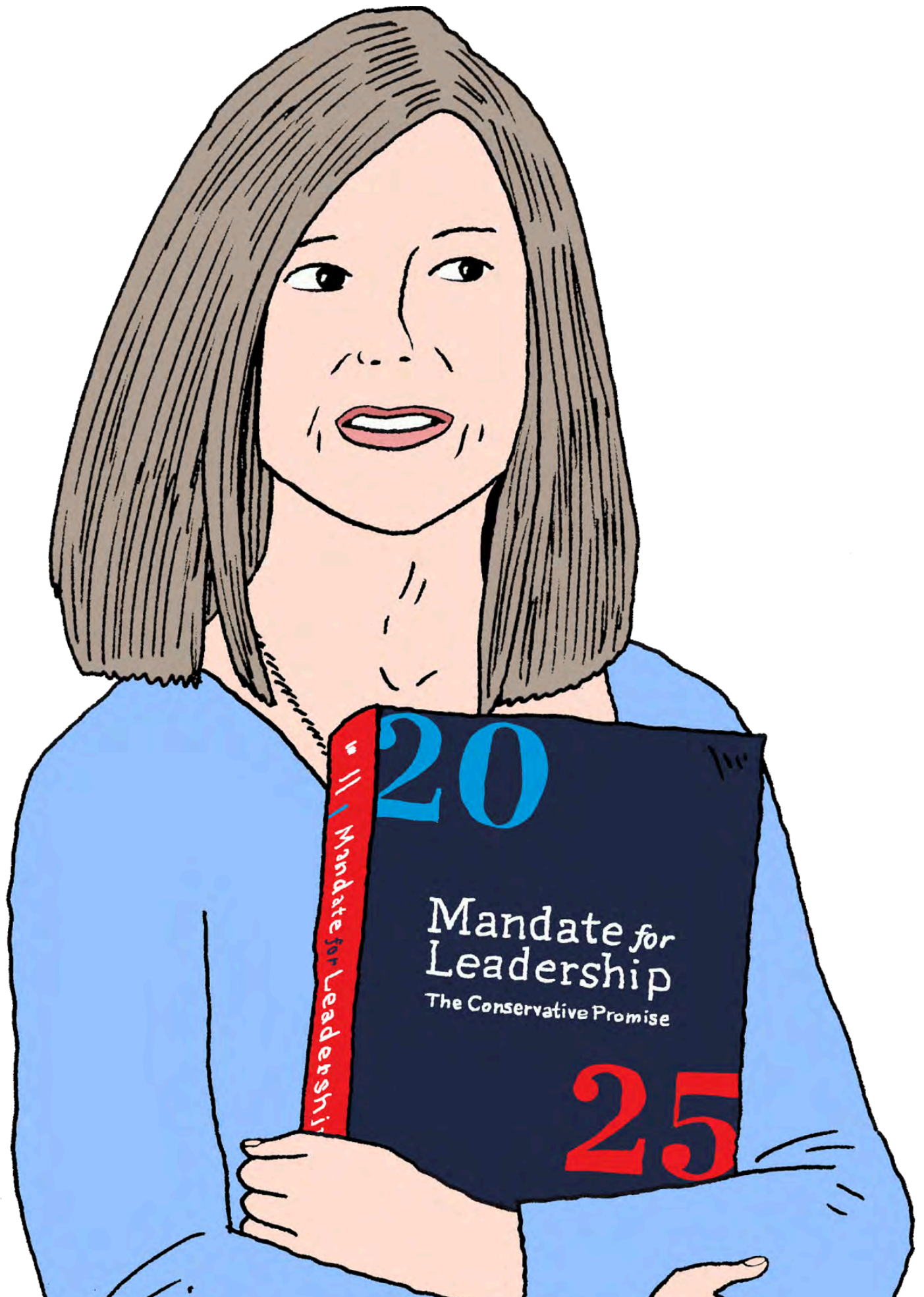


Efforts to reform the system that has shielded oil companies from liability have been haphazard. When the federal government rewrote its rule setting bond levels on federal public land earlier this year, [a simple math error](#) meant the government would ask oil companies to set aside around \$400 million less in bonds than it would've otherwise. And when states have tried to pass reforms, they've been stymied by [state legislators' and regulators' chummy relationships with the industry](#).

As an ever-greater share of wells go offline and the economy transitions to cleaner forms of energy, policymakers face a choice: Do they focus attention on propping up or cleaning up the industry?



Sgamma of the Western Energy Alliance gives voice to one path forward. “Any time a well goes into an orphan status, it’s not a good thing,” Sgamma said, yet her group has been instrumental in killing efforts to address the orphan well epidemic and the oil industry’s contributions to climate change. Her organization [is suing to halt the federal rule](#) that sought to bring bonding levels closer to true plugging costs.





Kathleen Sgamma

WESTERN ENERGY ALLIANCE

Sgamma co-authored the energy section of Project 2025, [the conservative policy paper with deep ties to the first Trump administration](#) that lays out policy priorities for a conservative White House. The plan would “Stop the war on oil and natural gas,” reopen undeveloped habitat from Alaska to Colorado for drilling, increase the number of sales for oil leases on public lands and shrink federal environmental agencies. President-elect Donald Trump has repeatedly indicated this closely aligns with his vision for pumping America’s “liquid gold.” He has begun staffing his administration with pro-oil and gas figures.

The future for which Sgamma is fighting sees a resilient American oil and gas industry, able to “take a lot of punches” while continuing to grow unabated.



Stephanie Garcia Richard

NEW MEXICO STATE LANDS COMMISSIONER

Or there's the future Garcia Richard, who oversees New Mexico's public land, envisions. She has **paused the leasing of public land** to drillers until the Legislature forces oil companies to pay state taxpayers higher royalties that reflect fair market rates. She directed her staff to aggressively pursue companies like Siana. And her office is preparing to raise required bonding levels. As she talked about this work, she held up the literal rubber stamp that imparts the State Land Office's seal on documents, suggesting that's not how business is done anymore. She also held up a small notebook where she tracks the numerous companies her office is pursuing for polluting the state's land and water.

In her future, Garcia Richard said, oil drillers wouldn't behave like Siana and Ragsdale. "A good-acting company is a company that understands there's a cost of doing business that shouldn't be borne by the landowner, shouldn't be borne by the taxpayers," she said. But in the modern American oil industry, she added, the playbook and the still-burning fuse of the cleanup time bomb represent little more than "Wild West behavior."



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