TAXPAYERS for COMMON SENSE

O&G REPORT

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New Mexico's Boom That Cost Billions II:
How Federal Oil & Gas Policies Continue to Fail Taxpayers

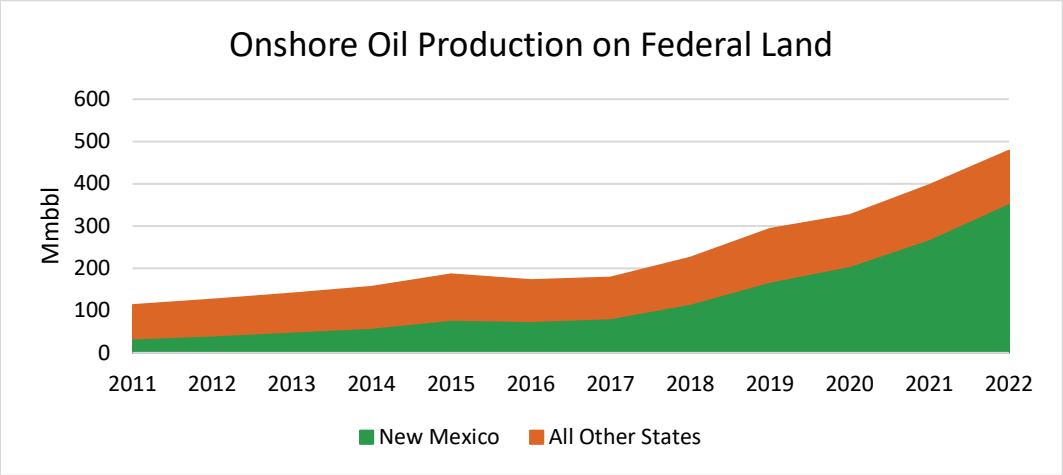
Federal taxpayers own approximately 700 million acres of land containing oil, gas, and other valuable resources – much of which is concentrated in New Mexico and other western states. The Department of the Interior (DOI) is responsible for leasing federally owned oil and gas for development. Under law, DOI is directed to collect fair market value from the development and sale of these resources. However, the current federal oil and gas leasing system fails to give taxpayers a fair return on these valuable, publicly owned resources.

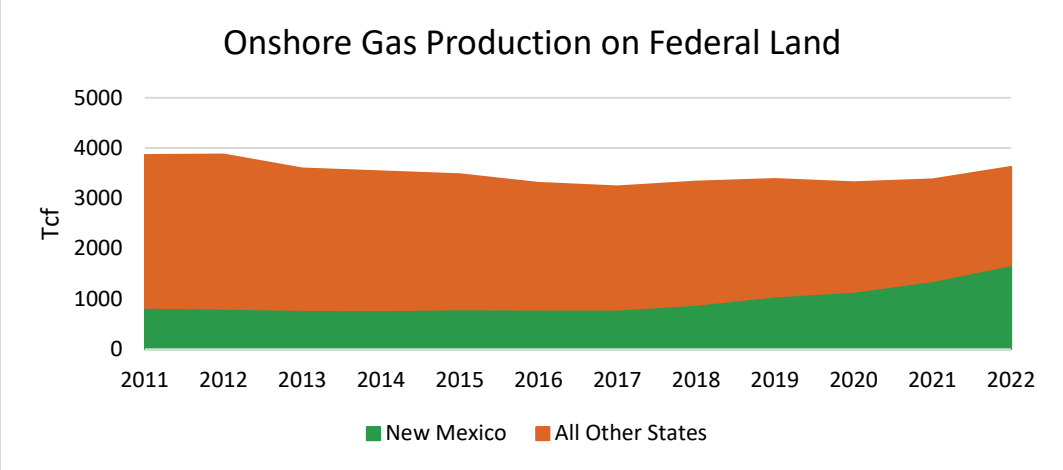
Issues within the federal oil and gas leasing system have been well-documented for decades – even by DOI itself. Outdated leasing terms and conditions have cost taxpayers billions of dollars in lost revenue, wasted valuable energy resources, and left taxpayers with additional environmental liabilities. Federal oil and gas development in New Mexico illustrates how outdated leasing policies have cost and will continue to cost taxpayers.

New Mexico Oil & Gas Production – History and Present

New Mexico is the largest producer of federal oil and natural gas, accounting for 74% of all oil (354 million barrels) and 46% of all gas (1.67 trillion cubic feet) produced on federal lands in FY2022. This trend is consistent for New Mexico – it has been the largest producer of federal oil for the last decade and the largest producer of federal gas for the last two years, having surpassed Wyoming's annual production in both FY2021 and FY2022.

Figure 1: Onshore Oil and Gas Production on Federal Land in 2022





Source: U.S. Department of the Interior Natural Resources Revenue Data

This production generates valuable revenues for federal and state taxpayers, as states receive half of federal receipts from resource development within their borders. However, outdated leasing policies have left billions of dollars in potential revenue on the table.

The Federal Oil and Gas Program & Recent Reforms

The federal government has the opportunity to capture "fair market value" for taxpayers throughout the leasing process. To capture the value of the rights to explore for and develop federal oil and gas resources, DOI sells leases to the highest bidder in a live auction, with the resulting revenue referred to as "bonus bid" revenue. To capture the value of holding onto federal land - and preventing other uses of it - the federal government charges leaseholders rent. And to capture the value of the oil and gas itself, DOI charges operators a set percentage of the resources' value, a royalty, when operators sell the oil and gas. Under the current leasing system, taxpayers lose at every step along the way.

For nearly a century, the federal government used the same, below-market royalty rate, rental rate, and minimum bid for onshore oil and gas leases. The 12.5% royalty rate on federal lands was first set by Congress as the legal minimum over 100 years ago and remained unchanged until last year. The rental rate was most recently reset in 1987 to "not less than $1.50 per acre per year for the first through fifth years of the lease and not less than $2 per acre per year for each year thereafter." The same year, the minimum bid was updated to $2/acre.

After production ends, oil and natural gas producers operating on federal land are required to plug their wells and clean up the surrounding sites. To guarantee the cleanup of these potentially hazardous and environmentally harmful sites is paid for, producers are required to post a bond before they start drilling. If the company abandons its wells on a federal lease, or goes bankrupt, the bond is meant to cover the reclamation expenses. For leases on federal land, the required bond amounts haven't changed in over 60 years and don't cover the full cost of cleanup, which means taxpayers are left paying millions of dollars to reclaim thousands of abandoned wells scattered across federal lands.

DOI is responsible for determining the reclamation requirements for operators, setting minimum bond values, and establishing what types of bonds it will accept. The three types of bond coverage the agency accepts, and their minimum values are as follows:

- $10,000 for an operator's wells on an individual lease;
- $25,000 for all wells owned by an operator in one state; and
- $150,000 for all wells owned by an operator nationwide.

Operators can secure either a surety bond or a personal bond. A surety bond is when operators enter a legally binding contract with a third-party surety company who will assume the responsibility of the debt if the operator defaults or is unable to make the bond payments.

The fiscal year 2022 budget reconciliation bill (P.L. 117-169, or the Inflation Reduction Act), which was signed into law in August 2023, contained several important oil and gas reforms. The bill raised the onshore oil and gas royalty rate, rental rates, and minimum bid for the next 10 years. Until August 2032, the federal onshore royalty rate is 16.67%;

rental rates are $3/acre for the first 2 years, $5/acre for years 3-8, and then no less than $15/acre for years 9-10; and the minimum bid is $10/acre.

While these reforms are an important first step in ensuring taxpayers get a fair return for federal oil and gas resources, the current system still fails taxpayers – through a below market-royalty rate, insufficient bonding protection for reclamation, and policies that allow producers to waste taxpayer owned natural gas without fair compensation. Although the Inflation Reduction Act (IRA) did originally include reform of federal bonding rates, it was dropped in the final version. As a result, current bonding requirements still fail to protect taxpayers.

In addition to these legislative reforms, DOI has also instituted department-driven reforms to help taxpayers secure a fair return on these valuable resources. In June 2022, DOI held an auction for oil and gas leases that included a royalty rate of 18.75% specific to those leases. However, upcoming lease sales scheduled for 2023 will implement the lower rate of 16.67% passed through the IRA.

DOI has also issued a series of Instruction Memoranda (IM) updating its oil and gas leasing guidance. Specifically, IM 2023-007, Evaluating Competitive Oil and Gas Lease Sale Parcels for Future Lease Sales, will evaluate parcels from submitted Expressions of Interest based on preference criteria such as potential for development, proximity to existing oil and gas development, presence of important fish and wildlife habitats, presence of historical or cultural sites and properties, presence of recreation, and other important uses. This will help curtail speculative leasing, which allows oil and gas companies to lock up federal lands from other important uses and hurts taxpayers as most speculative leases never enter production. DOI is also pursuing rulemakings that will help ensure taxpayers receive a fair return from the development of valuable oil and gas resources, including re-evaluating outdated leasing policies and better enforcing capture of vented and flared methane from federal wells.

While recent actions have helped bring the federal onshore oil and gas leasing system into the 21st century, they are still inadequate at protecting taxpayers and ensuring a fair return from the sale of taxpayer-owned resources. Taxpayers have lost millions of dollars and, without permanent reform, may continue to lose millions more from outdated and below-market royalty rates and rental rates. Current federal policies on lost gas and bonding benefit the oil and gas industry at the expense of taxpayers, burdening the nation with growing long-term liabilities.

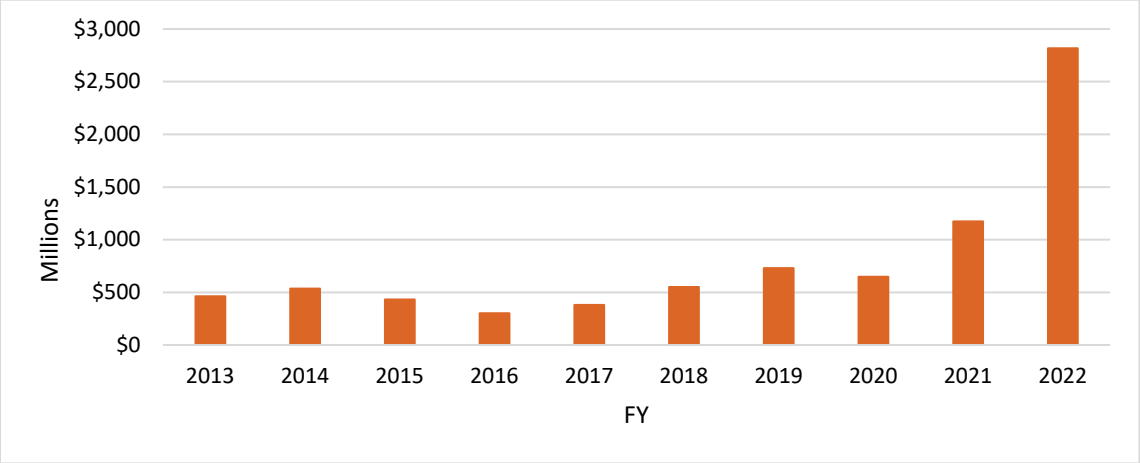
Royalty Rate

Federal revenue from royalty charges – a percentage of the value of sold oil and gas that producers must return to federal taxpayers – constitute the majority of federal receipts from the oil and gas leasing system.[1] The Office of Natural Resources Revenue (ONRR) collected $16.1 billion in royalties from the sale of oil, gas, and natural gas liquids in New Mexico between FY2013 and FY2022. However, this royalty revenue is a fraction of what federal and state taxpayers deserve.

While the federal royalty rate was recently raised from 12.5% to 16.67%, it still lags what producers are charged for oil and gas development in federal waters, 18.75%, and on New Mexico state lands, 18.75% to 20%.[2] Other states, such as Texas, impose an even higher royalty rate.

Had the current royalty rate of 16.67% had been implemented on the same quantity of onshore production over the last decade, ONRR would have collected $21.4 billion in royalties, $5.4 billion more than what taxpayers actually received. Had a royalty rate consistent with what is charged in federal waters, 18.75%, been implemented, ONRR would have collected $24.1 billion in royalties over the last ten years and taxpayers would have received $8 billion more in revenue. And because an 18.75% royalty rate would be comparable to those charged by the state, shifts in production from federal to state lands would be minimal.[3]

Figure 2: Foregone Royalty Revenue at 18.75%



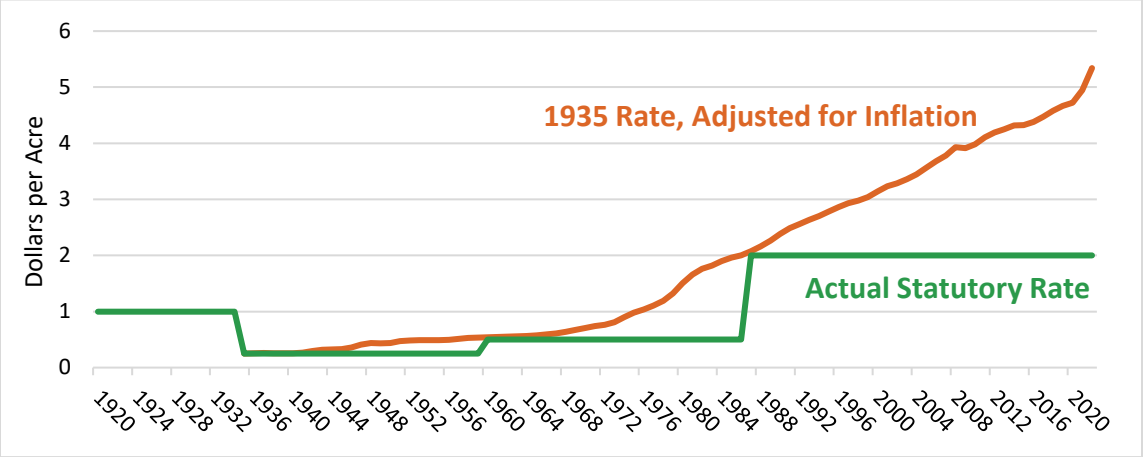
Note: TCS calculation of forgone royalty revenue using U.S. Department of the Interior Natural Resources Revenue Data

[1] Over the last decade, FY2013-FY2022, royalty revenue accounted for 88% of federal receipts from the onshore oil and gas leasing program.
[2] For all state lease sales between Aug. 2017 - July 2022, 93.2% of parcels were offered at a 20% royalty rate, 5.5% at 18.75%, and 1.3% at 12.5%.
[3] Congressional Budget Office (CBO), Options for Increasing Federal Income From Crude Oil and Natural Gas on Federal Lands. https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/51421-oil_and_gas_options-OneCol-3.pdf

Rental Rate

Federal and state taxpayers also lost revenue from outdated rental rates in New Mexico. Between FY2013 and FY2022, the minimum rental rates for leasing federal lands for oil and gas development in the state of New Mexico were set at $1.50/acre for the first 5 years of the lease and $2/acre for the second half of the lease term – rates that had not been updated since 1987. If onshore rental rates had been updated for inflation, rental fees should have been $3.69/acre and $4.92/acre, respectively, in 2022. Instead, by not adjusting for inflation, the federal government has given oil and gas operators a more than 50% discount on rental fees. If rental rates had been adjusted for inflation each fiscal year over the last decade, taxpayers would have received $13.1 million in additional revenue from rental fees in New Mexico.

Figure 3: Oil & Gas Lease Rental Rates Lags Historical Levels



Note: TCS compilation of statutory rental rates set by Congress. Inflation adjustment uses Federal Reserve Bank of Minneapolis Consumer Price Index.

Bonding

The federal oil and gas leasing system has also failed to protect taxpayers from shouldering the cost of cleaning up wells left behind by oil and gas companies due to inadequate bonding requirements. According to a Government Accountability Office (GAO) report published in 2019, the average value of bonds held by DOI in 2019 was $2,122 per well.[4] The bond value held by the bureau does not reflect the full reclamation costs for the wells they cover, which can range from $20,000 per well to

[4] Government Accountability Office, Oil and Gas: Bureau of Land Management Should Address Risks from Insufficient Bonds to Reclaim Wells, Sep 18, 2019. p. 11

$145,000 per well. In fact, 84 percent of bonds, which cover 99.5 percent of wells, are not enough to cover even the lower estimate of $20,000 per well.[5]

According to the New Mexico Energy, Mineral and Natural Resources Department (EMNRD), its Oil Conservation Division (NMOCD) plugs orphaned wells in the state of New Mexico, including those on federal land, with grants from DOI. From 2016-2020, NMOCD reclaimed 49 wells on federal lands in New Mexico at a total cost of $1,746,761, or around $35,600 per well, on average.[6] In FY2021 and FY2022, no federal wells were plugged under DOI grants because DOI indicates that there are no orphaned wells on federal land – which the NMOCD states is false, and DOI has simply not completed its review process yet.[7] The Infrastructure, Investment and Jobs Act (IIJA) appropriated $250 million for reclaiming orphaned wells on federal lands, which will be used to cover plugging costs once the number of orphaned wells on New Mexico has been identified.

However, without bonding reform, potential taxpayer liability extends beyond the current universe of orphaned wells on federal land and might include inactive wells at risk of becoming orphaned as well as current producible wells without enough bond coverage, which is 99.5% of wells according to the GAO.[8] At the end of FY2022, there were 31,186 producible wells on federal lands in New Mexico, which, using the NMOCD's average cost of well reclamation of wells on federal lands, amount to around $1.1 billion in future reclamation liabilities on federal lands in the state. Assuming the average bond coverage per well held by DOI is still $2,122, DOI would only have $66 million in bonds from operators producing on federal lands in New Mexico, leaving a potential shortfall of $1.05 billion.

But federal taxpayers are potentially on the hook for more, as the IIJA appropriated close to $4.7 billion for orphaned well cleanup, $4.275 billion of which is earmarked for orphaned wells on state and private lands.

[5] Ibid.
[6] NMEMNRD, OCD Bonding Requirements and Orphan Wells, 2020. https://www.nmlegis.gov/handouts/WNR%20090320%20Item%203%20OCD%20Bonding%20and%20Plugging.pdf
[7] OCD, Developing New Mexico's Oil and Natural Gas Methane Strategy https://www.nmlegis.gov/handouts/WNR%20082522%20Item%2011%20Orphan%20Well%20Program.pdf
[8] Government Accountability Office, Oil and Gas: Bureau of Land Management Should Address Risks from Insufficient Bonds to Reclaim Wells, Sep 18, 2019. p. 11

Funding for Orphaned Well Cleanup

Orphaned well cleanup is necessary and costly. The Infrastructure, Investment and Jobs Act (IIJA) provides a total of $4.275 billion for state orphaned well cleanup programs through three types of grants: initial grants, formula grants, and performance grants. Congress provided $775 million in initial grants and each state with an established orphaned well reclamation program may request up to $25 million. States can also apply for formula grants worth $2 billion in total based on factors including job losses and the amount of documented orphaned wells. There is also $1.5 billion available through two types of performance grants – regulatory improvement grants – which require that a state has, within a 10-year period after the initial grant application, strengthened state plugging and reclamation standards and financial assurance mechanisms, and matching grants, which provide the difference between the annual state spending on plugging between 2010 and 2019 and the amount the state plans to spend during the fiscal year the state is applying for.

Any way you slice it, cleanup is a costly liability that taxpayers are shouldering. Bonding reforms can provide increased taxpayer protections for wells on federal lands.

In their Notice of Intent (NOI) to apply for formula grant, NMOCD stated there are 1,741 known orphaned well sites on state and private land, with an estimated reclamation cost of $291 million.[9] In January 2022, DOI announced that New Mexico is eligible for $25 million of initial grants and $18.7 million through phase one of formula grants and may be eligible for an additional $54 million through later phases of the formula grant program as additional data becomes available.[10] NMOCD announced that the $25 million initial grants received in October 2022 would be used to plug and reclaim 200 wells as well as clean up and reclaim the surface of 50 to 60 sites over the next 12 months.[11]

However, according to the Interstate Oil and Gas Compact Commission (IOGCC) of state regulatory agencies, NMOCD reported 3,375 documented orphaned wells at the end of 2020. Not all documented wells have known locations, but are still considered documented because the state agency knows of the wells' existence. According to a 2022 study, there are 2,354 orphaned wells with known locations.[12]

[9] New Mexico OCD Correspondence Infrastructure and Investment Jobs Act, according to Grist reporting. Source: https://www.documentcloud.org/documents/21197856-new-mexico-ocd-correspondence-infrastructure-investment-and-jobs-act

[10] DOI, "Biden Administration Announces $1.15 Billion for States to Create Jobs Cleaning Up Orphaned Oil and Gas Wells", https://www.doi.gov/pressreleases/biden-administration-announces-115-billion-states-create-jobs-cleaning-orphaned-oil

[11] NMEMNRD, "Orphan well clean-up work begins". https://www.emnrd.nm.gov/officeofsecretary/wp-content/uploads/sites/2/orphan_wells_cleanup_11_2022.pdf

[12] Jade Boutot, Adam S. Peltz*, Renee McVay, and Mary Kang, Documented Orphaned Oil and Gas Wells Across the United States. https://pubs.acs.org/doi/full/10.1021/acs.est.2c03268.

But the orphaned well problem could be much larger than the current universe of documented and undocumented orphaned wells. Without bonding reform that requires higher bonding minimums, currently inactive wells (no longer producing) and producible wells may be at risk of being abandoned in the future. Currently, there are about 60,000 wells that have been drilled but not plugged in the state of New Mexico, including ones on federal, tribal, state, and private lands.[13] Using the average plugging costs of $41,600[14] from 2015 to 2022 incurred by NMOCD to plug wells on all lands in New Mexico – not just federal lands - future potential cleanup liability amounts to $2.5 billion. Some of these wells will be plugged and reclaimed by responsible operators or the costs will be covered by state reclamation funds, but any shortfall between this total liability and what operators and NMOCD can cover will likely fall on the shoulders of federal taxpayers, as we've seen with the IIJA.

Royalty-Free Gas

When companies drill for oil and natural gas, methane is often intentionally released into the atmosphere (venting), burned off at the source (flaring), and accidentally leaked. Oil and gas companies lose a significant amount of natural gas during production on federal lands each year. Not only do these practices waste valuable energy resources, they also decrease revenue for state and federal taxpayers and contribute to the growing costs of climate change.

While this trend occurs across the United States, producers in New Mexico reported wasting more natural gas during oil and gas development than anywhere else in the country. Over the ten-year period of FY2012 to FY2021, oil and gas operators in New Mexico reported wasting 136 billion cubic feet (bcf) of gas, worth an estimated $431 million.[15] This lost gas accounts for more than 45% of all methane waste reported on all federal lands nationwide.

Wasted gas during energy development on federal lands decreases taxpayer revenue. Like oil, operators drilling on federal lands must pay a royalty on natural gas that is developed and sold. However, current regulations for DOI-managed leases do not specifically mention methane and include numerous exemptions that allow for the venting and flaring of natural gas royalty-free. While New Mexico producers wasted 136 bcf of gas worth an estimated $431 million, ONRR collected only $32.5 million in lost gas royalties, the equivalent of a mere 7.5% royalty on all lost gas.

Had ONRR collected a 12.5% royalty - the royalty rate on natural gas during the 10-year period - on all reported lost gas, taxpayers would have received an additional $21.3

[13] New Mexico EMNRD, "OCD Statistics", Accessed June 2023. https://www.emnrd.nm.gov/ocd/ocd-data/statistics/
[14] NMOCD reported plugging 234 wells on state and private land at a total cost of $10.02 million between 2015 and 2022. NMOCD also reported plugging 98 wells on federal land at a total cost of $3.49 million between FY2016 and FY2022. To better encompass the average costs of plugging orphaned wells on New Mexico, TCS combines this reporting to calculate the average cost of plugging wells on federal, state, and private land in New Mexico.
[15] All information regarding methane emissions on federal lands was obtained through the Office of Natural Resources Revenue via a Freedom of Information Act Request by TCS. Gas value calculations used monthly average Henry Hub Natural Gas Spot Prices obtained from the Energy Information Administration. Source: https://www.eia.gov/dnav/ng/hist/rngwhhdM.htm

million in revenue. Had the current royalty rate of 16.67% been applied over the same period, taxpayers would have received an additional $39.3 million. And had a royalty rate consistent with what we charge in federal waters, 18.75%, been implemented, taxpayers would have received an additional $48.3 million in revenue.

Conclusion

Taxpayers entrust the federal government with the management of federal lands and the valuable resources contained within them. Yet current policies fail to the provide a fair return to taxpayers from oil and gas development on federal lands in New Mexico. Adding insult to injury, current policies leave taxpayers to shoulder long-term liabilities from orphaned wells. Updating lease terms for federal oil and gas development can substantially increase the returns to the Treasury, and the amounts disbursed to the state of New Mexico, in the years to come.

Whites City, New Mexico | Credit: James St. Josh