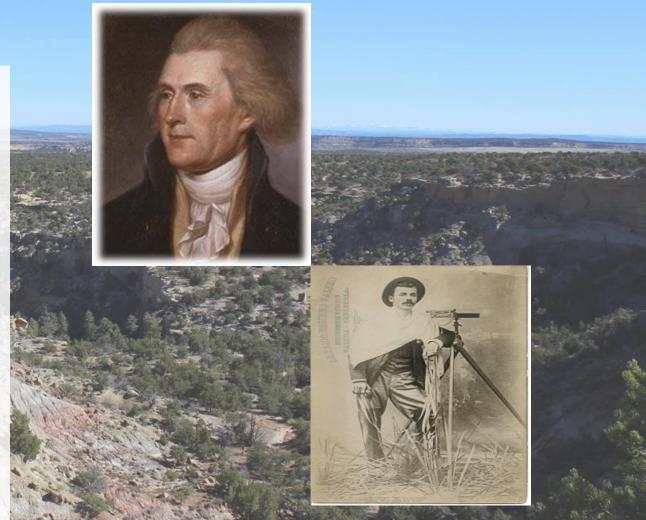


New Mexico State Land Office

Commissioner Aubrey Dunn Investments and Pensions Oversight Committee Meeting October 16, 2018 – Santa Fe, NM

How Land Management Began

- Thomas Jefferson proposed the public land survey system that is used today.
- This system incorporates a land survey that uses a mathematical rectangular grid applied to the land area. The grid designation was based on a standard unit marker placed on the ground.
- This was the basis of the General Land Ordinance of 1785, which established the present land survey system and charted Western History of the US.

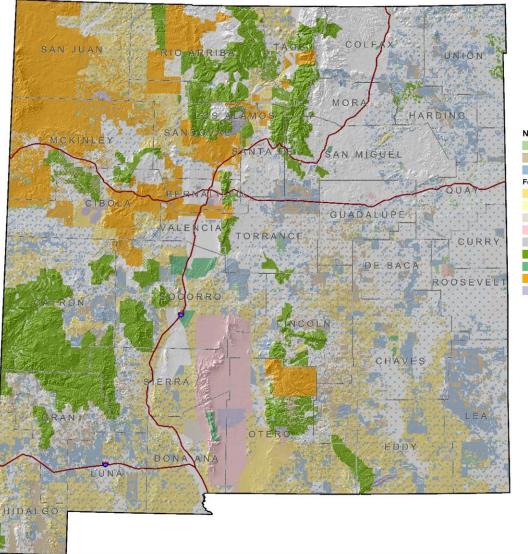


State Land Trust Beneficiaries



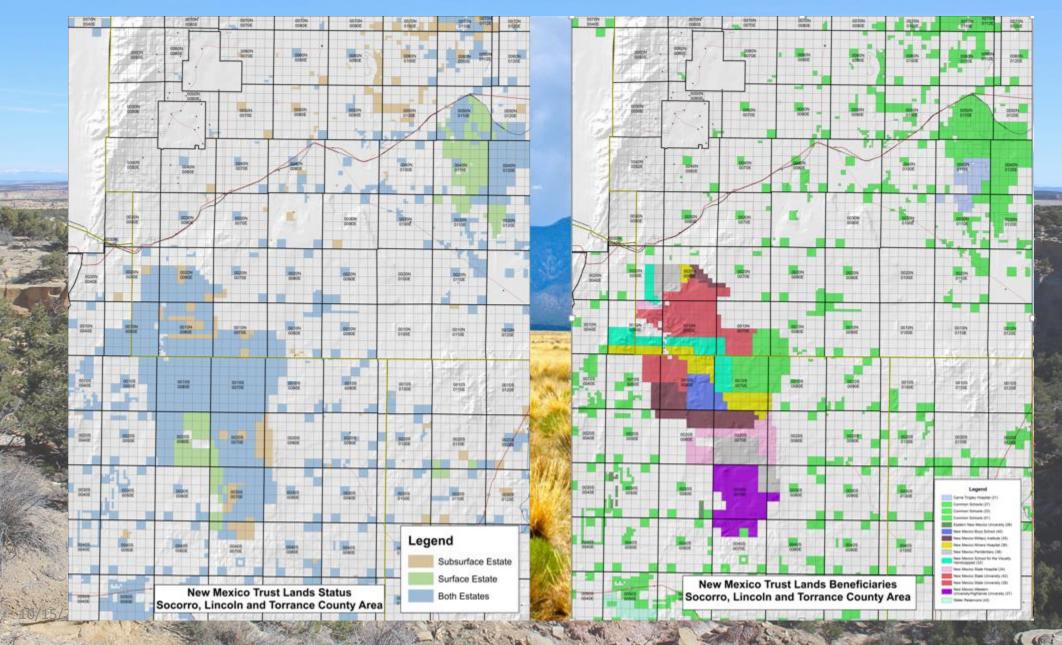
Land Status Map





NMSLO Trust Lands
Surface Estate
Subsurface Estate
Subsurface Estate
Federal Surface Anagement
Bureau of Land Management
Bureau of Reclamation
Department of Agriculture
Department of Defense
Department of Energy
USDA Forest Service
Bureau of Indian Affairs/Tribes
National Park Service

Beneficiary Land Status



Two Funds

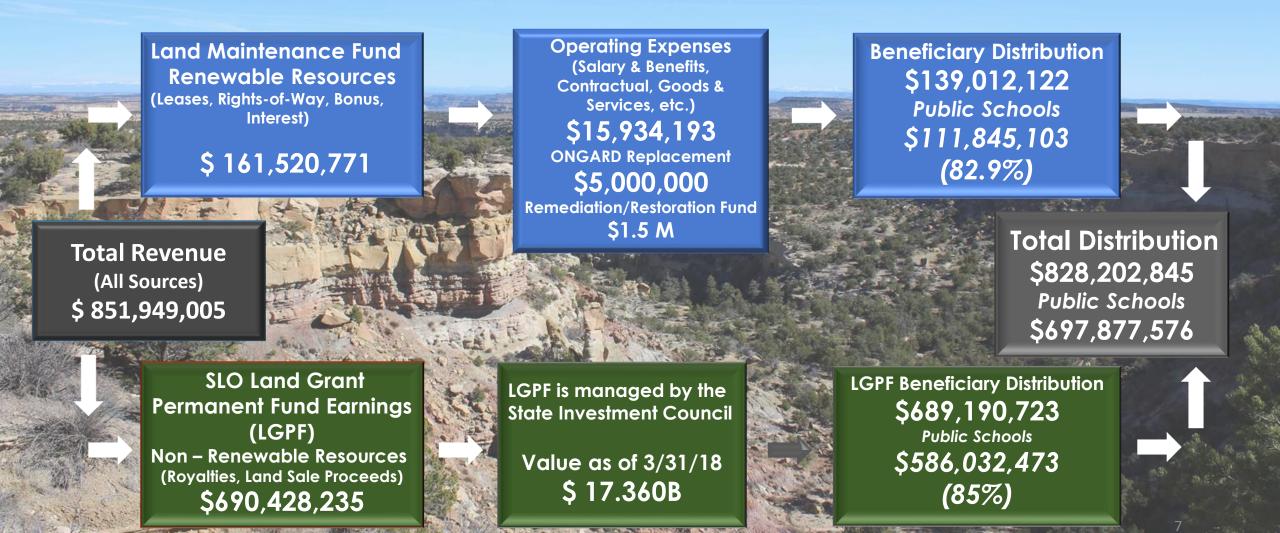
Land Maintenance Fund

- This fund is generated by revenue from renewable resources, such as agricultural and commercial leases, rights-of-way and interest. Oil, gas and mineral bonuses from lease sales also contribute to this fund.
- The Land Office's operating budget is paid from this fund and the remaining balance is distributed proportionately to the beneficiaries.

Land Grant Permanent Fund

- This fund receives royalty payments from non-renewable resources, such as oil, gas and mineral extraction and land sale proceeds.
- Since 1959, the State Investment Council (SIC) has managed the fund. The SIC, of which the Commissioner is a member, invests the corpus of the fund.
- The SIC also distributes revenue to the beneficiaries monthly, based on Constitutional provisions and the beneficiaries proportionate share.

Revenue Flow FY 2018



State Land Office – Revenue Sources

Rentals by Source

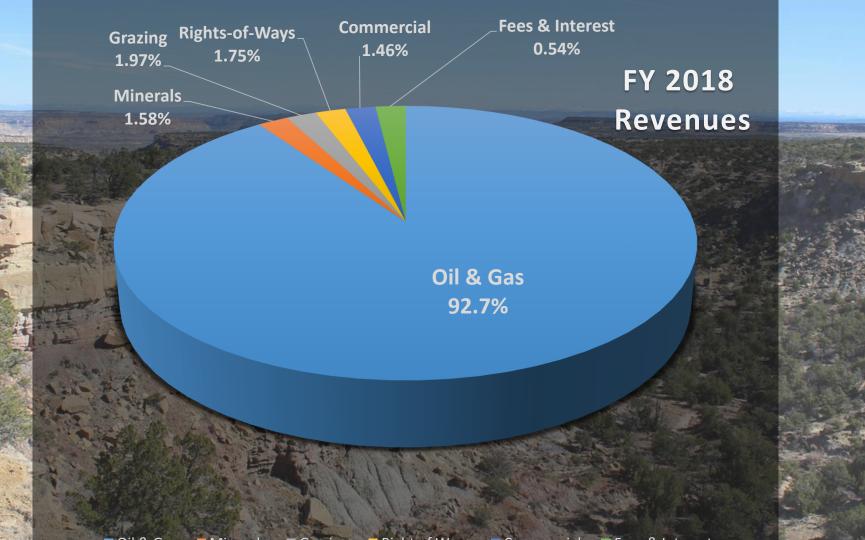
| LMF - Recurring | F | FY 2016 Actuals | | FY 2017 Actuals | FY 2018 Total | |
|-------------------|----|-----------------|----|-----------------|-------------------|--|
| Oil & Gas | \$ | 42,670,364 | \$ | 70,093,898 | \$ 112,273,886 | |
| Mining & Minerals | \$ | 519,409 | \$ | 97,381 | \$ 321,672 | |
| Rights of Way | \$ | 12,373,622 | \$ | 9,522,828 | \$ 15,368,147 | |
| Grazing | \$ | 8,635,845 | \$ | 10,750,474 | \$ 11,104,763 | |
| Wind & Solar | \$ | 1,016,587 | \$ | 470,262 | \$ 66,878 | |
| Other Sources | \$ | 10,489,073 | \$ | 7,023,473 | \$ 18,310,264 | |
| Other Income | \$ | 1,532,373 | \$ | 2,928,513 | \$ 4,075,161 | |
| Rental Total | \$ | 77,237,274 | \$ | 100,886,830 | \$ 161,520,771 | |

Royalty by Source

LGPF - Non-

| Renewables | FY 2016 Actuals | | | FY 2017 Actuals | FY 2018 Total | |
|-------------------|-----------------|-------------|----|-----------------|-------------------|--|
| Oil & Gas | \$ | 406,273,449 | \$ | 554,072,680 | \$ 679,420,057 | |
| Mining & Minerals | \$ | 12,570,915 | \$ | 8,499,517 | \$ 9,281,987 | |
| Other Sources | \$ | 900,082 | \$ | 459,942 | \$ 1,726,191 | |
| Royalty Total | \$ | 419,744,447 | \$ | 563,032,139 | \$ 690,428,235 | |
| Revenue Totals | \$ | 496,981,720 | \$ | 663,918,969 | \$ 851,949,006 | |

Revenue Breakdown



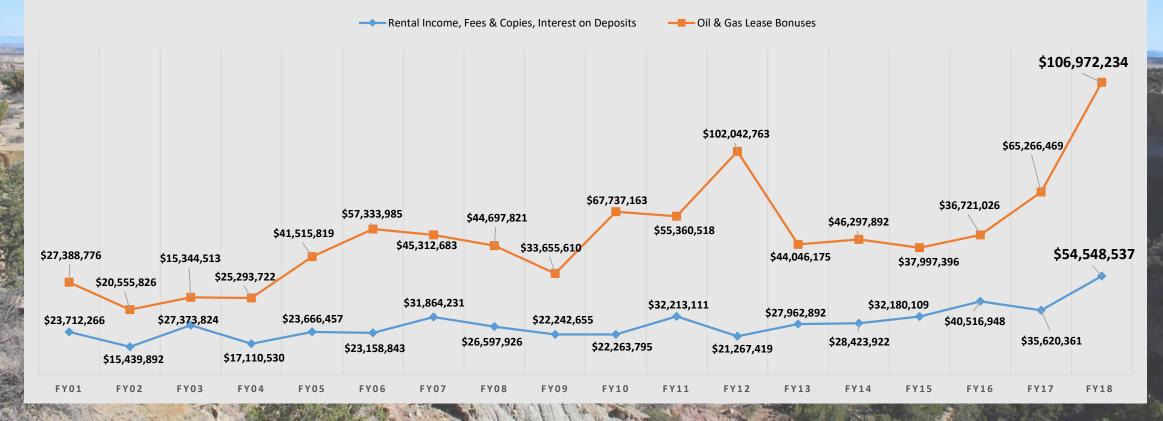
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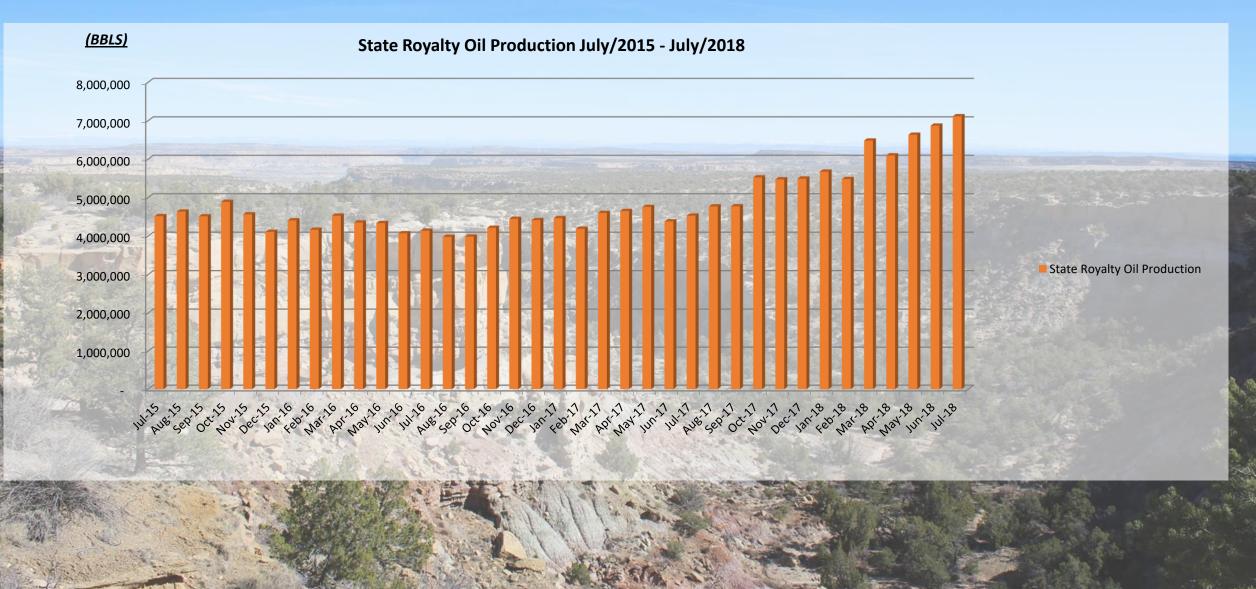
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Land Maintenance Fund Revenues FY 2001 – FY 2018

LAND MAINTENANCE FUND - RENTAL INCOME AND OIL & GAS LEASE BONUS



State Oil Production: June 2015 - July 2018



661

Revenue Processing Section Royalty Processed by Company –July 2018

| OGRID | ROYALTY | % OF TOTAL | ALL OTHER OGRIDS | COG 17.43% | PLAINS MARKETING LP |
|-------------------------------|--------------|---------------|------------------|---------------|------------------------|
| EOG | \$17,916,777 | 27.44% | (195) 20.06% | 1.5 | 2.49% |
| COG | \$11,376,996 | 17.43% | CHEVRON 2.59% | | CIMAREX |
| OXY | \$ 5,426,690 | 8.31% | 2.33% | | |
| DEVON ENERGY | \$ 5,185,161 | 7.94% | | | MARATHO |
| MEWBOURNE OIL | \$ 3,067,471 | 4.70% | XTO | | 3.07% |
| CIMAREX | \$ 2,162,948 | 3.31% | | | |
| MARATHON OIL | \$ 2,003,591 | 3.07% | DEVON ENERGY | | |
| XTO ENERGY | \$ 1,735,579 | 2.66% | 7.94% | | OXY 8.319 |
| CHEVRON | \$ 1,688,212 | 2.59% | MEWBOURNE OIL | | |
| PLAINS MARKETING LP | \$ 1,623,211 | 2.49% | 4.70% | | |
| ALL OTHER OGRIDS (195 OGRIDS) | \$13,096,999 | 20.06% | | | |
| TOTAL | \$65,283,635 | 100.00% | | EOG 27.44% | |

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ONGARD Conversion



 Oil and Natural Gas Administration and Revenue Database (ONGARD) has served the State of New Mexico for more than 22 years

 Annually processes hundreds of millions of \$ in royalty payments

 Coding is done in COBOL and must be converted to .NET

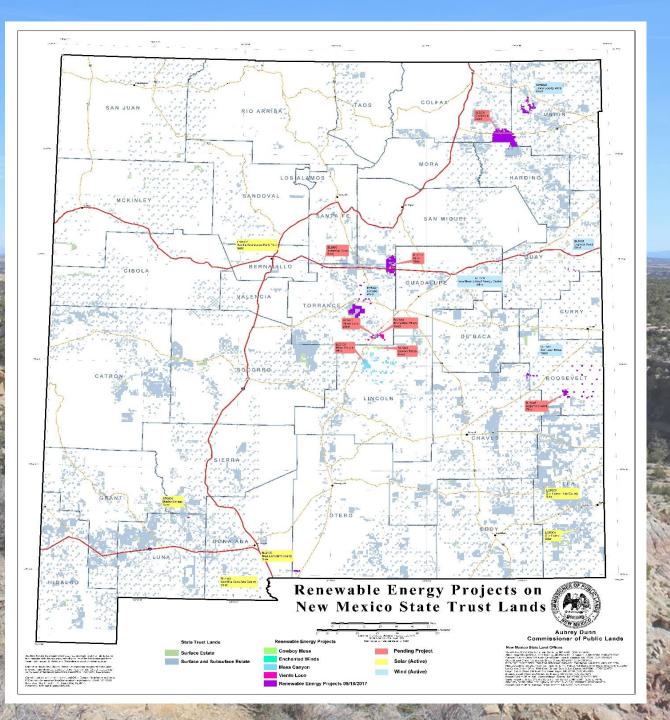
 Legislature has approved \$10 million for replacement

Rights of Way



 ROW applications have increased to almost 100/month

 Average turnaround time has been reduced to an average of 45-50 days



Renewable Energy Projects

Solar

- Active: 6
- Pending:1
- Wind
 - Active: 6
 - Pending: 8

Total Megawatts for all projects: **10,595**

Total Acres for all projects: **173,518**

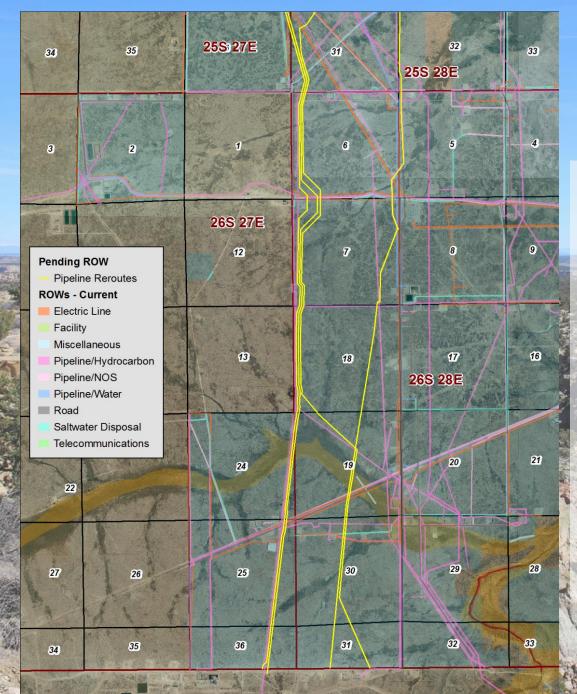
Can Wind Revenue Replace Oil & Gas Revenues for Beneficiaries?

Assumptions, and these are generous assumptions:

- 475,000 of 9 million acres of state land is suitable for wind development
 - (suitable = avg. wind speed of 15 mph at 50' elevation)
- Maximum of 5 turbines per section (a section is one square mile)
- One turbine will generate \$8,000 in revenue annually for the SLO

In this scenario, there would be 2,970 turbines on state land, spread over 594 square miles. These turbines would generate \$23,760,000 annually, or...

Wind revenue would be 3.5% of the \$676,182,643 generated in FY 2018 from oil & gas royalties.

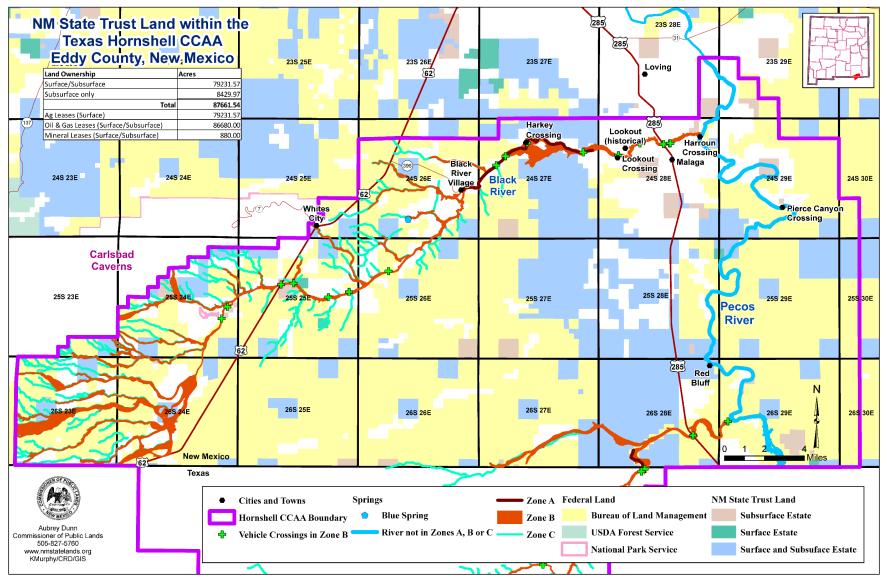


Proposed Pipelines

- Current production in the Delaware Basin is limited by volume of product that can be moved out of state to refineries and gas plants
- Trucking oil and gas on currently overburdened roads is not the answer
- SLO has received several new pipeline Rights-of-Way applications for this area (yellow lines on map)

Endangered Species – Texas Hornshell Mussel





O&G Activities Near Occupied Habitat



Water Issues Related to Oil & Gas Development

Increase in Freshwater Demand for Fracking

- Ogallala declining A constant decline rate of 1 foot per year for the area south of Tucumcari to Jal
- Pumping along the Texas-New Mexico border
- Endangered Aquatic Species
- Water sales using exempt well permits

Increased Volume of Produced Water for Disposal

- Contamination Issues
 - seepage from ponds
 - injection sites
 - Illegal dumping
- Potential for seismic issues from injection
- Need for more industry-wide recycling
- The Permian Basin has the highest amount of produced water among the major U.S. shale formations.
- In 2016, 6.5 bbls of water were produced for every bbl of oil.
- Proper disposal of produced water and oilfield waste is essential.

Ogallala Aquifer & Water Recycling



Reuse and Recycling of Produced Water

- Reusing and recycling of produced water is essential and could also reduce the potential for induced seismicity, according to a University of Texas study.
 - Traditional practice of injecting water into non-producing formations can increase pressure and cause earthquakes.
 - Instead, the water could be reused, with only minimal treatment.
 - Reuse and recycling of produced water reduces the reliance on fresh water.
 - So long as acquisition of fresh water and disposal of produced water is cheap, recycling and reuse of produced water is not economically beneficial to operators.

Industry: Out of Control

- Illegal Dumping of produced water GPS monitoring of vacuum trucks to SWD
- Trespass Salt Creek Midstream
- Abandoned wells
- Theft of oil Loss of revenue to Trust, industry needs to report better
- Plugged sites not remediated properly
- Lack of staffing in regulatory agencies
- Loss of royalties to the Trust caused by over flaring
- Vanguard oil spill caused from not properly cased well exposed with a frac

Industry: Out of Control Salt Creek Midstream Trespass







Industry: Out of Control Vanguard

Photos: Darkened land is contaminated by oil.







Industry: Out of Control Permian Water Solutions, LLC







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Accomplishments

- Land Maintenance Fund Record \$47 million non oil & gas revenues in FY18
- Record year of \$107 million in oil & gas lease sales
- Average turnaround time for a right s-of-way application from 300 days to less than 50
- Renegotiated Game & Fish easement increasing beneficiary distributions without raising hunting fees
- 50,000 additional acres of state lands opened for hunters along with 14 new campsites and 175 new access points
- Reclamation and Remediation Fund provided approximately \$1.6 million in FY18
- During administration, over 51,000 acres remediated and over 700 tons of trash removed from state lands
- Land exchange with Cochiti Pueblo: culturally significant Dixon Apple Orchard for Garrett's Desert Inn
- Highlighted industrial water use/conservation as an issue affecting New Mexicans and our economy today and into the future

Thank you!

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