

New Mexico State Land Office

Commissioner Aubrey Dunn

Water & Natural Resources Committee Meeting

October 3, 2018 - Roswell, NM



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

Fresh Water Easements

- 166 renewals, assignments and new applications received since 2015
 - 3 new applications have been denied (all in the Ogallala Aquifer)
 - 6 renewals terminated or denied (all in the Ogallala Aquifer)
- SLO has added a per bbl rent charge on renewal contracts in the Ogallala Aquifer
- Renewal contracts are being written with limited terms
- Incentives for use of poorer-quality water

Water issues in the News

THE TEXAS TRIBUNE

New Mexico official says Texas landowners are “stealing” millions of gallons of water and selling it back for fracking

ORLA - Water restrictions in New Mexico have created a supply crunch for the fracking industry, so more free-flowing Texas water is helping to fill the void. But not without controversy: A top New Mexico politician says Texans are pumping his state's water and piping it across the state line for oil drillers.

BY [JAY ROOT](#) JUNE 7, 2018

Albuquerque Journal

Land commissioner sues NM top water official

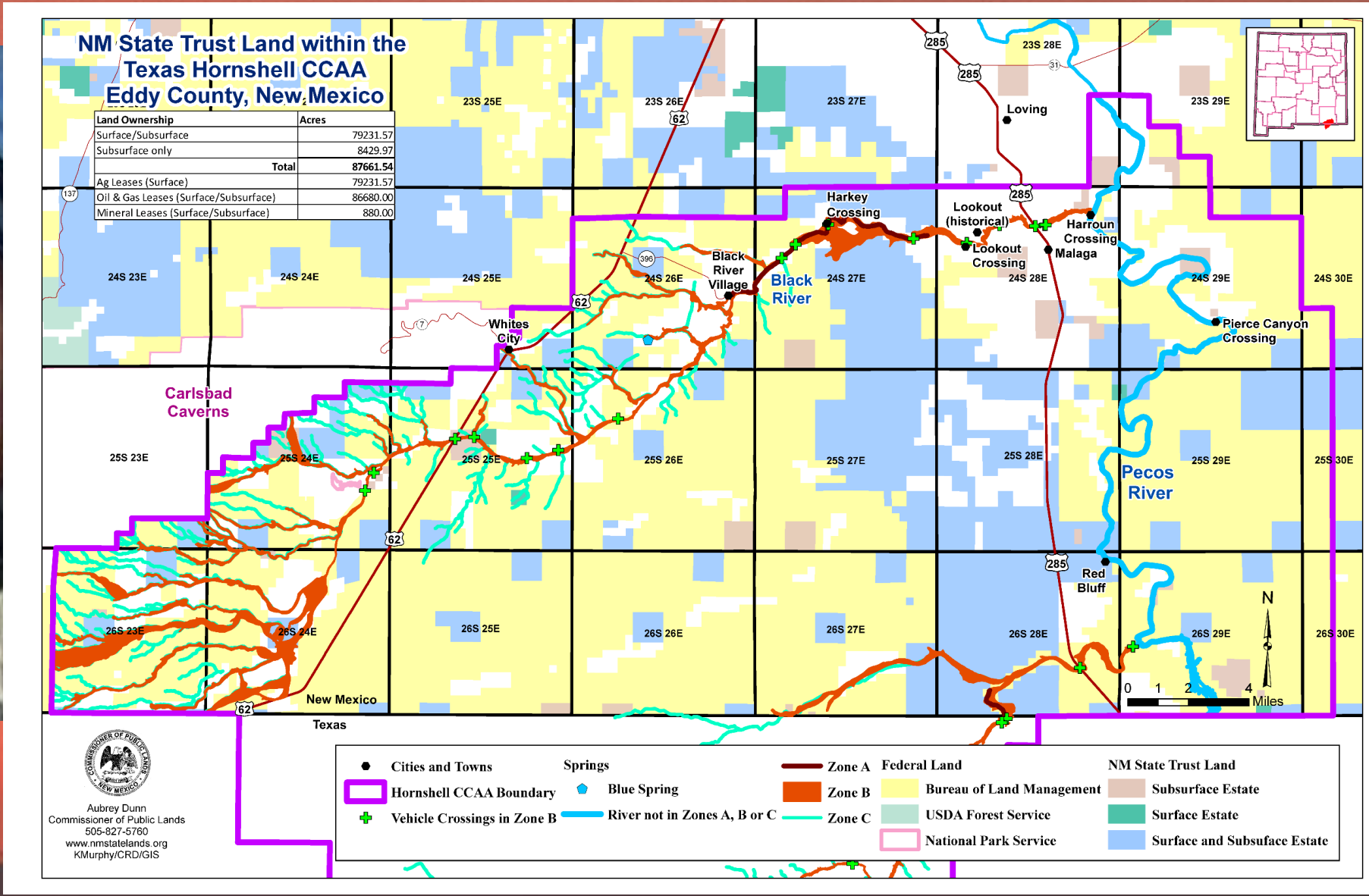
SANTA FE – There’s a new water fight brewing in New Mexico.

State Land Commissioner Aubrey Dunn has filed a lawsuit against State Engineer Tom Blaine, claiming the state’s top water official has violated the law by allowing too much underground water to be pumped —to be used primarily in oil and natural gas drilling operations — under temporary permits.

By [Dan Boyd / Journal Capitol Bureau Chief](#)

Published: Friday, June 22nd, 2018

Endangered Species – Texas Hornshell Mussel



O&G Activities Near Occupied Habitat



Salt Water Disposal

- 188 SWD renewals and assignments received since Sept. 2016
- 127 assignments completed (67%)
- 12 of these assignments are new easements
- Siting for SWD easements is being carefully considered
- Potential for surface impacts, particularly near endangered species habitat

Produced Water

- 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.
- Steps must be taken to prevent contamination of groundwater. Illegal dumping of produced water in the oil patch is a large problem.

Produced Water...

Acosta v. Shell Western Exploration and Production:

Shell used an unlined pit from the 1940s until it covered the pit with fill dirt in the 1960s. The Westgate subdivision was built on and near the pit.

Shell never reported releases or leaks to OCD nor did Shell advise the builder of the subdivision of the existence of the pit.

In 1997, massive hydrocarbon contamination was found all the way down into the aquifer 65 ft. below ground level.

Homeowners in the subdivision alleged injuries include lupus and other autoimmune disorders, neurological diseases, and respiratory diseases.

The plaintiff's expert, a professor of medicine at UCLA, claims the long-term exposure to three chemicals found in crude—pristine, benzene, and mercury—caused or aggravated the group of more than 200 plaintiffs' injuries.

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.

Ogallala Aquifer & Water Recycling



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.

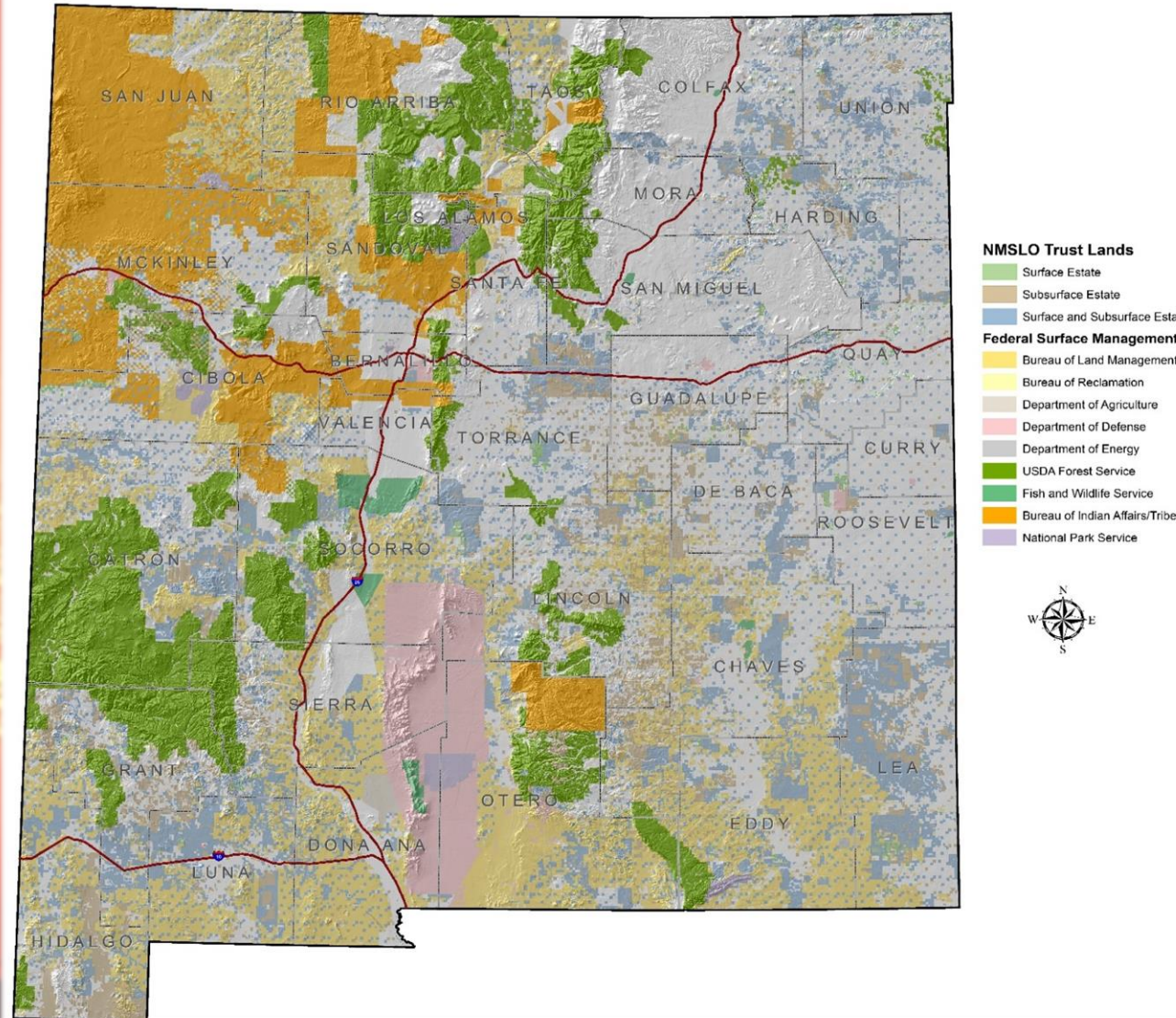


Industry: Out of Control

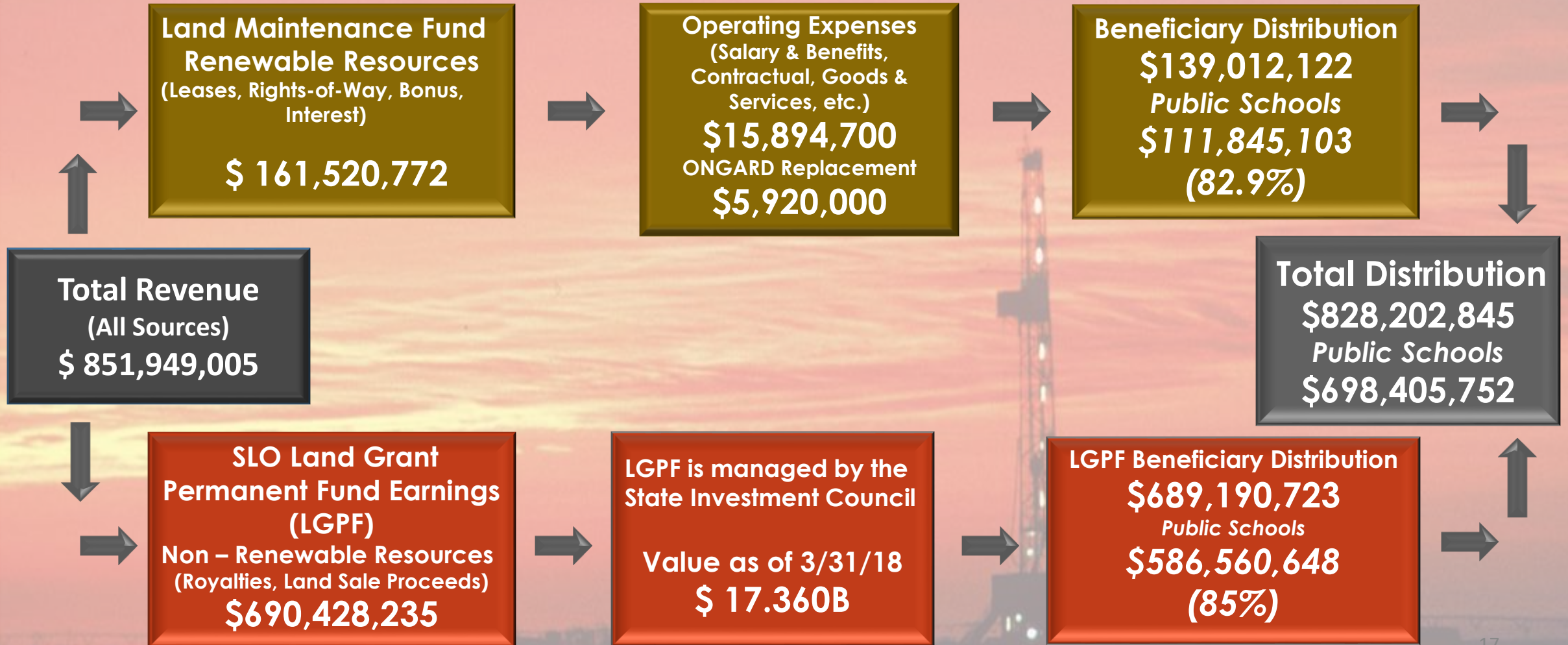
Permian Water Solutions, LLC



Land Status Map



Revenue Flow FY 2018



State Land Office – Revenue Sources

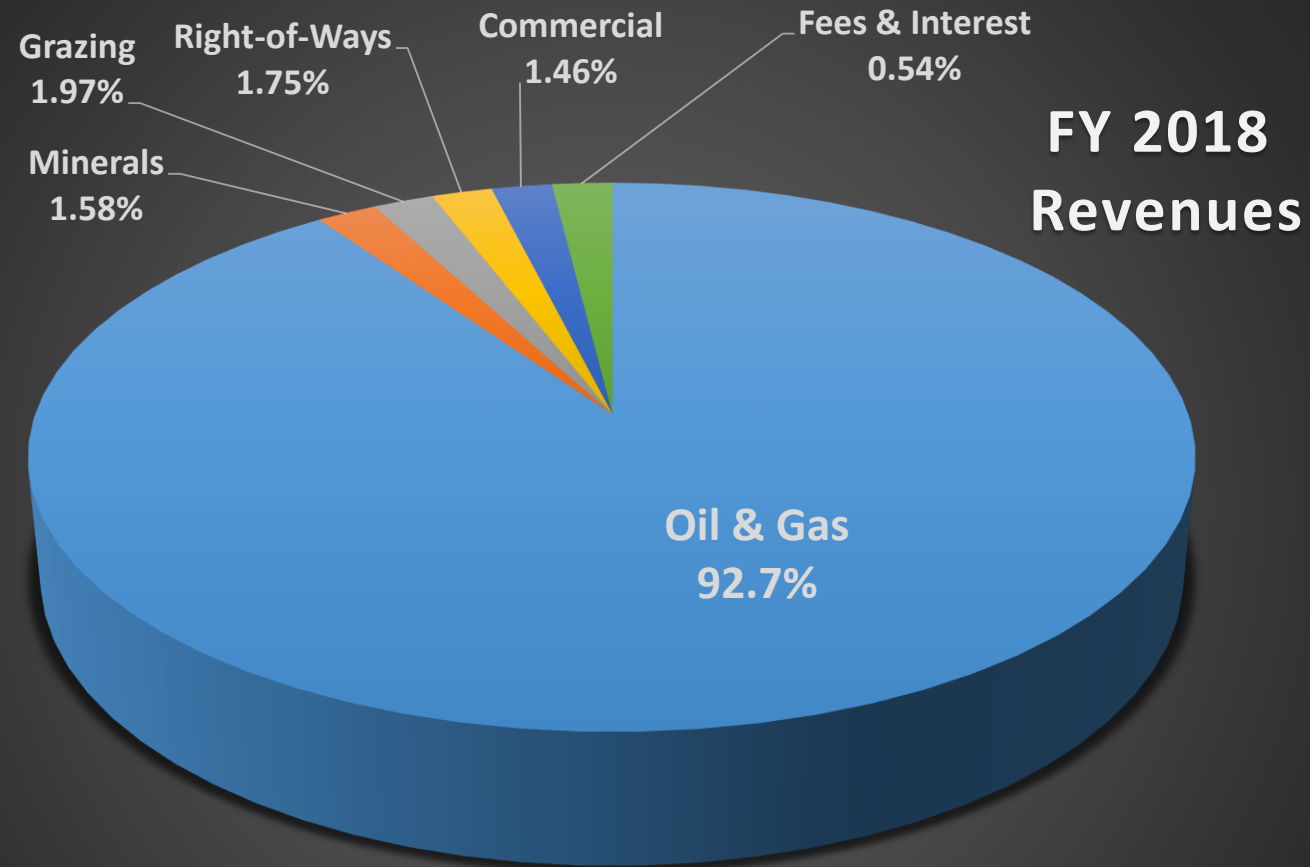
Rentals by Source

LMF - Recurring	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

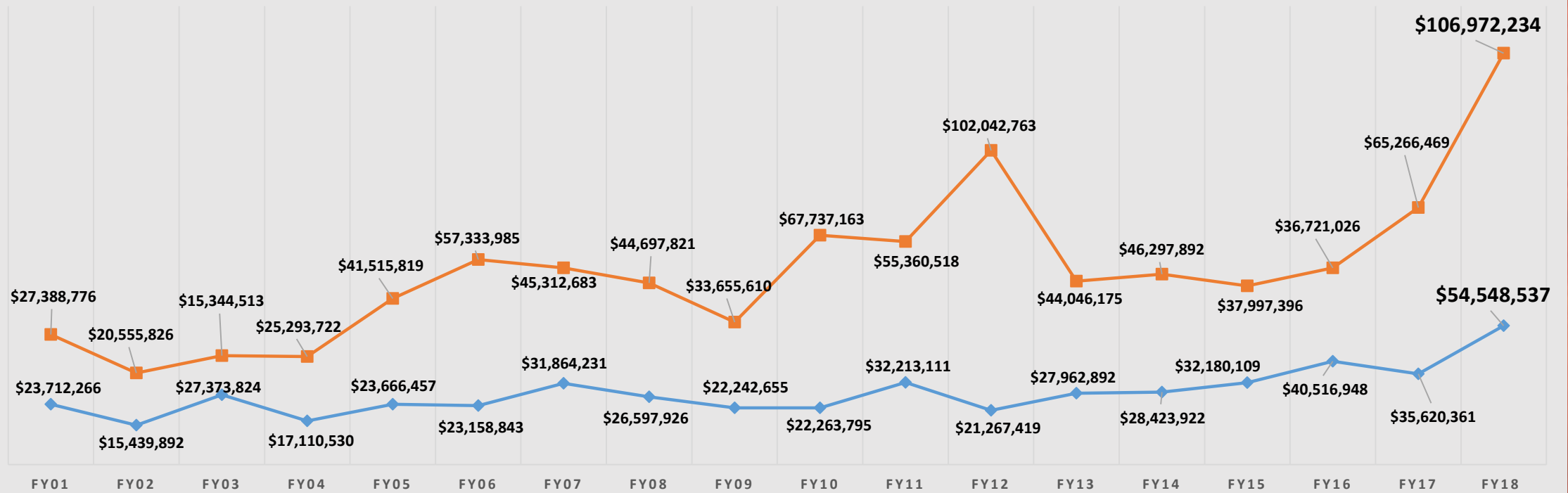


Land Maintenance Fund Revenues

FY 2001 – FY 2018

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

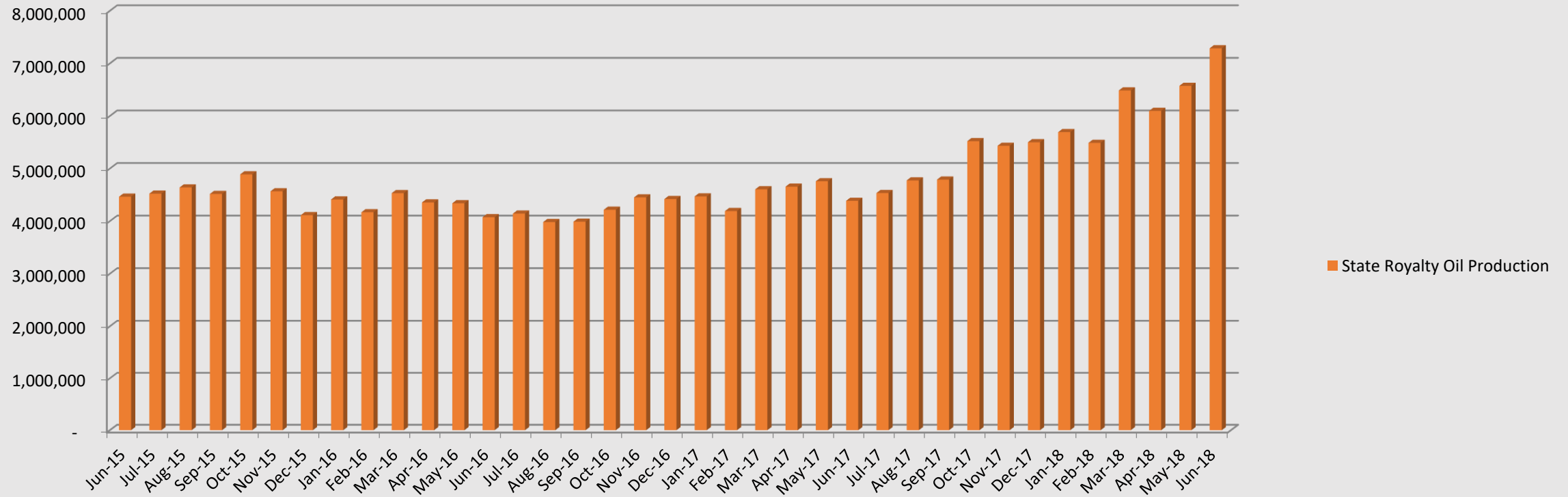
— Rental Income, Fees & Copies, Interest on Deposits — Oil & Gas Lease Bonuses



State Oil Production: June 2015 - June 2018

(BBLs)

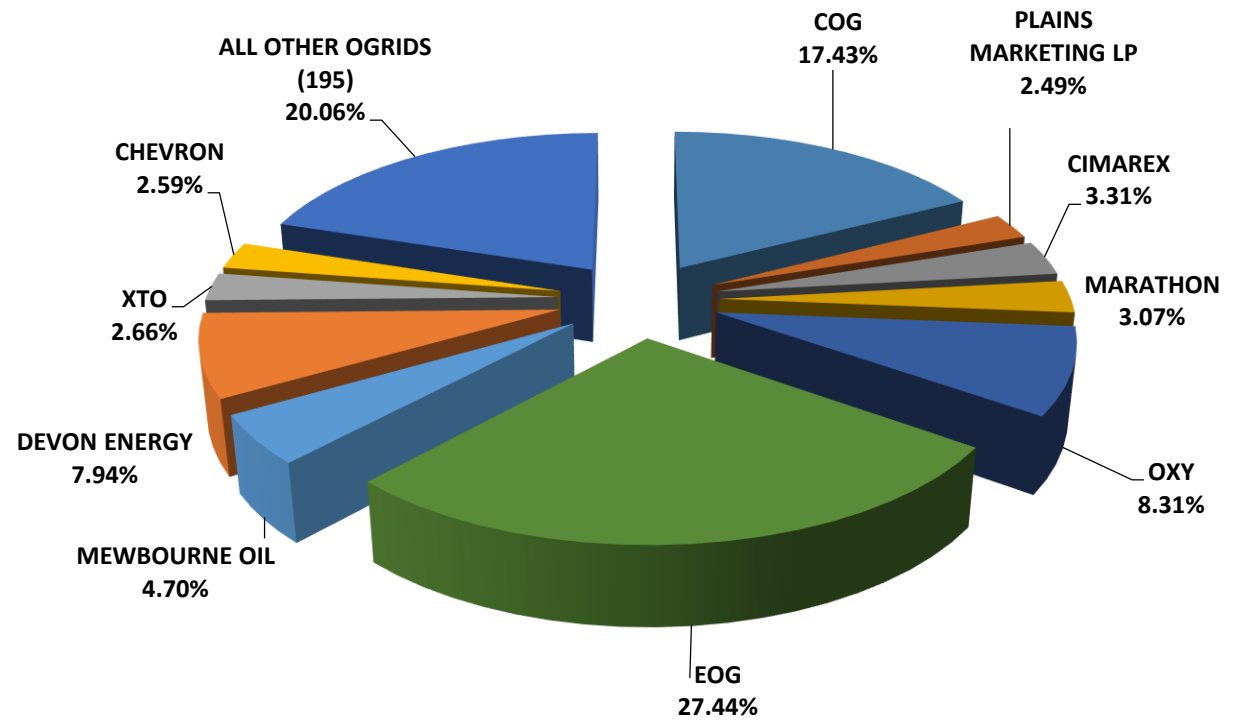
State Royalty Oil Production Jun/2015 - Jun/2018





Revenue Processing Section Royalty Processed by Company –July 2018

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



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.**

Miscellaneous Instruments

- Only 3 types of Miscellaneous Instruments will be accepted
 - Name Change/Conversion (Secretary of State)
 - Corporate Dissolution
 - Probate Documents/Documents Supporting Transfer up Death (certified)
- Exhibits are now permitted
- \$50 filing fee for each NMSLO associated lease
- Assignments are still required to update the chain of title
- New forms will be on NMSLO website
- Effective August 1, 2018

Renewable Energy Projects

Solar

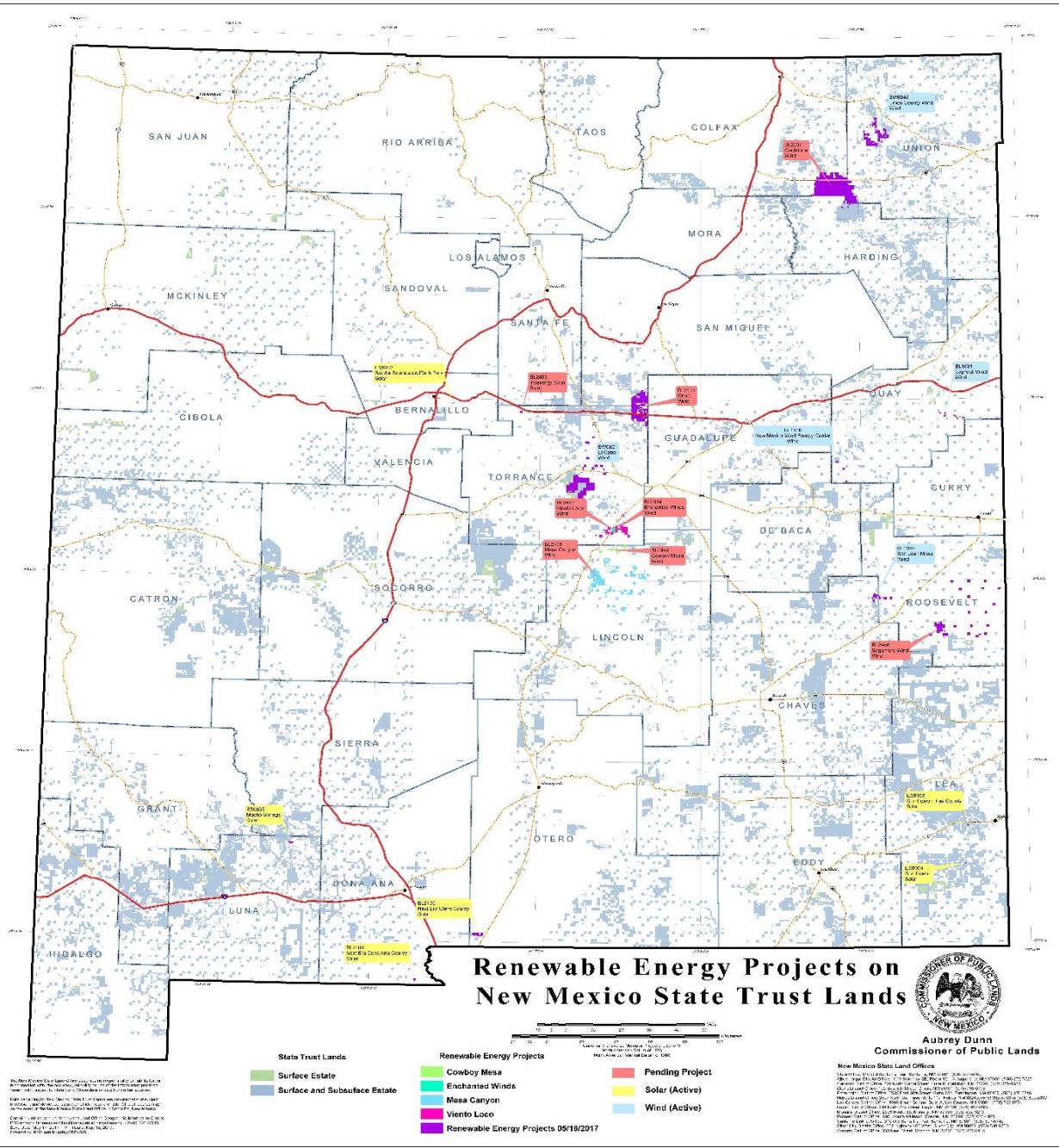
- Active: 6
- Pending: 1

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...

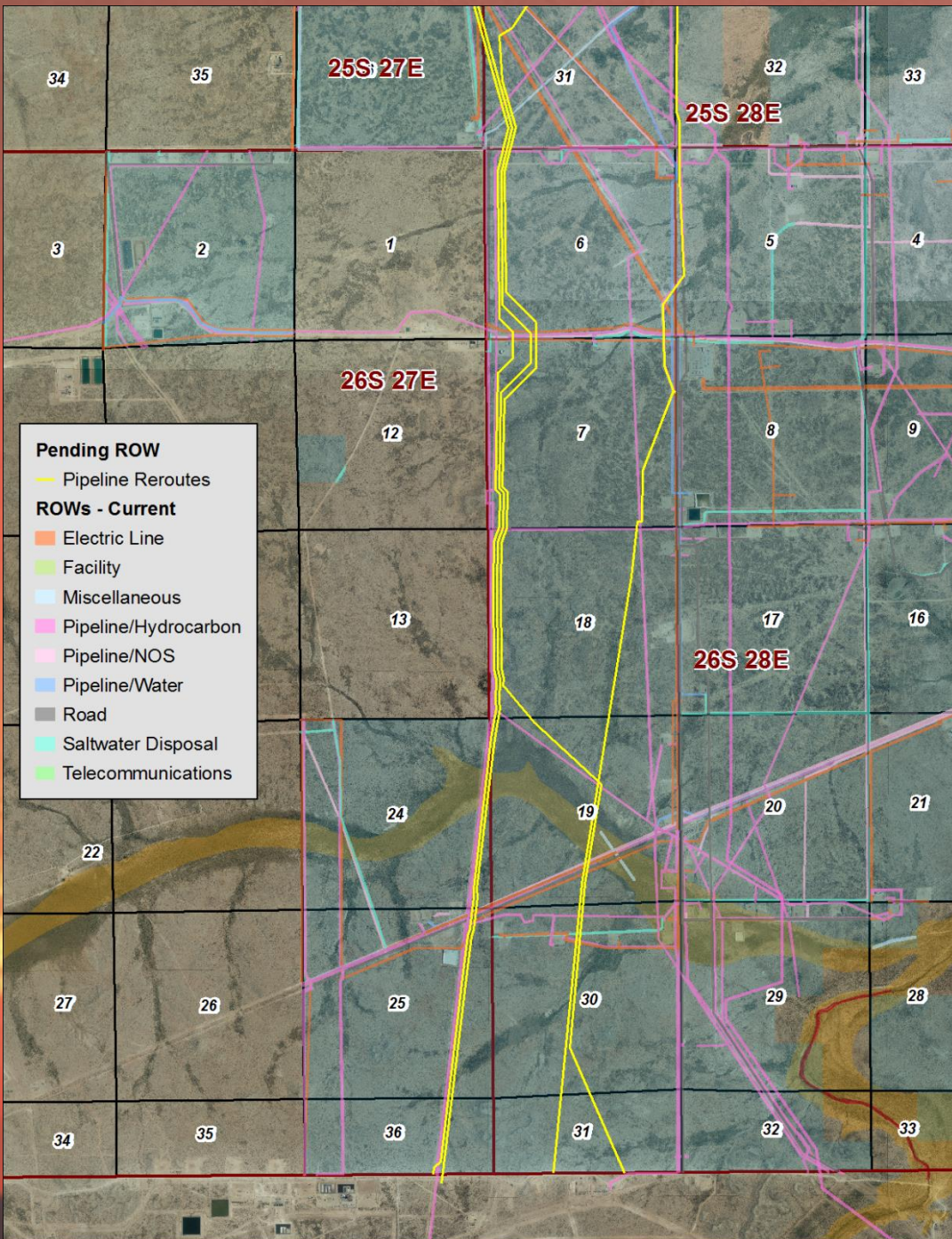
Wind revenue would be 3.5% of the \$676,182,643 generated in FY 2018 from oil & gas royalties.

State Lands & the DoD



- DoD restricted use of 300,000 acres of state land next to WSMR
- SLO has attempted to execute a Land Use Restrictions or Conditions (LURC) agreement with DoD which would include a payment of approximately \$7.5 million
- At one Torrance County project, DoD training-flight patterns have displaced 61 of 114 proposed wind turbines on state lands
- Public schools and Carrie Tingley Hospital stand to lose \$25 million in revenues from these restrictions
- SLO is currently attempting to negotiate compensation with the USAF

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 over-burdened roads is not the answer
- SLO has received several new pipeline Right-of-Way applications for this area (yellow lines on map)

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-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 which will provide approximately \$1.6 million in FY18
- During administration, over 51,000 acres treated 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 for your time and attention!

