Texas Land Trends

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Conservation Easements in Texas

Texas Land Trends

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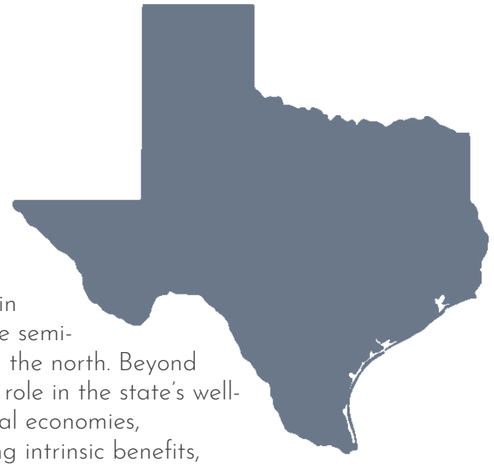
Jim Bill Anderson on the Frying Pan Ranch near Canadian, TX
Texas Agricultural Land Trust easement partner

About THE DATA

The goal of the *Conservation Easements in Texas* report is to describe the state's current participation and growing need for land conservation easements. Through incorporation of several datasets, we developed a framework for evaluating the conservation value of lands currently protected under conservation easements in Texas. Data on conservation easements located within the state of Texas was provided by the Texas Land Trust Council. Datasets including agricultural production value and wildlife lease prices by county from the Texas Comptroller of Public Accounts were used to determine an overall agricultural production value and wildlife value of all conservation easements statewide. Average annual rainfall, infiltration rates, and relative costs of water capture derived from the Texas Water Development Board's *State Water Plan 2017* were collectively analyzed to determine an overall water value of conservation easements in Texas. Together, these three broad categories: agricultural production, water, and wildlife illustrate the value of the natural goods, services, and benefits that conservation easements provide.

CONTENT

Private lands IN TEXAS



TEXAS is well-known for its remarkably unique rural landscapes, from the deserts and canyons in the west to the pineywood forests in the east, the semi-arid brushlands in the south to the grasslands in the north. Beyond aesthetic beauty, these lands play an important role in the state's well-being—producing food and fiber, supporting rural economies, creating recreational opportunities, and providing intrinsic benefits, such as wildlife habitat, and clean air and water. Approximately 83% of lands in Texas are classified as privately-owned *working lands*, signifying the critical role private landowners play in protecting the state's valuable resources.

Increased population growth and development places an increasing pressure on working lands, leading to fragmentation into smaller parcels or conversion to other land uses (e.g., farm to residential development). Land-use conversion alone accounted for the loss of approximately 1.1M acres of working lands in Texas between 1997 to 2012.[1] This number is likely to increase over the next decade as Texas nears its largest intergenerational land transfer to date with over 66% of its landowner base over the age of 55. The majority of these lands will likely pass to younger generations who may have less experience, lack financial capital or the motivation and interest needed to sustain family operations.[2]

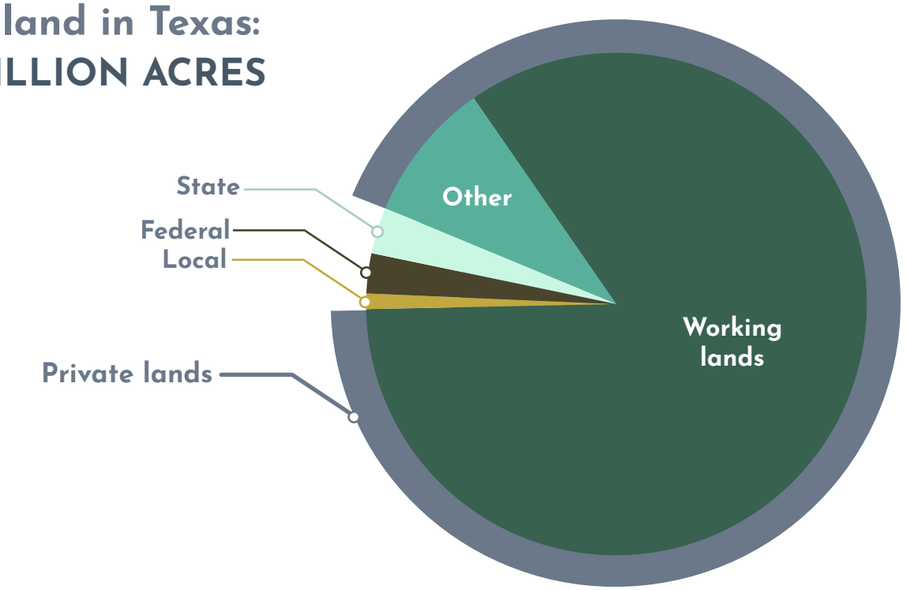
State supported initiatives to purchase *conservation easements* can help safeguard natural resources for generations to come. This tool offers a voluntary, alternative to assist private landowners in keeping their lands intact while promoting good stewardship and land management practices.

Conservation will ultimately boil down to rewarding the private landowner who conserves the public interest.

–Aldo Leopold
Conservationist, forester and wildlife biologist

PRIVATE VS. PUBLIC LAND

Total land in Texas: 172 MILLION ACRES



Cattle pasture in Houston County, TX by Brittany Wegner

WORKING LANDS:
privately owned farms, ranches, and forests that produce food and fiber, support rural economies, and provide wildlife habitat, clean air and water, and recreational opportunities.

Conservation **EASEMENTS**

The HISTORY

In the 1970s, Congress recognized the immense role landowners play in conserving open spaces and began financially incentivizing those who participated in conservation easements. A conservation easement is a voluntary agreement between a landowner and a land trust (a qualified non-profit) or government entity, where the landowner aims to minimize intense development of their property by selling or donating certain property rights. Land trusts and variations of conservation easements have been around since the late 19th century. It is believed that the first land trust was the Massachusetts Trustees of Reservations formed in 1891.[3] In Texas, there are currently over 30 land trusts working with private landowners to conserve the land, water, and heritage of the state.

The TOOL

Conservation easements are flexible and uniquely tailored to the property and to the landowner's interests. Landowners still own their land along with other "retained rights" such as the ability to sell, lease, give away, mortgage, etc. Once in place, the conservation easement "runs with the land", meaning that regardless of who owns the property, its terms will remain in place forever. These agreements can either be executed through donation or purchase of development rights, both of which allow a landowner to realize the development value of their property without having to sell their land.

The BENEFITS

Conservation easements are a useful tool for both landowners and the public. A landowner can choose to donate the easement value in order to offset inheritance taxes as part of an estate plan, or to reduce income taxes by offsetting earnings over a period of years. On the other hand, a landowner may prefer being paid their easement value in order to obtain working capital, pay-off loans, buy additional land, or invest in other income producing properties through a 1031 exchange. In both scenarios, the outcome is a win for the landowner and the public, as the land and its productive, natural, and cultural qualities are protected.

Powderhorn WMA, Calhoun County, TX

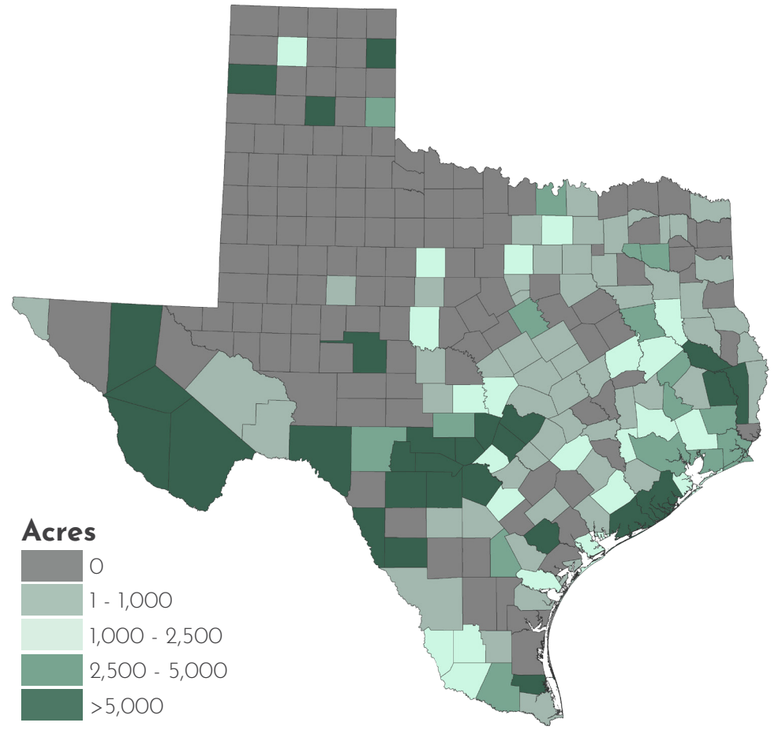


Figure 1. Distribution of private lands under conservation easements by county, 2018.

88%

of all conservation easements in Texas were executed between

2000 to 2018

Increasing
LANDOWNER INTEREST

Conservation easements have been an effective tool by land trusts, government agencies, and conservation groups in protecting approximately 1M acres of private land in Texas, according to the Texas Land Trust Council (Figure 1).[4] Over 88% of conservation easements in the state were executed in the past two decades, indicating an increasing interest and willingness to use conservation easements among private landowners (Figure 2). Similarly, survey results from a recent landowner questionnaire to determine landowner management needs, concerns, and preferences suggest opportunities exist for expanding use of conservation easements in Texas (n=3,103). While data support the viability of conservation easements as a tool to conserve land and resources, funding from state and federal sources to purchase conservation easements has been limited, thus restricting the tool's potential use.

Terraces and Playas, Garza County, TX

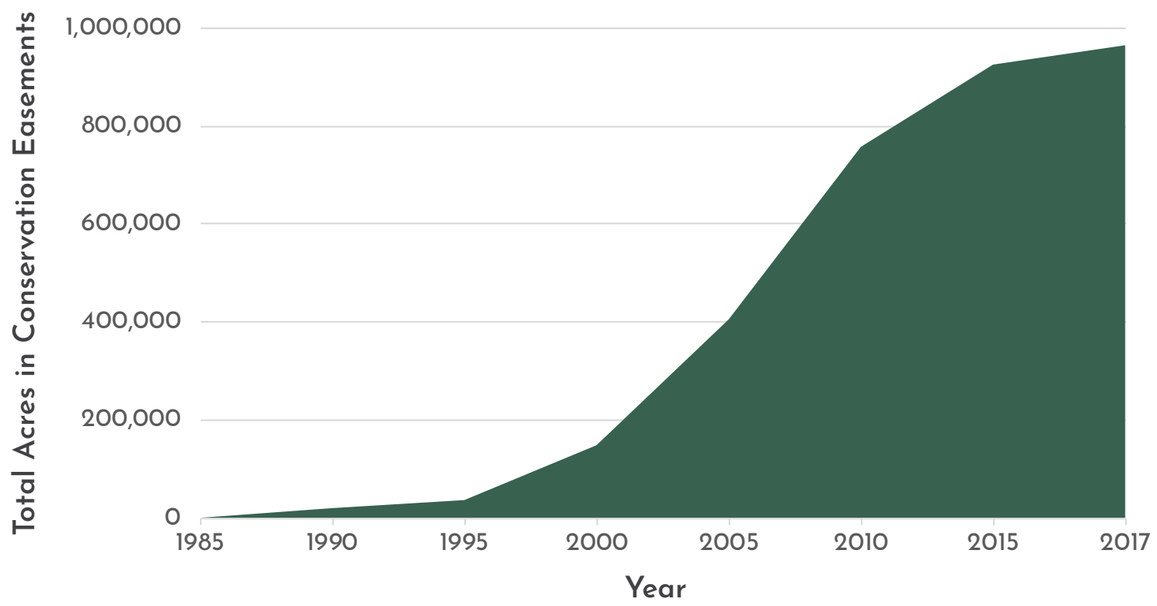
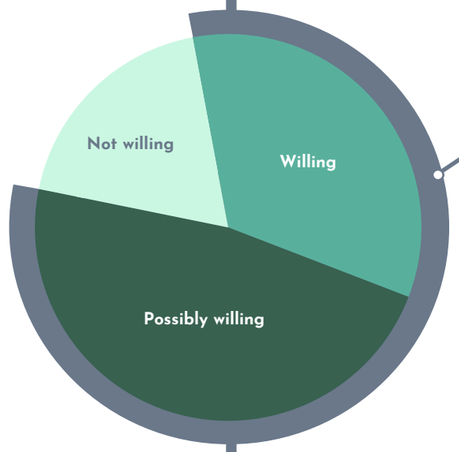


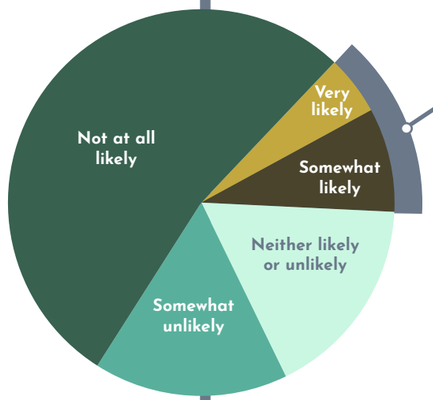
Figure 2. *Cumulative acres of private lands under conservation easements in Texas, 1985-2017.*

LANDOWNER QUESTIONNAIRE



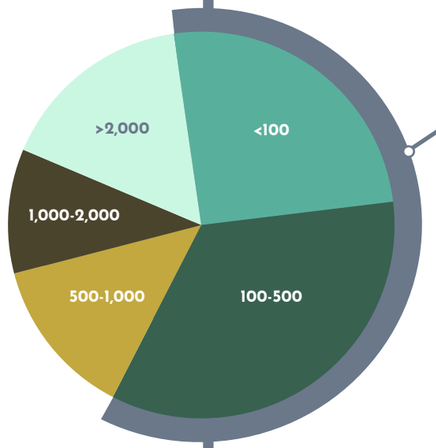
Permanent
LAND PROTECTION

Approximately 80% of landowners surveyed were generally open to the possibility of participating in permanent land protection programs (i.e., no time horizon), such as conservation easements.



Implementing
CONSERVATION EASEMENTS

When asked about the likelihood of implementing a conservation easement in the next 10 years, approximately 15% indicated they were likely to implement a conservation easement.

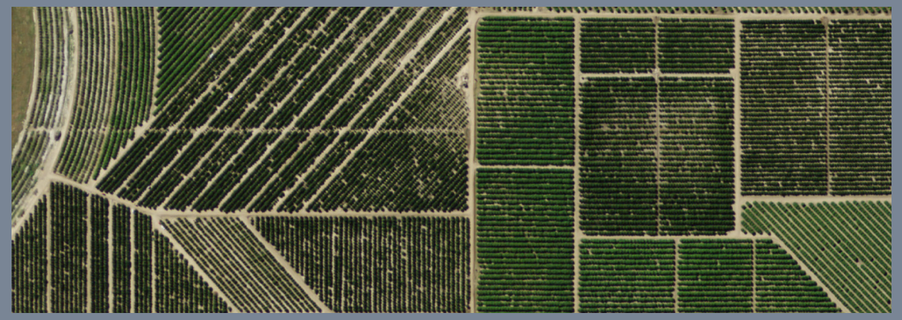


Smaller
PROPERTY SIZES

Survey responses revealed an aging landowner base and smaller property sizes, with an average landowner age of 59 years (median 60 years) and approximately 60% of all surveyed owning 500 acres or less.

CONSERVATION VALUE of these lands

Lands conserved in Texas provide valuable goods, services, and ecological benefits such as water quality and quantity protection, wildlife habitat, and agricultural production. By assessing the contributions of conserved lands to our economy, we can better estimate the economic impact and value of ecosystem services. In this study, we estimated the value of all conservation easement acres in Texas within three broad categories of ecosystem services: agricultural production, water, and wildlife. We summarized these values based on Texas Parks and Wildlife Department (TPWD) wildlife districts to illustrate eco-regional trends.



Orchards, Hidalgo County, TX

AGRICULTURAL PRODUCTION

Working lands produce food, fiber and other products that support the state's robust rural economy and keep Texans healthy, fed, and clothed. Today, Texas has approximately 248,000 farm and ranch operations, accounting for over 142M acres. In 2017, these operations generated about $23B in cash receipts and are reported to contribute over $100B annually to the food and fiber sector.[5,6] Employment in the agricultural industry also plays an important role in the state's labor force, accounting for 26% of jobs in non-metro areas and 13% in metro areas with a state-wide average of 14%.[7]

The Texas Comptroller of Public Accounts collects annual land productivity data, which captures the value of the land based solely on its ability to produce commodities, such as food and fiber. Using these data, our analysis suggests conservation easements in Texas potentially provide over $63.1M in agricultural commodities annually (Table 1 and Figure 3).

Table 1. Agricultural production value of private lands under conservation easements by Texas Parks and Wildlife Department wildlife district, 2018.

	TPWD District	$/Acre	Total Value ($)	Scale of Value
01.	Post Oak	110	1.6M	
02.	Cross Timbers	88	2M	
03.	Trans Pecos	12	3.8M	
04.	Oak-Prairie	119	7.2M	
05.	Panhandle High Plains	69	7.4M	
06.	Hill Country	42	8.5M	
07.	Pineywoods	153	9.4M	
08.	South Texas Plains	113	23.2M	
	STATEWIDE VALUE		**63.1M/YR**	

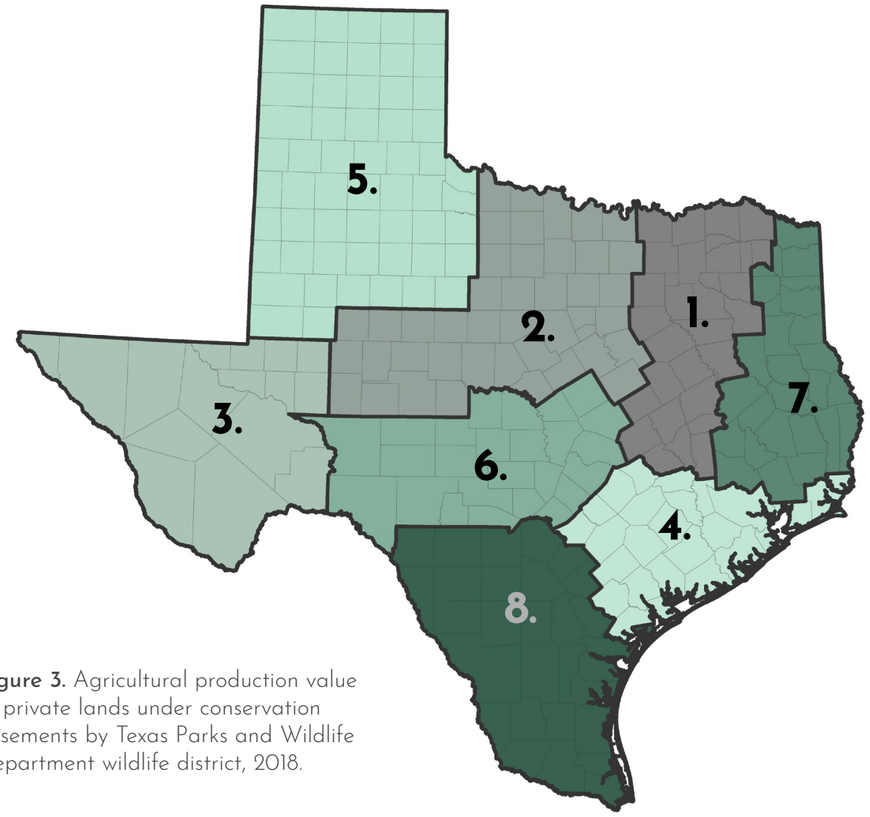
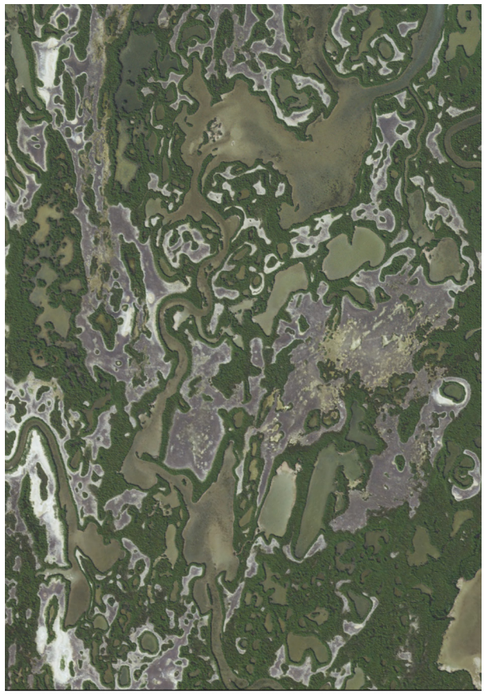


Figure 3. Agricultural production value of private lands under conservation easements by Texas Parks and Wildlife Department wildlife district, 2018.

WATER

Water, whether too little or too much, is a major natural resource concern in Texas. Conserving undeveloped, permeable working lands can help mitigate both issues by capturing rainfall, reducing water runoff, and increasing groundwater recharge. With current population projections, the latest *Texas State Water Plan* emphasizes that the state will be in a nearly 9M acre-feet water deficit by 2070.[9] To address this shortage, $62.6B in water management strategies have been developed by the state. One potential mechanism to protect land-water contributions for both current and future water supply needs is the conservation of undeveloped lands in key areas.

Applying this approach to current private lands protected under conservation easement, we estimated that conservation easement lands in Texas have the potential to capture over 1M acre-feet of water annually, representing a water replacement cost of approximately $207.4M for the state annually (assuming the capital costs only in implementing the recommended water management strategies in the Texas State Water Plan [Table 2 and Figure 4]).



Saltwater marsh, Espiritu Santo Bay, TX

Flood MITIGATION

In the past three decades there have been six emergency declarations and 19 major disaster declarations in Texas related to hurricanes and flooding.[8] The damages that result from flooding caused by storm events often includes substantial damage or loss of roadway infrastructure, private and residential development, as well as farm and ranch commodities. By conserving vital floodplains, especially in and around low-lying watersheds with increased human development, excess water is captured on protected lands, potentially reducing the risk of flooding in surrounding areas.

Table 2. Water value of private lands under conservation easements by Texas Parks and Wildlife Department wildlife district, 2018.

	TPWD District	$/Acre	Total Value ($)	Scale of Value
01.	Panhandle High Plains	31	3.3M	
02.	Post Oak	316	4.7M	
03.	Cross Timbers	379	8.3M	
04.	Pineywoods	265	16.3M	
05.	Oak-Prairie	402	24.5M	
06.	Hill Country	153	30.8M	
07.	Trans Pecos	119	37.6M	
08.	South Texas Plains	397	81.8M	
	STATEWIDE VALUE		**207.4M/YR**	

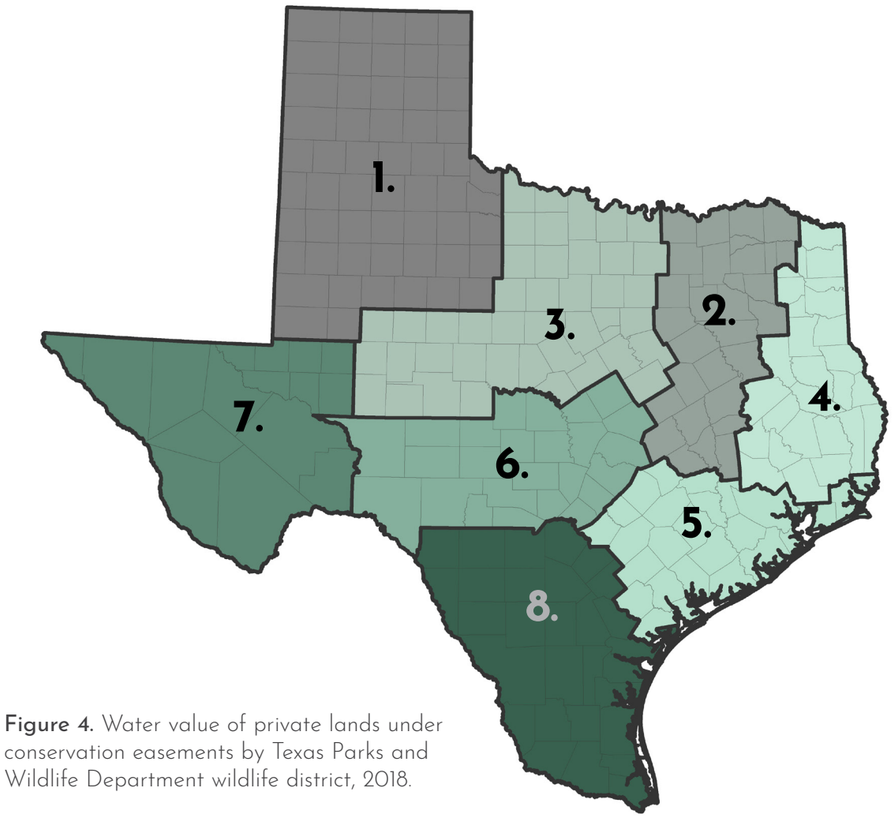


Figure 4. Water value of private lands under conservation easements by Texas Parks and Wildlife Department wildlife district, 2018.

WILDLIFE

Wildlife plays an important role in both the state's economy and ecological well-being. Many landowners have recognized the importance and benefits of managing their lands for wildlife and have enrolled their property in a 1-d-1 Open Space Agricultural Valuation (Figure 5). According to Texas Land Trends data, wildlife management on Texas working lands has increased by over 5.6M acres since 1997. The interest in wildlife is also reflected in the *2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*, highlighting the participation of approximately 104M U.S. residents in some form of wildlife-related recreation including fishing, hunting and passive recreation, such as birdwatching and outdoor photography.[10] The survey estimated these activities generated about $160B in associated expenditures, further stimulating the state's economy.

Leasing property for hunting activities is economically beneficial for many landowners who are managing for wildlife. Using hunting lease data from the Texas Comptroller of Public Accounts, we determined the economic value of wildlife on current conservation easement lands in Texas. Our analysis suggests that conservation easements in Texas have the potential to provide approximately $5.8M in total wildlife value annually for consumptive uses (i.e., wildlife hunting lease values; Table 3 and Figure 6).

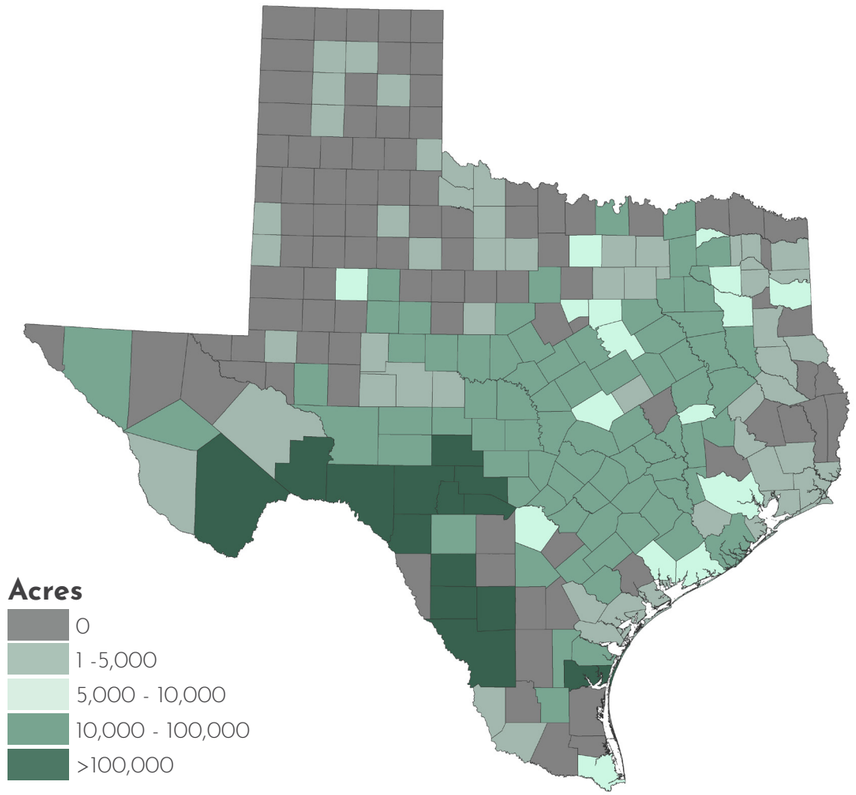


Figure 5. Acreage enrolled under 1-d-1 Open Space Agricultural Valuation by county, 2017.

Table 3. Wildlife lease value of private lands under conservation easements by Texas Parks and Wildlife Department wildlife district, 2018.

	TPWD District	$/Acre	Total Value ($)	Scale of Value
01.	Post Oak	6	95K	
02.	Cross Timbers	6	141K	
03.	Oak-Prairie	6	364K	
04.	Pineywoods	6	382K	
05.	Panhandle High Plains	7	715K	
06.	Hill Country	5	1M	
07.	Trans Pecos	5	1.4M	
08.	South Texas Plains	8	1.6M	
	STATEWIDE VALUE		**5.8M/YR**	

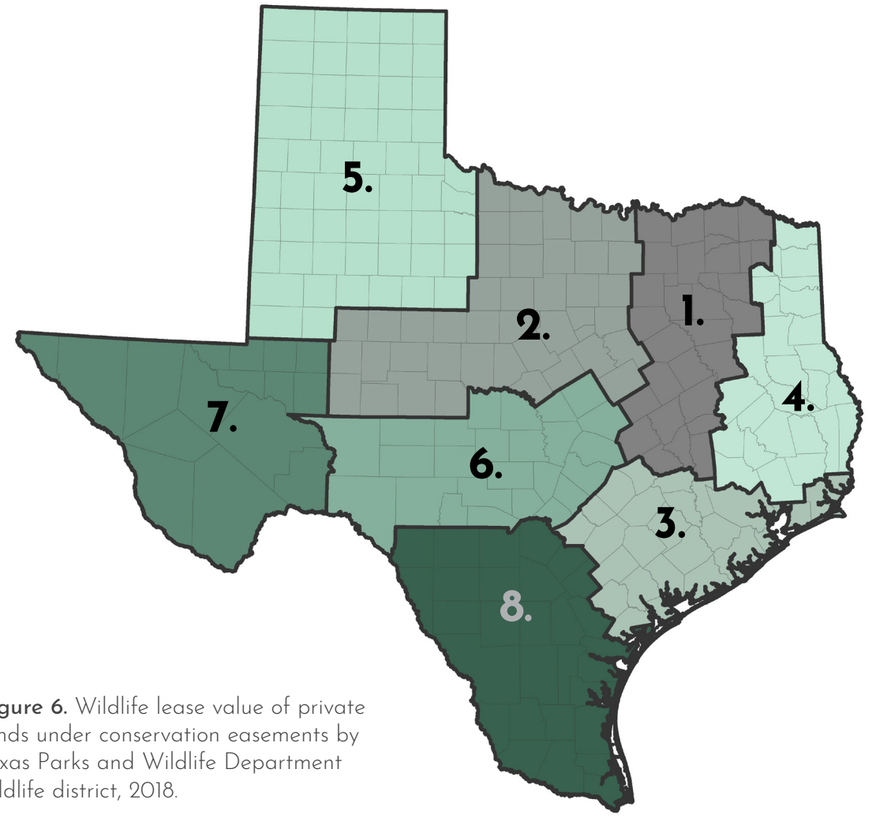
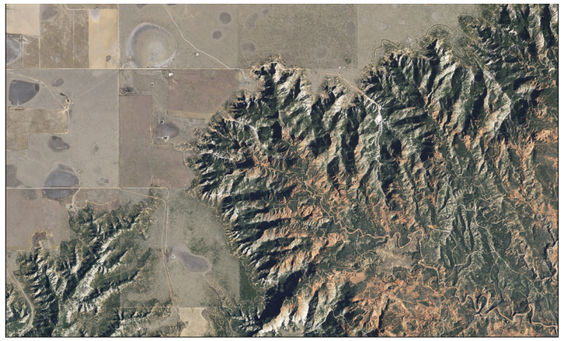
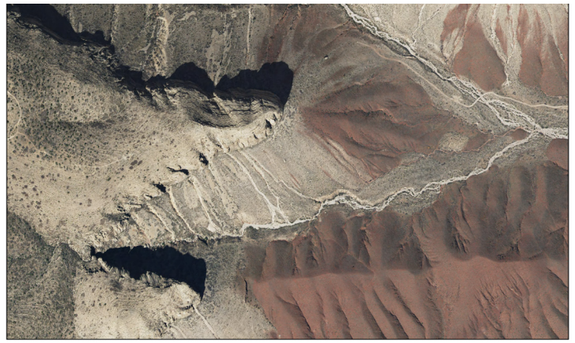
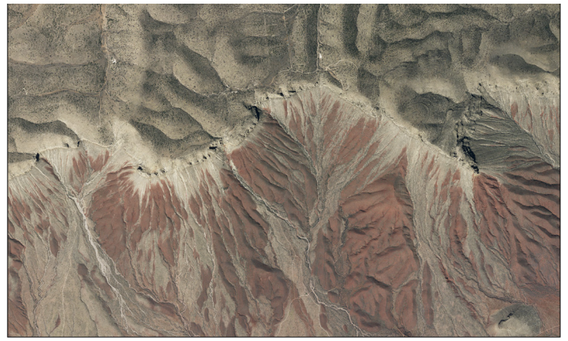
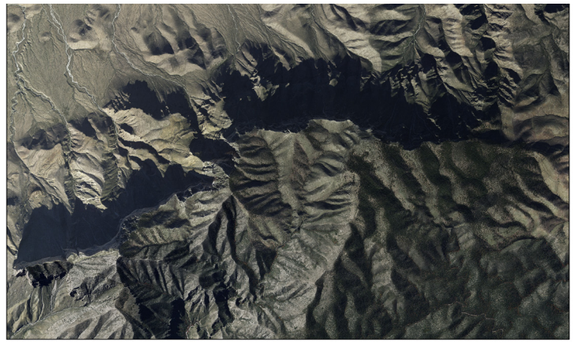


Figure 6. Wildlife lease value of private lands under conservation easements by Texas Parks and Wildlife Department wildlife district, 2018.

Funding SOURCES

Through partnerships and the leveraging of resources, Texas can continue to use conservation easements as a tool to promote land protection and stewardship of the state's vital resources while maximizing the economic return of state funds. The following section highlights one state and two federal funding programs which can be used in combination to fund the purchase of conservation easements. In addition to the programs described in this report, other sources of funding for the protection and conservation of private lands include local bonds, dedicated sales tax increases, and city/county funding programs.

TEXAS FARM & RANCH LANDS CONSERVATION PROGRAM

State investment in conservation easement programs leverages funding from federal, local, private, and non-profit sources. In 2005, the Texas Farm and Ranch Lands Conservation Program (TFRLCP) was established by the Texas state legislature with the mission to conserve natural resources by protecting working lands from fragmentation and development. Texas HB1925 (companion bill SB1597) transferred the TFRLCP from the Texas General Land Office to TPWD in January 2016. TFRLCP is a state-funded easement program with the purpose of providing incentive funds to qualified non-profits and governmental agencies to acquire conservation easements.

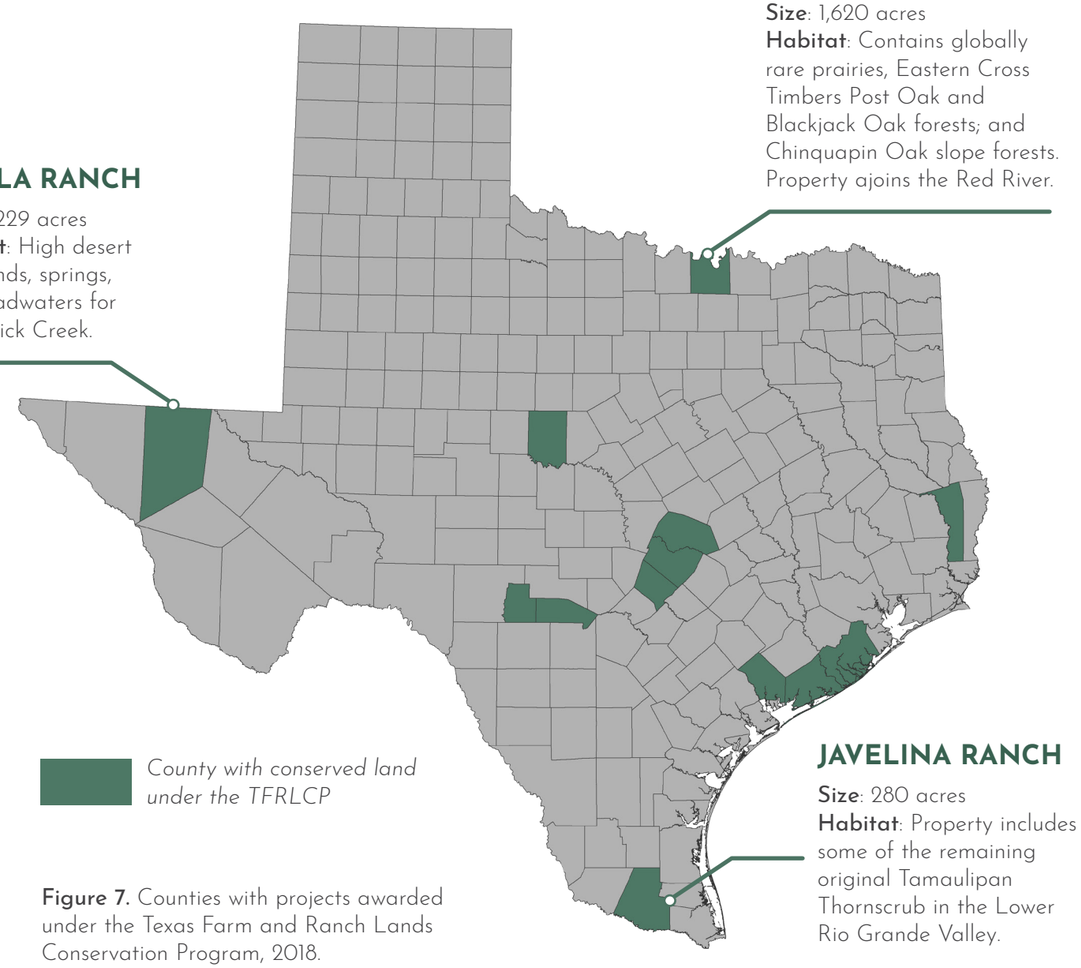
Since its inception, the program has received close to $9M to conserve and protect over 33,000 acres across the state, supporting a wide variety of working lands (Figure 7). Garnering support from external sources, the state maximized its 2016 investment in land conservation, leveraging an overall $7.50 for every $1 of program funds to acquire seven conservation easements. TFRLCP's investment of approximately $1.9M protected land valued at approximately $16M, achieving an 8:1 return on investment.[11] These purchased properties protect a significant amount of water capture, representing an annual savings in water replacement cost for the state.

PIETILA RANCH

Size: 7,229 acres
Habitat: High desert grasslands, springs, and headwaters for McKittrick Creek.

BARTUSH RANCH

Size: 1,620 acres
Habitat: Contains globally rare prairies, Eastern Cross Timbers Post Oak and Blackjack Oak forests; and Chinquapin Oak slope forests. Property ajoins the Red River.



JAVELINA RANCH

Size: 280 acres
Habitat: Property includes some of the remaining original Tamaulipan Thornscrub in the Lower Rio Grande Valley.

Figure 7. Counties with projects awarded under the Texas Farm and Ranch Lands Conservation Program, 2018.

Images left to right: Caprock, Briscoe County, TX; Sierra Diablo WMA, Culberson and Hudspeth counties, TX; Guadalupe Mountains, Culberson County, TX

AGRICULTURAL CONSERVATION EASEMENT PROGRAM

The Farm Bill has long supported programs that provide technical and financial assistance to private landowners, land trusts and other eligible groups, for the purpose of protecting critical lands, including agricultural lands via Agricultural Land Easements (ALEs; i.e., conservation easements). In 2014, several Farm Bill easement programs were merged to create the United States Department of Agriculture's (USDA) Natural Resource Conservation Service (NRCS) Agricultural Conservation Easement Program (ACEP). Under the ACEP, grant recipients purchase ALEs using program funds, which can provide up to 50% of the fair market value of the easement. In cases where grasslands of special environmental significance are protected, the contribution from ACEP may increase up to 75%.

Agriculture is an important part of the economy in Texas and the United States. Texas ranks first nationally, with the largest number of farms and agricultural acreage, while also competing in the top 10 states for agricultural production and energy-producing farms. The benefits of agricultural lands also extend beyond financial prosperity, greatly contributing to the natural goods and services vital for public health. In 2012, the USDA Census of Agriculture reported over 13M acres of agricultural lands throughout the U.S. were protected under conservation easements, with Colorado (1.4M acres), Montana (1.3M), North Dakota (900K), California (900K), and Georgia (700K) leading the nation in conserved acres.[12] While Texas has the largest percentage of agricultural lands available to protect, it lacks the necessary state funding leading states have utilized to draw down federal funds for conservation programs such as ACEP. Figure 8 highlights Texas' large contribution to agriculture lands in the United States while conversely receiving half the amount of ACEP funding awarded to Montana, and significantly less than other top ACEP funded states when considering proportion of agricultural lands by state.

Cattle on the pasture in Gillespie County, TX
by Brittany Wegner

TEXAS NUMBERS

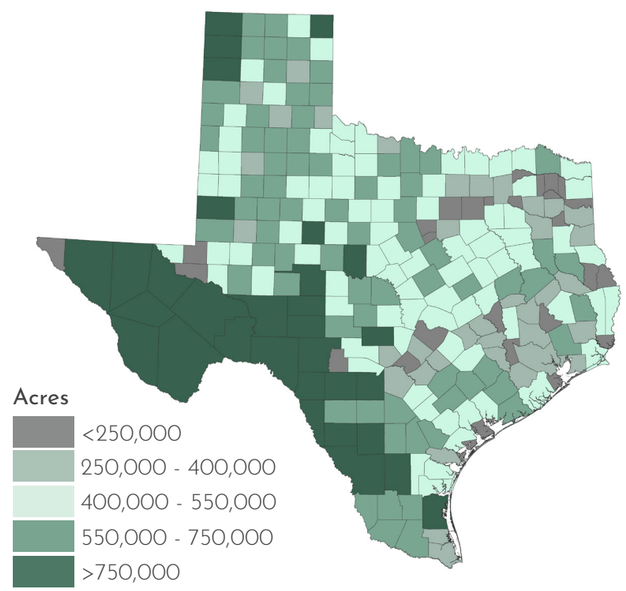
Through FY 2017

$22M
Received from ACEP

17
Conservation easements

18,706
Acres conserved

WORKING LANDS



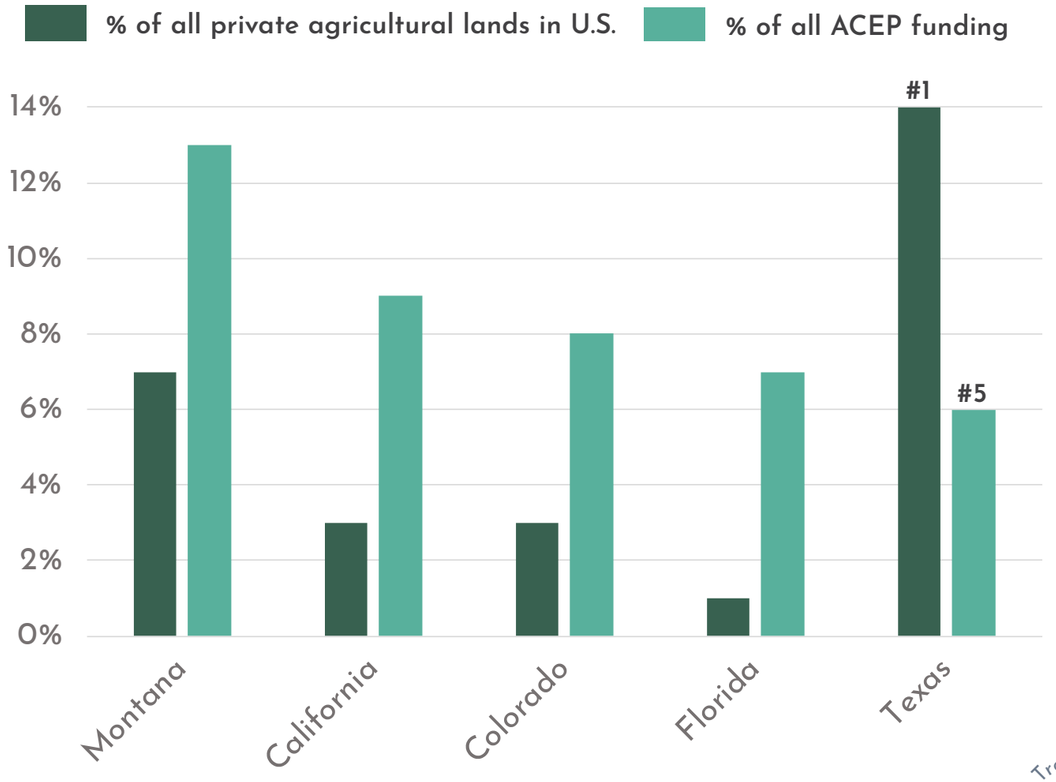


Figure 8. Comparison of the top five ACEP funded states (through FY 2017).[13]

READINESS & ENVIRONMENTAL PROTECTION INTEGRATION PROGRAM

The United States Department of Defense (DoD) Readiness and Environmental Protection Integration Program (REPI) has proven to be an effective funding mechanism for protecting military assets and capabilities while conserving valuable open spaces. This unique program allows the military services to enter into cost-sharing partnerships with non-profit organizations or state and local governments to acquire easements from willing private landowners for properties near—or ecologically related to—military installations and training areas. Program statutes allow recipients to use REPI funds as the match or cost-sharing requirement for any conservation program under the USDA or the Department of Interior.

Texas celebrates a long history of military presence and activity, dating back 200 years during colonization by Spain. Today, the historic presidios have been replaced with 13 U.S. active duty installations and numerous National Guard armories, totaling over 500,000 acres of DoD and state-owned lands. These installations significantly contribute to the state's economic prosperity, with a reported economic impact of $102B and direct employment of over 224,000 people in 2017.[14] The distinct characteristics of Texas' landscapes, strategic location between the East and West coasts, and general expanse of open space and water available for land, air, and sea training, highlight the states vital role in national defense. While each installation's training needs and missions are unique, they commonly struggle with incompatible land-use (i.e., encroachment) outside the installation's boundaries, training ranges, operating areas and flight paths, thus hindering military training. One effective approach to preventing encroachment is the purchase of conservation easements in surrounding areas. Compared to states with equal or less military presence, Texas has received considerably less REPI funding throughout the course of the program (Figure 9).

Live fire exercise by 1st Brigade Combat Team, 1st Cavalry Division by Captain John Farmer

TEXAS NUMBERS

Through FY 2017

$49M

Received from REPI

4

Installations funded

15,388

Acres conserved

MILITARY INSTALLATIONS

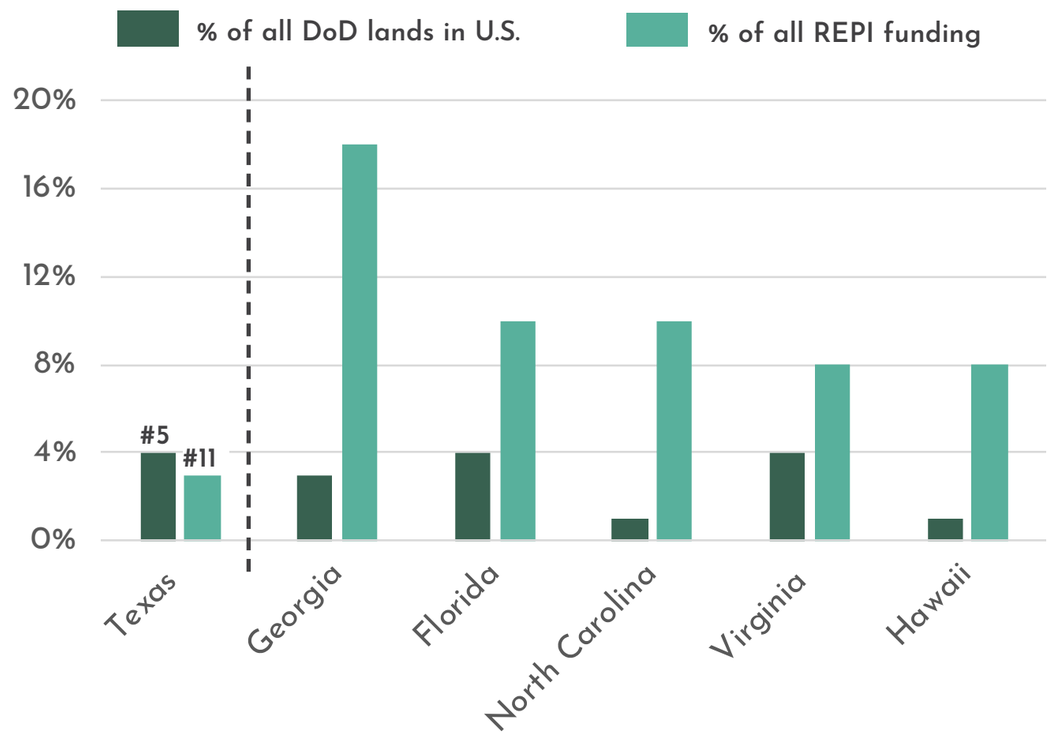


Figure 9 Comparison of Texas and the top five REPI funded states (through FY 2017).[15]

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Top to bottom: Rice farming, Chambers County, TX; Llano Estacado, Castro County, TX; Canyonlands, Hall County, TX; Small Acreage Agriculture, Hidalgo County, TX; Chihuahuan Basin, Val Verde County, TX

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Front cover: William's Family on the Happy Cove Ranch near Fort Davis, TX Texas Agricultural Land Trust easement partner