

**CONSERVATION IN TEXAS: BRIDGING THE GAP BETWEEN
PUBLIC GOOD AND PRIVATE LANDS USING LANDOWNER
INCENTIVE PROGRAMS**

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INTRODUCTION

In Texas, more than ninety-five percent of land is privately owned.¹ Eighty-three percent of the State's land is considered "working lands."² Working lands are farms, ranches, and forests that are privately owned.³ The amount of privately held land poses a challenge for conserving the State's natural resources in the interest of the public. The effects from conservation practices, or lack of, on private lands will be felt by the public.⁴ As one scholar states, "Any truly effective effort at protecting the environment on private lands will undoubtedly need to rely to a substantial extent on the individual actions of private landowners."⁵

Why would landowners be concerned with conservation on their own lands when the cost of conservation is high and the effects are not rewarding enough to outweigh the cost? This is where the government or private organizations like land trusts are tasked with stepping in and bringing conservation to private lands. There are many ways the government can achieve this, but this Article focuses on educating landowners about conservation and tipping the scales to balance the cost to the landowner. In Part I, the Article discusses the need for conservation; Part II discusses present and future conservation funding; Part III discusses the types of programs in place; and Part IV concludes by proposing improvements to the programs generally.

1. Tex. A&M Inst. of Renewable Nat. Res., *Status Update and Trends of Texas Rural Working Lands*, 1 TEX. LAND TRENDS 1, 3 (Oct. 2014).

2. *Id.* at 4.

3. *Id.* at 3.

4. *Id.*

5. Peter M. Morrisette, *Conservation Easement and the Public Good: Preserving the Environment on Private Lands*, 41 NAT. RESOURCES. J. 373, 379 (2001).

I. CONSERVATION IS A NECESSITY

More than 80% of Americans live in urban environments and spend an average of 11 hours a day on electronic devices.⁶ In recognizing this, President Obama established the America's Great Outdoors Initiative with one goal: "reconnect Americans, especially children, to America's rivers and waterways, landscapes of national significance, ranches, farms and forests . . ." ⁷ But why would the average American care about connecting to the natural environment, much less conserving it? Most people want clean air to breathe, clean water to drink, and a harmonious planet to live on. Therefore, the average American should be very concerned with conservation because the environment is a public good enjoyed by everyone. But what does that mean exactly? How can national parks charge an entry fee to enjoy a "public good"? How can a landowner exclude trespassers if the environment is a "public good"?

A. What is a Public Good?

A "public good" is an economic term for something that provides widespread, non-rival benefits to the public.⁸ There are two characteristics of a public good. First, the good can be used by many people without diminishing the quality of the good for other people. Second, it is impracticable to exclude non-payers from using the good⁹ or to charge for its benefit.¹⁰ Clean air is an example of a public good.¹¹ When your neighbor breathes air cleaned by the trees on your property, he is not taking clean air from you. It would be impractical to charge your neighbor for breathing clean air simply because you have trees on your land.

Public good should not be confused with public trust. With variance between states, the public trust doctrine is the idea that states hold land as a trustee for the public who are the beneficiaries.¹² An important public trust case, *Illinois Central Railroad Co. v. Illinois*, held that state lands beneath

6. BLUE RIBBON PANEL, THE FUTURE OF AMERICA'S FISH AND WILDLIFE FINAL REPORT AND RECOMMENDATIONS 3 (2016).

7. Presidential Memorandum: A 21st Century Strategy for America's Great Outdoors, 75 Fed. Reg. 20,767, 20,768 (April 16, 2010).

8. Alison Burrell, Evaluating Policies for Delivering Agri-environmental Public Goods, Keynote Address at the OECD Workshop on the Evaluation of Agri-environmental Policies 2 (June 20, 2011).

9. JAN G. LAITOS ET AL., NATURAL RESOURCES LAW 24 (West, 2d ed. 2012).

10. A. DAN TARLOCK ET AL., WATER RESOURCE MANAGEMENT 28 (7th ed. 2013).

11. Burrell, *supra* note 8, at 5.

12. Richard M. Frank, *The Public Trust Doctrine: Assessing Its Recent Past & Charting Its Future*, 45 U.C. DAVIS L. REV. 665, 667 (2012).

navigable waterways are for the benefit of the State's citizens to navigate, engage in commerce, and fish.¹³ This has been greatly expanded in some states to include water, dry sand beaches, wetlands, parks, and wildlife.¹⁴ For example, in 2012, a Texas District Court ruled that the public trust extends beyond public waterways and incorporates “all natural resources of the State including the air and atmosphere.”¹⁵ In Texas, it appears the public trust and environmental public good overlap: the public trust includes things that are public goods, but public goods are not limited to public trust.

The services our rural environment provides are public goods.¹⁶ A healthy environment purifies the air we breathe and the water we drink, sustains the plants and animals that are directly or indirectly consumed, and supports a \$646 billion outdoor recreation economy.¹⁷ Worldwide, ecosystem services such as “clean air and water, food, fiber, medicine, storm protection, soil retention, carbon storage, pollination, recreation and other attributes” are valued minimally at \$18 trillion per year.¹⁸ Natural resource conservation should concern every American who appreciates clean air and water, pollinated plants, healthy animals, and a thriving economy.¹⁹ Unfortunately, conservation is not as simple as choosing energy efficient appliances or recycling.²⁰

B. Mismatched Scales in Conservation

To further complicate conservation, there is a problem of mismatched scales in environmental protection.²¹ Because the environment is a large organism that blends cause and effect, the producer of a negative effect may not actually feel the harm, and the producer of a positive effect may not

13. Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 435 (1892).

14. LAITOS, *supra* note 9, at 326.

15. Bonser-Lain v. Tex. Comm'n on Env'tl. Quality, No. D-1-GN-11-002194, slip op. at 1 (Tex. Dis. Ct. Aug. 2, 2012).

16. Burrell, *supra* note 8, at 4–5.

17. THE FUTURE OF AMERICA'S FISH AND WILDLIFE FINAL REPORT AND RECOMMENDATIONS, *supra* note 6, at 3.

18. *Id.* at 5.

19. See generally S. Blair Hutchison, *Bringing Resource Conservation into the Main Stream of American Thought*, 9 NAT. RESOURCES J. 518, 518–19 (1969) (discussing that United States resource conservation practices, or lack thereof, lead to environmental problems that affect human health and wellbeing).

20. See generally Paul E. Hughes, *A Primer on Being Green*, 27 DEL. LAW. 10, 10–11 (2009) (demonstrating the intricacies of being green by highlighting some of the top return on investment upgrades and renovations).

21. Graeme S. Cumming et al., *Scale Mismatches in Social-Ecological Systems: Causes, Consequences, and Solutions*, 11 ECOLOGY & SOC'Y 1, 1 (2006).

actually feel the benefit.²² For example, in the Great Plains, giant potholes naturally fill with water and then drain, which benefits farmers, but negatively affects birds that migrate from Mexico to Canada.²³ Similarly, CO₂ emissions may not concern a coal-fired plant in Montana, but may cause extreme concern for someone in Miami, Florida, threatened by rising sea levels.²⁴

This idea of mismatched scales can be applied to a smaller, state level as well. The landowner who decides to clear-cut a forest on his land could negatively affect surrounding lands by: (1) reducing the air-purifiers (i.e., trees); (2) eliminating animal habitats which could push animals into neighboring lands; (3) destroying a natural wind break which could affect the lands in many ways; or (4) by taking the natural flood controls which could cause his neighbor's land to flood during heavy rains. Who will truly feel the effect of this clear-cut? Will it be the neighbor whose yard floods when it rains? Will the local community be invaded by forest animals searching for food and shelter? Will the State see a slight difference in air quality? Regardless of who is impacted, is the right to clear-cut land something the government should interfere with for the public's sake?

The idea of mismatched scales should be acknowledged to truly understand the need for incentive programs. Incentive programs, when designed correctly, should tip the scales in favor of the land owner for the public benefit. When the landowner has the option of clear-cutting his land for profit, the incentive programs should provide the landowner the knowledge of why his forested land is important for the environment and a monetary incentive to refrain from exercising his right to clear-cut.

C. Land Fragmentation and Biodiversity

Labelling natural resources as “common pool resources” implies that nature is a depletable and non-excludable resource.²⁵ Thus, recognizing that nature can be destroyed if left unmanaged is important to emphasize for the purposes of conservation.²⁶ There are major threats to the environment that must be combatted with the help of private landowners. Land

22. See generally JAMES SALZMAN & BARTON H. THOMSON, ENVIRONMENTAL LAW AND POLICY 25 (4th ed. 2014) (describing the potential effects of imposing the cost of environmental protection on the polluting party).

23. *Id.* at 25–26.

24. *Id.* at 25.

25. Jonathan D. Rosenbloom, *Defining Nature as a Common Pool Resource*, in ENVIRONMENTAL LAW AND CONTRASTING IDEAS OF NATURE: A CONSTRUCTIVE APPROACH 47 (Keith H. Hirokawa ed., 2014).

26. *Id.* at 57.

fragmentation—“the reduction in total landscape area and an apportionment of the remaining area into isolated pieces”—is what many conservation biologists call the most serious threat to biodiversity preservation.²⁷ Land fragmentation disrupts many wildlife species in their requirements for food, water, shelter, and space.²⁸ For example, white tail deer require a minimum of one square mile to survive a year.²⁹ Small, isolated areas of land typically have a single habitat type or lack diverse plant species, making such areas less capable of supporting diverse wildlife populations.³⁰

Another threat to the environment is the lack of biodiversity.³¹ “Biodiversity,” or “biological diversity,” is “the variability among living organisms from all sources including, *inter alia*, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part”³² There are three levels to biodiversity—genetic diversity within species, diversity of species, and diversity of ecosystems—and each level is important for maintaining a healthy ecosystem.³³

Creating large ecosystem reserves is the best strategy to protect biodiversity,³⁴ but this is made difficult because of the “deep-rooted tension between the public and private sectors” in environmental protection.³⁵ When the private sector provides a conservation benefit a concern that “the public interest may not be adequately protected or that the action may not be in the public interest at all” arises.³⁶ This concern develops from the belief that private-sector actors are too self-interested to engage in environmental conservation because conservation is ultimately a public interest.³⁷ But, the solution to conservation may be the opposite of public action—that is, maybe the solution is private action. Private landowners may be in the best position to promote environmental protection because “both secure property rights

27. Morrisette, *supra* note 5, at 398.

28. Jim Dillard, *Before You Buy: Purchasing Small Acreages for Wildlife Habitat in the Cross Timbers and Prairies Region of North Texas*, TEX. PARKS & WILDLIFE, https://tpwd.texas.gov/publications/pwdpubs/media/pwd_lf_w7000_1150.pdf [<https://perma.cc/48SM-VHF2>] (last visited Feb. 23, 2018).

29. Matt Wagner, *Land Fragmentation in Texas: Meeting the Challenge*, TEX. PARKS & WILDLIFE, https://tpwd.texas.gov/publications/pwdpubs/media/pwd_lf_w7000_1155.pdf [<https://perma.cc/3QQW-NHGR>] (last visited Feb. 23, 2018).

30. Dillard, *supra* note 28, at 4.

31. Stephanie Stern, *Encouraging Conservation on Private Lands: A Behavioral Analysis of Financial Incentives*, 48 ARIZ. L. REV. 541, 542, 545 (2006).

32. Nelia J. Robbi, *The Modern Domestic Deer Hunter: Managing Wildlife or Wreaking Havoc on Biodiversity*, 37 ST. B. TEX. ENVTL. L.J. 150, 150 (2007).

33. *Id.*

34. Morrisette, *supra* note 5, at 398.

35. *Id.* at 377.

36. *Id.*

37. *Id.* at 377–78.

and effective environmental protection share a common goal—the enhancement of the total social well-being, both private and public.”³⁸

D. Recognizing a Common Goal

Congress and the executive branch are starting to recognize common goals between private landowners and the public good. President Obama’s America’s Great Outdoors Initiative created the Working Lands for Wildlife, a partnership between the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), and United States Fish and Wildlife Service (USFWS). The Initiative provides technical guidance and financial assistance to multiple agencies to fight the decline of seven keystone wildlife species.³⁹ This partnership encourages landowners to use their land for conserving the habitat of these species while still using the lands for farming or ranching.⁴⁰ This partnership was said to be “a model for a more efficient, more effective, and more cooperative way to improve the health and diversity of working landscapes while strengthening local economies.”⁴¹

President Obama recognized the growing disconnect between the public and nature; through America’s Great Outdoors Initiative, he enacted several national holidays meant to encourage the public to step away from the screens and step outside.⁴² President Obama declared September 2016 Wilderness Month and invited “all Americans to visit and enjoy our wilderness areas, to learn about their vast history, and to aid in the protection of our precious national treasures.”⁴³ In addition to Wilderness Month, National Public Lands Day is held on September 24, 2016, and provides free access to all federally managed public lands and waters.⁴⁴ President Obama also created Every Kid in the Park, which gave fourth grade students and their families free admission to all National Parks and Federal lands for an entire year.⁴⁵

Once we recognize that conservation is both a public and private concern, the tools for implementing conservation become more accessible and

38. *Id.* at 377 n.15.

39. AMERICA’S GREAT OUTDOORS: 2012 PROGRESS REPORT 20 (2012), https://obamawhitehouse.archives.gov/sites/default/files/ago_2012_progress_report.pdf.

40. *Id.*

41. *Id.*

42. Presidential Memorandum: A 21st Century Strategy for America’s Great Outdoors, 75 Fed. Reg. 20,767 (April 16, 2010).

43. National Wilderness Month, 81 Fed. Reg. 61,979, 61,980 (Aug. 31, 2016).

44. National Public Lands Day, 81 Fed. Reg. 66,787 (Sept. 23, 2016).

45. Hannah Malvin, *Every Kid in a Park Program Extended; 4th Graders Get Free Park Admission*, WILDERNES.ORG (July 28, 2017), <https://wilderness.org/blog/every-kid-park-program-extended-4th-graders-get-free-park-admission> [<https://perma.cc/AMF7-M5KE>].

efficiently implemented. When this occurs, we will not need to rely on the government to strong arm private citizens into cooperation; and instead, we can work together to create lasting behavioral change—including places where the majority of land is privately held.

II. CONSERVATION FUNDING—PRESENT AND FUTURE

Once we recognize that conservation is critical to our nation's health, that landowners have a crucial role in conservation, and that the government has a duty to provide assistance to landowners because conservation provides a public good, we will realize the importance of government funding.⁴⁶ As our nation continues to develop and grow, our need for conservation is rising; however, the funding for conservation remains stagnant.⁴⁷ For example, there are only three major conservation funding avenues.⁴⁸

A. Pittman–Robertson Wildlife Restoration Act

Spurred by the decline in many wildlife species, Congress created the Federal Aid in Wildlife Restoration Act in 1937, also known as the Pittman–Robertson Act.⁴⁹ The Act places an excise tax on firearms and ammunition and gives it to state wildlife agencies for conservation.⁵⁰ There is an 11% tax set on the wholesale price of long-guns and ammunition and a 10% tax on the wholesale price for handguns.⁵¹ States use these funds to restore and manage habitat for game and non-game species, and to fund research projects

46. *Blue Ribbon Panel on Sustaining America's Diverse Fish & Wildlife Resources: Frequently Asked Questions*, ASS'N FISH & WILDLIFE AGENCIES, https://www.fishwildlife.org/application/files/7715/1382/2284/BRP-FAQ_expanded-updated_9-7-16.pdf [<https://perma.cc/3DH8-8KNN>] (last visited Feb. 22, 2018) [hereinafter *Blue Ribbon Panel*].

47. *See generally Securing Funds for Conservation*, NAT'L WILDLIFE FED'N, <https://www.nwf.org/Our-Work/Wildlife-Conservation/Policy/Funding> [<https://perma.cc/JNL5-JHR8>] (last visited Feb. 22, 2018) (discussing conservation agencies' budget cuts).

48. *See generally Pittman–Robertson Excise Tax Fast Facts*, NAT'L SHOOTING SPORTS FOUND., <https://www3.nssf.org/share/factsheets/PDF/PittmanRobertsonFacts.pdf> [<https://perma.cc/59XZ-NEMZ>] (last visited Feb. 22, 2018) (discussing the Pittman–Robertson Excise Tax); *see also Sport Fish Restoration (Dingell–Johnson Act)*, MISS. WILDLIFE, FISHERIES, & PARKS, <https://www.mdwfp.com/conservation/who-pays-for-it/dingell-johnson-act.aspx> [<https://perma.cc/H72H-FRLJ>] (last visited Feb. 22, 2018) (discussing the Dingell–Johnson Act); *About LWCR*, LAND WATER CONSERVATION FUND, <https://www.lwccoalition.com/about-lwcf/> [<https://perma.cc/9NR2-G7L7>] (last visited Feb. 22, 2018) (discussing the Land and Water Conservation Fund).

49. *Pittman–Robertson Excise Tax Fast Facts*, *supra* note 48.

50. *Id.*

51. M. LYNNE CORN & JANE G. GRAVELLE, CONG. RES. SERV., R42992, GUNS, EXCISE TAXES, AND WILDLIFE RESTORATION 1 (2013).

for habitat management practices.⁵² For example, in 2016, Texas received \$32,144,324 from the Wildlife Restoration Act.⁵³

B. Dingell–Johnson Sportfish Recreation Act

In 1950, the fishing industry mimicked the Pittman–Robertson Act with the Sport Fish Restoration Program, also known as the Dingell–Johnson Act.⁵⁴ The Act places an excise tax on “fishing tackle such as rods and reels, line, hooks and sinkers, all types of artificial lures, electric motors, import duties on boats, sailboats and yachts, and a motorboat fuel tax on gasoline.”⁵⁵ Under the Dingell–Johnson Act, the revenue gained from the excise tax matches state funding for sport fishing and boating related activities; usually a federal to state ratio of 75:25, with the state paying 25%.⁵⁶ State-funded activities include stocking fish in public ponds, fish hatcheries, youth fishing programs, boat ramps, piers, fish cleaning stations, and comfort stations on public waters.⁵⁷ Activities like these are self-improving; stocking public ponds and providing access to fishing will likely increase equipment purchases, and thus, excise tax revenue. That, in turn, increases the funds available for conservation activities. Again using Texas as an example, Texas received \$18,053,855 from the Sport Fish Restoration Program for the fiscal year 2016.⁵⁸

C. Land and Water Conservation Fund

In 1965, Congress created the Land and Water Conservation Fund (LWCF) to “safeguard natural areas, water resources, and our cultural heritage.”⁵⁹ Funding for the LWCF comes from royalties on oil and gas drilling on the Outer Continental Shelf.⁶⁰ Every year, \$900 million is put in the fund and LWCF receives about one-third of the money.⁶¹ The program is divided into two areas, federal and state.⁶² In the federal area, funding goes to protect

52. *Id.*

53. U.S. FISH & WILDLIFE SERVICES, 2016 FISCAL YEAR TOTAL (2016), <https://www.fws.gov/home/feature/2016/pdfs/PRDJ-TotalsFY2016.pdf> [<https://perma.cc/CMS4-WGNZ>] (last visited Feb. 22, 2018).

54. *Sport Fish Restoration (Dingell–Johnson Act)*, *supra* note 48.

55. *Id.*

56. *Id.*

57. *Id.*

58. U.S. FISH & WILDLIFE SERVICES, *supra* note 53.

59. THE LAND & WATER CONSERVATION FUND COALITION, *supra* note 48.

60. *Id.*

61. *Id.*

62. *Id.*

national parks, forests, wildlife refuges, and Bureau of Land Management (BLM) lands.⁶³ In the state area, funding goes towards an assistance program where the LWCF matches grants to help states and local communities.⁶⁴ The LWCF also funds the Forest Legacy Program, which assists states and private forest owners through grants for permanent conservation easements and fee acquisitions.⁶⁵

For the last 50 years, Texas has received a total of approximately \$570.8 million with the breakdown as follows: Federal programs \$334.3 million, State programs \$177.3 million, Forest Legacy Program \$7.9 million, and Habitat Conservation Grants \$51.3 million.⁶⁶ In 2017, the Fish and Wildlife Service requested funds for two projects: the Lower Rio Grande Valley National Wildlife Refuge and the Neches River National Wildlife Refuge.⁶⁷ The funds requested are \$2.5 million and \$1.6 million, respectively.⁶⁸

D. Future Funding Challenges & Possible Solutions

1. Cost of Protecting Endangered Species

The Endangered Species Act (ESA) is designed to protect species that have become threatened or endangered, despite the high cost.⁶⁹ If plants and animals could be protected before they become threatened, the “emergency room” cost of the ESA could be avoided.⁷⁰ In 2005, states created State Wildlife Action Plans, which identified 12,000 species that need conservation before they become listed.⁷¹ The goal is to reduce the overall cost by funding conservation projects to help preserve these plant and animal

63. *Id.*

64. *Id.*

65. THE LAND AND WATER CONSERVATION FUND, OUR LAND, OUR WATER, OUR HERITAGE AMERICA DEPENDS ON THE LAND AND WATER CONSERVATION FUND (2017), <https://static1.squarespace.com/static/58a60299ff7c508c3c05f2e1/t/59e762decf81e09f0caf5396/1508336350810/Forest+Legacy+Program+Factsheet+8.21.17.pdf> [<https://perma.cc/TTU6-5KJX>].

66. THE LAND AND WATER CONSERVATION FUND, OUR LAND, OUR WATER, OUR HERITAGE: LCWF IN TEXAS (2017), <https://static1.squarespace.com/static/58a60299ff7c508c3c05f2e1/t/59973847be65944314b6ea93/1503082567592/Texas+fact+sheet+8.16.17.pdf> [<https://perma.cc/TS96-MNEB>].

67. *Id.*

68. *Id.*

69. *See generally* John R. Platt, *How Much Did the U.S. Spend on the Endangered Species Act in 2012?*, SCIENTIFIC AMERICAN BLOG (Nov. 1, 2013), <https://blogs.scientificamerican.com/extinction-countdown/how-much-did-the-us-spend-on-the-endangered-species-act-in-2012/> [<https://perma.cc/3MKB-48AE>] (explaining that the state and federal cost of the ESA has increased from \$1.45 billion to \$1.7 billion in 2012).

70. *See* ROCKY BARKER, SAVING ALL THE PARTS 229 (1993) (explaining that the FWS at the University of Idaho spent millions of dollars to protect listed wild condors).

71. BLUE RIBBON PANEL, *supra* note 6, at 6.

species before they become listed as threatened, which increases the cost to preserve through drastic measures such as moratoriums.⁷²

Nearly 1,600 species of plants and animals are listed as threatened or endangered.⁷³ “Approximately half of all the threatened or endangered species reside entirely on private lands and three-fourths use private lands for habitat, food, or breeding [sic] grounds.”⁷⁴ Businesses are impacted through project delays and by complying with endangered species regulations.⁷⁵ Taxpayers pay hundreds of millions of dollars each year to restore threatened and endangered species.⁷⁶ Through the Wildlife Action Plans, states have recognized the cost of waiting until a species becomes listed, but without more funding and cooperation with landowners, businesses and taxpayers will continue to pay for the restoration of these species.⁷⁷

2. Broadening LWCF to Fund State-Private Partnerships

Although the LWCF is urging Congress for more of the \$900 million in the fund, the money allotted for conservation is going to government programs and lands.⁷⁸ While there are still many government-owned lands that need funding, as demonstrated by the 2017 funding requests, there are many more private lands that need conservation practices instilled.⁷⁹ To meet this need, the LWCF could provide funds to state agencies for partnerships with private landowners. This type of resource protection in larger ecosystems or watersheds is important.⁸⁰ The Bush administration pushed for something similar in which federal land managers partnered with private

72. U.S. GEOLOGICAL SURVEY, *A National Look at Species of Greatest Conservation Need As Reported in State Wildlife Action Plans*, CORE SCIENCE, ANALYTICS, SYNTHESIS, AND LIBRARIES – STATE WILDLIFE ACTION PLANS (SWAP) (last modified Feb. 8, 2018), <https://www1.usgs.gov/csas/swap/> [<https://perma.cc/69CD-2HLU>]; see Kenneth Jost, *Protecting Endangered Species: Does Law Work? Is It too Costly?*, 6 CQ RESEARCHER 337, 337-60 (1996), <http://library.cqpress.com/cqresearcher/document.php?id=cqresrre1996041900> [<https://perma.cc/S3Z3-UB3T>] (explaining that increased costs could lead to a moratorium as seen during the Clinton administration).

73. BLUE RIBBON PANEL, *supra* note 6, at 6.

74. Nathan Paulich, *Increasing Private Conservation Through Incentive Mechanisms*, 3 STAN. J. ANIMAL L. & POL’Y 106, 124 (2010).

75. BLUE RIBBON PANEL, *supra* note 6, at 6.

76. *Id.*

77. *Id.*

78. Josie, *Businesses Urge Congress to Take Action*, THE CONSERVATION ALLIANCE (Sept. 3, 2014), <http://www.conservationalliance.com/businesses-urge-congress-to-take-action/> [<https://perma.cc/9TMD-XFNR>].

79. U.S. DEP’T OF AGRIC. & U.S. DEP’T OF THE INTERIOR, THE LAND AND WATER CONSERVATION FUND: 2017 BUDGET REQUEST, https://www.doi.gov/sites/doi.gov/files/uploads/LWCF_2017_BudgetInBrief_FINAL.pdf [<https://perma.cc/AU7A-66DM>] (last visited Feb. 8, 2018).

80. *Id.*

landowners to protect natural resources.⁸¹ However, the groups that traditionally receive funds expressed concern about these partnerships, in fear they might receive less funds for acquiring federal land or for the state grant programs.⁸²

3. HR.5650 to Amend the Pittman-Robertson Act

States have already recognized species living within their borders that are in need of conserving and identified the steps needed to conserve those species in the long term.⁸³ However, the states lack funding.⁸⁴ Under the Wildlife and Sportfish Restoration Program, Congress created the permanently authorized but unfunded Wildlife Conservation Restoration Program.⁸⁵ States created Wildlife Action Plans to guide conservation of fish, wildlife, and their habitat as a requirement under the program.⁸⁶ The Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources (Blue Ribbon Panel) is proposing a bill to refund this program and help conserve the nation's fish and wildlife.⁸⁷ The Blue Ribbon Panel recommends taking 10% of existing federal royalties from energy and mineral development that are currently being used for general government services and reallocate the money into the current unfunded restoration program.⁸⁸ This would bring \$1.3 billion⁸⁹ to conservation without charging the American people with a new tax.⁹⁰ As already implemented, states would have to match at least 25% of the federal funds with monetary or in-kind contributions.⁹¹

81. *Environment: Protecting Our Nation's Environment*, THE WHITE HOUSE, <https://georgewbush-whitehouse.archives.gov/infocus/environment/> [<https://perma.cc/YL9V-F2XD>] (last visited Mar. 2, 2018).

82. Carol Vincent, *Land and Water Conservation Fund: Overview, Funding History, and Current Issues*, CONG. RES. SERV. 1, 8–12 (Oct. 21, 2014).

83. *Blue Ribbon Panel*, *supra* note 46.

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.*

88. *Id.*

89. *Id.* (“A national survey determined that each state needs an average of \$26 million in new funding annually (\$1.3 billion collectively) to effectively implement State Wildlife Action Plans to prevent species from becoming threatened or endangered.”).

90. *Blue Ribbon Panel*, *supra* note 46.

91. *Id.*

III. A CRITICAL ANALYSIS OF PROGRAMS IN PLACE ON PRIVATE LANDS

The federal, state, and local government could implement regulations, but the regulatory approach is not the most favorable approach for three reasons. First, based on the amount of private land ownership, there are inadequate resources for enforcement.⁹² Second, regulations tend to create a negative stigma surrounding conservation and environmentally friendly actions.⁹³ Finally, regulations create a financial incentive to avoid the restriction imposed by the regulation.⁹⁴ For example, the ESA is often criticized for incentivizing the elimination of any endangered species or its habitat to avoid compliance with the burdensome regulations.⁹⁵ However, “effective long-term environmental protection on private lands will depend on the private actions of individual landowners as well as government regulation.”⁹⁶ Therefore, this could place a burden of conservation on a private landowner so that the public may enjoy a healthy ecosystem and its services.

Instead of using regulations, agencies can use incentive programs. Incentive programs are a way to help increase conservation and public benefit without infringing on a landowner’s right to voluntarily do as he or she wishes on their land.⁹⁷ Additionally, incentives motivate landowners to volunteer information about the ecological value of their land, which helps the state in the effort to culminate data.⁹⁸

Incentives can “take the form of tax deductions and credits, full or partial payment for conservation projects, low-interest loans, or tradable credits.”⁹⁹ Incentives can also come in the form of free expert knowledge or an increased authority to state chattel, such as the Managed Land Deer Permit program.¹⁰⁰ This Program gives additional bag limits to landowners who voluntarily engage in the program.¹⁰¹

92. Stern, *supra* note 31, at 547.

93. *Id.* at 548.

94. *Id.* at 547.

95. *The Endangered Species Act and Incentives for Private Landowners: Hearing on S HRG 109-914 Before the H. Comm. Fisheries, Wildlife, and Water*, 109th Cong. (2005).

96. Morrisette, *supra* note 5, at 378.

97. LAND TR. ALL., USING THE CONSERVATION TAX INCENTIVE 1 (2016).

98. Stern, *supra* note 31, at 543.

99. *Id.* at 542.

100. See Stern, *supra* note 31, at 543, 562 (explaining that education, though not as effective as financial incentives, are still offered by federal agencies as an incentive); see Macy Ledbetter, *The Managed Lands Deer Permit Program Explained*, HILL COUNTRY PASSPORT (Jan. 30, 2015, 11:15PM), <http://www.hillcountrypassport.com/article/12299/> [<https://perma.cc/R3WX-EGSF>] (discussing that the Managed Land Deer Permit program is an incentive based program).

101. TEX. PARKS AND WILDLIFE, MANAGED LANDS DEER PROGRAM INFORMATION 2017-2018 1, 5 (2017).

Conservation programs can educate the landowner on what their land can offer the community. This gives a sense of authority to the landowners.¹⁰² The programs within these agencies may show the landowners that their land is part of a larger landscape.¹⁰³ In doing so, it helps them realize they have an obligation “to both the natural and human community to protect the functions performed by their land as part of that landscape.”¹⁰⁴

But, environmentally-friendly behaviors are costly in terms of time, convenience, information-gathering, and project investment.¹⁰⁵ Additionally, if these environmentally-friendly actions are not exposed publicly for social affirmation or if the community is not pro-environment, then monetary incentives can help balance the cost-benefit to encourage environmentally beneficial behavior.¹⁰⁶ Participants in incentive programs tend to show a rapid behavioral change, but participation is typically low and even when participation is voluntary, those who actually perform the behavior can be low.¹⁰⁷ This could be due to lack of publicity about the programs or that the incentives may be too low to motivate participation.¹⁰⁸

This Article categorizes types of programs available and discusses how these programs function and the criticisms of each. While there are more programs available, this Article focuses on conservation easements, term easements, tax incentives, and cost share programs.

A. Conservation Easements

An easement is generally an agreement between two landowners where one landowner agrees to do or not do something on the property that would otherwise be legal to do for the benefit of the other landowner’s property.¹⁰⁹ Easements can be either in gross or appurtenant.¹¹⁰ An easement in gross is connected to the benefited party and gives the property right to whoever owns the benefited land.¹¹¹ An easement appurtenant is connected to the land and

102. Stern, *supra* note 31, at 543.

103. *See id.* (discussing that the landowners land can benefit the public and restore habitat for rare species).

104. Nancy A. McLaughlin, *The Role of Land Trusts in Biodiversity Conservation on Private Lands*, 38 IDAHO L. REV. 453, 467 (2002).

105. Stern, *supra* note 31, at 559.

106. *Id.*

107. *Id.* at 559–60.

108. *Id.* at 560.

109. JESSE DUKEMINIER ET AL., PROPERTY 813 (Wolters Kluwer L. & Bus., 8th ed. 2014).

110. *Id.*

111. *Id.*

gives the property right to whoever owns the benefited land, but it will continue to benefit the land regardless of who is the owner.¹¹²

Conservation easements are a type of conservation program that uses monetary incentives to encourage participation.¹¹³ Conservation easements are voluntary, “privately initiated land-use restrictions designed to protect and preserve private lands from development.”¹¹⁴ They are commonly used “to protect open space, preserve wildlife habitat and other sensitive ecological lands, and to prevent development of agricultural lands.”¹¹⁵ Conservation easements appear like negative appurtenant easements, where a landowner agrees not to do something on the land and the benefit stays with the land regardless of who owns the land.¹¹⁶ Unlike a normal negative easement, there is not a benefited parcel of land.¹¹⁷ Because of this important difference, in most states, conservation easements are granted by statute.¹¹⁸ In Texas, Section 183.002 creates conservation easements that are treated like regular easements and unlimited in duration unless written otherwise.¹¹⁹

To create a conservation easement, a landowner donates or sells an interest in their land to an agency or nonprofit, and the interest in the land imposes a duty on the landowner and successors.¹²⁰ The owner continues to have title of the land and can continue using the land, subject to the restrictions imposed by the easement.¹²¹ When the property is transferred by the owner, the easement typically remains with the property.¹²² Conservation easements are generally perpetual and run with the land unless stated otherwise, but there are ways of terminating the easement through common law methods such as the doctrine of changed conditions.¹²³

Conservation easement popularity has grown, but compliance with conservation easements pose a problem because the lack of easement monitoring and funds for legal enforcement.¹²⁴ Essentially, monitoring is the

112. *Id.*

113. *Id.* at 889.

114. Morrisette, *supra* note 5, at 379.

115. *Id.*

116. *Id.*

117. *Id.* at 381.

118. LAURIE A. RISTINO & JESSICA E. JAY, *A CHANGING LANDSCAPE: THE CONSERVATION EASEMENT READER 5-6* (Environmental Law Institute ed., 2016).

119. Tex. Nat. Res. Code § 183.002 (1983).

120. Stern, *supra* note 31, at 554–55.

121. Morrisette, *supra* note 5, at 379.

122. *Id.*

123. *Id.* at 379, 392. (“The doctrine of changed doctrines stands for the proposition that a court may terminate a real covenant or equitable servitude if conditions have changed to the degree that the restriction no longer makes sense or it creates an undue hardship on the servient estate.”)

124. Stern, *supra* note 31, at 556–57.

key to enforcing conservation easements, but monitoring is both costly and time consuming.¹²⁵ Additionally, subsequent owners of the property may not have the same environmental concerns as the original landowner, which could cause for more compliance problems.¹²⁶ While easement monitoring may be cause for concern, legal enforcement is becoming more possible with the development of TerraFirma, a land trust insurance designed to defend conservation on lands in fee simple or with conservation easements.¹²⁷ TerraFirma is available for all land trusts who are members of the Land Trust Alliance, a trade organization for land trusts.¹²⁸

Some critics argue that in addition to enforcement challenges, conservation easements are not well suited for preserving the biological diversity in core areas.¹²⁹ “The proper level of biodiversity in core areas often can be achieved only if the landowner agrees to refrain from most or all uses of the land or to actively manage the land for biodiversity protection purposes.”¹³⁰ However, if the conservation easement is in the “buffer zone” around the core area and the landowner’s rights are compatible with the biodiversity plan, the easement could be proper.¹³¹ Critics also argue that regardless of where the easement is situated, the perpetual nature of conservation easements make them ill-suited for environmental conservation based on the ever-changing need.¹³² Proponents of conservation easements would argue that a well-written easement would be broad enough to adapt to the ecosystem’s changing needs.¹³³ Notwithstanding the perpetual environmental morphing, a never changing threat to land in Texas is development, and to protect lands from future development, conservation easements must be in perpetuity.¹³⁴

The Texas Parks and Wildlife Department has an agency-run agricultural conservation easement program, the Texas Farm and Ranch Lands

125. Julia LeMense Huff, *Protecting Ecosystems Using Conservation Tax Incentives: How Much Bang Do We Get for Our Buck*, 11 MO. ENVTL. L. & POL’Y REV. 138, 157 (2004).

126. Stern, *supra* note 31, at 571.

127. See TERRAFIRMA RISK RETENTION GROUP, <http://terrafirma.org/about> [<https://perma.cc/EN7D-BAAP>] (last visited Feb. 16, 2018) (stating, “[TerraFirma] is available for all Land Trust Alliance member land trusts with conservation easements or fee lands held for conservation.”)

128. *Id.*

129. McLaughlin, *supra* note 104, at 460–69.

130. *Id.* at 460.

131. *Id.* at 460–61.

132. Jessica Owley, *Changing Property in a Changing World: A Call for the End of Perpetual Conservation Easements*, 30 STAN. ENVTL. L.J. 121, 122–23 (2011).

133. Rissman, *Evaluating Conservation Effectiveness and Adaptation in Dynamic Landscapes*, 74 LAW & CONTEMP. PROBS. 145, 145–46 (2011).

134. *Protect Your Land*, TEX. LAND CONSERVANCY, <http://texaslandconservancy.org/protect-your-land/> [<https://perma.cc/G5EL-82RE>] (last visited Feb. 23, 2018).

Conservation Program, which aims to protect working lands from fragmentation and development.¹³⁵ The program assists donation and purchase of agriculture easements by providing grants to landowners donating easements.¹³⁶ The easements must be for conserving one or more of the following: water quality/quantity, native wildlife habitat, rare or sensitive plants, large tracts of land threatened by fragmentation or development.¹³⁷ Priority can be given to lands susceptible to fragmentation.¹³⁸ A scoring process determines who qualifies for the funding by assessing several criteria including landscape and watershed, species habitat, proximity to other protected lands, resource management plan, additional potential funding, and the term of the easement which can be perpetual or for 30 years.¹³⁹ Although this program is 11 years old, the first funding it received was in 2014 for \$2 million in which it matched and used to create \$13 million worth of conservation effort.¹⁴⁰

Conservation easements should not block future landowners from managing the land in an ecologically friendly manner simply because it was not thought of when the easement was created. The goal of the conservation easement should be to ensure that future landowners conserve the land in the most ecological and practical way possible, which may include conservation strategies that would not be possible in specific, unyielding easements. One way of ensuring the conservation easement is easier to enforce and does not become outdated compared to the need is to carefully draft the easement in a broad manner. Additionally, organizations could draft easements with language that is flexible to allow for adaptive management techniques.¹⁴¹ For example, easements could allow for ecological monitoring while easement holders could provide technical guidance.¹⁴²

1. Term Easements and Conservation Leases

Term easements and conservation leases are generally the same concept; they grant an interest in land to an agency or nonprofit for a specified time

135. Texas Farm & Ranch Lands Conservation Programs, TEXAS PARKS AND WILDLIFE, <http://tpwd.texas.gov/landwater/land/private/farm-and-ranch/> [<https://perma.cc/73A6-XYUS>] (last visited Feb. 16, 2018).

136. 2015 Tex. HB 1925, § 84.001 (2015).

137. *Id.* § 84.002(1)(A)–(D).

138. *Id.* § 84.010(1).

139. *Id.* § 84.010(2)(A)–(E).

140. TEX. A&M INST. OF RENEWABLE NAT. RES., TEXAS FARM AND RANCH LANDS CONSERVATION PROGRAM: EVALUATION REPORT 2 (Dec. 19, 2016).

141. Dianne A. Stroman & Urs P. Kreuter, *Factors Influencing Land Management Practices on Conservation Easement Protected Landscapes*, 1, 13 (2015).

142. *Id.* at 12.

period.¹⁴³ The two differ in how the landowner receives their incentive payment.¹⁴⁴ Term easements pay landowners a lump-sum directly, while conservation leases pay landowners annually.¹⁴⁵ Most term easement programs are government-sponsored and target agricultural, timber, and ranching land.¹⁴⁶

While the agriculture easement through the Texas Farm and Ranch Lands Conservation Program requires an easement to have a term of either 30 years or in perpetuity,¹⁴⁷ a general conservation easement may be for any term agreed upon by the parties.¹⁴⁸ But, if the conservation easement is terminated, the taxes saved during the time the easement was in effect must be paid back with an interest of 7% annually.¹⁴⁹

The ultimate goal of conservation is to benefit the public as a whole, instead of benefitting the taxpayer.¹⁵⁰ Thus, there may be a downside to short term easements and leases. With the uncertainty of short-term leases, other taxpayers may “subsidize the carrying costs of land under the guise of conservation” and see their investment in conservation end when the landowner sells or changes the use in the land.¹⁵¹ However, this argument fails to consider that landowners who voluntarily enter into these leases may be sincere in their effort to conserve. Additionally, it does not consider that incentives are a way to balance the cost to the landowner for this public good, not to simply pay the full sum.

Supporters argue there are many positives to abandoning the in-perpetuity conservation easement for renewable term easements.¹⁵² “Their economic, societal, and conservation value can be more readily assessed and considered when making land-use decisions.”¹⁵³ These renewable easements more closely align with adaptive management goals, and the requisite re-visitation allows for a reexamination of the conservation value of the easement.¹⁵⁴ In theory, by using short-term easements, the need of the ecosystem will continually match the use of the easement, rather than the in-perpetuity easement that is no longer optimally providing for the ecosystem. But, if a non-profit land trust devotes the time and resources to negotiating

143. Stern, *supra* note 31, at 553–54.

144. *Id.*

145. *Id.*

146. *Id.* at 553.

147. 2015 Tex. HB 1925, § 84.004(a) (2015).

148. Tex. Nat. Res. Code § 183.002(c)–(d) (1983).

149. *Id.* § 183.002(f).

150. Huff, *supra* note 125, at 153.

151. *Id.* at 154.

152. Owley, *supra* note 132, at 123.

153. *Id.*

154. *Id.*

an easement, the land trust is more likely to want a guarantee in a long-term easement rather than a short-term easement that could expire in several years and then become developed land.

B. Tax Incentives

Tax reductions provide the incentive for donating or selling a conservation easement.¹⁵⁵ Tax incentives are beneficial because there is a tax system already in place and taxing authorities can evaluate land and enforce the behavior.¹⁵⁶ Tax incentives can be offered at all levels—federal, state, and local.¹⁵⁷ Tax incentives can take the form of deductions from federal or state income taxes; credits against state or federal income tax liability; estate tax exclusion; and additional tax benefits that state and local governments give.¹⁵⁸ Based on the strict nature of tax incentives, this Article will not discuss in detail the different tax options but will give a short overview of the opportunities available for deduction.

If a landowner chooses to donate a conservation easement, the landowner may be eligible for a federal income tax reduction, if the donation is to a qualifying charitable organization.¹⁵⁹ The Internal Revenue Code (IRC) restricts deductions for contributions that are less than fee simple and not transferred by a trust.¹⁶⁰ But, the IRC has an exception if the contribution is a “qualified conservation contribution.”¹⁶¹ If a landowner sells the interest of land to a charitable organization at a discount rate less than fair market value, the land can also be eligible for the tax deduction; the landowner can claim the difference between the fair market value and the discount price as a charitable donation.¹⁶² Another incentive for landowners who wish to benefit from a conservation easement is the exclusion of up to \$500,000 from the gross estate tax for the land that has the conservation easement.¹⁶³

In addition to income tax incentives, there are many property tax incentives such as preferential assessment programs, deferred taxation programs, and restrictive agreement programs.¹⁶⁴ Preferential assessment

155. *Estate Tax Incentives for Land Conservation*, LAND TRUST ALLIANCE, <https://www.landtrustalliance.org/topics/taxes/estate-tax-incentives-land-conservation> [<https://perma.cc/VGX9-CSCP>] (last visited Feb. 5, 2018).

156. Huff, *supra* note 125, at 153.

157. *Id.* at 139.

158. *Id.*

159. *Id.* at 140.

160. *Id.*

161. Huff, *supra* note 125, at 140.

162. *Id.* at 141.

163. *Id.*

164. *Id.* at 142.

programs assess land based on the land's current use, if the land use is a qualifying purpose as determined by the taxing authority.¹⁶⁵ If the landowner continues to use the land for the qualifying purpose, the landowner receives a reduced property tax rate.¹⁶⁶ But, if the landowner changes the use of the land to something that is not qualified, the decreased tax rate disappears.¹⁶⁷ But note, the landowner is not penalized.¹⁶⁸ Similar to the preferential assessment program, a deferred taxation program gives a landowner a reduced property tax while the land is being used in a qualifying way.¹⁶⁹ However, unlike the preferential assessment program, when the landowner chooses to use the land for a use that is not qualified, the landowner is penalized.¹⁷⁰ The tax deduction is removed and the landowner must repay a portion of the taxes saved through the program.¹⁷¹ In a restrictive agreement program, a landowner enters into an agreement to continually use the land in a certain way for a prescribed term of years.¹⁷² The duration and terms of the agreement are known upfront, which provides stability for the taxing authority.¹⁷³

The downside of tax incentives derives from the relationship between the landowner and the conservation.¹⁷⁴ Incentives should be designed to encourage conservation behavior that will continue long after the incentive has expired. Looking at the culture around taxes and tax breaks, landowners may feel as if they are entitled to this tax deduction, not that it is justified by an action.¹⁷⁵ Additionally, tax deductions can be less personal compared to a conservation easement or cost-share project, which directly connects the landowner and the conservation action.¹⁷⁶ And finally, the landowner could become reliant on the tax incentives, which can deteriorate the reason behind the incentive—conservation.

165. *Id.*

166. *Id.*

167. Huff, *supra* note 125, at 142.

168. *Id.*

169. *Id.*

170. *Id.*

171. *Id.*

172. *Id.*

173. Huff, *supra* note 125, at 143.

174. *See id.* at 154–55 (discussing the negative implications of tax incentives as opposed to conservation easements).

175. *Id.*

176. *Id.*

C. Cost-Share Projects

Cost-share projects are a category of incentives that give landowners compensation for conservation action or inaction.¹⁷⁷ For example, an action that may receive compensation is restoring or maintaining a habitat, an inaction that may receive compensation is refraining from grazing cattle or refraining from harvesting timber.¹⁷⁸ This is a direct move by the government to tip the scales to equalize the cost to the landowner and the benefit to the public.¹⁷⁹ Cost-share projects are the obvious example of incentive programs because the relationship between the landowner, conservation, and the incentives is clear and deliberate.

Currently, there are two cost-share projects in effect through the Texas Parks and Wildlife Department (TPWD).¹⁸⁰ The Partners Watershed Funding Series has a goal to “establish, restore, and/or enhance habitat for state and federal trust fish, wildlife and plant species on privately owned lands.”¹⁸¹ Although everyone is encouraged to apply, the TPWD assesses the application using a variety of factors and a three level priority list with the ESA species and habitat carrying first priority.¹⁸² The second TPWD project is Conserving Texas Rivers Funding Series, and it has a goal to “restore riparian zones, restore aquatic habitats, improve water quality, increase water quantity, reduce erosion, and remove non-native species.”¹⁸³ This funding project is limited to three riparian zones—Llano River Watershed, Pedernales River Watershed, Blanco River Watershed—but also includes the uplands of these riparian zones.¹⁸⁴ Both TPWD projects are funded by a grant that is supported by multiple partners including the U.S. Fish and Wildlife Service Partners for Fish and Wildlife Program and the National Fish and Wildlife Foundation.¹⁸⁵

A non-governmental cost-share project in effect is the Windbreak Planting Assistance that is offered by Texas A&M Forest Service (TFS) and West Texas Nursery (WTN) for landowners in the High Plains region who

177. Stern, *supra* note 31, at 552.

178. *Id.*

179. *Id.* at 550.

180. *Landowner Incentive Program*, TEX. PARKS & WILDLIFE, https://tpwd.texas.gov/landwater/land/private/lip/#Statewide_LIP_Funding_Series [<https://perma.cc/G52Z-LLAS>] (last visited Feb. 9, 2018).

181. *Id.*

182. *Id.*

183. *Id.*

184. *Id.*

185. *Id.*

operate 160 acres or more of land.¹⁸⁶ Windbreaks reduce or redirect wind, which can reduce soil erosion, protect buildings/equipment, and create habitat for wildlife.¹⁸⁷ Landowners who will comply with the TFS guidelines may receive assistance in the planting of multiple row windbreaks by using the WTN's tree planter and fabric layer.¹⁸⁸ However, landowners must purchase the seedlings.¹⁸⁹

A statutorily-created cost-share program for the Water Supply Enhancement Plan creates contracts with landowners to provide less than 70% of the cost for brush control.¹⁹⁰ By controlling the amount of brush, like mesquite and cedar trees on land, water supplies in neighboring areas are positively impacted because brush has a higher evapotranspiration rate than grasses.¹⁹¹ There are several factors considered to determine which lands qualify for the program, including location and acreage of the land, method of control, plans for revegetation, and financial ability of the landowner.¹⁹² While the cost-share does not fully fund the project, the amount given ideally provides landowners with enough money to balance the cost of the project against the benefit that is not normally felt directly by the landowner.¹⁹³ The positive effect of water enhancement is generally felt off the landowner's property, but landowners can benefit from the added grassland, while the state shoulders a lot of the financial burden.¹⁹⁴

186. *Manage Forests & Land*, TEX. A&M FOREST SERV., <http://texasforests.tamu.edu/windbreaks/> [https://perma.cc/P8Q6-WW2Z] (last visited Feb. 5, 2018).

187. *Id.*

188. *Id.*

189. *Id.* Type of windbreaks: *Homestead/Farmstead Windbreaks* enhance the aesthetics and increase the heating and cooling efficiency of homes

Livestock Windbreaks protect cattle in severe weather conditions by reducing the amount of energy cattle utilize to keep warm, thus increasing weight gains and decreasing the producer's feed costs

Field Windbreaks protect crops and soil from wind erosion and moisture loss

Dry Corner Windbreaks establish wildlife habitat, increase watering efficiency of adjacent center pivot irrigation systems, protect grazing livestock

Living Snow Fence Windbreaks keep snow from drifting onto farm roads and highways, protect grazing livestock and establish wildlife habitat

Wildlife Windbreaks create permanent vegetation with tree and shrub species which will provide food and cover for wildlife

190. TEX. AGRIC. CODE § 203.154(a).

191. TEX. STATE SOIL AND WATER CONSERVATION BD., WATER SUPPLY ENHANCEMENT PROGRAM: 2017 ANNUAL REPORT 1 (2017).

192. *Id.* § 203.157.

193. *See generally id.* § 203.154(a) (explaining that only 70% of the total cost is covered, leaving the remaining cost to the landowner).

194. KYLE THIGPEN ET AL., NATIVE GRASSLAND RESTORATION IN THE MIDDLE TRINITY RIVER BASIN 2 (July 2012); *see* TEX. STATE SOIL AND WATER CONSERVATION BD., WATER SUPPLY ENHANCEMENT PROGRAM: 2017 ANNUAL REPORT, *supra* note 195 at 1 (explaining that there is a budget of \$2.4 million for the 2018 fiscal year).

Cost-share projects can be a good tool for implementing a specific conservation practice in an isolated region. Cost-share projects are not financially appropriate for widespread, general conservation practices.¹⁹⁵ Because cost-share projects can subsidize a significant amount of the cost of the action, the projects must have a qualification system in place to ensure maximum return on investment.¹⁹⁶ However, this necessary set-up could deter landowners who would like to engage in a conservation project but do not meet the requirements of the program because their land is not situated in an area that would produce the most favorable results. Additionally, landowners could take advantage of the funding if the program is not designed with appropriate project completion requirements and safeguards for continued conservation.

D. Technical Guidance

Landowners have an interest in managing their property in an environmentally friendly way, but many may not know how or where to begin. This is where free technical assistance can improve a piece of the ecosystem that does not qualify for a cost-share project and may not receive any improvement otherwise.

The Texas Parks and Wildlife Department has a program dedicated to providing landowners with advice about conservation and habitat development.¹⁹⁷ The Private Lands and Habitat Program is extensive; at the landowner's request, a wildlife biologist inspects the property with the landowner and develops a management plan for the property.¹⁹⁸ The plan includes the landowner's objective, the land use history, and a description and appraisal of the habitat with specific recommendations for habitat conservation and wildlife management.¹⁹⁹ The wildlife biologist will continue to assess the progress of the land and the program, adjusting as necessary.²⁰⁰ This free service is a way for landowners to become well informed of their property; the ecosystem it belongs to; and how to manage it for the benefit of the landowner, the land itself, and the surrounding ecosystem.

195. Stern, *supra* note 31, at 579–80.

196. *Id.* at 580.

197. *Private Lands & Habitat Program*, TEXAS PARKS & WILDLIFE, <https://tpwd.texas.gov/landwater/land/private/description/> [https://perma.cc/4PAQ-H39N] (last visited Feb. 16, 2018).

198. *Id.*

199. *Id.*

200. *Id.*

Another example of a program using technical guidance as an incentive is the Recovery Credit System by Texas A&M's Institute of Renewable Natural Resources (RCS).²⁰¹ The RCS is a voluntary program where landowners with qualifying land receive technical guidance and assistance to support habitat for animal or plant species.²⁰² In return, the landowners receive purchasable recovery credits that can be sold to public, private, or government entities.²⁰³ This program has been used to protect the habitat of the Golden Cheeked Warblers and has resulted in eleven landowner contracts with a total of 7,158 acres protected.²⁰⁴

For technical guidance incentives to be effective, the burden is on the landowner to seek out guidance and follow the instructions.²⁰⁵ While these organizations providing the assistance also have outreach programs, the burden is still on the landowner to seek out the outreach event and contact the organization.²⁰⁶ The cost to the organization, while less than a cost-share project, can still be high because the organization has to pay for the time of qualified individuals to assess and develop unique action plans.²⁰⁷ However, because the landowner must reach out to the organization, the landowner is more likely to follow through with any technical guidance because the commitment to conservation is already present.

IV. SUGGESTIONS FOR IMPROVING CONSERVATION PROGRAMS

Because of the funding challenges discussed in Part III, there is an increasing need to become creative in conservation. Partnering with the State's landowners could be this creative solution. There are four general regulatory responses available to the government to impose conservation on private lands in Texas.²⁰⁸ First available, prescriptive regulations, which usually take the form of standards or total bans.²⁰⁹ To achieve conservation on lands not belonging to the government, the government will need to create an amicable relationship with landowners. Generally, prescriptive

201. *Recovery Credit System*, TEX. A&M INST. RENEWABLE NAT. RESOURCES, <http://rcs.tamu.edu/> [<https://perma.cc/YL55-U9WH>] (last visited Feb. 16, 2018).

202. *Id.*

203. *Id.*

204. *Id.*

205. *Id.*

206. *See generally* SHELLEY ROBERTSON, ED.D. & H. BRUCE RINKER, PH.D., THIRD PARTY EVALUATION OF THE RECOVERY CREDIT SYSTEM PROOF OF CONCEPT 44 (2010) (discussing that some participants wished to have more access to outreach days for general information concerning the program).

207. *See generally* *Recovery Credit System*, *supra* note 201.

208. LAITOS, *supra* note 9, at 33–36. *See generally* Stern, *supra* note 31, at 545 (discussing payments and subsidies).

209. LAITOS, *supra* note 9, at 33.

regulations will be viewed against landowner rights and will widen the separation between landowners and environmentally friendly actions—potentially resulting in a taking.²¹⁰ The second available regulatory response, penalties, carry an increased negative stigma.²¹¹ Penalties, such as fines and taxes, are not recommended to bring conservation to private lands for the same reason that prescriptive regulations should not be used.²¹² The third general regulatory response is already being utilized for incentivizing landowners to improve conservation on their lands.²¹³ Payments or subsidies are a positive way for the government to regulate an industry, but subsidies can create negative effects.²¹⁴ Landowners may rely on the subsidies to continue the behavior, or without proper monitoring, landowners can take advantage of the subsidies without doing the conservation practices expected.²¹⁵ The last and perhaps hardest regulatory response is persuasion through education.²¹⁶ In order to persuade landowners to voluntarily engage in conservation practices, landowners must be educated about their own land, the surrounding ecosystem that the land is a part of, the overall goal, and the benefits of conservation. This may be the most powerful tool in the government's toolbox because it is relatively inexpensive compared to subsidies, does not carry with it a negative stigma, and can have a lasting impact.²¹⁷ But this may also be the most difficult regulatory response to implement because it goes beyond simply telling a landowner what he or she should do for their land. This response requires organizations to build a relationship with landowners and teach landowners about their role in the ecosystem.

This Article investigates two regulatory responses: education and payments. Payments are needed to immediately balance the cost of conservation to the landowner against the benefit of conservation to the public. Payments may also be needed to continue to reinforce the desired conservation behavior. Education is necessary to persuade the landowner to voluntarily begin conservation measures and continue those conservation measures long after the payments have ended.

210. See generally Stern, *supra* note 31, at 545 (discussing private landowners and the impact of the Endangered Species Act to land use).

211. LAITOS, *supra* note 9, at 36.

212. See generally LAITOS, *supra* note 9, at 36 (discussing how taxes may be used to address negative externalities).

213. See generally Stern, *supra* note 31, at 545 (discussing private landowners and need for conservation).

214. See Stern, *supra* note 31, at 545 (exploring subsidies, payments, and conservation).

215. See generally LAITOS, *supra* note 9, at 30 (discussing government involvement and methods to solve negative externalities).

216. *Id.* at 34.

217. Give a man a fish and he eats for a day, teach a man to fish and eats for a lifetime.

Incentive programs should incorporate payments and education to create a longstanding, effective behavior change in private land-owning Texans. To achieve this, the programs should be designed to focus on conserving lands throughout the entire state that are ecologically profitable, while also positively affecting in some way every land that applies for conservation help. The programs should also structure the incentives to promote a continued behavior by staggering the rewards, granting the rewards on a tiered basis rather than lump sums, and by utilizing social affirmation to increase positive opinions of conservation programs in the landowner and within the community. Lastly, the programs should aim to build relationships with landowners beyond a governmental parental role and into an educational partnership.

A. Design Programs to Reach Everyone, Everywhere

First, organizations or agencies creating voluntary conservation programs should design the programs to ensure that the most ecologically important lands are conserved first. Additionally, the programs should focus on promoting biodiversity in the ecosystem, despite jurisdictional boundaries. And finally, the agencies should spread programs across the state rather than focusing on ecosystem reserves to combat the growing disconnect between society and nature.

In the planning process, agencies should continue to be selective when choosing which lands may receive assistance based on whether the land is ecologically significant and necessary to conserve.²¹⁸ By only allowing landowners who have lands where conservation would be beneficial to participate in incentive programs, the agency will save money that may be spent enforcing the conservation measures in place. Agencies could reward all conservation efforts to promote a positive attitude towards all conservation but provide more ecologically valuable lands with larger rewards. A system based on reward-size could tighten the link between the landowner, public good, and incentive.²¹⁹ While many programs already implement a selective process for funding, the process leaves some landowners without any reward if their land is less ecologically significant.²²⁰ Agencies should be aware of this potential loss in conservation practices and mitigate the rejection with a less costly reward, such as technical guidance.

218. Huff, *supra* note 125, at 158.

219. Stern, *supra* note 31, at 577.

220. *Id.*

When agencies create programs with a property-based approach, it “limits the options available to manage nature.”²²¹ Agencies could consider creating programs that focus on the natural ecosystem boundaries rather than jurisdictional boundaries.²²² To fully “capture the true environmental conditions relevant to the management and understanding of nature,” alternatives to a property-based approach may need to change towards a solution with the full ecosystem in mind.²²³ Nature does not conform to humanity’s arbitrary jurisdictions, and so agencies should develop private incentive programs focusing less on the geographical boundaries and instead provide management options “based on the characteristics that are inherent in nature.”²²⁴ When considering nature while developing the programs, agencies need to especially focus on biological diversity.²²⁵ Agencies could do this by targeting specific ecosystems that need conserving, then contacting the landowners to present a tailored incentive program specifically for that ecosystem.

Additionally, incentive programs should be spread across the entire state rather than ecosystem reserves. Critics warn against structuring conservation projects around “hot spots” or reserves, because this centered focus ignores our society’s growing disconnect from nature.²²⁶ “The more completely we isolate our daily lives from nature, the more tenuous our commitment to protecting nature is likely to become.”²²⁷ The conservation effort in Texas should take this growing disconnect into account and attempt to focus projects across the state’s vast ecosystems and abandon the isolation approach. Merging biodiversity conservation and the public may be difficult, but the State’s natural resources may benefit from a society with a connection to nature. Another way to combat this growing disconnect is to involve local schools with conservation projects. Similar to President Obama’s Every Kid in a Park,²²⁸ organizations could focus on getting schoolchildren out in nature to connect with the environment and begin conservation behavior early.

221. ENVIRONMENTAL LAW AND CONTRASTING IDEAS OF NATURE: A CONSTRUCTIVIST APPROACH 59 (Keith H. Hirokawz, ed., 2014).

222. Rosenbloom, *supra* note 25, at 62.

223. *Id.*

224. *Id.* at 57, 60.

225. McLaughlin, *supra* note 104, at 465.

226. *Id.*

227. *Id.*

228. Malvin, *supra* note 45.

B. Structure Incentives to Promote Long-Term Behavior Change

For an incentive program to succeed, the program must be designed to motivate and maintain long-term behavior.²²⁹ To accomplish this, agencies should: (1) provide incentives throughout the entire duration of the conservation program to reinforce the long-term behavior change; (2) include social rewards such as recognition programs; and (3) distribute the incentives after the landowners meet the goals.²³⁰

To maintain behavior change, agencies must give incentives throughout the entire duration of the behavior but not necessarily at regular intervals.²³¹ Intermittent reinforcements are more effective than constant reinforcement, and sporadic, unpredictable rewards can encourage a stronger behavioral response than a predictable, consistent reinforcement.²³²

Social rewards, such as certificates and awards, can also incentivize environmentally-friendly behavior.²³³ But a participant generally makes a longer-term commitment when the participant makes a visible, personal commitment like signing a pledge.²³⁴ This personal commitment could significantly help with reinforcing new landowners who have purchased a conservation easement-encumbered piece of land.²³⁵ A study on perpetual conservation easements in Texas shows that if a landowner initially grants the easement, the landowner is more satisfied with the easement than a landowner taking on an easement-encumbered piece of land.²³⁶

While continuing incentives may not be economically feasible, it will be necessary to do so if the cost of conservation is high, regardless of how environmentally-conscience the landowner is.²³⁷ Therefore, during the planning stages, agencies should be careful to continue incentives for high-cost behavior programs but can replace incentives with social rewards in low-cost behavior programs. Additionally, agencies should be cautious against offering upfront or frontloaded payments, which inadequately reinforce behavior and permit landowners to either under-perform or fail to perform.²³⁸

229. Stern, *supra* note 31, at 562.

230. *Id.* at 563.

231. *Id.* at 562.

232. *Id.*

233. *Id.* at 563.

234. *Id.*

235. Stern, *supra* note 31, at 572.

236. Dianne Stroman & Urs Kreuter, *Perpetual Conservation Easements and Landowners: Evaluating Easement Knowledge, Satisfaction and Partner Organization*, 146 J. ENVTL MGMT. 284, 289 (2014).

237. Stern, *supra* note 31, at 567.

238. *Id.* at 568–69.

To achieve the staggered method, agencies could establish a system that rewards the landowner with payment after completion of certain requirements.²³⁹ This could be especially helpful in programs that require a multi-step project such as the Water Supply Enhancement Project.²⁴⁰ If a project requires upfront costs, landowners could receive a portion of the money in advance to begin the project and receive the rest in increments based on completion.²⁴¹ The Water Supply Enhancement Plan is a 10-year contract with a landowner that includes a plan for the original brush control method, a plan for a follow-up brush control method, and a requirement that the landowner keep the brush level less than 5% throughout the 10-year period.²⁴² The statute does not set out a guideline of how and when the Plan pays the cost-share to a landowner, but it does specify that a landowner cannot acquire more funding for the follow-up brush method apart from the original cost-share contract.²⁴³ This is a perfect opportunity to draft the contract to allow a proportionate allocation of the funds to be given at the beginning of the project, during the follow-up, and periodically after the status inspections.

Along with rewards, punishments also reinforce and shape behavior.²⁴⁴ Agencies could achieve partial enforceability through denial of payment in the outcome-oriented incentive program.²⁴⁵ If a landowner does not reach the specified outcome, the landowner will not receive the payment, which can be perceived as a punishment.²⁴⁶ Agencies should carefully implement such plans so that the landowner does not begin to look at conservation or the agency in a negative way. In the Water Supply Enhancement Plan, the contract could specify that non-compliance delays payments until the landowner complies. Further, if a landowner does not follow through with the follow-up brush control method, the landowner will not receive the rest of the funds until the follow-up method is completed.²⁴⁷

C. Building Relationships with Landowners

Organizations must bridge the gap between landowner and outsider groups to truly make a lasting impact in a state with extensive private land

239. *Id.* at 570.

240. *See, e.g.*, TEX. AGRIC. CODE § 203.160(e) (stating that state money will not be used for advanced work, but rather for work that has been completed).

241. Stern, *supra* note 31, at 570.

242. TEX. AGRIC. CODE § 203.162(b).

243. *Id.* § 203.162(c).

244. Stern, *supra* note 31, at 570.

245. *Id.*

246. *Id.*

247. *See, e.g.*, TEX. AGRIC. CODE § 203.160(e) (stating the failure to complete conservation duties).

ownership and strong ownership beliefs. Offering incentives to landowners to engage in conservation is not enough. In some instances, educating landowners about their lands and conservation will also not be enough. Organizations, both governmental and private, will have to build and maintain a relationship of trust and respect with the landowner and the community. Organizations must overcome the distrust of outsiders when asking landowners to engage in costly environmental strategies. Agencies should design programs to provide frequent interaction, educational opportunities, and public acknowledgment.

1. Building & Maintaining Relationships Using Educational Opportunities

“Trust is a feeling, not a rational experience” and we begin to have trust when we realize someone is not driven by their own self-gain.²⁴⁸ Organizations developing relationships with landowners should first focus their message on why conservation is important. At its simplest form, conservation could be the reason why the organization was created. The message to landowners should start with why conservation is important. If done sincerely, this should begin to build trust because the program is not for the selfish gain of the organization, but rather for the benefit of the entire public, including the landowner.

Many organizations reach landowners through local branches. For example, the Texas State Soil and Water Conservation Board reaches landowners through the individual conservation districts that are operated by elected landowners in the district.²⁴⁹ Programs such as this are integrated effectively into the community because they are made up of community members. When landowners are intimately involved with the organizations, there is greater trust between the two. However, organizations should still stress why conservation is important in the educational workshops to inspire landowners to not only volunteer in the program, but to fully take advantage of the benefits and hopefully to continue the conservation beyond the program’s end.

In contrast, the Texas Parks and Wildlife Department (TPWD) have great opportunities for partnering with landowners, but there is no direct community involvement like in the soil and water conservation districts. Instead, each region has a director and field staff. Texas is comprised of eight

248. SIMON SINEK, *START WITH WHY: HOW GREAT LEADERS INSPIRE EVERYONE TO TAKE ACTION* 84 (2009).

249. *About the Texas State Soil and Water Conservation Board*, TEX. STATE SOIL & WATER CONSERVATION BOARD, <https://www.tssweb.texas.gov/about> [<https://perma.cc/XZ86-DNR8>] (last visited Feb. 9, 2018).

regions, which are broken into counties with their own wildlife biologist. For organizations structured like TPWD, programs will need to establish a trusting relationship first and then begin education. Currently, TPWD schedules free workshops for landowners to attend and learn more about the programs offered.²⁵⁰ However, the workshops appear to be aimed more at educating landowners about the programs available with less focus on the overall benefit of conservation.²⁵¹ While workshops are a great way to reach landowners, the workshops should aim to educate landowners first about why conservation is needed, then focus on how to implement conservation on their lands. Successful businesses who understand the importance of starting with their message (i.e. why) remain successful because people respond to inspiration.

Where economically feasible, agencies should consider creating programs that invest in education and have frequent interaction with landowners. Programs that create a close relationship with landowners create a nonmonetary reinforcement incentive and emphasize the landowner's personal commitment to conservation.²⁵² This program style "safeguard[s] against noncompliance," but is costly, so agencies should consider this in the planning process.²⁵³ Within perpetual conservation easements, authors of a study focusing on the satisfaction of easement holders suggest easement-holding organizations should focus on cultivating ongoing relationships with the landowners beyond the traditional monitor and enforcement relationship.²⁵⁴ According to their research, there is "a clear relationship between frequency of contact between landowners and easement holders and landowners' level of satisfaction with their easements."²⁵⁵ Additionally, they found that where a strong relationship exists between the two, there is an increased conservation effectiveness.²⁵⁶ However, where there is a weak relationship, there may be "a decline in the maintenance of the conservation practices."²⁵⁷

250. See *Landowner Workshops & Field Days*, TEX. PARKS & WILDLIFE, <https://tpwd.texas.gov/calendar/landowner-workshops-field-days> [<https://perma.cc/66HU-WGT3>] (last visited Feb. 7, 2018) (listing dates for workshops).

251. See generally *id.* ("This workshop will provide a general overview of the wildlife tax valuation guidelines and qualifications, wildlife management plan development, and applicable management practices.").

252. Stern, *supra* note 31, at 570–71.

253. *Id.* at 570.

254. Stroman & Kreuter, *supra* note 236, at 289.

255. *Id.* at 289.

256. *Id.*

257. *Id.*

2. Boosting Relationships with Recognition Programs

Social rewards can positively influence landowners.²⁵⁸ Organizations should try to incorporate recognition programs to boost the relationship between the organization and the landowner, which may also positively affect the relationship between the community and conservation.

The TPWD honors landowners who contribute to natural resource conservation with the Lone Star Land Steward Award.²⁵⁹ Among those who receive the Lone Star Steward Award, one will be chosen to receive the prestigious Leopold Conservation Award.²⁶⁰ The program has awarded over 200 landowners for their contributions since it was created 21 years ago.²⁶¹ Each landowner is proudly posted on the public TPWD website with a short summary of what the landowner has contributed.²⁶² Land trusts could mimic this idea by publicizing a list of landowners who have donated conservation easements to recognize the owners, reinforce the behavior, and promote a positive attitude towards conservation within the community.²⁶³ However, land trusts should be careful to receive full consent for publication as most conservation easement information and incentive programs are completely confidential, even within the trusts themselves.²⁶⁴ Recognition programs could be as simple as an announcement on a website and local board meeting, or as extravagant as awarding prizes or cash.

CONCLUSION

We all have an interest in preserving our natural resources for the future generations. We cannot rely on the government to take full ownership and

258. *Texas Landowners Earn Lone Star Land Steward Awards for Conservation Efforts*, TEX. PARKS & WILDLIFE (Apr. 20, 2016), <https://tpwd.texas.gov/newsmedia/releases/?req=20160420a> [<https://perma.cc/64TW-5X2Q>].

259. *2010 Lone Star Land Steward Awards Winners Announced.*, U. S. DEP'T OF AGRIC., NAT'L RES. CONSERVATION SERV. TEX., https://www.nrcs.usda.gov/wps/portal/nrcs/detail/tx/home/?cid=nrcs144p2_002616 [<https://perma.cc/A78K-VVCB>] (last visited Feb. 14, 2017).

260. *Lone Star Land Steward Awards Program*, TEX. PARKS & WILDLIFE (May 17, 2018), https://tpwd.texas.gov/landwater/land/private/lone_star_land_steward/ [<https://perma.cc/E883-32CW>].

261. *Texas Landowners Earn Lone Star Land Steward Awards for Conservation Efforts*, *supra* note 258.

262. *See generally Lone Star Land Steward Ecoregion Award Winners*, TEX. PARKS & WILDLIFE, https://tpwd.texas.gov/landwater/land/private/lone_star_land_steward/lslswinner/ [<https://perma.cc/K453-US8T>] (last visited Feb. 8, 2018) (listing previous Lone Star Land Steward Award Winners).

263. Stern, *supra* note 31, at 573.

264. *See, e.g.*, 1 COLO. CODE REGS. § 201-2:39-22-522 (Conservation Easement Credit) (stipulating, “[e]xcept as otherwise provided . . . every tax return and all information contained therein is confidential. § 39-21-113(17.5), provides an exception to the Department’s confidentiality rule for tax information relating to conservation easement tax credits.”).

responsibility of our natural resources. Landowners must take responsibility for conservation in their State. But, sometimes the cost of conservation is too high for a single landowner to shoulder when the benefits primarily focus on the community as a whole. Government agencies and non-governmental organizations must collaborate with the landowners to make an impact on natural resource conservation in Texas. Landowner incentive programs are a way to positively invoke conservation methods and should be considered over other regulatory options.

Using landowner incentive programs, agencies should build relationships with landowners and educate the landowners about the importance of their conservation. When the cost of conservation is too high, agencies should tip the scales by providing funding assistance. While funding may not always be economically feasible, education should always be included in the program design. To maintain an environmentally friendly behavior, the agency should structure the programs to provide incentives throughout the desired behavior and use social rewards in addition to incentives.