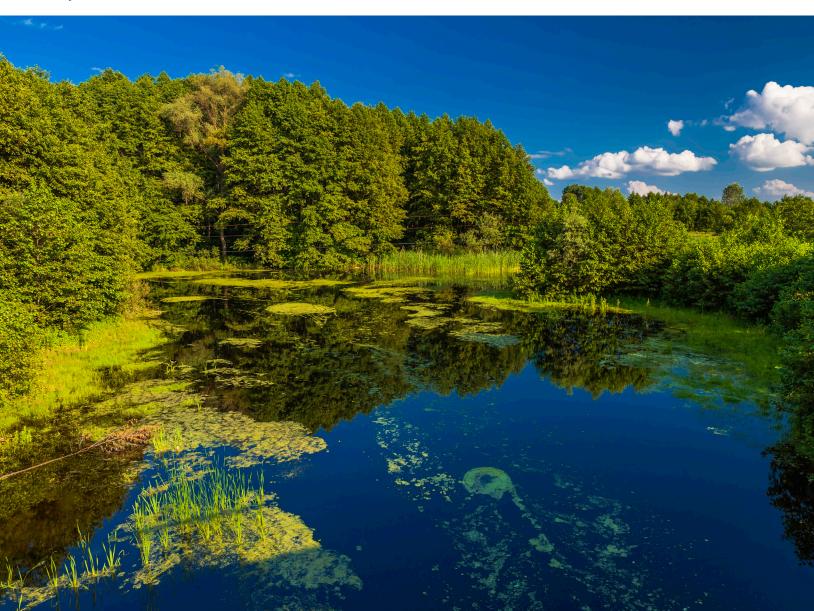


The Ecologically Destructive Tax: How the Federal Estate Tax Is Ecologically Harmful and How to Fix It

by Brian Seasholes



Reason Foundation

Reason Foundation's mission is to advance a free society by developing, applying and promoting libertarian principles, including individual liberty, free markets and the rule of law. We use journalism and public policy research to influence the frameworks and actions of policymakers, journalists and opinion leaders.



Reason Foundation's nonpartisan public policy research promotes choice, competition and a dynamic market economy as the foundation for human dignity and progress. Reason produces rigorous, peer-reviewed research and directly engages the policy process, seeking strategies that emphasize cooperation, flexibility, local knowledge and results. Through practical and innovative approaches to complex problems, Reason seeks to change the way people think about issues, and promote policies that allow and encourage individuals and voluntary institutions to flourish.

Reason Foundation is a tax-exempt research and education organization as defined under IRS code 501(c)(3). Reason Foundation is supported by voluntary contributions from individuals, foundations and corporations. The views are those of the author, not necessarily those of Reason Foundation or its trustees.

The Ecologically Destructive Tax: How the Federal Estate Tax Is Ecologically Harmful and How to Fix It

by Brian Seasholes

Executive Summary

The ongoing debate over the federal estate tax tends to focus on the tax's economic impacts, such as on small businesses, employment and capital formation, as well as the very small percentage it constitutes of federal tax receipts. Less well known, however, is the significant harm the estate tax does to the ecology of the United States.

Private lands, especially large, intact pieces of land, are critically important to ecological conservation. Conversely, land broken into smaller pieces is generally of less ecological value. Unfortunately, the estate tax results in private land being broken up, subdivided and sold. Over the past several decades it has become increasingly apparent that:

- 1. A combination of factors leads to land being subdivided, sold and converted to less ecologically beneficial uses: the estate tax's high rate and relatively low exemption, the requirement to pay the tax within nine months of a landowners' death, and the fact that many landowners are land-rich and cashpoor, which means their assets consist largely of illiquid land. These factors are exacerbated by the "age cliff" (the growing average age of U.S. farmers, ranchers and forest owners), other federal laws, and the oil and gas boom on private land.
- 2. Evidence of the estate tax's negative ecological impact comes from the experiences of landowners, empirical studies and expert opinion.
- 3. Existing measures and proposed reforms designed to address the estate tax's negative ecological impact have fallen short because: they leave the ecologically harmful tax largely intact; they are complex, time-consuming, difficult, expensive and unpopular with most landowners; and they are ineffective.

4. The best option for fixing the ecological harm caused by the estate tax is to eliminate the tax altogether because landowners, who are increasingly wary of government conservation programs, are key to conserving these largest and most ecologically significant pieces of land. When they are forced off the land by the tax, conservation suffers.

The longer the federal estate tax is in existence, the higher the tax's negative ecological impact, as progressively more of the largest and most ecologically significant private landholdings are broken up, subdivided, sold off and developed to pay the tax. Once this happens, land is gone forever as high quality wildlife habitat and loses many of its other ecological values. Whether Congress and other policymakers will grasp the ecological harm caused by the estate tax remains to be seen.

Table of Contents

Ecological Value of Intact, Private Land		
The Estate Tax's Unintended Ecological Harm	3	
Provisions of the Federal Estate Tax and Landowner Realities	8	
A. Land-Rich, Cash-Poor and Illiquid Assets	8	
B. Highest and Best Use		
C. Exemption, Rate, and Nine Months to Pay Rule		
D. Capital Stock and Capital Formation	10	
E. The Age Cliff	10	
Exacerbating Factors	14	
A. Uncertainty Due to Changes to the Federal Estate Tax and State Estate Taxes	14	
B. State Estate Taxes	15	
C. Capital Gains Taxes	17	
D. Endangered Species Act	17	
E. Clean Water Act	20	
F. Oil and Gas Boom	21	
Evidence of the Estate Tax's Ecological Harm	24	
A. Impact on Forests	24	
B. Impact on Farms and Ranches		
C. Expert Opinion	26	
Recommendations: Fixing the Ecological Harm Caused by the Estate Tax	28	
A. Repeal, not Reform		
B. A Better Ecological Future	32	

Appendix A: Important Changes to the Federal Estate Tax over the Past 40 Years	34
1976: Tax Reform Act	34
1987: Omnibus Budget Reconciliation Act	
2001: Economic Growth and Tax Relief Reconciliation Act	
2010: Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act	
2013: American Taxpayer Relief Act	
Appendix B: History of State Estate Taxes	37
Appendix C: Problems with Conservation Easements, Land Trusts	41
A. Problems with Permanent Conservation Easements	41
B. Problems with Special Use Valuation	47
C. Life Insurance Is Ineffective	48
D. Trusts, Family Limited Partnerships and Limited Liability Corporations Are of Limited Use	48
E. Annual Gift Tax Exclusion Is of Little Use	48
F. Joint Exemption for Married Couples	49
G. Deferral Using the Marital Deduction	
H. Increasing the Exclusion in Post-Mortem Conservation Easements	
I. Support for the Estate Tax	
About the Author	51
Endnotes	52

Part 1

Ecological Value of Intact, Private Land

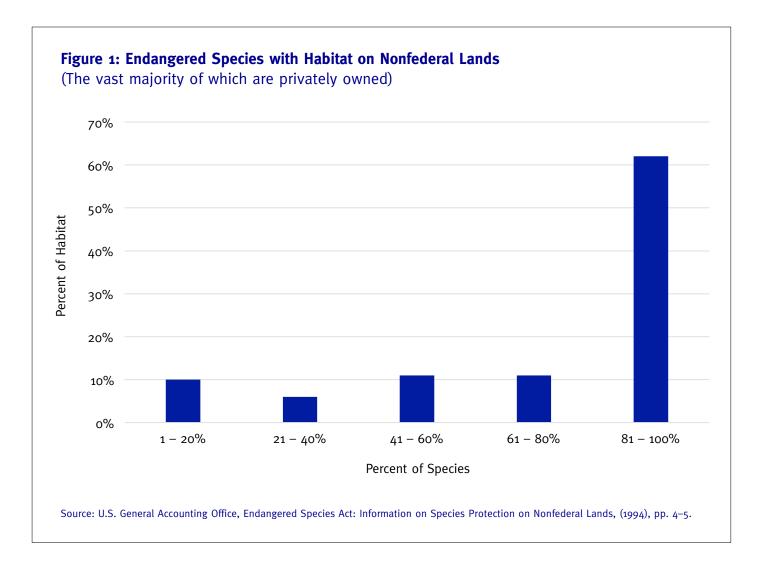
The ecological health of the United States depends heavily on private lands, which constitute approximately 65% of the country's land area. This is especially the case for large, intact, contiguous parcels of land, which tend to be more ecologically valuable.

Larger parcels of unfragmented land are generally better able to provide what are known as ecosystem services, such as air and water purification, nutrient recycling, soil formation, and habitat for species. When land becomes fragmented, its ecosystem services are usually degraded. For example, habitat for a wide range of species tends to be less ecologically viable when it borders developed land.

The larger the area of habitat, the more distance between its borders with developed areas, and thus the more ecological benefit the land offers to resident species. Additionally, larger parcels can support wildlife that require larger swaths of habitat. In this way, land tends to be more ecologically valuable if it is in larger, more-contiguous pieces. These dynamics are especially the case for endangered species, which necessarily tend to have habitats that are more restricted in size and smaller populations than more common species, and are therefore more vulnerable to habitat destruction, degradation and fragmentation.

A key contributor to these critical ecosystem services is privately held land. For example, private forests in the lower 48 states are responsible for supplying and filtering over 25% of U.S. fresh water. There are 10.4 million "family forest owners" in the U.S. who own 263,658,000 million acres, which is 35% of U.S. forestland.³ These forests are owned and managed, often for generations, by families who know these ecosystems well and how to sustain them. Family-owned forests represent a larger percentage than any other type of forest ownership (the federal government owns 33%, other private owners 21%, states 9%, and municipalities 1%). 4 "It's really families and individuals that control the fate and the future of the forests," said Brett Butler, coordinator of the U.S. Forest Service's family forest survey.⁵

A 1994 study estimated that 78% of endangered species depend on private land for all or some of their habitat, compared to 50% for federal land. As these data and the following chart show, the key for endangered species is nonfederal land, "the vast majority of which is privately-owned land," according to Michael Bean and his then-colleagues at the Environmental Defense Fund, Robert Bonnie, Tim Male and Tim Searchinger.⁷



More recently, a 2008 study estimates at least 60% of the at-risk species (defined as species listed under the Endangered Species Act or considered globally imperiled or vulnerable by NatureServe, a spinoff of The Nature Conservancy) in the lower 48 states rely on private forestlands for habitat.⁸

Land is generally less ecologically valuable when in smaller parcels and if degraded, such as being stripped of its timber. Habitat destruction and degradation are by far the leading threats to wildlife in the U.S. and around the world. These habitat dynamics are especially true for endangered and at-risk species because, by dint of having small populations, they are most vulnerable to habitat destruction and degradation.

Part 2

The Estate Tax's Unintended Ecological Harm

Unintentionally, the federal government is a significant contributor to ecological harm in America through levying the federal estate tax. Private holders of substantial land tracts often bequeath their property to their family intact, but many large parcels—often the most ecologically valuable land—fall prey to the federal estate tax, resulting in ecological harm, including the destruction or degradation of vast and vulnerable habitat. Unfortunately, the estate tax causes ecological harm by compelling private landholdings to be sold off, subdivided, developed or asset-stripped in order to pay the tax. Consider the following cases of three landowning families.

Georgia and Florida: Hopkins Family

The Hopkins family started acquiring timber land, mostly in southeast Georgia but some in northeast Florida, over 100 years ago and now has some 70,000 acres, which is owned by a number of members of the extended family. The family's outstanding stewardship has created a haven for wildlife, including deer, turkey, gopher tortoise and the endangered red-cockaded woodpecker. Among the Hopkins's landholdings are about 3,500 acres that are part of the Okefenokee Swamp, most of which is a federal wildlife refuge, seven miles of swamp and forest along the St. Marys River that creates a border between Georgia and Florida, and 500 acres occupied by the woodpeckers. The Georgia Dept. of Natural Resources considers the swamp and river "high priority sites" because they are "ecologically important," and the river basin contains 54 animals and 23 plants deemed endangered or rare by the federal government, Florida or Georgia. The Hopkins family leases most of its land for hunting, and, in the spirit of civic-mindedness and generosity that characterizes many landowners, allows Boy Scouts to camp and launch canoes along the St. Marys River, hosts educational forestry tours, and provides hunting opportunities free of charge for wounded military veterans.

Joe Hopkins III (red shirt), wife Julie (to his right), son and daughter (adjacent to parents), son-in-law and grandchildren



Hopkins family land



Unfortunately, despite its exceptional stewardship and generosity, the Hopkins family has been or may be punished by laws that have negative consequences for conservation, most notably the federal estate tax. In the 1960s and 70s the family was hit by the tax four times, and each time the family had to pay significant estate taxes on the same pieces of land, which led to thousands of acres of forest harvested prematurely to pay the tax. This "destroyed our forest management plan because we had to cut stands we didn't want to cut" according to Joe Hopkins III, managing partner of the family partnership lands and president of Toledo Mfg. Co. The family is anticipating another massive estate tax bill when the last member of Joe's father's generation passes away. A conservation easement could lower the family's estate tax liability, but "we are not interested in easements because we've given enough," such as when his father died in 1961 while reforesting the land, according to Joe, and easements can complicate management.

Other laws the Hopkins family faces, which also exacerbate the estate tax are: (1) The Endangered Species Act: land worth more than \$500,000 has been locked-up under the Act, without compensation, ostensibly to protect the red-cockaded woodpecker; meanwhile, the family faces the threat that the gopher tortoise may be listed under the Act (Georgia's recommended tortoise habitat management practices that, if made mandatory, would make forest management so difficult the family might be forced to sell land); and (2) the Environmental Protection Agency's massive expansion

of federally regulated wetlands under the Clean Water Act, known as "Waters of the United States," because much of the family's land is flat or in low-lying areas.

"We don't plan to sell our land, but if things get too difficult and expensive because of regulations, we will have no choice but to sell," asserts Joe Hopkins. "My life as well as that of my ancestors has been spent working to protect and sustainably manage our lands. This isn't just any piece of property; it is our property that we have fought to maintain through two world wars and numerous conflicts, the Great Depression and numerous recessions, multiple massive wildfires, damage from beetles, drought, flooding, and wind damage. Having survived all of this, I can't imagine what could be worse than to have to fragment and sell portions of our property because of the federal estate tax."

Sources: Georgia Department of Natural Resources, A Comprehensive Wildlife Conservation Strategy for Georgia, (Social Circle, Georgia, 2005), pp.154-156; St. Marys River Management Committee, A Petition for Designating the St. Marys River an Outstanding Florida Water (Draft), (Folkston, Georgia, 2009), pp.11-14; Alva J. "Joe" Hopkins III, prepared statement, hearing before the Subcommittee on Conservation, Energy, and Forestry, Committee on Agriculture, U.S. House of Representatives, March 26, 2014, Washington, D.C.; Joe Hopkins, interview with the author, May 7, 2015; Georgia Department of Natural Resources, "Forest Management Practices to Enhance Habitat for the Gopher Tortoise" (Forsyth, Georgia).

Florida: Hilliard Family

In the late 1800s, the Hilliard family started cattle ranching and farming in Hendry County, Florida, southwest of Lake Okeechobee. Over the years, the family's landholdings grew to about 60,000 acres and provided habitat for a wide range of wildlife, including the highly endangered Florida panther.

Everything was going well until Marlin Hilliard died in 1981 and the family had to pay an estate tax of \$17.5 million. In order to pay the tax within the nine months required, the family had to sell a huge amount of land and take out a massive loan. According to Joe Marlin Hilliard, Marlin's nephew: "We ended up selling 17,000 acres of land, paying back \$26 million [for the loan] and getting nothing out of it. It was a loss, just a total loss." Of the land sold to pay the estate tax, 12,000 acres were turned into sugar cane and citrus, thereby diminishing its value to wildlife, most notably Florida panthers because they tend to prefer forests and more extensive agricultural lands, such as cattle ranches, compared to more intensively used lands, such as orchards and row crops. The other 5,000 acres was, as of the late 1990s, still undeveloped but permitted for conversion to citrus groves. These outcomes illustrate how the estate tax can harm the most vulnerable species, such as the panther.

Florida Panther



Source: U.S. Army Corps of Engineers, under Creative Commons Attribution 2.0 Generic license. https://commons.wikimedia.org/wiki/File:Puma_concolor_coryi_Florida_panther.jpg

Private lands, especially cattle ranches, are critically important because they constitute over half the panther's habitat. Also, ranches' "mixture of native habitat and working lands maximizes the edge effect that is beneficial for panthers and their prey," states Erin Myers, U.S. Fish and Wildlife Service biologist. The "edge effect" is the boundary between more densely vegetated habitat, such as forest, and more open land, such as cattle pastures.

Yet the estate tax is an indirect threat to the panther. According to Dennis Hammond, then with the Florida Game and Freshwater Fish Commission: "The levying of the federal estate tax has created sudden and oftentimes unexpected expenses for private landowners in recent decades. typically resulting in development

rendering the property less desirable to wildlife. Many acres of privately owned panther habitat in Florida are currently vulnerable in that respect."

Ranchers in the panther's range are also under threat by the Endangered Species Act, which exacerbates the effects of the estate tax. According to Erin Myers, the "Florida Panther Consultation Area and associated regulation...inhibits some historical ranching practices" and "limits the ability [of ranchers] to implement land use changes when needed." The Consultation Area consists of the nine southern-most counties in Florida and over 7.5 million acres. "Many ranchers are land rich but cash poor, so even though they may not want to sell the land, they may be forced to if ranching becomes unviable," states Myers.

Sources: Dennis E. Hammond, "Protecting Panther Habitat on Private Lands in Southern Florida—A Current Assessment," Transactions of the Hammond, and Harvey M. Jacobs, "The Connection between Federal Estate Tax Law and Panther Habitat Loss in South Florida," draft manuscript on file with author; Jennifer L. Murrow, Cindy A. Thatcher, Frank T. van Manen and Joseph D. Clark, "A Data-Based Conservation Planning Tool for Florida Panthers," Environmental Model Assessment (2013), Vol.18, p.159; Erin P. Myers, "Florida Panther Conservation," presentation at the Florida Panther Symposium, Levin College of Law, University of Florida, March 21, 2014.

North Carolina: Cone Family

The case of Ben Cone, Jr. is an example of how other regulations that diminish property values, in this case the federal Endangered Species Act, can exacerbate the threat of the estate tax to the detriment of ecological conservation. In the 1930s Ben Cone, Jr.'s father bought 8,012 acres in southeastern North Carolina with the aim of making it a private hunting and fishing preserve where family and friends could enjoy relaxing weekends and holidays. The land was in sorry condition, having been mostly cut-over for timber. Over the ensuing decades, Cone and his father worked very hard to restore it, including planting thousands of native pines.

The result was a wildlife paradise of the open, park-like, old growth southern pine forest favored by a wide variety of wildlife. From a biological and ecological standpoint, all of Cone's land represents very high quality and important habitat. In 1995 Defenders of Wildlife published a report that identified the 21 most endangered ecosystems in the U.S., two of which are represented on Cone's property: southern forested wetlands and longleaf pine forests.

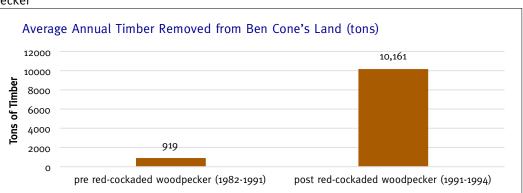
In 1991 everything changed when, in preparation for a timber cut, Cone discovered he had red-cockaded woodpeckers on his land due to the ideal habitat created over the preceding decades. As a result, the U.S. Fish and Wildlife Service put off limits 1,121 acres worth \$1,425,000 for the woodpeckers, which represented roughly 20% of the timber on the property.

Soon after learning about his endangered species problem, Ben Cone contacted the Internal Revenue Service to request a reduced tax assessment based on the value of the land taken by the Endangered Species Act for the red-cockaded woodpecker. The IRS refused to acknowledge this and still valued the land at the pre-woodpecker rate. This also complicated Cone's plans to help his two children avoid as much of the estate tax as possible.

In response to the federal government's refusal to compensate him or reduce his estate tax burden for the land devalued by the red-cockaded woodpecker, Cone was forced to start clearcutting to deny the woodpeckers more habitat and stockpile funds for the estate tax. As he explained to the Associated Press: "Here's the tragedy of it—I cannot afford to let these woodpeckers take over the rest of the property. So I'm going to start massive clearcutting. I'm going to go to a 40-year rotation instead of a 75-to 80-year rotation."

Red-cockaded woodpecker





Source: http://commons.wikimedia.org/wiki/File:Picoides_borealis_-Mississippi,_USA_-feeding-8.jpg; Source: Gelbert and Company Consulting Foresters, Durham, North Carolina

After the plight of Ben Cone garnered significant attention from the media and Congress, the U.S. Fish and Wildlife Service cut him an extraordinary deal, by essentially exempting him from the Endangered Species Act's penalties in an attempt to get his embarrassing story out of the spotlight and to get him to withdraw the lawsuit he filed in the U.S. Court of Claims. Even so, Cone still harbored lingering anger over being punished for his outstanding land stewardship.

Sources: Associated Press, "Stage is set for confrontation over endangered species law," Wilmington Morning Star, November 10, 1992, p. 6C; Benjamin Cone, Jr., prepared statement, Hearing before the Committee on Resources, U.S. House of Representatives, Task Force on Private Property Rights, June 13, 1995, Washington, D.C.; Benjamin Cone, Jr., interview with author, April 9, 1995; Dan Gelbert, interview with author, April 24, 1995; Reed F. Noss and Robert L. Peters, A Status Report on America's Vanishing Habitat and Wildlife (Washington, D.C.: Defenders of Wildlife, 1995).

As depicted in these examples, paying the federal estate tax often results in landowners subdividing and selling land and liquidating assets such as timber, as well as altering decisions about land use practices and the amount of land to own, all of which degrades habitat. When land is subdivided and sold it is almost invariably converted to more intensive, less ecologically beneficial uses. The sad result is that heirs of land, especially those inheriting large parcels of land who would often prefer to keep it in ranching and forestland, have no option but to subdivide, develop and sell. Families lose treasured land, wildlife loses valuable habitat, and other ecological benefits are diminished.

Provisions of the Federal Estate Tax and Landowner Realities

Several provisions of the estate tax, in combination with other factors, make it especially onerous for inheritors of land and particularly damaging to America's ecology. The cases of the Hopkins, Cone and Hilliard families illustrate many of these factors.

A. Land-Rich, Cash-Poor and Illiquid Assets

Many private landowners, especially those who have to make a living off their land, such as ranchers, farmers and timber owners, are "land-rich but cash-poor," because much of their wealth consists of land that generates relatively low returns. According to the American Farm Bureau Federation, approximately 90% of farm and ranch assets in the U.S. are in the form of relatively illiquid items, such as land, buildings and equipment. And according to the U.S. Department of Agriculture, farm and ranch assets constitute more than 80% of the value of mid-size and large farms and ranches (defined as farms and ranches that have, respectively, annual gross cash farm income of \$350,000–\$1,000,0000 and more than \$1,000,0000), while 63% of the value of small farms and ranches (less than \$350,000 gross cash farm income) consists of farm and ranch assets. The land-rich/cash-poor nature of farms and ranches is even more pronounced for those farms and ranches that owe estate tax. More than 90% of the assets of farm and ranch estates that owe the estate tax are related to agriculture. The Hilliard family and members of the Hopkins family are examples of these realities

When these land-rich/cash-poor landowners die, their heirs are typically are forced to choose some combination of the following actions in order to pay the estate tax:

- 1. Subdivide and sell land that they would prefer to continue owning
- 2. Retain ownership but strip valuable resources, such as timber, prematurely
- 3. Retain ownership but develop land to commercial, residential and industrial uses

None of these options are ideal and all tend to result in ecological degradation.

B. Highest and Best Use

When assessing the estate tax, the Internal Revenue Service values land based on its "highest and best use," which can mean commercial, residential and industrial development, rather than as lower value, but more ecologically beneficial uses, such as ranching, agricultural and forest land. ¹³ So, while family members inheriting land may value it as farm, ranch or forest, and often want to keep it as such, they are forced to accept the highest and best use valuation—the hypothetically most lucrative use of the land—which leads to a massive estate tax bill that can often only be paid by subdividing, developing and/or selling land, and liquidating valuable resources such as timber.

As the surrounding land develops, these farms, ranches and forests become oases of habitat for wildlife. But regardless of their use, surrounding development increases the value of the farm, ranch and forestlands. By taxing land according to its hypothetical "highest and best use," more land parcels, especially ecologically valuable land bordering more-developed areas, qualify for the federal estate tax than would be the case if land were valued based on its actual use, such as ranch and forestland, at the time of tax assessment. (If the land were valued on the basis of its actual use, its value would be lower and fewer parcels would be valued above the threshold level for application of the tax—currently \$5.45 million.) In this way, application of the estate tax to private lands for substantially higher amounts than the land is worth as currently used, paradoxically, encourages the development and ecological degradation of that land.

C. Exemption, Rate, and Nine Months to Pay Rule

The estate tax's very high top rate (40%) and relatively low exemption (\$5.45 million) are combined and calculated to determine the land's "highest and best use" (meaning most lucrative), which makes owners pay, and pay highly, for their private forests and land. But just as problematic is the deadline to pay. Since the estate tax must be paid in full within nine months of the property owner's date of death, cash-poor inheritors of relatively illiquid assets—so named because these assets are difficult to sell in a short amount of time such as raw land real estate, often end up in financial crisis. These tax bills, typically in the millions, can lead to what are referred to as "distress sales" or "fire sales," in which inheritors receive less than market value for their land because prospective buyers who are aware of the time pressure to sell land make purchase offers below market value, which families often have no option but to accept. When owners have to sell land quickly and therefore accept below-market value, they must sell more land to afford the estate tax bill than if they had received market value.

While a six-month extension is available, this is of little help to the inheritors of real property, especially owners of relatively large parcels of land, as division and sale of land is a lengthy process and the value of large parcels is more likely to exceed the amount exempt under the estate tax due to their sheer size. As a result of the synergy of high tax rates, low exemption, inflationary valuation of land, and the nine-month rule, estate taxes often destroy the asset they are taxing. Each of the four times the Hopkins family has been hit by the estate tax they have had to harvest thousands of acres of forest very quickly, whereas if there was no tax they would have harvested these lands in a more orderly, gradual way over several decades.¹⁴

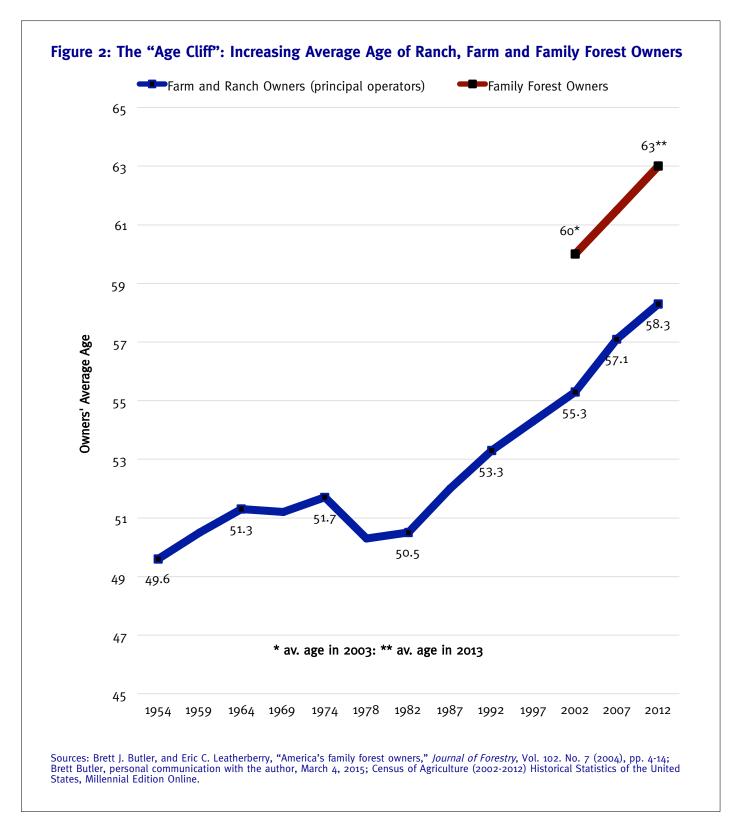
D. Capital Stock and Capital Formation

One criticism of the estate tax is that it reduces the capital stock in the U.S. economy, which is the total value of physical capital in the economy at any given point in time, as well as capital formation, which leads to the creation of capital stock. One study estimates eliminating the estate tax would increase the capital stock of the U.S. by 2.2% and lead to the creation of 139,000 jobs. The reason for this is the estate tax forces the sale of private capital assets that, were they not taxed and redistributed by the federal government, could be put to more productive use, in the process creating jobs, leading to capital formation, and boosting the nation's capital stock.

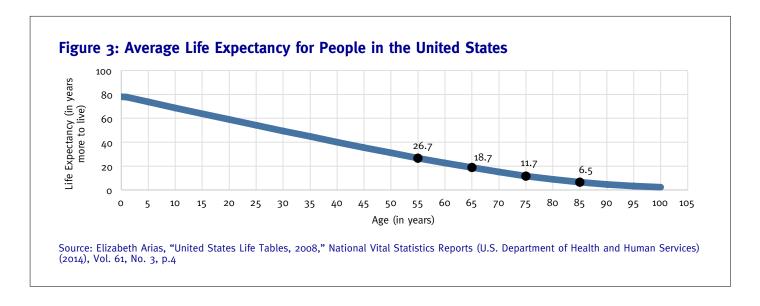
While these macroeconomic concepts may seem rather abstract, they have real world consequences as they relate to the estate tax and ecological conservation. The Hopkins family in Georgia is a good example, because when they were hit by the estate tax four times in the 1960s and 70s, the capital stock of their forestland holdings decreased suddenly when they were forced to cut massive amounts of timber quickly to pay the tax. In addition, during this time period the Hopkins family invested very little, if at all, in capital formation, especially the purchase of additional timber land, because cash generated from the sale of timber went toward paying the estate tax, not acquiring additional capital assets.

E. The Age Cliff

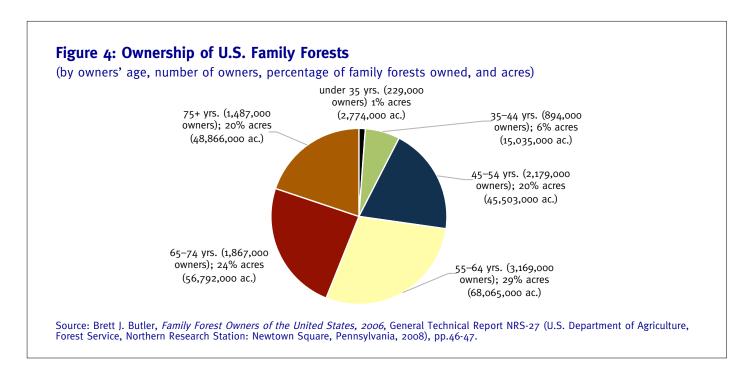
The increasing average age of America's ranchers, farmers and forest owners means that they are more likely to die sooner and trigger the estate tax. Landowners' increasing average age has been a growing concern for some conservationists. Amos Eno, president of Resources First Foundation, terms this issue "the age cliff facing private landowners" because as landowners age they are increasingly likely to transfer their land.¹⁷



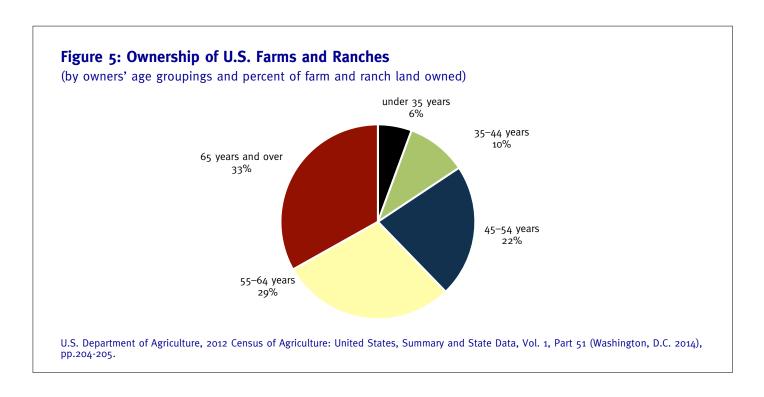
When the increasing average age of farmers, ranchers and forest owners is compared to average life expectancy statistics, the dimensions of the age cliff become more apparent.



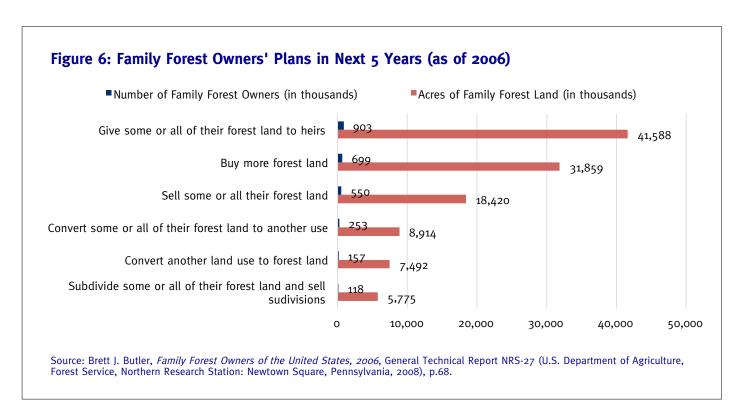
A closer look at ownership statistics for forest, farm and ranch owners reveals the severity of the age cliff. The cliff is especially pronounced for family forest owners. Indeed, 20% of family forestland, or almost 53,000,000 acres, is owned by people who are 75 years of age or older. ¹⁸ This means that rather soon 53 million acres of American forest is likely to be transferred, some of which will likely be assessed the estate tax, and therefore likely to be degraded ecologically, or divided and sold off for development, thereby putting some of the best and most contiguous parcels of wildlife habitat available at risk.



The 2,109,303 U.S. farms and ranches that encompass 914,527,657 acres, all of which are privately owned, show somewhat similar ownership patterns to family forest owners. 19 The major difference is that not quite as much farm and ranch land is owned by people 65 years and older.



The effects of the age cliff are reflected in family forest owners' plans for their landholdings. These plans (several of which are included in Figure 6) are based on a 2006 survey, which means the effects of the age cliff, such as giving forest land to heirs and selling land, have likely grown more pronounced.



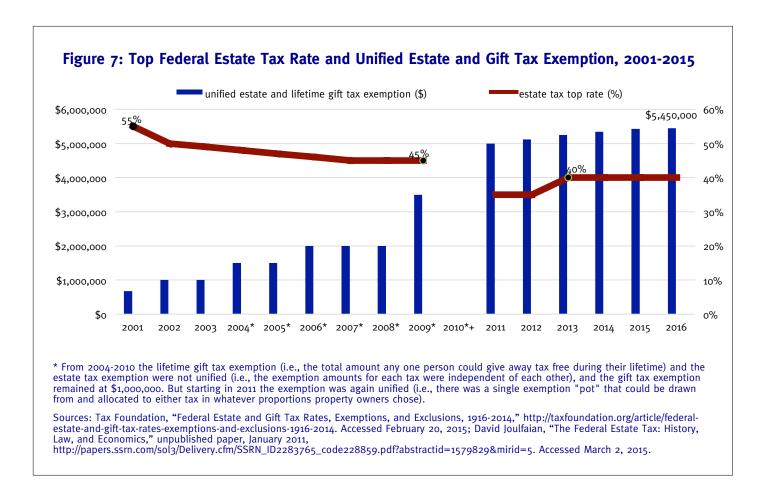
Exacerbating Factors

Among the factors that can exacerbate the estate tax's ecological harm are: (1) uncertainty due to changes to the federal estate tax, (2) state estate taxes, (3) the capital gains tax, (4) the Endangered Species Act, (5) the Clean Water Act, and (6) the oil and gas boom on private land. The potential impact of each of these is considered below.

A. Uncertainty Due to Changes to the Federal Estate Tax and State Estate Taxes

Over nearly the past 40 years, but especially the past 15, the federal estate tax has undergone a number of changes that have had significant impact on inheritors of property and, hence, ecological conservation. While some of these changes have been favorable to inheritors of property (such as the lowering of the top rate from 55% to 40%, increasing the exemption and indexing it to inflation, and for property jointly owned by married spouses allowing any unused portion of the exemption to be "portable" and thereby used by the surviving spouse, which could, theoretically, double the exemption from, say, \$5 million to \$10 million), the number and frequency of changes has in many cases made land management more difficult. Landowners often need predictable regulations, but unpredictable regulations can have negative impacts on conservation. Uncertainty affects everyone subject to the estate tax, but it is particularly problematic for owners of land, especially large tracts of land, which are relatively illiquid and require long time horizons for effective management. This is especially the case for those with forested land because tree growth and harvest must be planned on decadal time frames, such as for the Hopkins and Cone families, (see Appendix A for a more detailed explanation of these changes).

A 2014 study by several researchers from the federal government and academia found that "tax uncertainty—whether it results from temporary provisions phasing in and out of effect or from rancorous political debate—negatively affects family forest owners' decisions about their land."²⁰ These decisions revolve around whether to plant trees and own forestland, and uncertainty around federal tax policy, most notably the estate and capital gains taxes negatively affect these decisions.²¹



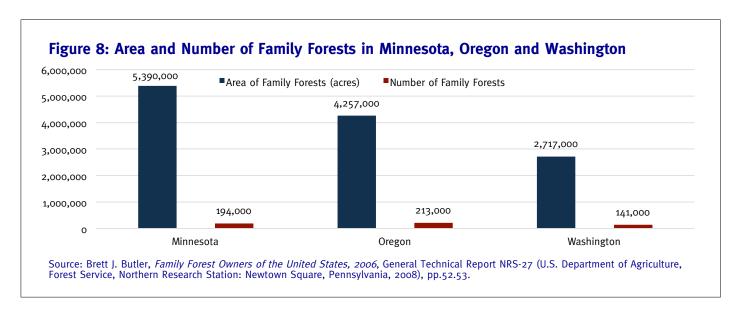
B. State Estate Taxes

Federal estate taxes aren't the only ones that are problematic for private landowners and ecological conservation. The continued existence of estate and inheritance taxes in 19 states and the District of Columbia is a serious ecological threat (except for the District due to its small size and largely urban landscape) because of their generally lower exemptions than the federal estate tax and that some heirs can be subject to both state and federal estate and inheritance taxes (more in-depth information on state estate and inheritance taxes is in Appendix B).

The substantial increase of the federal exemption starting in 2011 left many landowners with the impression that the potential impact of the estate and inheritance taxes was diminished.²² Yet as Tamara Cushing, Starker Chair of Private and Family Forestry and Extension Specialist in Forest Economics, Management and Policy at Oregon State University, points out:

Lurking in the background, however, and receiving little attention from the forestry community, media, and even some tax advisors, was the lingering bogeyman of state estate tax laws (or state death taxes). Even after the federal estate tax burden was lifted for 2011 and beyond, a number of states retained—and still retain—more oppressive estate tax burdens.²³

In turn, this means that these state taxes are potentially more ecologically damaging than the federal estate tax. For example, timber land can be quite valuable, and Washington, Oregon and Minnesota are states that contain large amounts of it.



Yet the exemption levels and top rates for these states' estate taxes are: Minnesota, \$1,600,000 and 16%; Oregon, \$1,000,000 and 16%; and Washington, \$2,079,000 and 20%. While these exemptions may seem high, they can easily be exceeded by the value of many family-owned forests in these states. So for many landowners their state estate and inheritance taxes can be a greater concern than the federal estate tax. Unfortunately, ecological conservation will suffer from these state death taxes, as landowners are likely forced to sell land and cut large amounts of timber to pay these taxes.

1. "Zombie" State Estate Taxes

Worryingly, it appears that 24 states have never explicitly repealed their state estate taxes following the 2005 elimination of the federal credit on which these taxes were based and tied to statutorily. Joseph Henchman, vice president for legal and state projects at the Tax Foundation, asserts that differences in states' laws mean that if the federal credit were restored then these zombie taxes would likely automatically become active again in 15 states, while in the nine others state action might be taken to make these zombie taxes active.²⁵

The existence of these zombie estate taxes will likely be a surprise to many people, especially in states that are generally regarded as low-tax.

STATES WITH ZOMBIE ESTATE TAXES		
Dormant estate tax returns if	Colorado, Idaho, Kentucky, Mississippi, Missouri, Nevada, New Hampshire, New Mexico,	
federal credit restored	North Dakota, Pennsylvania, South Carolina, Tennessee, Texas, Utah, West Virginia	
Dormant estate tax might Alabama, Alaska, Arkansas, California, Florida, Louisiana, Michigan, Montana,		
return if federal credit restored	Wyoming	

Given the penchant of Congress to tinker with the tax code and the long history of Congress, the Executive Branch, states and various interest groups to advocate various changes to the estate tax, it is possible that the federal credit could be restored in the future. One such possible scenario is if a combination of revenuehungry states and states with estate taxes were to eliminate the tax advantage of non-estate tax states by persuading Congress to restore the credit. After all, something very similar to this already occurred in the 1920s when Congress created the credit (see Appendix B).

Were the federal credit restored, it could have significant negative ecological effects, especially if states were to enact stand-alone taxes as a hedge against the possible removal of the credit in the future—as currently occurs in 19 states and the District of Columbia.

C. Capital Gains Taxes

Another tax that has significant but often relatively unrecognized negative ecological consequences is the federal capital gains tax, which is levied on the increase in value of assets when they are sold. On the one hand, the lower rate of capital gains tax compared to estate and inheritance tax creates an incentive for landowners to sell their assets rather than keep them in the family, as Kevin Hancock, the CEO of Hancock Lumber, a family-owned business in Maine that has 12,000 acres of forest, three sawmills and nine retail lumber stores, explains (using the example of a family-owned company—but obviously the same applies to any asset that has appreciated in value):

It makes no sense to have a capital gains tax at 15% and an estate tax, say, at 45%. In that example, if you sell your company, you get a 15% tax. If you try to keep your company, keep working, keep going, you get a 45% tax. What the federal government is effectively doing is offering a major tax discount to sell your family business as opposed to keep it. I can't think of any tax structure more backward than that.²⁶

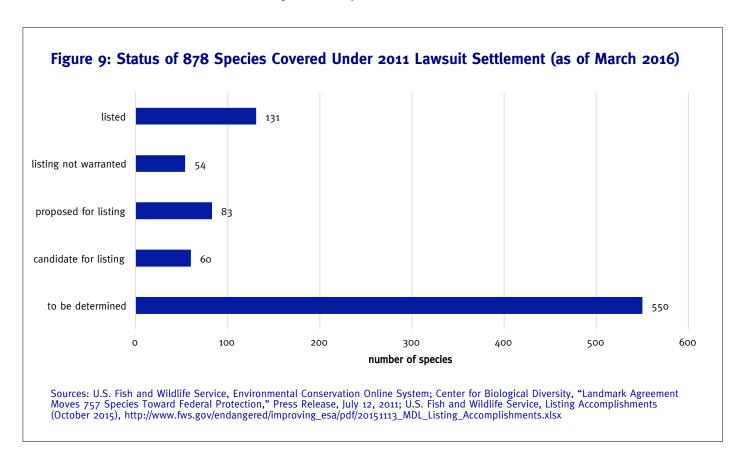
D. Endangered Species Act

The presence of species protected under the federal Endangered Species Act can make the impact or potential impact of the estate tax even worse because the Internal Revenue Service does not recognize the devaluation of land rendered unusable by species protection requirements. The Hopkins's and Cone's properties in Georgia and North Carolina, respectively, are examples of this. As a result of the Internal Revenue Service's refusal to allow landowners to deduct the value of land devalued by Endangered Species Act, heirs of such lands would still have to pay the estate tax as if the land was not devalued and in fact was developed to its hypothetical "highest and best use," and one likely outcome would be increased assetstripping or more land sold to pay the high tax. While Ben Cone did not have to pay the tax, his ten-fold increase of timber cut to stockpile funds to pay the anticipated estate tax and prevent woodpeckers from

occupying more of his land provides a good indication of how these conflicting government policies encourage heirs of such land to act, which subverts good stewardship of the land and imperils species.

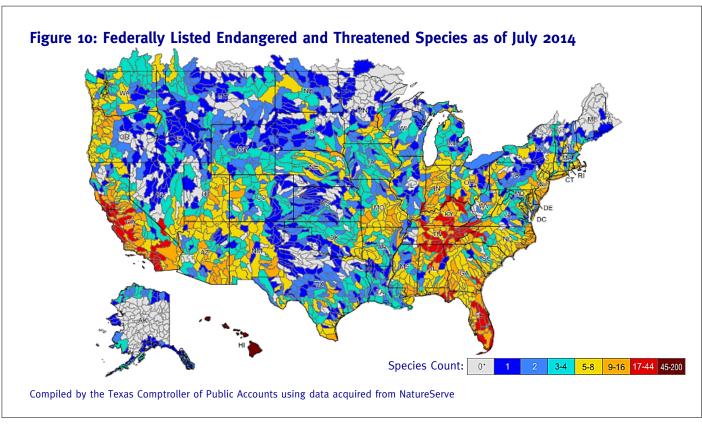
The pressures put on landowners and their heirs by the Endangered Species Act are in the process of getting much worse because the Act is in a period of unprecedented expansion due to several factors.

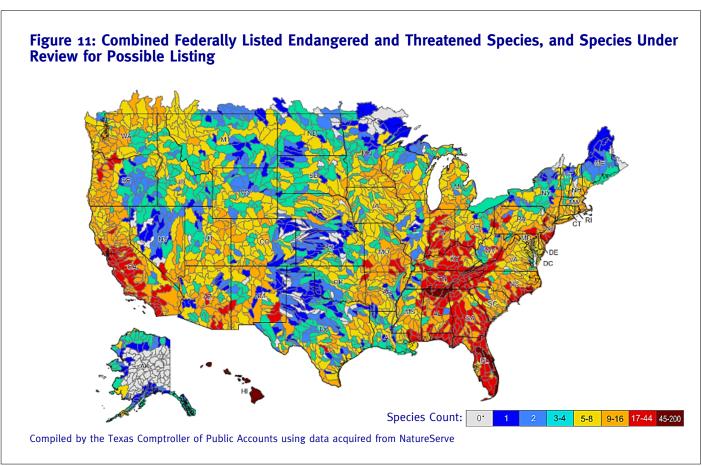
First, the number of species listed under the Act is in a period of unprecedented growth. Due to a 2011 lawsuit settlement between the U.S. Fish and Wildlife Service and two environmental pressure groups, the Service is now obligated to consider the status of 878 species, for listing or for additional regulations by 2018. Of these species, final listing decisions must be made about 253 species by September 30, 2016, while the remaining 625 species are in the "hopper" awaiting decisions about their status.²⁷ To date, final listing decisions have been made about 185 species (131 listed, 54 found not to warrant listing), or 21% of the total, which means the final status of 79% of species has yet to be finalized or determined.



The listing of these lawsuit settlement species could increase the number of species listed under the Endangered Species Act by as much as 50%.

Second, regions of the country that have been relatively unaffected by the Endangered Species Act—such as the Midwest, Great Plains and Intermountain West—are going to be heavily impacted by these lawsuit settlement species, which the following two maps illustrate.





Third, most of these so-called lawsuit settlement species, including all 374 species found primarily in the Southeast, are based in or depend heavily on freshwater aquatic habitats. The Center for Biological Diversity, one of the litigants involved in the 2011 lawsuit settlement, indicated that in Florida it is seeking to use freshwater aquatic species to regulate any human activities that impact water quantity or quality across entire watersheds connected to species the group wants listed under the Endangered Species Act, instead of the proximate habitat in which the species exist (as is the norm for terrestrial species). These aquatic species are also likely to create interstate regulatory impacts because the watersheds that support these species often span state boundaries (as shown in the two maps). If this watershed-wide standard is applied nationwide, as is quite possible, it will represent a vast expansion of the regulatory and geographic reach of the Endangered Species Act. As the land where listed endangered species dwell is rendered unusable by ESA regulations, the values decline, making it hard for landowners to sell the land or use it, yet they continue to be taxed as if the land were unencumbered.

E. Clean Water Act

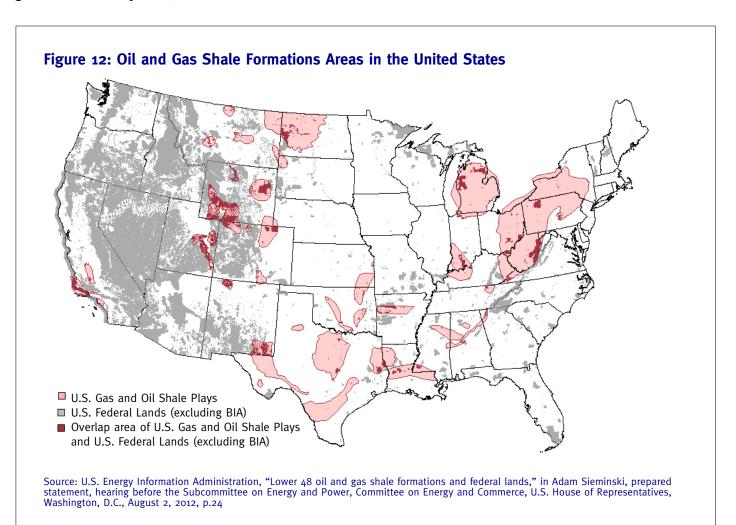
In addition to the Endangered Species Act, the Clean Water Act is also very problematic for landowners because it is the means by which the federal government regulates "navigable waters," meaning waters a person could traverse in a boat. In a situation similar to the Endangered Species Act, in the decades following the Clean Water Act's passage in 1972, the federal government gradually but hugely expanded the Act's ability to regulate waters that are not navigable, such as small streams, isolated wetlands, and areas that are intermittently wet after sufficient rainfall, such as seasonal streams and pools of water. Over the years, this expansive definition of navigable waters has created significant hardship for landowners by placing more land off-limits and forcing more landowners to provide mitigation, in the form of money and/or land purchased elsewhere, to compensate for damaging or destroying navigable waters.

In May 2015, however, the Environmental Protection Agency expanded significantly the definition of navigable waters with its "Waters of the United States" rule. ²⁹ The agency claims the new rule contains a more limited definition of waters than previously fell under the jurisdiction of the Clean Water Act. ³⁰ This, however, is not the case. Under the new definition of Waters of the U.S., the scope of waters that fall within the jurisdiction of the Clean Water Act is significantly expanded and allows the federal government to regulate a number of landscape features, including: irrigation ditches if any portion was dug from a watercourse that flows eventually, but not necessarily directly, into a navigable water; any watercourse or water drainage so long as it has a bank, bed and high water mark; any water features within ³/₄ of a mile of a jurisdictional water so long as the feature meets any one of nine "significant nexus" criteria, which are extremely broad; and shallow subsurface flows of water can be considered when determining "significant nexus." ³¹ Currently the new definition of Waters of the United States is being litigated so it is unclear whether it will become the new standard.

The combination of the expansion of the Endangered Species Act and Clean Water Act is likely to create significant problems for U.S. farmers, ranchers and forest owners. A 2008 study found that more than 67% of the watersheds in the lower 48 states have private forests that contain a minimum of one at-risk species. Watersheds that contain the most at-risk species are in the West Coast, Midwest and Southeast. 32

F. Oil and Gas Boom

Over the past decade, the oil and gas boom on private lands in large portions of the U.S.—much of it shale formations—appears to be resulting in a large increase in the number of farms and ranches that may be subject to the estate tax. It seems that substantial numbers of farm and ranch owners are making very large sums of money from oil and gas royalties on their lands, and as a result the heirs of these owners may be subject to the estate tax. If and when owners of land who have made substantial amounts of money from oil and gas royalties are hit with the estate tax, land is vulnerable to being sold off and subdivided. Land that has unexploited oil and gas is also vulnerable. When hit by the estate tax, landowners will likely opt to hold on to their most valuable assets, such as oil and gas royalties and rights, as well as any earnings and investments generated from royalties, and sell less valuable land.



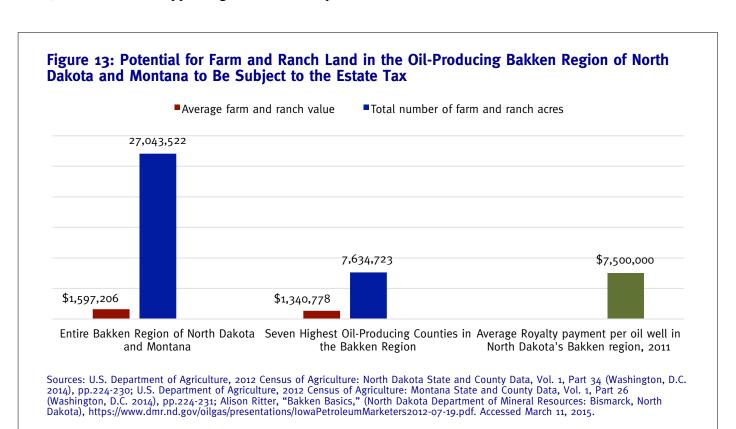
The amounts of money being generated are so substantial that they have caught the attention of Deloitte, one of the four largest companies in the world that provide a wide range of tax planning, accounting, financial advice and consulting services. A Deloitte marketing document aimed at landowners has the following Q & A:

How does having oil and gas property affect my estate planning? Landowners with property that has increased substantially in value will also have a host of new wealth planning considerations. Families of landowners who were previously not subject to an estate tax at death are now going to potentially be subject to a significant tax at death.³³

The creation of a whole new group of landowners likely to be hit by the estate tax means substantial amounts of land will be in jeopardy of sale and subdivision, which has significant negative implications for ecological conservation.

1. Bakken Region

One center of the oil and gas boom is the Bakken region of western North Dakota and eastern Montana. The combination of the roughly \$1.5 million average value of farms and ranches and the \$7.5 million average royalty payment per oil well in North Dakota means that there are likely significant numbers of private landowners in the entire 27 million-acre Bakken region who will be liable for the estate tax. ³⁴ The average size of farms and ranches in the seven highest oil-producing counties in North Dakota and Montana is 2,012 acres, and the number of wells drilled per acre ranges from one well per 160 acres to one well per 1,280 acres, with most wells appearing to be one well per 320–640 acres. ³⁵



While the price of oil has dropped by about two-thirds since 2011, which means that royalty payments have also dropped by roughly the same amount, the estate tax is still likely a significant threat to farms and ranches in the Bakken region because the price will likely rebound to a certain degree in coming years, and oil will be produced in the Bakken region for many decades.

2. Weld County, Colorado

Another area of the country that has been part of the oil and gas boom is Weld County, Colorado, located in the north-central part of the state. In 2014 the estate tax exemption was almost \$11 million per married couple, but "we're seeing a lot of wealth in far excess of that," Jeff Bedingfield, a local attorney who helps landowners negotiate with oil and gas companies, stated to *The Tribune* of Greeley and Weld Counties. "So there are people trying to find ways to get the next generation involved now to minimize gift or estate tax, which means shifting some assets."36

While oil and gas exploitation is often thought of as ecologically destructive, this may well not be the case because the royalty payments many private landowners are receiving are likely making farming and ranching viable for many families. "Where before [the oil and gas boom] it was going to be hard to make the family farm continue to work, it appears some people we're talking with are redirecting that line of thought, 'Maybe we can do the family farm," Bruce Hemmings, senior vice president of wealth management at the Centerra Morgan Stanley office in Loveland, Colorado remarked to *The Tribune*. "I've actually seen some families where sons are going back in and joining the family farm, and I think it has something to do with the available cash flow to help fund and offset the costs of agriculture, and make it a doable business again."37

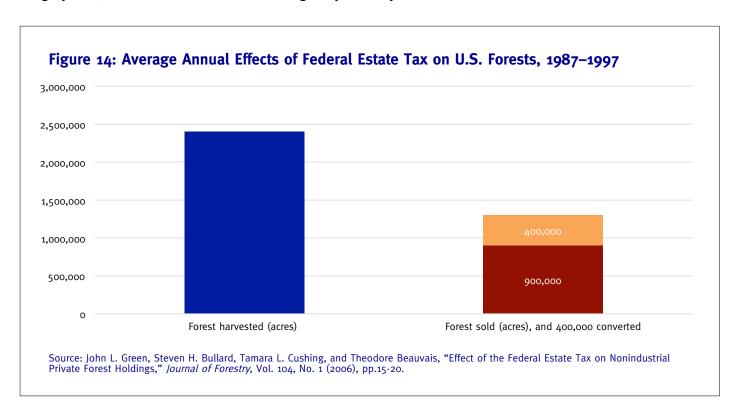
Oil and gas can have negative ecological impacts, but the oil and gas boom on private land in the U.S. may well be a net benefit ecologically because royalties are keeping private farms and ranches intact and viable, and preventing subdivision and sale of land. These royalties appear to be helping to keep family lands intact so long as there is not significant external pressure to subdivide and sell, as occurs due to the estate tax. As Bruce Hemmings points out, oil and gas royalties have made farming and ranching viable for another generation of family landowners, which means family land is more likely to be passed on intact rather than sold off in pieces and likely converted to less ecologically beneficial uses to finance parents' retirements. Furthermore, oil and gas extraction on a given piece of land is temporary, typically lasting a few decades at most. After the oil and gas are gone, the land typically reverts to a more natural state, which is likely preferable from an ecological conservation standpoint to not exploiting the oil and gas and risking land being sold and subdivided. The ecological value of keeping family lands intact, due to oil and gas royalties, may well outweigh the ecological damage of drilling for oil and gas.

Evidence of the Estate Tax's Ecological Harm

As the estate tax's negative impacts on the ecological health of the U.S. and private landholdings have become more apparent, such as for the three landowning families profiled in the beginning of this brief, there have been efforts to quantify this damage. The focus of most of this research has been on forestland owners, due to the generally higher value of forestland compared to farm and ranch land.

A. Impact on Forests

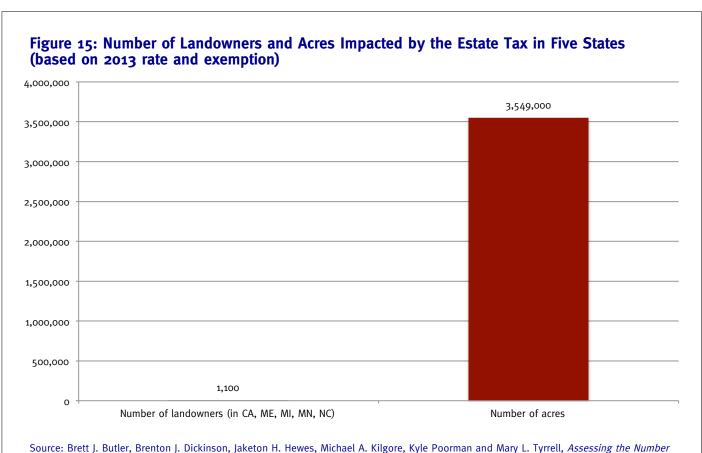
The most notable of this research, published in 2006, estimated that due to the federal estate tax, each year approximately 2.4 million acres of forestland are harvested and 1.3 million acres sold. Of the acres sold, roughly 400,000 are converted to less ecologically friendly forms of land use.³⁸



The study also found that 38% of forest landowners had to pay estate tax when transferring land, compared to 2% of the general U.S. population, which provides an indication of the estate tax's threat to forests, which provide a wide range of ecological services, including wildlife habitat. The authors conclude that the study "indicate[s] the magnitude of the effect the federal estate tax has in precipitating fragmentation and conversion of forest and other rural landholdings and unplanned timber harvests."39

Yet it is important to note that the survey asked respondents about their experiences with the estate tax between 1987 and 1997 when the maximum exemption of \$600,000 and a top rate of 55% was substantially lower than in the last several years. Even adjusted for inflation, and using 1992 as the "midpoint" date, the maximum exemption would be almost \$1,000,000 in 2015 dollars, which is still considerably below the 2015 exemption of \$5,430,000 and would mean substantially more forest landowners would have been hit by the estate tax.

There is, however, a more recent estimate, using data more comparable to the estate tax's current exemption and top rate, of the effects of the estate tax on forest ownership, but the estimate is only for California, Maine, Michigan, Minnesota and North Carolina and based on the 2013 rate and exemption, as the following chart shows.40



Source: Brett J. Butler, Brenton J. Dickinson, Jaketon H. Hewes, Michael A. Kilgore, Kyle Poorman and Mary L. Tyrrell, *Assessing the Number of Family Forest Ownerships and Acres Potentially Impacted by the Federal Estate Tax: Final Report* (U.S. Department of Agriculture Forest Service/University of Massachusetts Family Forest Research Center, Amherst, Massachusetts, May 2, 2013), p.19.

If this is the number of landowners and acres in only five states, then the number of landowners and acres nationwide must be considerably larger.

B. Impact on Farms and Ranches

The 2006 study of forest landowners cited above also surveyed other rural landowners (who consisted mainly of farmers and ranchers). It found no statistical differences between the two types of landowners for 14 of the 20 survey responses, including the estate's gross taxable value, the type of ownership structure (about half were owned by individuals, and one-third by joint owners), the amount of land owned, the amount of estate tax owed, the kinds of assets used to pay all or a portion of the estate tax (16–19% of landowners sold land), and why people sold land or timber to pay the estate tax (with the most frequent response being "Had to—other assets were not adequate"). These similar responses "indicate the magnitude of the effect of the federal estate tax in precipitating fragmentation and conversion of forest and other rural landholdings and unplanned timber harvests" according to the study's authors.

A 2013 study estimated that the proportion of farm and ranch owners who would have to file an estate tax return (1.4%) was seven times as great as for the population as a whole (0.2%). When deductions were accounted for, the percentage of farm and ranch estates that would owe estate tax fell to about 0.7%, which amounted to 288 farms and ranches in 2013. Yet that is still three-and-a-half times that for the whole population obligated to pay the estate tax. ⁴³ The study found that the average paper wealth of farms and ranches that would be subject to the estate tax was \$11.2 million, not including non-farm or ranch wealth, which made the average amount of estate tax owed \$1.83 million. ⁴⁴ While 288 farms and ranches annually might not seem like very many, when this is number is projected over longer periods of time it becomes larger and more significant. If repeated over a decade, the number of farms and ranches hit by the estate tax would approach 3,000.

C. Expert Opinion

Even experts who generally support the estate tax admit it is ecologically harmful, which is an indication of the significance of the problem. Perhaps the most notable observation about the estate tax's negative impact on conservation is by Michael Bean, widely regarded as the foremost expert on U.S. wildlife law, currently a senior employee of the Interior Department, and from 1977–2009 head of the wildlife program at the Environmental Defense Fund. Indeed, Bean literally wrote the book on the topic, with the 1977 publication of *The Evolution of National Wildlife Law*. The book is currently in its third edition, for which Bean is a coauthor

According to Michael Bean, the estate tax is:

...highly regressive in the sense that it encourages the destruction of ecologically important land in private ownership. In order to pay estate taxes, cash-poor inheritors of ranches, farms, and forests must often liquidate timber assets, subdivide the property, or otherwise destroy ecologically valuable land that had been cared for by owners who had truly loved it. 45

Bean also stated that, "Federal estate tax requirements are destroying some of the largest and most important endangered species habitats in private ownership."⁴⁶

Another notable person to acknowledge the estate tax's negative ecological impact is Stephen Small. Like Michael Bean, Stephen Small "wrote the book" on a topic, in his case conservation easements—agreements between landowners and land trusts to protect private land, which are governed by Internal Revenue Service regulations because they have tax implications. From 1978–1982, when Small was an attorney and advisor in the Office of Chief Counsel of the Internal Revenue Service, he wrote the income tax regulations on donations of conservation easements. Since leaving the IRS, Small set up his own law firm specializing in conservation easements and wrote four books on land conservation.⁴⁷

As for the estate tax, Stephen Small made the following observation:

For the community that cares about protecting the quality of life, the federal estate tax may be the biggest single threat to the protection of farmland and forestland, watershed, open space, wildlife habitat, and scenic vistas. 48

The Keystone Center, a respected non-profit organization that convenes groups of experts to discuss, make recommendations for, and issue reports about a wide variety of issues such as endangered species, published a report that made a number of insightful observations about the estate tax. "The pernicious environmental effects of the federal estate tax laws have been widely recognized," the report states. 49 It adds:

Federal estate tax requirements are a major obstacle for private landowners whose land stewardship has been sensitive to its environmental value and who would like to be able to pass on their land to their heirs without destroying that value. The imposition of federal estate taxes often forces large parcels of environmentally valuable land to be broken up into smaller, less environmentally valuable parcels. Some of the best remaining habitat for endangered species is put at risk in this manner. 50

Recommendations: Fixing the Ecological Harm Caused by the Estate Tax

A. Repeal, not Reform

The best option for fixing the ecological harm caused by the estate tax is to eliminate the tax altogether. Tinkering with the estate tax to make it more landowner-friendly will only encourage pursuit of additional changes in the future, some of which may well reverse landowner-friendly reforms. This is a very real possibility, given the reluctance of Congress and the Executive Branch to reduce the size of government. If the estate tax is eliminated, then Congress, special-interest groups and others will not be tempted to tinker with the tax or reverse any new landowner-friendly provisions. Moreover, without the punishing aspects of the federal estate tax, landowners may actually seek to enlarge their landholdings, leading to an increase in contiguous habitat.

Landowners need clear signals from government, especially landowners who have to plan on decadal bases, such as forest owners. Constant regulatory changes to the estate tax, other taxes and the growing regulation of factors like endangered species habitat and wetlands make land and resource management more difficult, which in turn makes it more likely that landowners, such as the Hopkins family, will subdivide and sell land. Eliminating the estate tax would send a clear signal that would provide enormous relief for many private landowners.

Time is running out. Dennis Hammond, when he worked for the Florida Game and Freshwater Fish Commission, and his colleagues stated:

Two generational changes in ownership of private lands in southern Florida will result in drastic alteration of current land uses. If nothing is done to alleviate the landowners' burden and agricultural and native land in southern Florida are sold to pay estate taxes, large tracts of quality wildlife habitat will be fragmented into numerous individually owned small parcels. Development will follow, and the occasion to retain viable tracts of habitat will be lost. ⁵¹

Repeal, not reform, is preferable from an ecological standpoint for a number of reasons:

1. Largest and Most Ecologically Significant Land

Much of the largest, most valuable and ecologically significant land in private ownership continues to be jeopardized by the estate tax, even though the exemption is currently \$5.45 million. Proponents of the estate tax point out that few farms, ranches and forests are subject to the estate tax. Yet this fails to acknowledge that the largest and most ecologically significant pieces of land are much more prone to being hit by the tax. Not all land is of equal ecological significance, and the largest pieces of land tend to be the most ecologically significant. It is ironic and very unfortunate that those who own the most ecologically valuable lands are most likely to be clobbered by the estate tax.

2. Landowners Are Key to Successful Conservation

Successful conservation depends on private lands and stewardship by private landowners, such as the Hopkins, Cone and Hilliard families profiled in this study. Private landowners typically possess three factors necessary for successful conservation:

- 1. Detailed knowledge of their land and its ecological characteristics, including habitat for wildlife.
- 2. Detailed, long-term knowledge of the social characteristics of the area surrounding their land, including relationships with neighbors.
- 3. A deep attachment and dedication to care for their land, and a desire to pass it on to the next generation.

When one or more of these three factors are lost, damaged or overcome, due to the necessity to sell land to pay the estate tax, conservation suffers. Conservation on private lands is as much—if not more—dependent on social factors as it is ecological factors, with the key factor being the involvement, commitment and expertise of landowners. Landowners are the key to successful conservation for several reasons, including that they own 65% of U.S. land and more endangered species habitat than the public sector.

These reasons are all the more significant because in the past 10 years it has become increasingly clear that many endangered species are what is known as "conservation-reliant." This means that these species will depend indefinitely on a variety of conservation activities to ensure their continued survival because the threats to these species are impossible to eliminate or because many species require constant habitat maintenance. These actions can include predator and parasite control, prescribed fires, and mowing and grazing.

A classic example is the red-cockaded woodpecker of the southern U.S. that has caused problems for the Hopkins and Cone families profiled in this study. The red-cockaded woodpecker evolved requiring frequent, low-intensity fires to maintain the open, park-like forests it inhabits. Historically, fires would occur due to lightning or Native Americans setting them to improve habitat for hunting. Over the last hundred years or so, fire suppression by humans has reduced the frequency of fires. So the red-cockaded woodpecker is reliant on

people maintaining its habitat through controlled fires, mechanical brush removal, or applying herbicides.⁵³ If landowners want to rid their land of woodpeckers, they can refrain from habitat maintenance, allow the deciduous wood understory to grow and eventually render the habitat unsuitable for woodpeckers.

A number of prominent scientists estimate that 84% of species under the Endangered Species Act are conservation-reliant.⁵⁴ The implication of this is quite profound because it means that the vast majority of endangered species will likely need help from people indefinitely, including relying on private lands and landowners. This makes the disincentives posed to private landowners, and by extension to private lands, by the estate tax and other regulations, such as those for endangered species and wetlands, all the more ecologically damaging.

Successful conservation, especially for conservation-reliant species, depends on people implementing conservation measures, such as habitat improvement and predator control. On private lands, landowners, or their employees, are ideally situated to implement conservation measures due to their knowledge of their land and their constant presence on the land day-in, day-out.

This constant presence of landowners or their employees on the land is also key to monitoring, which is another crucial, but underappreciated, facet of conservation. Monitoring is essential to conservation because it allows people to gather baseline data and learn more about species' biology and ecology, all of which provides insights into how to conserve them more effectively. Monitoring is especially important for endangered species because their small populations are more vulnerable to the effects of anthropogenic and natural habitat destruction and degradation. The authors of a 2007 study on monitoring concluded, "Our results provide a strong practical case in favor of the argument that investing a sufficient amount of time and resources into designing and implementing monitoring programs that carefully address detectability and spatial variation is critical for the conservation of endangered species." Without monitoring, species, especially vulnerable species, have decreased chances of survival.

For these reasons, repeal of the federal estate tax, rather than reform, would not only eliminate an incentive to sell off these high-value taxed large parcels, but financially encourage owners to retain or increase their parcel sizes, and bequeath them intact upon their death.

3. Landowners Are Increasingly Wary of Government

Landowners are increasingly wary of federal and state government and environmental groups because laws like the Endangered Species Act have precluded owners' use of their land and thereby devalued it. For example, a U.S. Forest Service survey of family forest owners found that 2,307,000 owners, who possess 66,269,000 acres, are worried about "dealing with an endangered species." ⁵⁶

Unfortunately, as environmental regulations devalue owners' land, tax regulations not only fail to acknowledge that devaluation, but inflate the taxed value, which the case of Ben Cone illustrates. The

Endangered Species Act and Clean Water Act are going through a period of unprecedented expansion. This can create a significant added burden for landowners struggling to deal with the estate tax. As more U.S. land is subject to federal endangered species and wetlands regulations, these problems will only get worse.

In other words, family landowners tend to take great pride in their legacy and stewardship of their land. As various government regulations combine to exert significantly increased economic burdens on inheritors of large land tracts—the most ecologically valuable parcels—they discourage such stewardship and indeed compel the destruction of these ecologically critical sites, with dire ramifications for ecological conservation, including that of imperiled species. Indeed, the likely most effective means of conservation is eliminating factors that decrease the value of these large parcels, by repealing taxes and regulations, and perhaps even compensating landowners for harboring endangered species.

4. Existing and Proposed Reforms Are Complex, Time-Consuming, Difficult, Expensive, Unpopular and Ineffective

A number of reforms, many of which have been added to the tax code to lessen the ecological harm done by the estate tax, are often portrayed as solving, or at least substantially alleviating, ecological harm caused by the tax. The most prominent of these measures is conservation easements. However, these measures are of limited use and popularity to most landowners, especially those who have to make a living from their land, such as the Hopkins family in Georgia, for a number of reasons.

Overall, most existing measures and proposals to make the estate tax less ecologically harmful are complex, time-consuming, difficult, expensive, and unpopular with many landowners. "Farm estate planning is an extremely complicated process," according to the Land Trust Alliance, the organization that represents the more than 1,700 land trusts in the U.S.⁵⁷ Many landowners are cash-poor, very busy simply trying to earn income from their land, and have little time to decipher the bewildering intricacies of federal tax law and little cash to spend on elaborate estate tax avoidance measures, such as conservation easements, trusts, family limited partnerships and limited liability corporations.

Another popular reform is to increase the dollar amount exempt from the estate tax, but this may well not work because large landholdings are among the most economically and ecologically valuable. According to the Land Trust Alliance:

Even with a \$5.1 million unified credit, the estate tax will affect a surprisingly large amount of land important to the public for its agricultural and environmental values. The recent tripling of farmland prices in many parts of the country (due to record high crop prices) has exacerbated this.⁵⁸

John Halsey, president of the Peconic Land Trust in eastern Long Island, stated "Even if Congress increases the exemption to \$5-\$10 million, while helpful, it will not solve the problems for landowners on Long Island or other areas in the country near major metropolitan areas."59 Raising the exemption merely ensures that the largest parcels, which are often the most ecologically valuable, are put at risk of subdivision and sale,

resulting in habitat destruction. No amount of tweaking can fix regulation that creates perverse consequences; it can only conceal or ameliorate the consequences.

Deferring payment of the estate tax so long as land is kept as open space or farm, ranch and forestland is a popular reform offered by proponents of the tax. Yet deferral just delays the day of reckoning and does not solve the underlying problem of the tax causing ecological harm. Landowners know that "deferment" means the tax still exists and the deferment can be lifted or the terms of it altered, which is a very real threat given the penchant for Congress to fiddle with the tax code. This uncertainty devalues the land and encourages people to give up private landownership because estate taxes can be assessed at any time. In this way, the mere presence of the estate tax, and its availability for tinkering by government, is the problem. Also, for those landowners who have to make use of their land to earn income from it, deferral may preclude ecologically valuable land from being able to support its costs, also leading to destruction of habitat.

If all of these existing measures and proposed reforms appear complex and even overwhelming, imagine how they appear to an independent farmer, rancher or forest owner, many of whom work 50–60 hours per week, or longer, for very little pay, and have scant spare time or income to spend on these typically complex estate tax avoidance measures. The estimated average *net* income for a cattle rancher in 2015 was \$38,000.⁶⁰

Furthermore, these measures for avoiding the estate tax can make active, income-generating land and resource management more complex and difficult. As a result, owners of working lands who are short of cash will find these and other complex estate tax avoidance measures of limited usefulness (more information on the problematic nature of these reforms can be found in Appendix C).

B. A Better Ecological Future

The longer the federal estate tax is in existence, the more the tax's negative ecological impact will affect the largest and most ecologically significant private landholdings by causing them to be broken-up, subdivided, sold-off and developed to pay the tax. Once this happens, land is gone forever as high quality wildlife habitat and loses many of its other ecological values. Time is running out. The longer estate taxes are in place, the more open space and wildlife habitat will be lost forever.

Many of those in Congress, the Executive Branch, and various special interest groups often address problems like the negative ecological impact of estate taxes by creating more programs and more intricate regulations. Yet it is federal laws and regulations that can often cause harm to the ecology of the United States. Existing and proposed landowner-friendly provisions ameliorate but do not eliminate the ecologically harmful effects of estate taxes. Eliminating the tax—instead of adding more complex, conservation-specific provisions that will be difficult for landowners to understand, use and afford—is the best solution.

Dennis Hammond, when he was with the Florida Fish and Freshwater Conservation Commission, observed:

Many decisions which determine the survival of endangered species are made by those who have no interest in nor understanding of population dynamics. It will be critical in the future that such decisions-makers become aware of the consequences of their actions. It is a certainty that senators and representatives in Congress who passed the current federal estate tax law in 1916 had no concept of its future adverse impacts on privately owned wildlife habitat. The future of the Florida panther may well depend on how quickly this concept can be grasped by lawmakers today. 61

Whether Congress and other policymakers will grasp the ecological harm caused by the estate tax remains to be seen. Even though the U.S. House of Representatives repealed the estate tax on April 16, 2015 by a vote of 240–179, it is unclear if it will be brought up in the Senate or if it can garner the 60 Senate votes needed to override President Obama's promised veto. There is, however, one question that all people who care about this issue should keep in mind: Is the estate tax worth irreparable harm to America's ecology?

Appendix

Appendix A: Important Changes to the Federal Estate Tax over the Past 40 Years

1976: Tax Reform Act

From the late 1940s until 1976, the estate tax remained essentially unchanged. The 1976 Tax Reform Act introduced a number of important changes, most notably what has become known as the "unified credit" on estate and lifetime gift taxes. The unified credit is usually quantified, and widely known, as an "equivalent exemption," which is another term for a deduction. This is because it is easier for people to understand and calculate a deduction/exemption, which is done by subtracting the amount of the deduction/exemption from the taxable estate before the amount of estate tax owed is calculated, as opposed to calculating the amount of estate tax owed and then subtracting the credit.⁶²

The purpose of the unified credit was to try to limit people's avoidance of the estate tax by transferring wealth prior to death. One way of understanding the unified credit is to think of a hypothetical person as having one exemption "pot" of \$1 million for both the estate and lifetime gift tax. If the person makes gifts of \$250,000 over his or her lifetime, then only \$750,000 would qualify for exemption from the person's taxable estate upon his or her death. It is logical to infer that the unified credit had a significant ecological impact by making more land subject to the estate tax.

1987: Omnibus Budget Reconciliation Act

Another change occurred in 1988 when, as a result of the 1987 Omnibus Budget Reconciliation Act, a 5% surtax was imposed on estates valued at between \$10,000,000 and \$21,040,000, which made the tax rate 60% for these estates. This was done to offset graduated rates for estates worth less than \$3 million. From 1998 to 2001, the 5% surtax changed slightly; it applied to estates valued at between \$10,000,000 and \$17,184,000.⁶⁴

2001: Economic Growth and Tax Relief Reconciliation Act

More recently, the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) of 2001 introduced a number of major changes:⁶⁵

- Gradually lowered the top rate of the estate tax from 55% to 45%;
- Eliminated (by 2005) the credit of up to 16% of the taxable estate for state estate taxes and replaced it with a deduction for state estate taxes. (Prior to the 2001 law, estates filing an estate tax return would calculate estate tax owed to the federal government and then reduce it by the amount paid for the relevant state estate tax. By contrast, a deduction means that the amount of state estate tax paid is subtracted from the value of an estate prior to calculating how much federal estate tax is owed.)
- Raised the exemption to \$3,500,000;
- Eliminated the estate tax altogether for 2010 only;
- Eliminated the 5% surtax altogether in 2010.

Yet the estate tax was scheduled to reappear in 2011 at the 2001 rate, exemption and surtax levels because Senate rules make it difficult for legislation to last longer than 10 years if it is passed under a process known as reconciliation. 66

2010: Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act

The passage of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, or TRA, made a number of important changes to the estate tax, including:⁶⁷

- Establishing a top rate of 35%
- Setting the maximum exemption at \$5 million and indexing it for inflation
- Introducing simplified "portability," or the ability of a surviving spouse to use the deceased spouse's unused portion of the estate tax exemption without having to set up a trust, which was the requirement prior to 2009. So, for example, in 2011 if the deceased spouse used none of his or her exemption, then the surviving spouse could have a total exemption of \$10 million in 2011.
- Continuing the deduction for state estate taxes
- Introducing two options for executors filing estate tax returns for those who died in 2010:
 - 1. Pay no estate tax, but inherited assets would be subject to capital gains tax
 - 2. Pay the estate tax under 2011 conditions, and inherited assets would not be subject to capital gains tax

2013: American Taxpayer Relief Act

As the 2010 TRA's December 31, 2012 sunset approached, the estate tax was scheduled to revert back to 2001's conditions of a 55% top rate, \$675,000 exemption, and the credit for state estate taxes, which would mean a return of these taxes in around 25 states. This was averted when Congress passed the American Taxpayer Relief Act on January 1, 2013 and President Obama signed it on January 2. ⁶⁸

In terms of the estate tax, the American Taxpayer Relief Act made permanent three changes that occurred under the TRA of 2010:⁶⁹

- The new maximum exemption, which by 2013 was \$5.25 million, indexed for inflation
- Portability of the exemption between spouses
- The deduction for state estate taxes, instead of a credit

The only significant difference was that the top rate increased from 35% to 40%

Appendix

Appendix B: History of State Estate Taxes

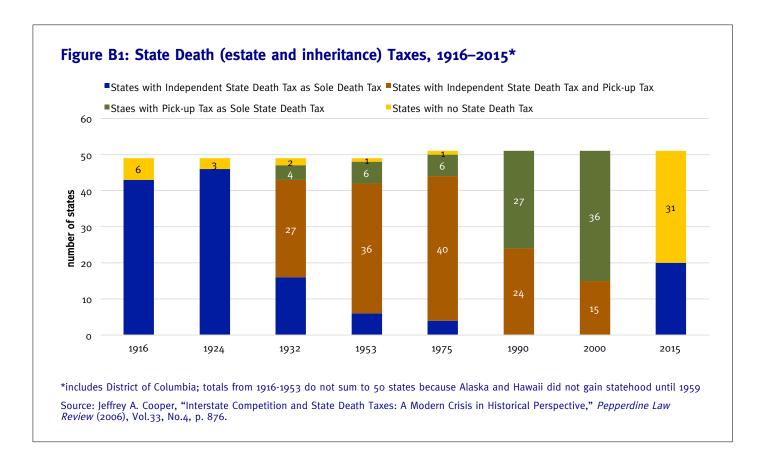
The process by which current state estate taxes came into being has a lot to do with the history of the estate tax. By the time of the estate tax's introduction in 1916, every state except for five—Alabama, Florida, Mississippi, New Mexico and South Carolina—and the District of Columbia already had state estate taxes.⁷⁰ Yet interstate competition from these hold-out states, especially Florida, was eroding revenue from state estate taxes, as law professor Jeffrey Cooper notes:

During this era, some states actively began to lure wealthy residents with the promise of favorable tax rates. The State of Florida, in particular, endeavored to create a domestic "tax haven" free from the evils of winter snowstorms, income taxation, and death taxation. Florida's efforts to attract wealthy citizens, as well as similar efforts in Alabama and Nevada, worried politicians elsewhere. In the age of automobiles, taxpayers were becoming increasingly mobile.⁷¹

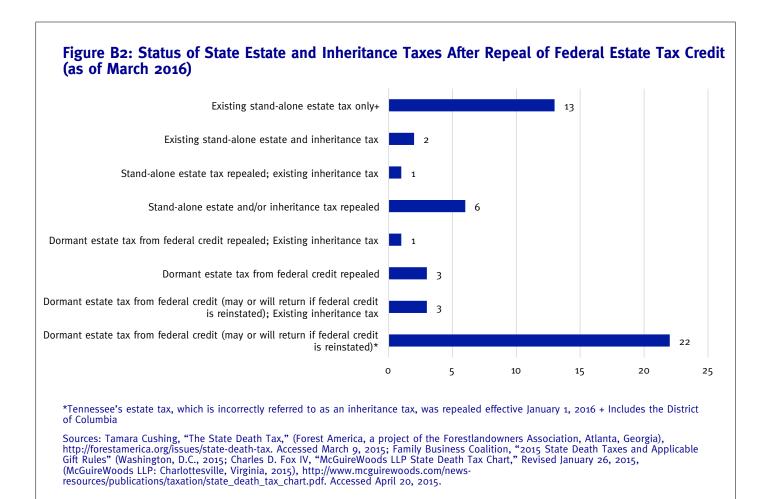
According to Cooper, "This interstate competition threatened the very existence of state death taxes—a problem so significant that it inspired three national conferences devoted to finding a solution and ultimately prompted congressional action designed to end the competition."⁷²

Responding to enormous pressure from states, members of Congress, and even President Coolidge, Congress amended the tax code in 1924 to include a dollar-for-dollar credit for state estate taxes paid, with the credit limited to 25% of the federal estate tax. 73 In 1926, Congress amended the tax code again by raising the state estate tax credit to 80% of the estate tax's top rate, which at the time was 20% and made the effective state credit 16%—a percentage that became fixed for the next seventy-five years despite changes to the federal tax's top rate. The increase of the credit was a death blow to efforts by non-estate tax states to create tax havens because the credit essentially negated the advantage of not having estate taxes.⁷⁴ In other words, Congress and the Coolidge administration were so determined to crush interstate tax competition, especially from Florida, that they were willing to allow all states to collect almost all of the value of the federal estate tax through state estate taxes.

Following the provision of the federal credit, states began increasingly to adopt what became known as "pick-up" estate taxes—because states picked up only the portion of the federal estate tax allocated to them through the credit. As a result, heirs paid the same amount of estate tax under the combination of the federal estate tax and state pick-up taxes as they would have had there been only a federal tax. Yet the existence of these state estate taxes were tied statutorily to the existence of the federal credit.



This symbiotic relationship between the federal estate tax and state estate taxes continued essentially unchanged for 77 years, as states continued to pick up the portion of the estate tax allocated to them through the state estate tax credit. But in 2001, it changed fundamentally when the Economic Growth and Tax Relief Reconciliation Act phased out the federal credit over a period of four years, starting in 2002. 75 By 2005 the credit disappeared, precipitating considerable change to state estate taxes over the ensuing decade.



The elimination of the federal credit has generally been beneficial for landowners and, as a result, for ecological conservation. Six states repealed the stand-alone death taxes they implemented after the elimination of the federal credit in 2005: Virginia in 2007; Kansas, 2010; Oklahoma, 2010; Indiana, 2013 (which also repealed its inheritance tax); Ohio, 2013; and North Carolina, 2013. In 2007 Nebraska also repealed its estate tax, but it retained its inheritance tax. Effective January 1, 2016, Tennessee's estate tax, which is often referred to incorrectly as an inheritance tax, was repealed. Furthermore, five states that had dormant estate taxes (Arizona, Iowa, Wisconsin, Georgia and South Dakota) repealed them, although Iowa continues to have an inheritance tax.⁷⁷

Yet after the elimination of the federal credit in 2005, 15 states and the District of Columbia opted to "decouple" their estate taxes from the provision of the federal credit or allow their "coupled" estate taxes to go dormant and enact separate estate taxes. In addition, four states have only inheritance taxes, which in some cases can function similarly to an estate tax. The existence of these state estate and inheritance taxes, and especially the fact that state estate taxes generally have lower exemptions than the federal tax, means it is likely that more land and landowners will be subject to these taxes than the federal estate tax.

	Estate Tax Exemption	Estate Tax Rate	Inheritance Tax Exemption	Inheritance Tax rate	Notable provisions
Connecticut	\$2,000,000	7.2-12%	NA	NA	
Delaware	\$5,430,000	0.8-16%	NA	NA	Indexed for inflation
District of Columbia	\$1,000,000	0.8-16%	NA	NA	
Hawaii	\$5,430,000	0.8-16%	NA	NA	Indexed for inflation; portability between spouses; also applies to property in Hawaii owned by non-state residents, including non-U.S. citizens
Illinois	\$4,000,000	0.8-16%	NA	NA	
lowa	NA	NA	\$0	5-15%	Estates worth less than \$25,000 exempt, as are surviving spouses and direct lineal ascendants and descendants
Kentucky	NA	NA	\$1,000	4-16%	Surviving spouse and most lineal ascendants and descendants
Maine	\$2,000,000	8-12%	NA	NA	
Maryland	\$1,500,000	16%	\$0	10%	Estate tax exemption increases annually until it matches the federal exemption of \$5.9 million in 2019. Starting in 2019, annual indexed for inflation and portability between spouses; lineal descendants and ascendants exempt from inheritance tax
Massachusetts	\$1,000,000	0.8-16%	NA	NA	
Minnesota	\$1,400,000	9-16%	NA	NA	Exemption increases \$200K/yr. until it reaches \$2 million in 2018
Nebraska	NA	NA	\$40,000	1-18%	Surviving spouse and lineal descendants have \$40,000 exemption and 1% rate; tax levied by counties
New Jersey	\$675,000	0.8-16%	\$25,000	11-16%	Inheritance tax only applies to estates of over \$1 million, and lineal descendants, including domestic partners and civil union partners, exempt
New York	\$3,125,000	3.06-16%	NA	NA	\$3.125 million exemption as of April 2015, and increasing annually until it matches the federal exemption in 2019; tax also applies to non-state residents who own property in New York; the exemption is not available to estates that are valued at more than 105% of the exemption.
Oregon	\$1,000,000	0.8-16%	NA	NA	Tax also applies to non-state residents who own property in Oregon
Pennsylvania	NA	NA	\$3,500	4.5-15%	Surviving spouse, minor children exempt. Transfers of farms, farm equipment and some businesses exempt
Rhode Island	\$1,500,000	0.8-16%	NA	NA	Indexed for inflation
Tennessee	\$5,000,000	5.5-9.5%	NA	NA	Referred to as an inheritance tax, but it is technically an estate tax; annually indexed for inflation; eliminated as of January 1, 2016
Vermont	\$2,750,000	0.8-16%	NA	NA	Property inherited from a spouse is exempt
Washington	\$2,054,000 for individuals	10-20%	NA	NA	Annually indexed for inflation
	\$2,500,000 for family business				

Sources: Tamara Cushing, "The State Death Tax," (Forest America, a project of the Forestlandowners Association, Atlanta, Georgia), http://forestamerica.org/issues/state-death-tax. Accessed March 9, 2015; Family Business Coalition, "2015 State Death Taxes and Applicable Gift Rules" (Washington, D.C., 2015; Charles D. Fox IV, "McGuireWoods LLP State Death Tax Chart," Revised January 26, 2015, (McGuireWoods LLP: Charlottesville, Virginia, 2015), http://www.mcguirewoods.com/news-resources/publications/taxation/state_death_tax_chart.pdf. Accessed April 20, 2015.

Appendix

Appendix C: Problems with Conservation Easements and Land Trusts

A. Problems with Permanent Conservation Easements

Conservation easements are voluntary conservation agreements in which a landowner continues to own his or her property but usually donates some of the rights to the property, typically the development rights, to a non-profit organization, typically a land trust. In exchange, the landowner is eligible for a one-time income tax deduction and, due to the property's reduced value, a reduced estate tax assessment. But a conservation easement must be in perpetuity in order for the donating landowner to be eligible for these tax breaks. Conservation easements are by far the most prevalent measure and reform advocated by proponents of the estate tax for the tax's negative ecological impacts. Yet there are a number of issues that call into question the value and applicability of conservation easements to the estate tax.

1. Landowners Don't Like Permanent Easements

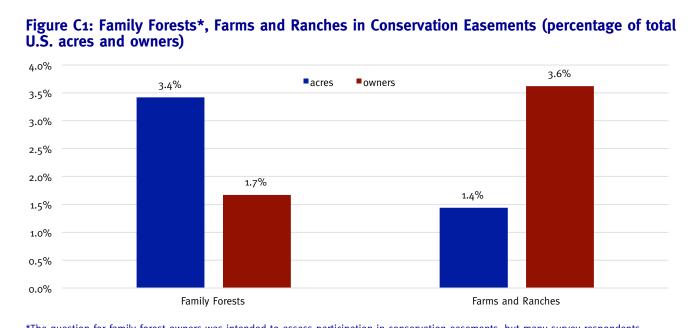
Even though permanent conservation easements have become increasingly popular among estate tax proponents, most landowners, such as the Hopkins family in Georgia, don't like permanent easements. Over the last 10 years, a number of landowner surveys published in the academic literature provide crucial insight into the factors that encourage and discourage landowners from conserving endangered and at-risk species. Two factors that are relevant to the estate tax are:

- Landowners do not like long-term contracts or permanent conservation easements.⁷⁸
- Landowners prefer shorter (5–40 year) contracts to conserve endangered and at-risk species.⁷⁹

One of the more recently published landowner surveys, which also incorporated findings from most of the other surveys, noted:

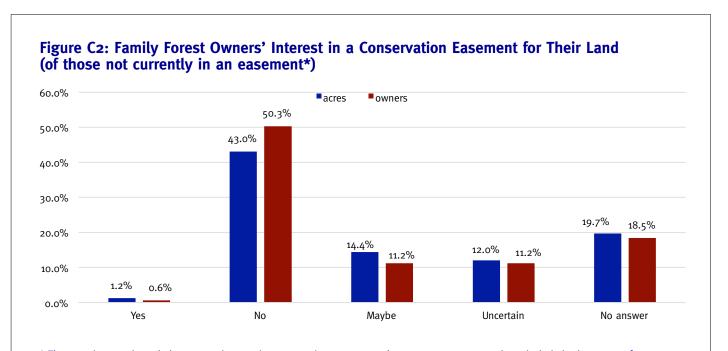
Landowners were most sensitive to programs that are highly controlling, require permanent conservation easements, and put landowners at risk for future regulation. Programs designed with greater levels of compensation and that support landowners' autonomy to make land management decisions can increase participation and increase landowner acceptance of program components that are generally unfavorable, like long-term contracts and permanent easements. 80

Not surprisingly, data from U.S. government surveys show that permanent conservation easements are generally not popular with farmers, ranchers and family forest owners.



*The question for family forest owners was intended to assess participation in conservation easements, but many survey respondents included other types of easements, such as rights-of-way, so the response has an unknown amount of error.

Sources: U.S. Department of Agriculture, 2012 Census of Agriculture: United States, Summary and State Data, Vol. 1, Part 51 (Washington, D.C. 2014), p.50; Brett J. Butler, Family Forest Owners of the United States, 2006, General Technical Report NRS-27 (U.S. Department of Agriculture, Forest Service, Northern Research Station: Newtown Square, Pennsylvania, 2008), p.60.



* The question was intended to assess interest in conservation easements, but many survey respondents included other types of easements, such as rights-of-way, so the response had an unknown amount of error.

Source: Brett J. Butler, Family Forest Owners of the United States, 2006, General Technical Report NRS-27 (U.S. Department of Agriculture, Forest Service, Northern Research Station: Newtown Square, Pennsylvania, 2008), p.60.

2. Perpetuity of Easements Is Problematic

The requirement that conservation easements be in perpetuity may well not be in the best interests of the environment because nature is constantly in flux, and scientific knowledge is constantly evolving. For much of the latter 19th through the mid-20th century the "old ecology" held sway. The old ecology was predicated on a number of ideas, including that biological systems consisted of orderly, predictable relationships that were self-regulating, discreet, largely self-contained, harmonious, and tended toward states of equilibrium.⁸¹ Examples of this would be the pine forests owned by the Hopkins and Cone families profiled at the beginning of this study. Under the old ecology, these forests were thought to go through certain predictable stages, from early successional growth through to a mature or climax forest, at which point the trees would begin to die and the pattern repeat itself. Following this view, forces could affect forests, such as drought and fire, but they could not alter the essential, and in many ways inevitable, successional process from nascent to mature pine forest.

Yet starting in the 1970s scientists increasingly began to question this view of a neatly ordered, balanced nature. Observations and data revealed that habitat types were anything but orderly, inevitable, predictable, and did not follow step-wise progressions to known endpoints. The "new ecology" as it came to be known was based on ideas of instability, spatial and temporal variability, disequilibrium and threshold effects that could fundamentally alter the composition and trajectory of habitats and ecosystems. 82 Therefore, conservation initiatives must be flexible and adaptable, not locked in perpetuity to the conditions under which they were written, as occurs with conservation easements.

Perpetuity can also be problematic from a landowner's perspective, especially those landowners who have to earn income from their land, such as farmers, ranchers and forest owners. Over time, landowners might very well have to change how they use their land in order to respond to different environmental and economic conditions. Or knowledge of land use can change in ways that are incompatible with the terms of a perpetual conservation easement, but this knowledge may still be compatible with the overall goals of environmental conservation.

In addition, proponents of conservation easements realize perpetuity is an obstacle to marketing conservation easements to prospective landowners. The American Forest Foundation urges land trusts to "drop perpetuity" because:

The term "perpetuity" scares most landowners and is a major road block. Use "legacy" instead in your promotional materials... You can sell them on the concept of "forever" once you engage their interest in leaving a lasting legacy.⁸³

3. Post-Mortem Conservation Easements

In 1997 Congress amended the tax code to provide heirs of land with what is known as a post-mortem conservation easement. Under a post-mortem conservation easement a donor is eligible to receive a 40% tax

44 | Reason Foundation

exclusion of the remaining value of the land after the value of the easement is subtracted, so long as the easement reduces the value of the land encumbered by the easement by 30%. The value of the exclusion is capped at \$500,000. If the value of the conservation easement is less than 30% of the property's value then the value of the exclusion decreases by two percentage points for every percentage point the value of the easement is less than 30%.

Yet the presence of endangered species or wetlands may render a post-mortem easement of little value because of the requirement that the easement lower a property's value by 30%. According to two of the foremost experts on the estate tax and conservation easements, Stephen Small and Timothy Lindstrom:

The 30 percent threshold may actually penalize the owners of land having wetlands regulated under section 404 of the Clean Water Act or providing habitat to endangered species under the provisions of the Endangered Species Act. This is because the existence of those conditions triggers federal regulation that may reduce the value of land to such an extent that a conservation easement will have only a negligible effect on its value. If that occurs it is likely that the requirement that the easement reduce the value of the land by at least 30 percent for the donor to enjoy the full 40 percent exclusion may deny the donor of an easement on federally regulated land any meaningful benefit under the new law. For the same reason an easement on such land may not result in any other significant tax benefits. 85

As more of the U.S. is subject to regulations for endangered species and wetlands, post-mortem conservation easements are likely to decrease in value and usefulness.

4. The Enhanced Easement Incentive

As part of the Pension Protection Act of 2006, Congress provided the Enhanced Easement Incentive for donors of conservation easements. Prior to the Enhanced Incentive, the income tax deduction a conservation easement donor could take was capped at 30% of the donor's adjusted gross income for one year, but any unused portion of this could be carried forward for five additional years. The Enhanced Easement Incentive expanded the deduction to 50% for most donors and 100% for qualifying farms and ranches, and allowed the deduction to be carried forward for 15 years. The Enhanced Easement Incentive expired at the end of 2014, and conservation easement advocates are actively pushing legislation in Congress to reinstate it. 86

While the Enhanced Easement Incentive can encourage landowners to enroll their property in a conservation easement, there are a number of troubling issues with easements and land trusts. Furthermore, conservation easements can diminish the ecologically harmful effects of the estate tax but do not eliminate them.

5. Wasted Resources on Easements

Money spent by landowners on lawyers, consultants, appraisers and others in order to enroll land in conservation easements could often be more beneficially spent on conservation, including land management

and acquisition. In 2001, the Pingree family in Maine signed the largest conservation easement in the U.S. In exchange for giving up the development rights to 762,192 of the family's 830,000 acres, the Pingrees received \$28,142,316. Many land trust advocates and politicians hailed the easement as groundbreaking and a great success. 87 At the time, Steve Schley, president of Pingree Associates, the family landholding company, was portrayed by most in the media as enthusiastically endorsing the easement, even reportedly calling it a "win-win" because the environment, family and public allegedly benefitted.⁸⁸

As with so much about conservation easements, a closer look reveals a very different and more nuanced picture. In a radio story Schley said:

All of those resources [the family spent on the conservation easement] could be much better allocated at improving our management or providing greater opportunity for public use or any number of other things that would be productive as opposed to just simply destructive rear-guard kind of action.⁸⁹

In addition, the reporter noted that "Schley said he'd like to see the tax he calls 'an insidious thorn in his family's side' repealed."90

6. Problems with Land Trusts

In many respects, land trusts—the non-profit organizations that most often hold conservation easements appear to be landowner-friendly and committed to voluntary, non-regulatory conservation. "Land trusts are nonprofit organizations that work with private landowners to voluntarily conserve forests, farms, parks and other cherished places that enrich our lives," the Land Trust Alliance asserts.91

A closer look, however, reveals a very different picture. Jean Hocker, while president and CEO of the Land Trust Alliance (1987–2002), stated:

As nongovernmental organizations, land trusts are not, of course, bound by the rules, regulations, and procedures that so often constrain public programs. And one must recognize that those constraining government rules and procedures are often required to ensure protection of the public dollar and avoid abuses.

Nevertheless, the very lack of bureaucratic constraint makes land trusts exceedingly good to complementing, supplementing, and implementing public open-space agendas. Land trusts, can, for example, negotiate donations and below-market acquisitions of land.

They have credibility with, and access to, the very landowners who may hesitate to deal directly with government. 92

Hocker's admission that land trusts serve as quasi-public extensions of public land management and environmental agencies, which use landowners' trust in them to advance these agencies' initiatives, while avoiding the rules and regulations put in place to prevent abuses of taxpayers' dollars, is troubling. In some cases, private landowners may well be inadvertently dealing with land and resource management agencies implementing government initiatives and programs, such as the Endangered Species Act and Clean Water Act, that have undermined the value of the landowners' land and may have in part caused the landowners to participate in the land trust program.

Jean Hocker is not, however, alone in her view of land trusts as agents of government land and resource use control programs. According to two other influential people in the land trust world, Ole Amundsen III of the Conservation Fund, and Susan Culp, then working on a joint venture of the Lincoln Institute of Land Policy and Sonoran Institute and currently principal of NextWest Consulting, a land use planning consultancy:

Land trusts should consider participating more extensively in regional scale land use planning...Planning at a comprehensive, regional scale is optimal, especially for conservation goals that involve connectivity across a broad landscape, whether for wildlife corridors, scenic viewsheds or ecological integrity. ⁹³

Amundsen and Culp add:

But many communities do not have access to a regional-scale process. When this is the case, most land use decision-making occurs at the local government level, so land trusts should look to influence those local processes, and consider whether they might help stimulate a larger, regional-scale planning dialogue. ⁹⁴

Land trusts also appear to be heavily involved in helping the federal government implement the Endangered Species Act. The Land Trust Alliance has the following on its website:

The Cooperative Endangered Species Conservation Fund (Section 6 of the Endangered Species Act) is administered by the U.S. Fish and Wildlife Service (FWS) and provides funding for state agencies to implement two distinct land acquisition programs: HCP Land Acquisition Grants and Recovery Land Acquisition Grants. A growing number of land trusts have developed partnerships with state and federal agencies to access these funds. 95

The Endangered Species Act is a highly problematic law for landowners, one aspect of which is the reforms, such as the HCPs (Habitat Conservation Plans) about which the Land Trust Alliance is enthusiastic. These reforms are analogous to conservation easements and other estate tax reforms because they are superficial and leave intact the punitive federal law, or portion of law, causing ecological harm. A detailed analysis of these reforms is available in a study by Reason Foundation. ⁹⁶

Land trusts are also heavily involved in helping the federal government implement the Clean Water Act, which, in addition to the Endangered Species Act, is one of the two federal laws most problematic for landowners because of its ability to lock up vast amounts of land but provide no compensation for landowners whose property has significantly devalued or even been rendered essentially unusable. According to a handbook written by the Land Trust Alliance and Environmental Law Institute, with funding from Environmental Protection Agency:

The federal wetland regulatory program—and its state counterparts—requires compensation for certain impacts to wetlands, streams, and other aquatic systems. Approximately \$2.9 billion is spent on these compensatory activities every year. The acreage affected can be significant. The U.S. Army Corps of Engineers requires around 45,000 acres of compensatory mitigation a year. 97

Regardless of the complicated nature of the program and the inherent risks, land trusts around the country are engaging in these projects. 98

Engagement in mitigation can be a net positive for a land trust. It can help your organization build its network of conservation lands, expand its staff and expertise, and provide new streams of income for land restoration and protection, as well as easement monitoring and defense.⁹⁹

If the definition of "Waters of the United States" expands significantly due to the Environmental Protection Agency's recent attempt to do so, this will increase the need for wetland and stream mitigation and the funds available for this. While the proposed expansion of Waters of the United States would likely create significant regulatory difficulties and increased expenses for farmers, ranchers and forest landowners, it would also likely create more business and funding sources for land trusts, consultants and lawyers involved in mitigation.

Due to the threat the Endangered Species Act and Clean Water Act poses to landowners, the American Forest Foundation, a proponent of conservation easements, urges land trusts and other professionals involved in easements not to scare landowners. "Threatening them with the extinction of species or disappearing marshlands will not help your efforts," the foundation cautions. This advice suggests that if landowners knew land trusts were heavily involved with implementing endangered species and wetlands regulations they might be more reluctant to deal with a land trust and enroll their land in a conservation easement.

B. Problems with Special Use Valuation

One of the apparently landowner-friendly and ecologically beneficial portions of the tax code is the "Special Use Valuation," which allows owners of agricultural and forestland to lower the value of their land and, hence, decrease the amount of estate tax owed. While the Special Use Valuation appears to offer owners of farms, ranches and forestland substantial relief from the estate tax, in reality this is not the case. According to the Land Trust Alliance:

Section 2032A of the tax code allows for the valuation of family farms at their agricultural value, with or without a conservation easement, but the requirements for taking this election are so complex that it is rarely used. 100

Forest owners face essentially the same problems, as a number of academics and federal researchers point out:

Special use valuation provisions for forestland exist at the national level and in a few states. The provisions of some of these programs are of limited use to many owners: the programs are too stringent and limit forest owners' future options. ¹⁰¹

In addition, the Special Use Valuation, otherwise known as 2032A for the relevant section of tax code, is of limited, if any, use in regions that have high real estate prices. John Halsey of the Peconic Land Trust, which is in eastern Long Island, notes:

The provisions of 2032A have been rendered useless to most landowners in our area given high real estate values, the maximum amount of value that estates can be reduced (\$750,000 adjusted by inflation), and the complexities of complying with its requirements. ¹⁰²

C. Life Insurance Is Ineffective

Life insurance is of very limited use for those landowners who are anticipating a significant estate tax bill. Even though these landowners can pay annual premiums in the tens of thousands of dollars, such as the Hancock family in Maine that owns forests, saw mills and retail lumber stores, and pays around \$75,000 per year in life insurance to cushion being hit by the estate tax, this will in all likelihood be insufficient, and the family will still have enormous estate tax liabilities. ¹⁰³

D. Trusts, Family Limited Partnerships and Limited Liability Corporations Are of Limited Use

A variety of other ways to reduce estate tax liability involve more complex measures, such as by-pass trusts, qualified terminable interest property trusts (better known as QTIP trusts), and forming family limited partnerships and limited liability corporations, better known as LLPs and LLCs.¹⁰⁴ These complex measures are of limited usefulness to most landowners, especially those who depend on their land for their income, are cash-poor, and cannot afford to encumber their land with complicated arrangements.

E. Annual Gift Tax Exclusion Is of Little Use

The annual federal gift tax exclusion, currently \$14,000 per recipient, enables property owners to make gifts tax-free to an unlimited number of people. This is sometimes perceived to be of significant use to owners of farm, ranch and forestland. In reality, "Land is not easily gifted in small blocks to avoid the gift tax on yearly

transfers, therefore, limiting the usefulness of gifting as an estate planning tool," according to John Lincoln, then-board member of the New York Farm Bureau. 105 The reason for this has to do with the nature and liquidity of assets. Liquid assets, like stocks, bonds and cash are easily divided up and gifted to heirs. Not so with illiquid assets, especially if owners want to keep their assets, such as land, intact.

F. Joint Exemption for Married Couples

Proponents of the estate tax often point out that if property is jointly owned by a married couple, each spouse can claim an exemption. Currently this means that \$10.90 million of property jointly owned by a couple is exempt from the estate tax. Yet many landowning families, especially multi-generational landowners, are reluctant to allow family members who are not blood-related to become owners of family land. This reluctance stems from a fear that more owners will complicate management of property, and that divorce or a lack of attachment to the land could result in non-blood-related family members forcing the sale of land the family would prefer to keep intact.

G. Deferral Using the Marital Deduction

Under the estate tax, if a surviving spouse inherits property from a deceased spouse, that property is exempt from the tax until the surviving spouse dies. Thus the marital deduction can be used as a means to defer payment of the estate tax, which can give landowners more time to plan for the tax. Yet use of the marital deduction can cause problems, including an increased estate tax bill, if the value of assets inherited by a surviving spouse increases considerably.

H. Increasing the Exclusion in Post-Mortem Conservation Easements

One proposal is to increase the estate tax exclusion for land in a post-mortem conservation easement from 40% to 50% and increase the value of the exclusion to \$5,000,000. 106 Yet increasing the exclusion is similar to increasing the exemption because it would still leave the largest and in many cases most ecologically significant pieces of land vulnerable to the estate tax.

I. Support for the Estate Tax

The support of land trusts, lawyers, consultants and the insurance and tax preparation industries for the estate tax is understandable because the tax creates a lucrative source of business for them. More puzzling, however, is the support of major environmental groups for the estate tax. These groups have grown wealthy

50 | Reason Foundation

and powerful through their supposedly uncompromising commitment to protect the environment. Yet when it comes to the estate tax, many of these groups are willing to compromise. ¹⁰⁷

Environmental groups' support for the estate tax and opposition to repealing it has not gone unnoticed. In 2005, Patrick Chisholm, then-columnist for *The Christian Science Monitor*, penned a column titled, "Environmentalists' silence on the estate tax" in which he stated:

I suspect that a big reason for environmental groups' support for, or silence on, the issue has to do with other factors. Most employees of and donors to major environmental groups hail from the left side of the political spectrum, where anything that reeks of tax cuts for the rich is anathema. Even for those organizations sympathetic to repealing the estate tax, publicly supporting that could alienate much of their donor base. ¹⁰⁸

About the Author

Brian Seasholes is director of Reason Foundation's endangered species project. His work deals with wildlife and land-use issues, especially the Endangered Species Act, property rights, wildlife conservation, including private approaches to conservation in the U.S. and around the world, the effects of wind and solar energy generation on wildlife, the effects of the estate tax on conservation and wildlife, and the intersection between wildlife conservation and energy development. His writings have appeared in the Forbes, National Review Online, The Christian Science Monitor, Houston Chronicle, Orange County Register, The Daily Caller and The Washington Times.

Endnotes

- Natural Resources Council of Maine, "Public Land Ownership by State," http://www.nrcm.org/documents/publiclandownership.pdf. Accessed May 26, 2015.
- Susan M. Stein, Ronald E. McRoberts, Lisa G. Mahal, Mary A. Carr, Ralph J. Alig, Sara J. Comas, David M. Theobald and Amanda Cundiff, Private Forests, Public Benefits: Increased Housing Density and Other Pressures on Private Forest Contributions, General Technical Report PNW-795, (Portland, Oregon: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, 2009), p. 16.
- Brett J. Butler, Family Forest Owners of the United States, 2006, General Technical Report NRS-27 (Newtown Square, Pennsylvania: U.S. Department of Agriculture, Forest Service, Northern Research Station, 2008), p. 53.
- Ibid, p. 7.
- Wilson Ring, "As forest owners age, future of land in doubt," The Register-Guard (from the Associated Press), December 8, 2014.
- United States General Accounting Office, Endangered Species Act: Information on Species Protection on Nonfederal Lands, GAO/RCED-95-16, (Washington, D.C., 1994), pp. 4–5.
- Michael Bean, Robert Bonnie, Tim Male and Tim Searchinger, The Private Lands Opportunity: The Case for Conservation Incentives (Washington, D.C.: Environmental Defense Fund, 2003), p. 2.
- Marcos D. Robles, Curtis H. Flather, Susan M. Stein, Mark D. Nelson and Andrew Cutko, "The geography of private forests that support at-risk species in the conterminous United States," Frontiers in *Ecology and Environment*, vol. 6, no. 6 (2008), pp. 301–307.
- David S. Wilcove, David Rothstein, Jason Dubow, Ali Phillips and Elizabeth Losos, "Quantifying Threats to Imperiled Species in the United States," *BioScience*, vol. 48, no. 8 (1998), pp. 607–615; D.B. Lindenmayer, R.B Cunningham, and M.L Pope, "A large-scale 'experiment' to examine the effects of landscape context and habitat fragmentation on mammals," Biological Conservation, vol. 88, issue 3 (1999), pp. 387–403; Victoria Saab, "Importance of Spatial Scale to Habitat Use by Breeding Birds in Riparian Forests: A Hierarchical Analysis," Ecological Applications, vol. 9, issue 1 (1999), pp. 135– 151; Cintia Cornelius, Hernán Cofré and Pablo A. Marquet, "Effects of Habitat Fragmentation on Bird Species in a Relict Temperate Forest in Semiarid Chile," Conservation Biology, vol. 14, issue 2 (2000), pp. 534–543; Diane M. Debinski, and Robert D. Holt, "A Survey and Overview of Habitat Fragmentation Experiments" Conservation Biology, vol. 14, issue 2 (2000), pp. 342–355; D. Brent Gurd, Thomas D. Nudds and Donald H. Rivard, "Conservation of Mammals in Eastern North American Wildlife Reserves: How Small Is Too Small?," Conservation Biology, vol. 15, issue 5 (2001), pp. 1355–

- 1363; Lenore Fahrig, "Effect of Habitat Fragmentation on the Extinction Threshold: A Synthesis," Ecological Applications, vol. 12, issue 2 (2002), pp. 346–353; Lenore Fahrig, "Effects of Habitat Fragmentation on Biodiversity," Annual Review of Ecology, Evolution, and Systematics, vol. 34 (2003), pp. 487–515; David H. Reed, "Extinction risk in fragmented habitats," Animal Conservation, vol. 7, issue 2 (2004), pp. 181–191; Laura R. Prugh, Karen E. Hodges, Anthony R. E. Sinclair and Justin S. Brashares, "Effect of habitat area and isolation on fragmented animal populations," Proceedings of the National Academy of Sciences of the United States of America, vol. 105, no. 52 (2008), pp. 20770– 20775.
- American Farm Bureau Federation, "Estate Tax Repeal", (Washington, D.C., October 2015), http://www.fb.org/issues/docs/taxes-estaterepeal15.pdf. Accessed March 14, 2016.
- U.S. Department of Agriculture, Economic Research Service, "Federal Estate Taxes," (updated May 6, 2015), http://www.ers.usda.gov/topics/farm-economy/federal-tax-issues/federal-estate-taxes.aspx. Accessed March 23, 2016.
- 12 Ibid.
- 26 Code of Federal Regulations 20.2032A-3; Internal Revenue Service, *Internal Revenue Manual*, "4.48.6 Real Property Valuation Guidelines."
- Joe Hopkins, interview with the author, May 7, 2015.
- Joseph E. Stiglitz, "Notes on Estate Taxes, Redistribution, and the Concept of Balanced Growth Path Incidence," Journal of Political Economy, vol. 86, no. 2, Pt. 21 (1978), pp. S137-S150.
- Alan Cole, Estate and Inheritance Taxes Around the World, Fiscal Fact no. 458 (Washington, D.C.: Tax Foundation, March 2015).
- Amos Eno, "The Age Cliff Facing Private Landowners," The Private Landowner Network Blog. February 6, 2013, http://www.privatelandownernetwork.org/plnblog/post.aspx?id=145. Accessed March 6, 2014.
- Brett J. Butler, Family Forest Owners of the United States, 2006, p. 30.
- U.S. Department of Agriculture, 2012 Census of Agriculture: United States, Summary and State Data, Vol. 1, Part 51 (Washington, D.C. 2014), pp. 204–205.
- John L. Greene, Brett J. Butler, Paul F. Catanzaro, Jaketon H. Hewes, Michael A. Kilgore, David B. Kittredge, Zhao Ma and Mary L. Tyrrell, "Family forest owners and federal taxes," Forest Policy and Economics vol. 38 (2014), p. 225.
- 21 Ibid
- Tamara Cushing, "The State Death Tax," (Atlanta, Georgia: Forest America, a project of the Forestlandowners Association), http://forestamerica.org/issues/state-death-tax. Accessed March 9, 2015.
- 23 Ibid.
- Ashlea Eberling, "Where Not To Die in 2016," Forbes, October 16, 2015, http://www.forbes.com/sites/ashleaebeling/2015/10/16/where-not-to-die-in-2016/#4914ad06628c. Accessed January 4, 2016.

- Joseph Henchman, Vice President, Legal & State Projects, Vice President, Operations, Tax Foundation, Washington, D.C., correspondence with author, March 6, 2015.
- The Heritage Foundation, "Financial Burden of the Death Tax: Interview with Small Business Owner," (Washington, D.C., December 2, 2009), https://www.voutube.com/watch?v=LT98odf2wIc. Accessed March 4, 2015.
- Center for Biological Diversity, "Landmark Agreement Moves 757 Species Toward Federal Protection," Press Release, July 12, 2011.
- Center for Biological Diversity, Petition to List 404 Aquatic, Riparian and Wetland Species From the Southeastern United States as Threatened or Endangered Under the Endangered Species Act, (Tucson, Arizona, April 20, 2010), pp. 6–44.
- Department of Defense and Environmental Protection Agency, "Clean Water Rule: Definition of 'Waters of the United States,'" http://www2.epa.gov/sites/production/files/2015-06/documents/preamble rule web version.pdf. Accessed June 3, 2015.
- Environmental Protection Agency, "Technical Support Document for the Clean Water Rule: Definition of Waters of the United States," May 27, 2015.
- Ashley Breakfield, Chris Locke and Paul "Skip" Spaulding, III, "Troubled Waters: Clean Water Act Jurisdiction Remains Muddled After New Rule Issued," JD Supra Business Advisor, http://www.jdsupra.com/legalnews/troubled-waters-clean-water-act-77530/. Accessed June 3, 2015.
- Marcos D. Robles et. al., "The geography of private forests that support at-risk species in the conterminous United States," p. 305.
- Deloitte, "Oil and gas tax and wealth planning considerations for landowners," 2013, http://www2.deloitte.com/content/dam/Deloitte/us/Documents/Tax/us-tax-pcs-oil-and-shale-100913.pdf. Accessed March 8, 2015.
- U.S. Department of Agriculture, 2012 Census of Agriculture: North Dakota State and County Data, vol. 1, part 34 (Washington, D.C., 2014), pp. 224–230; U.S. Department of Agriculture, 2012 Census of Agriculture: Montana State and County Data, vol. 1, part 26 (Washington, D.C., 2014), pp. 224–231; John Kemp, "Bakken output may be boosted by closer oil wells: Kemp," *Reuters*, May 8, 2013.
- Ibid.
- Sharon Dunn, "Energy Pipeline: Managing newfound oil wealth rife with complexities, responsibility," The Tribune (of Greeley and Weld Counties, Colorado), November 2, 2014.
- 37 Ibid
- John L. Green, Steven H. Bullard, Tamara L. Cushing and Theodore Beauvais, "Effect of the federal Estate Tax on Nonindustrial Private Forest Holdings," Journal of Forestry, vol. 104, no. 1 (2006), pp. 15–20.
- Ibid, p. 19.
- Brett J. Butler, Brenton J. Dickinson, Jaketon H. Hewes, Michael A. Kilgore, Kyle Poorman and Mary L. Tyrrell, Assessing the Number of Family Forest Ownerships and Acres Potentially Impacted by the

- Federal Estate Tax: Final Report (U.S. Department of Agriculture Forest Service/University of Massachusetts Family Forest Research Center, Amherst, Massachusetts, May 2, 2013), p. 19.
- John L. Green et. al., "Effect of the Federal Estate Tax on Nonindustrial Private Forest Holdings," pp.17–18.
- Ibid, p. 19.
- Ron L. Durst, "The Effects of the Federal Estate Tax on Farm Households," Choices (published by the Agricultural and Applied Economics Association), vol. 28, no. 1 (2013), pp.1–4.
- Ibid, p.1.
- Michael J. Bean, "Shelter from the Storm: Endangered Species and Landowners Alike Deserve a Safe Harbor," *The New Democrat*, vol. 9, no. 2 (1997), p. 20.
- Environmental Defense Fund, "Unique Consensus on Endangered Species Incentives Embraces EDF Ideas," News release, July 31, 1995.
- Stephen Small Law Offices, "About Us: Stephen J. Small," http://lawofficeofstephensmall.com/stephensmall.html. Accessed March 11, 2015.
- Stephen J. Small, *Preserving Family Lands*, *Book I* (Boston: Landowner Planning Center, 1998), p. 7.
- The Keystone Center, The Keystone Dialogue on Incentives for Private Landowners to Protect Endangered Species – Final Report (Keystone, Colorado: Keystone Center, 1995), p. 26.
- Ibid.
- Selene Jacobs, Duke Hammond and Harvey M. Jacobs, "Protecting Panther Habitat on Private Lands," draft manuscript on file with author.
- Dale D. Goble, John A. Wiens, J. Michael Scott, Timothy D. Male and John A. Hall, "Conservation-Reliant Species," *BioScience*, vol. 62, no. 19 (2012), pp. 869–873.
- U.S. Fish and Wildlife Service, "Recovery Plan for the Red-cockaded Woodpecker (*Picoides borealis*): Second Revision" (Atlanta, Georgia, January 27, 2003).
- J. Michael Scott, Dale D. Goble, Aaron M. Haines, John A. Wiens and Maile C. Neel, "Conservationreliant species and the future of conservation," Conservation Letters, vol. 3 (2010), pp. 91–97.
- Julien Martin, Wiley M. Kitchens and James E. Hines, "Importance of Well-Designed Monitoring Programs for the Conservation of Endangered Species: Case Study of the Snail Kite," *Conservation* Biology, vol. 21, no. 2 (2007), p. 472.
- Butler, Family Forest Owners of the United States, 2006, p. 68.
- Land Trust Alliance, "Conservation Donation Rules," http://www.landtrustalliance.org/policy/taxmatters/rules/conservation-donation-rules. Accessed March 19, 2015.
- Land Trust Alliance "The Estate Tax and Natural Resources." (Washington, D.C.) www.landtrustalliance.org/policy/documents/hill-estate-tax. Accessed March 19, 2015.

- John v.H. Halsey, "Federal Estate Tax Policy: Impact on farmland and natural lands and recommendations for policy revisions," (Southampton, NY: Peconic Land Trust, no date), https://www.peconiclandtrust.org/pdf/fed_est_tax_issue_09.pdf. Downloaded March 23, 2016.
- U.S. Department of Agriculture, Economic Research Service, "Farm business average net cash income by resource region and commodity specialization, 2010–2015F, Nominal (current dollars)," http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/farm-business-average-net-cash-income.aspx#.VRhRwuHLm4w. Accessed March 22, 2015.
- Dennis E. Hammond, "Protecting Panther Habitat on Private Lands in Southern Florida—A Current Assessment," *Transactions of the 63rd North American Wildlife and Natural Resources Conference* (1998), p. 461.
- David Joulfaian, "The Federal Estate Tax: History, Law, and Economics," unpublished paper, January 2011, http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID2283765_code228859.pdf?abstractid=1579829&mir id=5. Accessed March 2, 2015.
- 63 Ibid.
- Nonna A. Noto, "Estate and Gift Tax Revenues: Past and Projected," p. 2.
- ⁶⁵ Joulfaian, "The Federal Estate Tax."
- 66 Ibid.
- 67 Ibid.
- Jane G. Gravelle, "Recent Changes in the Estate and Gift Tax Provisions," Federation of American Scientists, submitted for Congressional Research Services, April 13, 2015.
- 69 Ibid
- Jeffrey A. Cooper, "Interstate Competition and State Death Taxes: A Modern Crisis in Historical Perspective," *Pepperdine Law Review* (2006), Vol.33, No.4, p. 837.
- ⁷¹ Ibid, p. 838.
- ⁷² Ibid, pp. 838–839.
- Norton Francis, "Back from the Dead: State Estate Taxes After the Fiscal Cliff," (Washington, D.C.: Urban-Brookings Tax Policy Center, November 12, 2012), p. 4.
- ⁷⁴ Cooper, "Interstate Competition and State Death Taxes," p. 859.
- Francis, "Back from the Dead," p. 4.
- Ibid; Liz Emanuel, Scott Drenkard and Richard Borean, "State Estate and Inheritance Taxes in 2014," (Washington, D.C.: Tax Foundation), http://taxfoundation.org/blog/state-estate-and-inheritance-taxes-2014. Accessed March 9, 2015.
- Alex Ayers, Director of Public Policy, Family Business Coalition, correspondence with author, March 23, 2015.

- Daowei Zhang and Sayeed R. Mehmood, "Safe Harbor for the Red-Cockaded Woodpecker: Private Forestlandowners Share Their Views," *Journal of Forestry*, vol.100, no.5 (2002), pp. 24–29; Michael G. Sorice, Chi-Ok Oh, Todd Gartner, Mary Snieckus, Rhett Johnson and C. Josh Donlan, "Increasing participation in incentive programs for biodiversity conservation," Ecological Applications, vol.23, no.5 (2013), pp. 1146–1155.
- Keith L. Olenick, Urs P. Kreuter and J. Richard Conner, "Texas landowner perceptions regarding ecosystem services and cost-share land management programs," *Ecological Economics*, vol. 53 (2005), pp. 247–260. Kendra Womack, Factors Affecting Landowner Participation in the Candidate Conservation Agreements with Assurances Program, Master's Thesis, (Logan, Utah: Utah State University, 2008); Michael G. Sorice, Wolfgang Haider, J. Richard Conner and Robert B. Ditton, "Incentive Structure of and Private Landowner Participation in an Endangered Species Conservation Program," Conservation Biology, vol.25, no.3 (2011), pp. 587–596; Sorice et al., "Increasing participation in incentive programs for biodiversity conservation"; Shari L. Rodriguez, M. Nils Peterson, Frederick W. Cubbage, Erin O. Sills and Howard D. Bondell, "Private landowner interest in marketbased incentive programs for endangered species habitat conservation," Wildlife Society Bulletin, vol.36, no.3 (2012), pp. 469–476.
- Sorice, et al., "Increasing participation in incentive programs for biodiversity conservation," p. 1146.
- Karl Zimmerer, "Human geography and the 'new ecology': the prospect and promise of integration," Annals of the American Association of Geographers 84, no.1 (1994), pp. 108–125; Ian Scoones, "New Ecology and the Social Sciences: What Prospects for a Fruitful Engangement?" Annual Review of Anthropology 28 (1999), pp. 479–507.
- R.P. McIntosh, "Pluralism in Ecology," Annual Review of Ecology and Systematics 18 (1987), pp. 321-341: Daniel Botkin. Discordant Harmonies: A New Ecology for the Twenty-First Century. (Oxford, UK: Oxford University Press, 1990); Zimmerer, "Human geography and the 'new ecology': the prospect and promise of integration,"; Scoones, "New Ecology and the Social Sciences: What Prospects for a Fruitful Engagement?"
- American Forest Foundation, Southern Woodland Owners & Conservation Agreements: What they think and what to say, (Washington, D.C., 2010), p. 7.
- 84 Ibid
- C. Timothy Lindstrom, and Stephen J. Small, "New Estate Tax Relief for Land under Conservation," Tax Notes Today, March 2, 1998.
- Land Trust Alliance, "The Enhanced Easement Incentive," http://www.landtrustalliance.org/policy/taxmatters/campaigns/the-enhanced-easement-incentive. Accessed March 26, 2015.
- Carey Goldberg, "Deal in Maine Prevents Development of Forestland," New York Times, March 21, 2001.
- Ibid.
- Cited in: Living on Earth, "Estate Tax Battle," Public Radio International, June 7, 2002.
- Ibid.

- Land Trust Alliance, 2010 National Land Trust Census Report: A Look at Voluntary Conservation in America, (Washington, D.C., 2010), p. 2.
- Jean W. Hocker, "Patience, Problem Solving, and Private Initiative: Local Groups Chart a New Course for Land Conservation," In Henry L. Diamond and Patrick F. Noonan (eds.), *Land Use in America* 1996 (Washington, D.C.: Island Press), pp. 250–251.
- Ole Amundsen III and Susan Culp, "Conservation in a Broader Context: Land Trusts and Land Use Planning," *Saving Land* (the magazine of the Land Trust Alliance), (Winter 2003), p. 15.
- 94 Ibid.
- Land Trust Alliance, "Section 6 Endangered Species Grants," http://www.landtrustalliance.org/policy/public-funding/section. Accessed March 25, 2015.
- Brian Seasholes, Fulfilling the Promise of the Endangered Species Act: The Case for an Endangered Species Reserve Program, (Los Angeles: Reason Foundation, 2014), http://reason.org/files/endangered_species_act_reform.pdf
- ⁹⁷ Environmental Land Institute and Land Trust Alliance, *Wetland and Stream Mitigation: A Handbook for Land Trusts* (Washington, D.C., 2012), p. 7.
- ⁹⁸ Ibid, pp. 7, 10.
- ⁹⁹ Ibid, p. 140.
- Land Trust Alliance, "Conservation Donation Rules," http://www.landtrustalliance.org/policy/tax-matters/rules/conservation-donation-rules. Accessed March 2, 2015.
- Brett J. Butler, Jaketon H. Hewes, Paul Catanzaro, John L. Greene, Michael A. Kilgore, David B. Kittredge, Judy Langer, Zhao Ma, Aaron Reuben and Mary Tyrrell, *Effects of federal, state, and local tax policies on family forest owners: Technical report*, FFRC Research Paper No. 2010-01 (Amherst, Massachusetts: U.S. Department of Agriculture, U.S. Forest Service/University of Massachusetts Amherst, Family Forest Research Center, 2010), p. 52.
- 102 Halsey, "Federal Estate Tax Policy."
- Kevin Hancock, prepared statement, Hearing before the Finance Committee, U.S. Senate, November 14, 2007, Washington, D.C.
- C. Timothy Lindstrom, Esq., "The Federal Estate and Gift Tax—2011, 2012 and Beyond," at www.conservationtools.org/library_items/1123-The-Federal-Estate-and-Gift-Tax-2011-2012-and-Beyond
- John W. Lincoln, testimony before the Subcommittee on Oversight of the House Committee on Ways and Means, September 30, 1999.
- Land Trust Alliance, "Estate Tax Reform and Land Conservation," http://www.landtrustalliance.org/policy/tax-matters/campaigns/estate-tax-reform-and-land-conservation. Accessed April 5, 2015.

- Defenders of Wildlife, Earth Share of Washington, Endangered Species Coalition, Environmental and Energy Study Institute, Environmental League of Massachusetts, Environmental Support Center Friends of the Earth, Legal Environmental Assistance Foundation, Inc., Natural Resources Council of Maine, Natural Resources Defense Council, Maine Center for Economic Policy, Oregon Center for Public Policy, Redefining Progress, and 20/20 Vision, "Dear Senator" (form letter), May 4, 2001.
- Patrick Chisholm, "Environmentalists' silence on the estate tax," The Christian Science Monitor, May 2, 2005.



5737 Mesmer Ave. Los Angeles, CA 90230 310-391-2245 reason.org

