

**Valuing Constituency: Property Assessments, Land Management and
Environmental Stewardship in Central Texas**

by

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As a graduate student at Rensselaer Polytechnic Institute (RPI), I have received funding from teaching assistantships and the Humanities, Arts, and Social Sciences (HASS) Fellowship. The former provided the opportunity to observe senior faculty and implement course curriculum. I was able to explore and develop my own teaching style

in and out of the classroom, and I am thankful for the opportunity to work with such focused and insightful faculty. The two-year HASS fellowship enabled me to conduct ethnographic research in Texas and write my dissertation with few distractions, and I am grateful for the review committee's confidence regarding the value of my proposed research. These two funding opportunities presented me with the knowledge and skill set to conduct ethnographic research not as a neutral observer, but as a participant in an educational endeavor that structures my identity as an activist scholar.

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As addressed in Chapter One, the historical research conducted for this dissertation involved a variety of archival visits to libraries in Texas. My own initial efforts were haphazardly planned, and my call requests were often vague, leading to days and weeks sifting through banker boxes of materials. I am especially grateful for the helpfulness of archivists to point me in the right direction by answering my clumsy and ill-defined questions. The archivists at the Briscoe Center for American History, as well as Laura Saegert and Rebecca Romanchuk at the Texas State Library and Archive, were especially considerate as I returned over multiple years, and I appreciate their willingness to pull so many diverse materials. Additionally, I spent many hours in the Cameron Public Library in Milam County in Central Texas, writing and consolidating my data. The library's collection of historical county documents helped me to understand the longer social history of poverty and landownership in the area. I am thankful for Marie Christopher, the head librarian for providing the space, time, and internet connection to complete aspects of this work while still in Texas.

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Finally, there is an avenue of scholarship in STS (and other disciplines as well) that cares to acknowledge interspecies environments, collaborations, and partnerships. In

this scholarship, people and animals work together, not only to accomplish specific goals (the tasks a rescue officer and her rescue dog accomplish come to mind) but also to create specific environments that meet the needs of these interspecies partnerships. It will come as no surprise to those that know me that the partner I wish to thank as the most supportive and the most attentive would be my cat, Tank. Her tasks were varied: from traveling by car and plane with me in my field research (though I am sure she would have preferred an adventurous woodland stroll instead) to making sure our living accommodations were rodent free. Tank forced me to consider my surroundings and how my actions had a direct impact on her everyday experiences (and vice versa—the chipmunk sweep is a sport I now excel thanks to her own desires for excitement and hunting instincts). Forcing me to consider the quality of a life that is not my own and expanding my knowledge of what a companion might be, I am grateful for Tank's reluctance to find a different abode.

ABSTRACT

This dissertation examines the recent history of environmental conservation in Texas from three perspectives, and provides an analytic framework for evaluating how political actors and constituents participate in the rule of law. The centerpiece of this analysis examines the use of legal fictions as genres of social action in which evidence and expertise are used to adhere to the rule of law by creating legitimacy through the negotiation of practice. Preliminarily, I examine state environmental politics in the 1990s to understand how wildlife management was construed as a conservation policy for private landowners. I then explore the states legal codes and practices that establish land management practice characterized by property tax law. Finally, I turn to the contemporary practices of Central Texas landowners to understand the consequences of the policy. The focus of this dissertation is the examination of bureaucratic participation and the resulting documents for property tax assessment. Evaluating these different scales of action reveal how landowners, biologists, and state administrators use the bureaucratic policies of tax law to create conservation practices. This work adds to the growing body of literature investigating “actually existing neoliberalism” (Brenner and Theodor 2002; Hilgers 2011; Ong 2007; Wacquant 2012) to reveal how contradictions between legality and practice are mediated across social relationships. As a component of neoliberal governance, conservation on private lands presents a set of contradictions in which the productive and economic value of land diverges from its historical and cultural value. In conclusion I posit a new legal fiction of property, the inherited value, to understand these contradictions.

1. INTRODUCTION

On December 20, 2016 United States Fish and Wildlife Service (USFWS) announced that a den of a female ocelot had been found on the Laguna Atascosa National Wildlife Refuge in South Texas. Between fifteen to thirty pounds, ocelots' habitat ranges from nine to twenty-five square miles, or approximately 16,000 acres, with little overlap between territories. The Laguna Atascosa National Wildlife Refuge is 65,000 acres, providing only a tenth of the acreage needed for the ocelot population of South Texas. However, surrounding private lands expand the range and habitat of the ocelot population. The online press release included photos of the ocelot's kitten at three weeks when biologists first photographed and weighed the animal while the mother was away from the den (Fish and Wildlife Service News 2016). Additional images included photographs of other ocelots taken at night by a game camera on a nearby conservation easement. Ocelots are an endangered species, and according to USFWS between fifty and eighty currently live in the United States and all known ocelots are found in the Lower Rio Grand Valley of Texas and Northern Mexico. Most of the adult ocelots wear GPS tracking collars, and biologists use information garnered from their collars to monitor their movement and capture the animals to record their growth, reproduction rate, and death.



3 week old male kitten found at den site being checked by biologists / USFWS

Figure 1: Ocelot Kitten at Laguna Atascosa National Wildlife Refuge

This image from the USFWS Press Release shows an ocelot kitten during examination (Fish and Wildlife Service News 2016).

The press release announcing the discovery of the den alluded to three causes for the kitten's birth and potential survival. First, new wildlife underpasses (tunnels built below roadways) had been constructed in the Willacy County area through collaborations between USFWS and the Texas Department of Transportation to allow for the safe passage of animals below roadways. Second, recent abundant rainfall and the ensuing plant growth had increased the wildlife ocelots feed, such as rabbits, birds, and rodents. And finally, private landowners neighboring the refuge had developed

contractual partnerships with USFWS to protect the habitat of the ocelot population as the animals traversed the boundaries of public and private lands. The kittens referenced in the press release were the first in forty years to be born on the Laguna Atascosa National Wildlife Refuge, and the press release was clear to identify the multiple reasons for the new additions to the population.

As the ocelot population of the Lower Rio Grande Valley of South Texas grows, wildlife refuges and conservation easements provide only partial habitat and protection for the species. In the aforementioned press release, Boyd Blihovde, the manager of the refuge, ends with the statement with by claiming, “private ranches are often great havens for wildlife and key partners in our conservation efforts. These private lands will be crucial to protecting habitat and wildlife into the future” (Fish and Wildlife Service News 2016). While publicly owned and managed lands may prioritize the conservation and preservation of habitat for a variety of flora and fauna species, the habitats of wildlife often crisscross public and private lands. And in Texas, approximately 95% of lands are privately owned, so that land may be both a ranch for livestock production, as well as a habitat for wildlife species.

Blihovde’s statement acknowledges USFWS’s reliance on private land and landowners as integral to the protection not only of endangered species, like ocelots, but also other wildlife. From larger species like whitetail deer and mountain lions to smaller animals like bobcats and migratory birds, wildlife species in Texas rely on both private and public lands as habitat. In response, USFWS has developed an official partnership program to promote the restoration of wildlife habitat on private lands by identifying vulnerable landscapes (such as wetlands and native grasslands) that impact Federal Trust

Species, a legal category that identifies species of concern with declining or vulnerable populations.

As a listed endangered species, the ocelot is a prime example of a Federal Trust Species. While the population may be small, the identification of the ocelot as a vulnerable species has created a bureaucratic infrastructure that enrolls private landowners into the conservation of the species' habitat. As Blihovde's statement posits, ranch lands, or properties with trees, water, and brush that can potentially provide shelter and food to the ocelot population, are prime partners for the protection of ocelot habitat. Landowners in the Lower Rio Grande Valley who have partnered with USFWS enter into contractual partnership agreements with the federal agency to develop projects that restore, enhance, and conserve habitat of the ocelot. They work together with federal biologists to create new land management practices to meet those ends. Dubbed "technical assistance," these partnerships have resulted in the conservation of wildlife habitat. Landowners monitor and report species, submit documentation of their practices, and more generally conform their private land management practices to the protection of an endangered species. In return, USFWS can approve financial assistance for the realization of specific projects on a landowner's property, often in the form of cost sharing incentives. Through these partnership agreements, landowners receive both the scientific guidance to conserve wildlife habitat and the financial assistance to incentivize those practices.

The growing population of ocelots in South Texas is a unique story of species survival that highlights the concerted efforts of public/private partnerships. As a federal agency USFWS provides private landowners with the expert knowledge and financial

resources to maintain lands that meet the requirements of ocelots' lives. Importantly, the Laguna Atascosa National Wildlife Refuge provides a central location for conservation efforts to expand. For example, with ocelots in South Texas, urban development (roads, new homes, and shopping areas) and crop production (like corn and cotton) constrain the habitat of the animals, forcing the species to reproduce in isolated populations that lack new genetic contributions. Landowners in close proximity to the refuge can complement refuge practices and benefit from financial assistance offered to partners by physically expanding potential habitat from the centrally located refuge. Additionally, partnerships between USFWS and Texas Department of Transportation to develop wildlife-friendly underground road crossings has expanded the survival rate of the ocelot population, substantially increasing the species' potential to rebound.

However, while the ocelot is a success story of conservation efforts, the federal policies that structure that success are not scalable across the state of Texas. The identification of Federal Trust Species and the centrally located refuge are unique qualifiers that few other regions in Texas possess. Primarily, Texas lacks the public lands that provide the opportunity for conservation efforts to scale out from public lands to private lands. Most private lands in Texas are not adjacent to public conservation sites and lack centrally located public lands. Conservation practices become isolated, determined by the boundaries of private landowners and homogenous landscapes that physically stymie movement of wildlife through habitat. Fences, mono-cultural farming enterprises, and busy roadways create resistant boundaries for both the movement across space and the diverse habitat needed to protect and provide food for wildlife like the ocelot.

Additionally, for many landowners in Texas who may be interested in partnering with conservation efforts to protect habitat for wildlife, a target species like the ocelot is no longer available. As the list of extinct wildlife species in Texas grows, designations of vulnerable habits also shrink. For example, while the ocelot historically was found in parts of Arkansas, Louisiana, and East Texas, with their declining population, the habitat has been restricted to the Lower Rio Grande Valley (USFWS 2014). While much of Texas may at one time have been habitat for the ocelot, only with the sustained efforts of the centrally located Laguna Atascosa National Wildlife Refuge has habitat for ocelots been preserved.

The USFWS partners program, while a viable means of preserving and extending habitat for some wildlife species, is restricted to properties that are proximate to vulnerable populations and established habitat areas. For example, while a landowner in Louisiana might have a property that could potentially provide habitat for ocelots, that piece of land is hundreds of miles away from the actually existing population in the Lower Rio Grande Valley. In this way, the federal policies of wildlife conservation of habitat on private lands is directly linked to identifiable populations of vulnerable species.

However, it has been widely established that the predominance of private lands in Texas constrains environmental conservation efforts (STFTNT 1995; Gissell and Brown 1995). Expanding USFWS habitat conservation efforts to private lands is greatly hindered by population-specific initiatives such as the partners program (Elmendorf

2003; Hickey 2009; Sprankling 1996).¹ And in Texas, this has created a real discrepancy between those who receive federal support for conservation and those who do not (Peterson et al. 2010; Sorice et al. 2011). Research exploring incentive-based programs has revealed that these programs rely too heavily on financial incentives while down playing education and outreach to enroll new landowners in stewardship principles (Lia and Lyons 2011; Shogren, Parkhurst, and Settle 2003; Sorice et al. 2011; Olenick, Kreuter, and Conner 2005). Furthermore, the dominant rhetoric of working lands (that emphasizes the productive economic value of agricultural lands) is a direct challenge to interpreting open spaces in Texas as anything other than agricultural lands (Duda and Brown 2001; Friedberger 1999; Telfair 1999; Gunter and Oelschlaeger 1997).

And yet, despite these obstacles to conducting environmental conservation on private lands in Texas, landowners have increased participation in a state sponsored environmental program called wildlife management. From its development in 1995 to 2012, over three million acres of private lands are classified as wildlife management,² a property tax category that allows landowners to benefit from a reduced tax rate while developing habitat for wildlife. While this is only a small fraction of the 142 million acres

¹ That being stated, beginning in 2015, a new public/private initiative combining multiple efforts across federal and state agencies including the USFW, United States Department of Agriculture, and the National Resource Conservation Service and private conservation groups such as the Nature Conservancy, was instantiated to create environmental conservation efforts across watersheds throughout the central region of the United States. The Great Plains Landscape Conservation Cooperative has the potential to greatly increase who can participate in federal programs by establishing larger scales of conservation efforts to encompass the major waterways across the plains states. However, with the new presidential administration, it is unclear how this collaborative partnership will develop.

² Data from *Texas Land Trends*. Institute of Renewable Natural Resources, "Statewide." *Texas Land Trends*. <http://texaslandtrends.org/data/Trends/Statewide> (Accessed December 31, 2016).

of privately owned agricultural lands in the state, participation in the program has increased over time.

This dissertation investigates environmental conservation efforts on private lands in Texas from three perspectives to understand how these contradictions of private property and conservation coexist. First, I examine state conservation politics in the 1990s to understand how wildlife management was construed as a conservation policy for private landowners. During this time the policy of wildlife management was developed as a means of promoting rural tourism in the state by creating new (but privately owned) venues for outdoor recreation. I then move on to explore the states legal codes and legal practices that establish wildlife management as a land management practice characterized by the property tax law. I examine the historical changes to the legal value of land to understand land use policy in the state. Finally, I turn to the contemporary practices of Central Texas landowners engaged in wildlife management to understand the consequences of the policy. As more landowners engage in conservation practices, they establish a new legal value: inherited value. Inherited value is the practice to maintain private lands for the immediate next-generation of landowners. I evaluate environmental conservation through these different scales of action to understand how landowners, biologists, and state administrators use the bureaucratic practices of tax law to create conservation practices.

While federal conservation programs (such as the USFWS partners program described early) can be implemented to protect specific species and habitat, Texas' wildlife management attempts to address both social and environmental concerns in rural communities. As the policy was primarily envisioned, the development of spaces

managed for wildlife would present new opportunities for rural landowners and their communities to create new markets for recreational outdoor tourism. Additionally, by legally structuring wildlife management within a reduced property tax category, legislators hoped that the fragmentation of large swaths of rural lands would be stymied. An editorial written by David Braun in 1995 (at the time the Director of the Texas chapter of the Nature Conservancy) and published in the *Dallas Morning News* captures these overlapping social and environmental concerns. According to Braun, wildlife management would usher in

a dynamic new era of free-market environmentalism, which engages people through their economic self-interest...The new era will be successful when it is based mainly on education and providing alternatives in which everyone can participate (1995).³

As state legislators envisioned the program, wildlife management in Texas would address a set of priorities concerning environmental conservation based on potential economic development. However, this dissertation will illustrate how the program evolved and shifted over twenty years, changing the means of assessing the viability and value of wildlife management. Wildlife management has adjusted from an initial focus on the construction of new markets in rural communities to the contemporary focus on the production of scientific data. And the place where these changes have occurred is easy to identify: the bureaucratic documents required by appraisal districts to adhere to the property valuations. Landowners, biologists, and appraisers collaborate to create

³ Braun, David. "Environmentalism Finally Goes Mainstream." *Dallas Morning News*, November 26, 1995. Clyde Alexander Papers, Archives and Information Services Division, Texas State Library and Archives Commission.

formal and informal management practices, and evaluation of the documents reveals the details of these modifications.

1.1 The Bureaucracy of Natural Resources in Texas

The centerpiece of this dissertation is the examination of bureaucratic participation and the resulting documents for property tax assessment. Wildlife management is a property tax category devised for agricultural lands that evaluates land management practices as assessments for appraisal value. Property taxes in Texas, like all other states, are categorized according to land use, and state-determined appraisal districts determine the value of land. The appraised value of land is calculated according to the designated use of land. For example residential, industrial, and agricultural lands are each taxed at a different rate and how rates are calculated is different for each state. Property tax rates can vary greatly between and within states and are determined by a variety of factors including the presence of other tax systems, such as income and sales tax. While Texas does not have a state income tax system, property and sales taxes are the dominant means by which individuals contribute to state revenue.

In 1995 the Texas legislature passed a referendum that permitted properties engaged in conventional agricultural practices such as farming and ranching to transition into wildlife management, a new category of open-space agricultural tax valuation. Initially, wildlife management was viewed as an economic incentive, repositioning natural resources from national and global markets of extraction to foster local entrepreneurial ventures of eco-tourism. This transition from promoting agricultural production and the distribution of goods beyond state borders to the promotion of in-

state tourism attempted to take advantage of the vast privately-owned lands in Texas as a new productive commodity. Importantly, wildlife management landowners maintain the agricultural tax valuation that cotton and livestock producers also receive, with appraisal values reflecting the productive value of properties, which, while varied between appraisal districts in the state, are approximately 10% of the overall real estate value of the land.⁴

The wildlife management policy attempted to leverage the diverse eco-systems of the state to collectively re-imagine the open spaces *across* these private boundaries. From the Piney Woods and the Big Thicket in East Texas to the sand hills of West Texas' Trans Pecos eco-regions, the unique ecologies of the state were promoted as a commodity that could be cultivated on private lands. This new category of tax appraisal would incentivize both environmental conservation and economic development to transition land-use in rural communities from environmentally destructive (and often financially unrewarding) practices to regionally specific conservation stewardship ventures.

⁴ The real estate value of land is determined by the real estate market, or the resale value of land. This value is only a partial component of the taxable valuation of private land, which will be discussed in detail in following chapters.

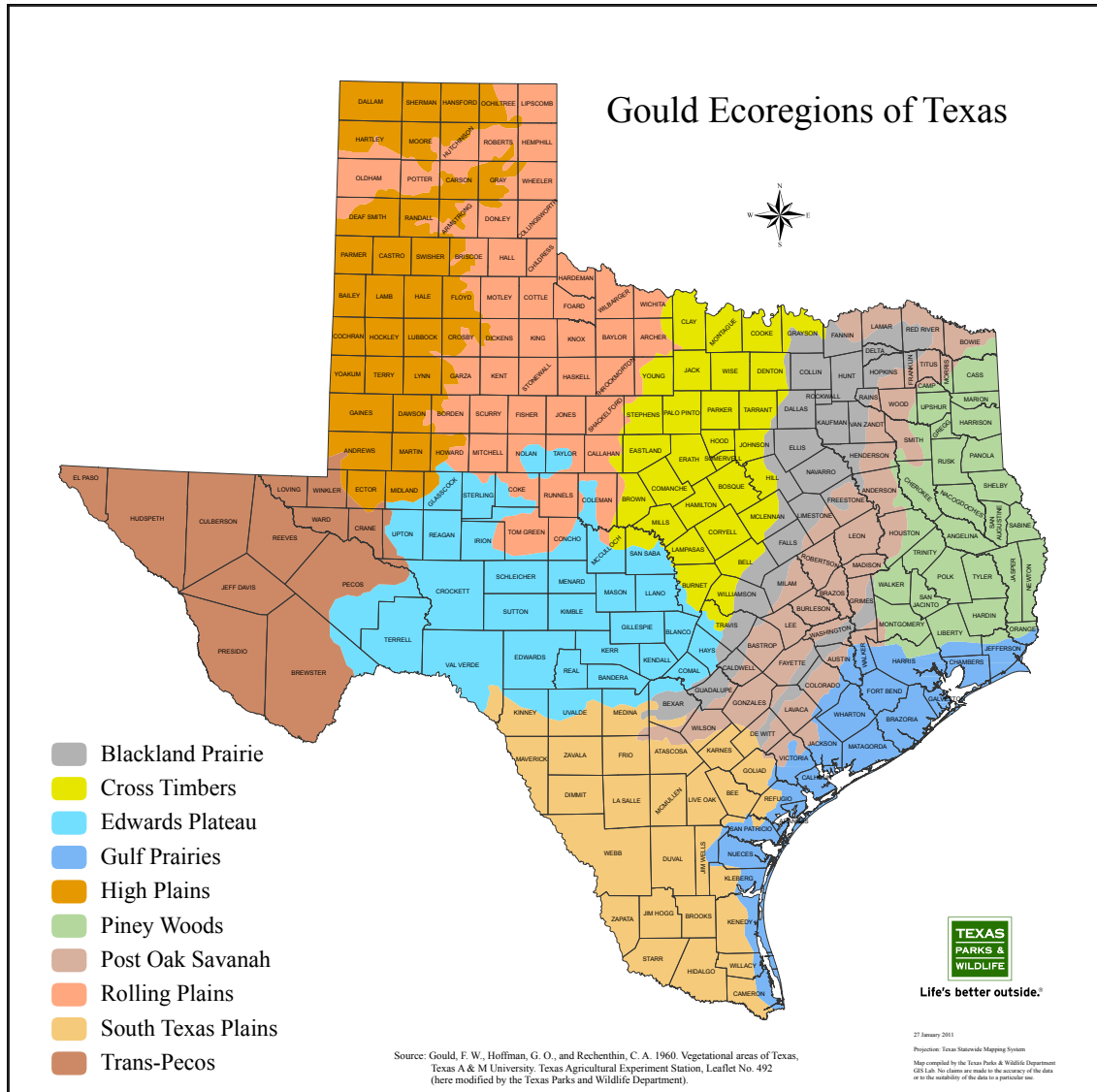


Figure 2: Ecoregions of the State

This map produced by TPWD (2011) identifies ten distinct ecoregions of the state.

Milam County, the primary site for this research is split between the Post Oak Savannah and Blackland Prairie regions.

When rural landowners enroll in wildlife management, they produce and maintain a set of legitimating documents. These documents are composed of both formal and informal requirements that when taken together create a set of knowledge practices that reflect both the macro policies of conservation and micro practices created for

specific parcels of lands. The documentation of both participation (in the formal documents) and knowledge practices (in the informal documents) function together to create legitimate wildlife management practices for appraisal districts that determine whether a landowner can receive the land valuation. These documents are part of the legitimating processes that establish the norms and values of conservation, and participants in the bureaucracy negotiate the meaning of conservation through these documents. It is by these legitimating bureaucratic practices that new modes of governance take shape (Stivers 2009). Importantly, as these negotiations are made, new forms of authority are established as participants create new legitimating formats (Presthus 2001). As this dissertation will illustrate, participating in wildlife management foregrounds the role of the Texas Parks and Wildlife Department (TPWD) on private lands (previously relegated to public land and resource management) and posits scientific knowledge concerning eco-systems, habitat, and species as legitimate means of private lands management.

Encountering the bureaucratic documents casually prior to the commitment of my dissertation topic, I was compelled by binders of records and manuals that appeared to both complicate and simplify conservation practices on private lands. On the one hand, the bureaucratic forms were straightforward and easy to complete. On the other hand, the implications of practices documented in these legitimating forms required landowners to develop new forms of expertise concerning wildlife habitat. Landowners in Texas change more than just their everyday practices to maintain the wildlife management tax valuation. In addition to what and how they grow and maintain animals on their properties, landowners record and communicate those practices as a proof of

adherence to governing officials. While these self-auditing procedures take many forms in wildlife management, they act in accordance with other neoliberal management tools: to inform a constituency through evaluation.

Bureaucracy is the means by which governance shapes democratic participation in the implementation of specific policies (du Gay 2005; Hibou 2015; Weber 1947). The evaluative processes of bureaucratic participation, as well as the documents they produce, are efforts to categorize and legitimate practices by establishing hierarchies of worth that legitimate some actions and marginalize others (Hull 2012; Lamont 2012). While bureaucracy is a common enough governing practice (Graeber 2015), when applied to contemporary efforts concerning environmentalism and the conservation of natural areas, these regulatory practices establish public/private entrepreneurial partnerships and reveal how neoliberalism is a governance structure that enrolls constituents in the formation of new market economies (Fache 2014). Further, new forms of social order are produced by regimes of property that foreground bureaucratic practices as the legal means of participation.

This work adds to the growing body of literature investigating “actually existing neoliberalism” (Brenner and Theodor 2002; Hilgers 2011; Ong 2007; Wacquant 2012) to reveal how contradictions between legality and practice are mediated across social relationships. As a component of neoliberal governance, conservation on private lands presents a set of contradictions in which the productive and economic value of land diverges from its historical and cultural value. And in wildlife management the completion and submission of forms that document and provide evidence of actions and identity is the key mechanism of neoliberal governance structures. Drawing on the work

of Max Weber (1947) Béatrice Hibou (2015, 14) posits that neoliberal bureaucracy extends beyond the state “to characterize capitalism and large scale enterprise.... with a privileged context for development.” Examining conservation on private lands takes seriously these different values of land ownership in Texas to reveal how neoliberalism subsumes narratives of cultural history into narratives of development and market enterprise (Brenner and Theodore 2002; Ong 2007). Furthermore, as landowners, tax appraisers, and wildlife biologists participate in the bureaucracy of conservation, new practices are developed and enforced (to varying degrees) to understand the cultural, political, and economic value (and stakes) of private property in Texas.

Under this new property regime, rural landowners maintain reduced agricultural tax valuations, but they are encouraged to develop property-specific conservation practices with state-employed wildlife biologists. Twenty years after the referendum, landowners who conduct wildlife management often do so to maintain ownership of their lands in consideration of the marginal income that might be garnered from conventional agriculture by taking advantage of the lower tax bracket. The appraisal of agricultural lands as wildlife management functions to systemically enroll landowners as constituents in a new economy of conservation through the standardization of conservation practices by the bureaucratic procedures of tax law. Wildlife management as a form of agriculture is a legal fiction that draws on the productive value of land to maintain the rule of law and legal ownership of property. Landowners, appraisers, and biologists who negotiate the development of environmental conservation practices through the constraints of wildlife management bureaucracy determine the economic value of state agricultural properties. These efforts of environmentalism are not activist-

led endeavors, but instead landowner participation in the bureaucracy of tax law that maintains the cultural value of property as a legal right and conforms to state-sanctioned efforts to create new economic markets. Understanding the motivations of landowners as a means of maintaining property for its potential value as inheritance helps to understand why landowners engage in conservation on private lands in Texas.

This dissertation provides an analytic framework for evaluating how political actors and constituents participate in the rule of law by examining the use of legal fictions, or the ways in which evidence and expertise are used to adhere to the rule of law. I combine scholarship from legal and rhetorical studies to understand and evaluate legal fictions as a genre of social action. As various participants use legal fictions to legitimate land management practices and maintain property ownership, I interpret legal fictions as genres of social action that establish who can participate, what can be said, and how conservation on private lands is structured as an ideological tool to maintain the rule of law. I examine the development and contemporary practices of open space conservation efforts in Texas to investigate how participants create new land management practices. Often incorporating contradictory cultural narratives that draw on both private property rights and the value of public goods and spaces, this work answers how and why constituents transition properties from conventional agriculture to environmental conservation.

As agriculture and land management practices transition to accommodate environmental conservation policies, the legal boundaries, economic incentives, and communities of practice around private lands also change. These changes are characteristic of “actually existing neoliberalism,” or how the construction of new

market commodities and economies contributes to the governance of individual subjects (Brenner and Theodor 2002, Hilgers 2011, Ong 2007, Wacquant 2012). Through voluntary participation in the wildlife management property tax valuation, landowners develop new conservation practices that challenge the legal boundaries of private property and productive commodities by accentuating the characteristics of larger eco-regions, as well as the wild species that move through private lands. This dissertation examines how knowledge practices concerning law, science, and the economy structure participation in environmental conservation. Focusing on these practices reveals how macro scales of governance (like property tax law) are negotiated at micro scales of practice (like land management). This perspective clarifies how knowledge about the land is negotiated and made legitimate through bureaucratic practices.

In Texas, rural lands are both a natural resource for economic advantage and a space of cultural and environmental conservation. On the one hand, natural resource extraction has characterized the ways in which rural lands have supplemented Texas' economic growth. Large agricultural tracts and copious fossil fuel extraction characterized rural landscapes as profitable sites for exploitation. On the other hand, state parks, wildlife protection zones, and cultural heritage sites attempt to retain an image of Texas as a frontier on the precipice of development. "Wide open space" is a phrase often used in the state to bridge these two visions. Stemming from the tax valuation jargon of open-space property assessments, the phrase has come to be used by multiple advocacy groups to identify both how the space looks (sparsely populated by people), as well as to stress its value as a pristine wilderness. The Sierra Club, The Texas Land Trust Council and The Texas Agricultural Land Trust have developed multiple

initiatives around the phrase wide open space that imagine the vast, yet sparsely populated, rural areas of Texas. However, the phrase is not limited to geographic descriptions, but economic also. No matter the particular implementation of the phrase “open spaces” the rhetorical connotation is one of unlimited resource.

The tax valuation of open-space land in Texas is constrained by these conflicting tensions of a state that is both coming to terms with the limits of natural resource extraction and attempting to address the challenges of prospective population growth.⁵ As the population in Texas increases, urban areas have expanded and communities have failed to rein in energy and water consumption.⁶ Where and in what way economic and population growth extends has become a contentious issue. These issues are not limited to either urban or rural communities but instead reflect increasing strain as urban areas continue to grow and rural communities rely on new economic opportunities derived from expanding urban populations (Batheja 2014; Satija 2013).⁷

⁵ In October 2014, The Institute for Renewable Natural Resources at Texas A&M University released Texas Land Trends, an inaugural report that tracks land use and fragmentation in Texas. Drawing data from the state comptroller’s office and the USDA, the report claims that in that from 1997-2012, Texas ‘lost’ 1 million acres of agricultural lands to commercial and industrial use, most notably in the rural areas surrounding Austin, Dallas, Houston and El Paso. Institute of Renewable Natural Resources. “Texas Land Trends.” *Texas Land Trends*. <http://txlandtrends.org> (Accessed January 4, 2017). The report was widely discussed in online news media as well (Ver 2014, Schattenberg 2014).

⁶ National Public Radio’s now-defunct online news magazine *State Impact: Texas* offered the most comprehensive reporting on the implications of growing energy, water consumption and drought information in the state (Buchele 2014; Buchele, Philpott, and KUT News 2015).

⁷ Additionally, the Austin-based news agency *The Texas Tribune* provides multiple reports on population and economic growth. In the mid-2010s, they produced three weeklong series to examine these issues, “Bypassed by the Miracle,” “Falling Behind,” and “Hurting for Work.”

The mundane bureaucracies required to adhere to the tax valuation of wildlife management change the properties and practices of rural communities, in effect creating new modes of constituency. Wildlife management is not only an agricultural valuation of property, but also a means of systemically negotiating and enrolling rural constituents into an economy of conservation based on bureaucratic practices. Landowners compile and submit meticulous documentation to legitimate their practices that record the development and management of native wildlife habitats. While these legitimating documents are submitted to appraisal districts for approval, the documents have consequences beyond individual landowner tax valuations. On the one hand, participating in bureaucratic practices creates physical records of the evaluative procedures used to legitimate property rights and practices by interpreting environmental conservation on private lands as a means of production akin to conventional agricultural practices. But on the other hand, these documents enroll rural landowners in a knowledge economy in which individuals re-inscribe diverse knowledge practices to the new valuation, substantially changing how agricultural lands function and look. As conservation practices are co-constructed by participants and experts and mediated through bureaucratic documents, focusing on practices reveals how rural lands are transformed from conventional agricultural spaces to sites of environmental conservation.

While the focus of tax law is property valuation, the implication of participating in wildlife management institutes a negotiation of conventional or traditional knowledge of agricultural lands with contemporary values of the economic role of scientific knowledge, specifically environmental knowledge and biological diversity. As

participants transition practices, the valuation exposes the ways in which governing subjectivities through bureaucratic practices is a process of negotiation, mediation, and enrollment that links everyday practices to economic value and the construction of a particular kind of rural constituency. The tension between the value of different knowledge claims and the diverse practices they support is central to this dissertation. This negotiation is legitimated through tax law, the practices of which require landowners to justify the transition of the appraisal away from physical property to scientific practices of evaluation and management. This dissertation examines how and why bureaucratic practices of tax law transition economic value from rural properties to knowledge practices. Furthermore, as practices and documents link state and federal agencies with local issues, investigating the discursive regimes of overlapping people, organizations and practices unravels the complex social milieu in which wildlife management (and conservation on private lands more broadly conceived) occurs as an actually existing account of neoliberal governance.

As biologists work closely with landowners to experiment and develop new land management practices, specialized knowledge concerning native species and biodiversity is fostered. Landowners participate in local and nationally supported projects, sharing and combining their experiences and data with other participants. Importantly, landowners transition from novices to experts in a particular kind wildlife biology that is mediated by the relationships that develop with state biologists, bureaucratic participation, and local conditions.

The requirements of the tax valuation—lengthy plans that must be annually approved and revised—offer the opportunity to investigate the relationship between

epistemological practice and ontological analysis of action and being in the world. As landowners author detailed wildlife management plans, which are reviewed by both the appraisal district offices and state agents, neighbors share insights, experiences, and even strategies for approval to enroll other landowners in the wildlife management valuation. The legal documents disseminated activate social relationships to transform the established practices of farming and ranching to the everyday practices of wildlife management, essentially combining expert knowledge with everyday practices. Previously identifying as farmers and ranchers, many participants work diligently to create new, reliable, and trustworthy identities to negotiate their role in the community, drawing on both their established position and the new practices in which they are engaged. Characterized by the finely textured local politics and contending knowledge practices of rural communities, these documents and practices also enact micro and macro concerns of economic development, environmental policy, and legislation.

Investigating the context in which the specific valuation categories of property taxation were developed in the 1990s begins to reveal the complex negotiations of space and identity landowners must engage. Beginning with the election of Governor Ann Richards, state agencies were re-structured to eliminate overlapping responsibilities and reduce the state budget. As a consequence, TPWD drew on federal funds to develop a series of environmental conservation best practices for private landowners, and through a special inter-agency task force TPWD promoted rural economic development for nature tourism. However, as wildlife management became a formal component of the state property tax law, the bureaucratic requirements of the tax valuation enrolled landowners in a new kind of property regime in which scientific knowledge was

established as legitimate land management practice. While changes in property valuations represent familiar functions of tax law, investigating the accompanying change in knowledge practices draws attention to the various steps conducive to creating new productive market economies. Furthermore, as nature tourism fails to develop in the state despite the widespread enrollment in wildlife management, this dissertation examines the consequences of environmental conservation of private lands. While landowners are cultivating new ways of understanding wild species, they are also creating new forms of domestic labor that situate conservation as a private enterprise.

1.2 Experts, Neoliberalism and Bureaucratic Practices

While the larger conditions of urban growth and rural development in Texas contextualize changes in the legal structures of property management, this dissertation emphasizes how changes in practices and knowledge structures reflect significant changes to how science, law, and the economy are structured and made legitimate to enroll participation in policy that attempts to address these larger conditions. Conceptual framing and scholarship from Science and Technology Studies (STS), political ecology, rural studies, and environmental history help to situate this dissertation in a larger body of work that examines how governance functions to create social order.

I draw primarily from scholarship in STS to understand how expertise is configured in science and law. This work builds on the foundational concept of co-production or how “the ways in which we know and represent the world (both nature and society) are inseparable from the ways in which we choose to live in it” (Jasanoff 2004, 2). From this perspective, social order is mediated by scientific knowledge

(representations of the world) and the rule of law (how we choose to live). However, recent scholarship in STS attempts to reveal how marginalized groups, or those persons and actions that are not specifically valued in society, are subsumed in contemporary governance structures by focusing on the role of market and finance in shaping knowledge production (Lave 2012, 2015; Lave, Mirowski, and Randalls 2010; Mirowski 2011).

Foundational scholarship across many disciplines including history, geography, and anthropology examines this contemporary focus on market governance as neoliberalism, or the ways in which governance projects are constructed to support global market economies (Escobar 1995; Harvey 2007a; Stedman Jones 2012). Importantly, reconfigurations of property laws and rights (taken together to be *regimes of property*) are the means by which neoliberalism prevails as a dominant social force of state crafting (Foucault 2010; Lemke 2001; Wacquant 2012). Moreover, within these sweeping definitions of neoliberalism, there is a concerted focus to examine and call attention to “actually existing neoliberalism” (Brenner and Theodore 2002; Wacquant 2012; Hilgers 2012), alternatively referred to as “mobile technologies of neoliberalism” (Collier and Ong 2005; Ong 2007). This work calls attention to how market forces are embedded in the tangible practices and bureaucracies by which neoliberalism structures everyday lived experiences by investigating the various ways participation in policy initiatives is made legitimate and illegitimate (Bourdieu, Wacquant, and Farage 1994; Bourdieu 1999; Goldman, Nadasdy, and Turner 2011; Lave, Doyle, and Robinson 2010).

1.3 Legal Fictions

This work extends scholarship in STS concerning the co-production of social order to investigate how law is constructed as a series of narratives to enroll constituents in new regimes of property. Wildlife management is a distinct form of neoliberalism that relies on the specific contexts of legitimacy developed by participants who negotiate meaning through bureaucratic participation. Within the legal codes that govern property in Texas, wildlife management as a form of agriculture is a legal fiction. Within legal practice, legal fictions refer to how facts are presented as evidence as various parties participate in adjudication (Fuller 1967; Moglen 1990). Importantly, legal fictions do not change specific laws and regulations. In implementing legal fictions, legal participants attempt to interpret and maintain the status quo established by the law by sustaining specific narratives of action to support the normative behavior implicit to the law. However, in this research I attempt to move this understanding of evidence and narratives to the forefront of understanding the unique way property law in the United States has developed. While legal scholars limit the use of legal fictions to disputes and adjudication, I argue that legal fictions are a mainstay of US legal practice (including regulatory and statutory law), in which compelling displays of evidence determine the legality or illegality of social action. I present a theoretical frame that examines legal fictions as both practices and technical tools of law to reveal how various legal and non-legal actors negotiate expertise. In the framework presented in this dissertation representations of the world and the rule of law do not alone dictate social order. Instead, legality is mediated by constituents who determine who can speak, what can be said, how facts are constructed and how authority is made legitimate.

This framework employs components of genre analysis and a politics-of-technology approach to understand how and why expertise, authority, and participation are structured in property law. Primarily, I draw on genre theory to present legal fictions as genres of social action with distinct forms and functions, creating a method for identifying and evaluating how legal fictions operate (Miller 1984). Secondly, I draw on STS scholarship concerning the politics of technology to reveal how bias and power are implemented in legal action (Hilgartner 2009; Riles 2010). And finally I draw on Dorothy Smith's (1990) work on ruling relations to understand how marginalization is reproduced despite the ostensible ability for any or every one to speak. Combining these perspectives creates a framework that examines how neoliberalism functions contemporarily as a means of enrolling constituents in local policy endeavors that, nevertheless, maintain the logic of market governance.

In this novel approach to theorizing how governance is structured through law, science, and economy, focusing on bureaucratic practices identifies distinct changes in knowledge practices. Furthermore, I hope that by presenting an analysis that identifies the different foundational components of law, new work can be instigated to challenge those foundations. In this effort, it is my intent to reveal how law is not a stable structure, but instead, it is a contingent and flexible process of leveraging authority within legal fictions. In wildlife management, both scientific and economic authorities are presented as rationales for participation. However, given the diverse ethnic history of a place like Texas, cultural values of diversity, for example, might also be leveraged to create compelling narratives within legal fictions that promote a more fair and just participation in legal ventures like wildlife management.

Ultimately, this dissertation is significant because it adds to scholarship concerning domesticity, or how knowledge about the world changes the way we know about and act in the world (Haraway 1997; Hilgartner 2009; McKeon 2009; Shapin and Schaffer 1985). As a study of domesticity, this work reveals how governance policies such as wildlife management, uphold private property and enterprise, rely on positivistic forms of scientific knowledge, and enroll participation to constitute social order. As wildlife management creates knowledge practices regarding wild animals and habitat, two important changes take place. First, the colloquial difference between nature and culture shrinks when wildlife becomes things “to be managed.” Second, and most salient to this dissertation, the boundaries between public and private are reset or renegotiated so that wildlife (legally identified as a public good) is protected through private enterprise as individuals legally assume management of not just the spaces where wild species live, but also in accounting for how they move through that space. In these two ways, knowledge concerning the validity of public and private actions and authority substantially changes.

1.4 Designing an Ethnographic Case Study

This dissertation is driven by a desire to understand not only what governance is but also how it structures constituency and participation in society. As such, the methods and theories used to gather and make sense of information across these scales was informed by a variety of methodological practices that have coalesced as an *extended case method* (Burawoy 1998). Using this method, I have attempted to engage in reflexive ethnographic research methods to “extract the general from the unique, to

move from the ‘micro’ to the ‘macro,’ and to connect the present to the past in anticipation of the future, all by building on preexisting theory” (Burawoy 1998, 5). My own study of conservation on private lands comes from familial discussions concerning the future of our farm and the strategies used by those actually living on the farm to preserve the land as an inheritance for the next generation. In this work I use my experiences as the newest generation in a multi-generational farming family in Central Texas to investigate a larger trend in the state concerning the fragmentation of agricultural lands through development and issues of inheritance (Johnson and Klemens 2005). Returning to the area for approximately thirteen months over the past three years, I have conducted ethnographic interviews and participant observation to elaborate on Ong’s theory of neoliberalism “as a logic of governing that migrates and is selectively taken up in diverse political contexts” (Ong 2007, 3). This work takes seriously the idea that neoliberal technologies look different across locales, and draw on the distinct contexts of locations, ethnicity, and history to develop community participation in the construction of new market economies.⁸

1.4.1 Archival Research

I conducted archival research primarily at two repositories: The Dolph Briscoe Center for American History at the University of Texas and the Texas State Library and

⁸ I am thankful to Michael Mascarenhas and Michael Bouchey for conversations that helped me to understand and elucidate how neoliberalism is a political force that actually takes difference seriously. While neoliberalism is a homogenizing effort, the ways in which neoliberal programs create market economies that govern communities differs in response to the specific conditions of each locale. As neoliberalism transitions from an abstract theory and ideology to physical governance structures, understanding how enrollment takes places becomes the means to ‘seeing’ neoliberalism in action.

Archive. Additionally I examined archival materials at the Cameron Public Library in Milam County and the George W. Bush Presidential Library and Museum at Southern Methodist University. The following table identifies each collection I reviewed, as well as the dates I conducted research.

Table 1: Research Archives and Collections Visited

Archive	Collections	Dates Visited
<i>The Dolph Briscoe Center for American History Research and Collections at the University of Texas</i> (Austin, TX)	<ul style="list-style-type: none"> • Ann Richards Papers • Roy Bedicheck Papers • Richard Fenner Burges • Walter Prescott Webb Papers • Robert Brandes Papers 	<ul style="list-style-type: none"> • November 2013 • July 2014 • December 2015 • June 2016
<i>The Texas State Library and Archive</i> (Austin, TX)	<ul style="list-style-type: none"> • Texas Parks and Wildlife Department • Texas State Parks Board • Clyde Alexander Papers • Commission on Environmental Quality • Texas Governor Rick Perry • Texas Natural Resources Conservation Commission 	<ul style="list-style-type: none"> • November 2013 • December 2015 • June 2016
<i>Cameron Public Library</i> (Cameron, Texas)	<ul style="list-style-type: none"> • Milam County Historical Documents 	<ul style="list-style-type: none"> • Fall 2015
<i>George W. Bush Presidential Library and Museum at Southern Methodist University</i> (Dallas, TX)	<ul style="list-style-type: none"> • George W. Bush Gubernatorial Papers 	<ul style="list-style-type: none"> • June 2016

Each archive visit presented its own unique rewards and challenges. Importantly, the documents I reviewed in the Ann Richards Papers at the Briscoe Center were only tentatively organized, alternatively by date, theme, or policy program. I draw on these

documents extensively in Chapter Three to attempt to re-create the historical events leading up to the wildlife management property tax category. While I have strived to identify related correspondence and reports within the collection to identify the events and conversations concerning conservation during Richards' tenure as governor, given the considerable size of the collection and my limited focus on the governor's papers, the story I narrate is only partially complete. However, documents from the Texas State Library and Archives (TSLA) often confirm the programs I describe and where possible, I cite both source materials.

In addition to the physical records at the TSLA, I examined many of the online legislative resources for Texas Senate recordings, Senate committee minutes, and individual bill histories, as referenced in Chapter Four. The bill histories in particular are chronological records that document how each proposed bill was presented and evaluated in the legislature. Additionally, the physical records at TSLA documented how each bill was individually authored and reviewed by legislators, state agencies and administrators. Identifying the overlap between these documents provided the foundation for understanding how legal fictions operate in legislative endeavors.

1.4.2 Ethnographic Research

The ethnographic fieldwork for this dissertation was conducted over the course of three years. I received initial Institutional Review Board approval for "IRB 1306: Tax Assessment and Wildlife Management in Rural Agricultural Land Management" in November 2013 and renewed each subsequent year. The preliminary visit in December 2013 consisted of (in addition to viewing archival materials) interviews with landowners and biologists. And over the course of the following three years, I conducted twenty-five

recorded interviews with landowners in Milam County, TPWD biologists and administrators, civil servants at the Milam County Appraisal District, and administrators at the county extension office in Milam County. These interviews were semi-structured with questions informed by relevant literature, archival research, participant observation, and previous interviewees' responses.

Participant observation created a structure by which to understand how landowners, biologists and appraisers negotiated bureaucratic practices to create legitimate processes of tax assessment concerning wildlife management. By joining landowners in training sessions I was able to understand first hand how the bureaucracy was communicated as a flexible means of documenting their practices. Joining biologists as they met with landowners allowed me to see first hand how some categories contained in the forms were foregrounded and others quickly dismissed. And by participating in the wildlife management practices of individual landowners through census counts, planting cycles, and habitat development, I was able to see how conservation practices were tailored to specific properties and then communicated to appraisal district employees as evidence of adhering to the bureaucratic requirements.

While Texas is, indeed, a wide open space, situating this research in a particular part of the state required thoughtful consideration of the social contexts at work in the state and how I might negotiate those contexts successfully in my own research. This research began as a means of understanding how the specific concerns of my familial life might relate to general concerns of the state. I conducted ethnographic research in Milam County, the place where my family originally settled when my great grandfather Joseph Slavik first moved to Texas in the mid-19th Century from what is now the Czech

Republic. Conducting and completing this research relied on the acceptance and generosity of my family still located in the county. My primary interlocutor was my aunt, Katherine Bedrich (my mother's sister), who with her husband Charles maintained the farm that my grandmother and grandfather owned. Katherine introduced me to other landowners who participated in wildlife management, and initially helped me to navigate the rural community in Milam County. The familial ties in Milam County are close knit and interesting to say the least. As a white person descended from Czech and German immigrants who settled in the county at the same time and from the same general European regions along with a handful of other Czech and German families, most of my interactions with other white people in the community began by attempting to figure out how we were related. I found that more often than not, most of my interviews were conducted with distant cousins. While I may have never met these people before, these familial ties helped to establish me as a local in the community.⁹

As I narrowed my research to focus on property tax, I chose to situate my work at the county level to focus on one particular tax district. Milam County is centrally located, and is almost equidistant from the three largest metropolises in Texas: Dallas-Fort Worth, San Antonio-Austin, and Houston. Placed between these three urban areas, Milam has an extensive history of farming and ranching. Furthermore, current trends in real estate purchases from urban-based landowners in neighboring counties for weekend recreational use, such as hunting, fishing, and camping, complicate narratives of

⁹ Nevertheless, this was often as not undermined by closer family members like my aunt and uncle who would introduce me to their friends as “my niece, the Yankee,” citing a mathematical equation in which the years I had spent outside of the state were either the same as or longer than the years I had spent in the state. At moments like this, I attempted to laugh off the math and reassert my commitment to the community and returning to my home, with mixed results.

agricultural valuation and wildlife management specifically. Milam County is a bellwether to what many state agencies are identifying as trends in rural communities, land ownership, and economic development: absentee landowners, urban expansion and rural land fragmentation (Kjelland 2007, Wilkins 2000).

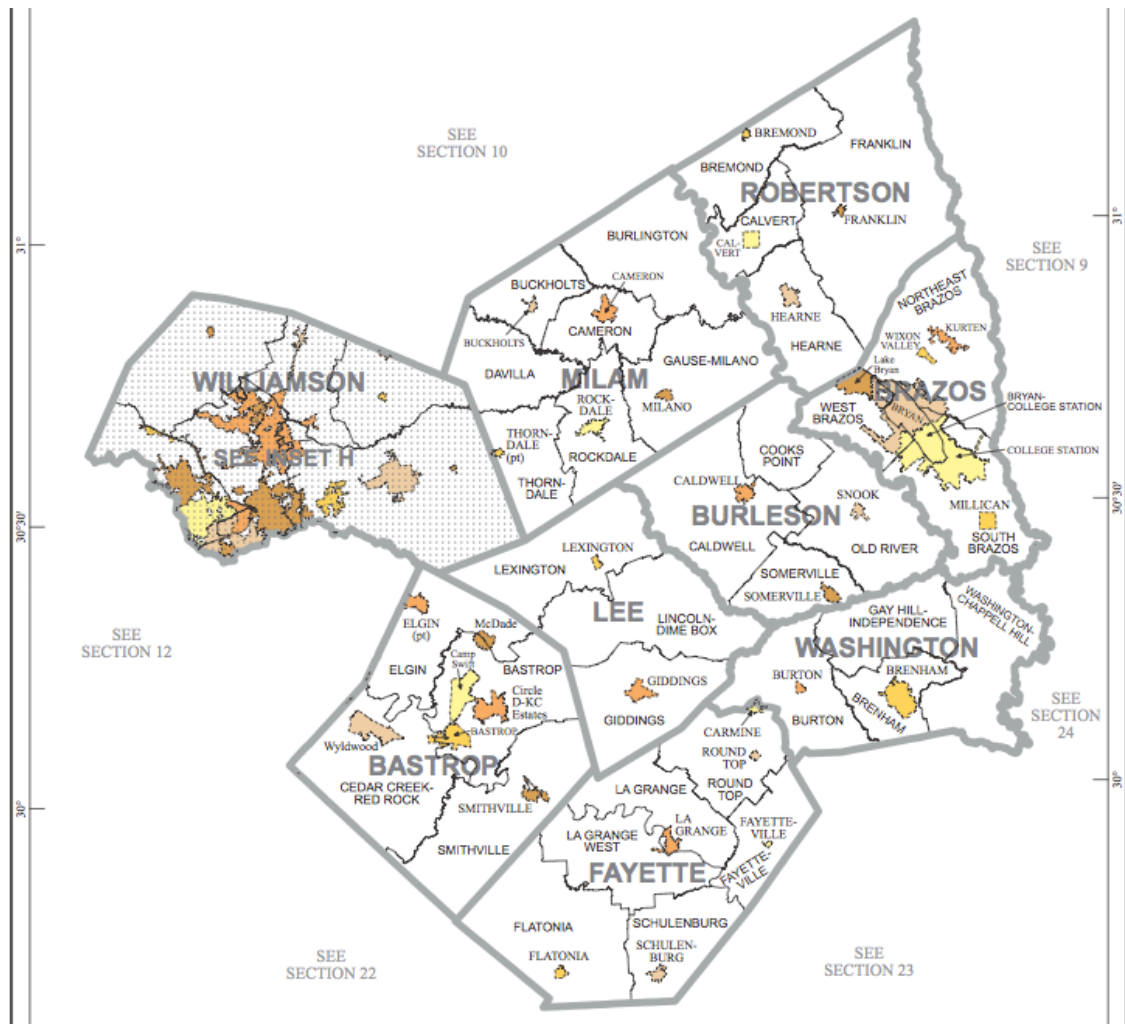


Figure 3: Milam and Surrounding Counties

In this map produced by the United States Census Bureau (2012), Milam County is surrounded by similar rural communities. Travis County (where Austin is located) would be between Williamson and Bastrop Counties. The colored areas identify municipal boundaries Milam County is predominantly rural.

Changing Texas

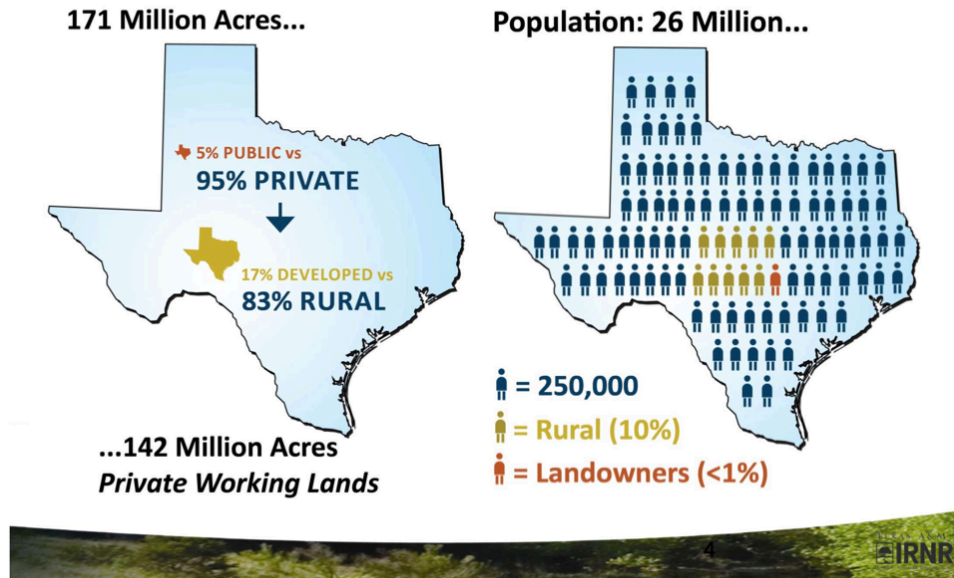


Figure 4: Graphic Illustrating Landownership and Public/Private Lands
This slide from Institute of Renewable Natural Resources (2014) attempts to illustrate the relationship between the dominance of private lands in the state (95%) with the marginality of actually landowners (less than 1% of the population). The purpose is to establish a crisis of responsibility concerning the conservation of these open space privately owned agricultural lands, which the report labels “working lands.”

My ties to the community have become even stronger since completing this fieldwork. Katherine Bedrich passed away unexpectedly in November 2017 and in the months since I have returned to Milam County often to help my uncle complete the bureaucratic requirements of the tax law, maintaining the agricultural valuation on the property, and developing new wildlife management practices on the farm that more accurately reflect his desires for creating habitat for wildlife. My role on the farm has constantly shifted since Katherine’s death; I no longer only observe how landowners negotiate practices with biologists and appraisers. I have engaged in the bureaucratic

process of creating new practices that legitimate the wildlife management assessment of the property. I have met with neighboring landowners to compare practices, and my uncle and I, in collaboration with the wildlife biologist in our area, have created a five-year plan that highlights new management practices we wish to introduce on the property.

However, my familial ties to Milam County do not reflect the racially diversity that exists in the county. Hispanic, Latino, African American and white families settled in the county going back 150 years and the boundaries between these groups are only now being crossed by interracial marriages. Despite these progressive changes in the community, my informants were all white landowners. While I attempted to speak with Hispanic and African American landowners, I was unsuccessful in those efforts.

While I observed and participated in wildlife management extensively in the summer of 2014, the majority of the participant observation work occurred when I lived in Milam County from July 2015 to February 2016. At this time I joined and received certification with the Good Water Master Naturalist Chapter in Williamson County, north of Austin. The Texas Master Naturalist Chapters are an education and outreach volunteer program focused on community involvement with nature and the outdoors and are co-sponsored by TPWD, as well as the AgriLife County Extension Services. It was through the Master Naturalist program that I was able to meet landowners and biologists from across the state. I also worked closely with the El Camino Real Master Naturalist in Milam County to create and conduct workshops and educational programming and volunteer in the community. Additionally, I was able to join Tim Siegmund, a TPWD biologist who works with landowners in Milam County to develop wildlife management

practices for the tax valuation and documents, on his meetings with landowners in the area.

Before concluding this discussion of ethnography and ethnographic field practices, I should further address my own identity and efforts to witness events and interactions while conducting research. As I discuss in subsequent chapters, witnessing (and the resulting testimony of that act) is a means of making actions public. Haraway (1997) and Shapin and Schaffer (1985) have posited that witnessing specific practices is a means of transforming private ventures into public accounts. Consequently, witnessing is not without politics as those who testify put forth a particular version of events. This is indicative of both the descriptions of interactions I put forth in this dissertation, as well as my own positioning in the field (Clarke 2005; Haraway 1998). While the ethnographic descriptions present my own understanding and perspective of events, the analysis in this dissertation reveals the motives of landowners who willingly participate in state policies. My ethnographic accounts are testimony to what I conclude is a domestic form of environmental conservation on private lands. In the descriptions of actions and events that ensue, I alternate between my own witnessing and descriptions of the witnessing of others. These testimonials give credence to practices, and for better or worse, legitimate some practices while marginalizing others.

1.4.3 Discursive Analysis

Archival research and ethnographic fieldwork ground this dissertation empirically, but discourse analysis provides the means by which I make sense of my data. I evaluate statements in archival materials and ethnographic fieldwork as discourses, or “a regulated practice that accounts for a number of statements” (Foucault

1972:80).¹⁰ Speakers and texts articulate a variety of responses in relation to their social conditions and actions, and these utterances provided the empirical evidence for how governance is structured in everyday life. In understanding how to make the leap from specific and local conditions to the general constraints of neoliberalism, I take seriously the discourses of my fieldwork to understand how “[r]uling relations consist of textually based systems of control” (Campbell 2004, 435 (citing Smith 1999)). I specifically focus on genre as a means of understanding how different discourses manifest. I draw on Carolyn Miller’s work concerning the dynamic nature of discourse through genre to “help account for the way we encounter, interpret, react to and create particular texts” (1984, 151). In this way, specific instances of legal adherence and bureaucratic participation are social actions that draw not only on particular forms, but also motive and situations specific to the context of the generic texts (Burke 1969; Jamieson and Campbell 1982). There are four discursive moments that I draw on for my analysis: interviews, legislative and legal documents, archival material, and the binders documenting management practices that landowners use to document and legitimate their wildlife management practices. Through discursive analysis of these texts, this dissertation shows how relationships to land are governed by the legal value of property ownership as characterized by local contexts and conditions.

¹⁰ The discussion of regulated practice and discourse is more fully explored in Sara Miller’s book *Discourse* (1997).

1.5 What are the Consequences When Conservation Moves from Public Spaces to Private Property?

The research questions that have driven this dissertation have adjusted over time to reflect archival research, ethnographic fieldwork, and the literatures reviewed. Very broadly, the research questions are organized to examine hierarchies of scale, or how questions concerning institutions, practices, policy initiatives, community development, and local knowledge mediate authority and expertise. As such, the research questions from the initial proposal have been refined to explicitly address hierarchical structures in governance, authority, and knowledge practices. As stated in the previous section, this research is guided by the foundational question concerning how neoliberal governance is structured and implemented in the real property regimes of Texas. However, more generally this work seeks to understand the social consequences of environmental conservation on private lands. How are the relationships between people, animals and plants transformed by the implementation of new knowledge and labor practices as public practices transition to private enterprise? The answers to this question lay in evaluating the mobile technologies of neoliberalism not as a means unto themselves, but as part of a larger program of governing social order such that relationships are mediated by the rule of law.

Investigating social relationships and governance structures is a multi-faceted endeavor. As landowners engage in environmental conservation, their everyday management practices are translated to the bureaucratic requirements of the tax law and the appraisal office. This translation happens at multiple stages: from informal and formal conversations to draft documents to submitted forms (which are often, after

approval, shared with neighbors). As these documents travel between venues, the discourse of wildlife management changes to reflect tensions, overlaps, and even points of collaboration between local practitioners, state-employed biologists, and legal experts. But how these changes take place is situationally specific and relies on community specific expert speakers. At the very micro level, this dissertation examines who can speak and what can be said at multiple scales to legitimate environmental conservation on private lands in Texas. Importantly, studying the development and practice of bureaucracy makes visible how these hierarchies of power are instantiated.

In addition to understanding the stakes of environmental conservation efforts on private lands, I argue that the consequences of wildlife management substantially challenge the divisions between public and private concerning wildlife and nature. As environmental conservation shifts from public spaces to private lands, new knowledge practices are created that change how people think about nature. This dissertation attempts to understand the consequences of these challenges and changes.

1.6 Summary of Chapters

This dissertation is roughly organized by chronology and theoretical analysis. In addition to an introduction and conclusion, five main chapters explore the various instantiations of environmental conservation on private lands.

Chapter Two presents a review of literature from STS, rural sociology, and other interdisciplinary fields to sketch out recent scholarship concerning environmental knowledge, rural development, bureaucracy, and neoliberal governance.

Chapter Three draws on archival research to examine the historical context of conservation efforts in the 1990s as part of larger restructuring and economic development in the state. By focusing on four different environmental contexts during the early '90s, I identify four discursive themes (development, consumption, property rights, and entrepreneurialism), which converged to established wildlife management as a tax valuation in 1996. As Governor Ann Richards attempted to restructure state agencies in the early 1990s, economic development guided the organization of new state programs. At the same time, TPWD developed a series of new education and outreach programs to cultivate new forms of outdoor consumption in an effort to draw new audiences to state parks. However, as federal agencies moved to identify and create critical habitat for endangered species, public outcry drew on discourses of private property rights to prevent federal intervention on private lands. Finally, as Governor George W. Bush took office, wildlife management was approved through a state constitutional amendment as a legitimate form of agricultural appraisal.

Chapter Four presents the theoretical frame for examining legal fictions as genres of social action to evaluate how practices and technical tools of law structure expertise and mediate knowledge. Private ownership and the value of property are constructed as legal fictions that draw on a cultural history of productive agricultural lands. These laws are maintained through the constitutional structure and oversight of state agencies. As new legal fictions are created and made into legislation that legitimates environmental conservation, new ways of interpreting and understanding the value of property are created. Importantly, the chapter evaluates how legal fictions as genres of social action

have particular forms and functions that establish the structure of participation, what can be said, and who can speak with authority.

Chapter Five draws on ethnographic fieldwork and primary document analysis to investigate the everyday practices of wildlife management. This chapter examines the various discourses of wildlife management to understand how landowners adhere to the wildlife management tax valuation by leveraging various discourses and bureaucratic participation. In this chapter I draw on participant observation with landowners and biologists, as well as interviews with appraisers and TPWD administrators, to understand the land management practices. Additionally, I examine the binders landowners submit to comprehend how knowledge about the environment is mediated by bureaucratic texts and practices. This chapter delves into the notion of expertise and attempts to understand how the legal fiction of wildlife management as agriculture structures knowledge practices.

Chapter Six draws together the three previous chapters to posit how changes in knowledge practices are also changes in domesticity. As wildlife management transitions farmers and ranchers to environmental stewards, new knowledge and distinctions regarding the divisions between public and private are instantiated in the legal values of property and ownership. Wildlife management may be a particular mobile technology of neoliberalism that works to create new economic markets and structure the participation of constituency; however, wildlife management substantially changes the relationship between people, animals, plants, and landscape to structure new knowledge divisions and new forms of labor. This chapter examines the consequences of these new boundaries between public and private.

1.7 Notes on the Jargon

Every profession has its own set of specialized vocabulary used to communicate with insiders. This jargon may seem familiar enough to the outsider, though upon closer inspection, often nuance and action are lost. While it is not my attempt to bombard the reader with specialized terms concerning tax law and conservation—nor is it my intent to speak to the general public in my dissertation—I have attempted to write in a “middle of the path” kind of way. However, before enrolling you, the reader, in this adventure of sorts, it may be helpful to clarify a few terms to avoid some—though most likely not all—confusion. Additionally, these terms are further clarified and refined in each chapter.

1. Value, valuation, and evaluation

- a. “Value” and “evaluation” can be taken for their most general definitions.

For instance, cultural value and culture worth are almost interchangeable, and evaluation is synonymous with examination or investigation.

However, valuation refers to the specific terms in tax law: Valuation, much like appraisal, is the technical way that a very specific piece of property is taxed. While I have attempted to maintain these divisions throughout the text, there are occasions when “legally valued” and “valuation” are interchangeable. This being said, in the literature review, I use the phrase “valuation practices” from Hull (2012) and Lamont (2012), which is always a two-word phrase to distinguish from the appraisal practice of valuation. For further clarification, valuation often refers to a kind of equation, while evaluation is a judgment.

b. Despite these differences within the dissertation, the overall title of this text attempts to get at the heart of the changes I describe throughout the dissertation. “Valuing Constituency” is the way in which knowledge practices concerning wildlife management are subsumed into a larger governance project focused on maintaining the productive valuation of land in Texas by positioning landowners as managers of wildlife, a potential resource for economic production.

2. Legal and legitimate

- a. Legal refers to the ways in which individuals adhere to law. For example, “she legally crossed the street.” In this fictional case, one assumed she used the cross walk and did not jay walk. Legitimate, however, is the way in which practices are constructed as legal. In this dissertation the appraisers determine legitimacy of wildlife management practices not through the evaluation of formal documents, but by evaluating the informal documentation of knowledge practices. Legality is constructed through bureaucratic participation, which (as Chapter Five describes in great detail) is more than just the submission of the correct forms. Participating in the bureaucratic practices of wildlife management makes environmental conservation legitimate forms of property management and ownership that can and will be taxed to adhere to a particular property regime.
- b. Additionally, while I focus on this in detail in Chapter Four, legality is mediated and negotiated through the use of legal fictions. When different

actors and different discourses use the same legal fictions to justify their actions, these moments reveal *where* in the rule of law flexibility might be located.

3. Technologies

- a. Drawing on the work of Ong (2007) and Riles (2005), technologies refers not only to physical tools, but also to the formal processes or practices that are used as tools to implement specific political action. Technologies are not always physical artifacts, but as Winner (1986) posits, the use of technologies is always a political endeavor. Through the implementation of technologies such as legal fictions, political actions can be traced to special practices and ideological motivations.

2. HOW KNOWLEDGE MIGHT BE MEDIATED BY PARTICIPATION: A REVIEW OF RELEVANT LITERATURES

Knowledge practices gain meaning and value when they attempt to address specific issues concerning social order. The wildlife management referendum and the ensuing tax valuation highlight a series of knowledge practices that are mediated through bureaucratic processes to address larger concerns of rural communities in Texas. The everyday practices of landowners on rural properties in Texas are developed and negotiated through personal and bureaucratic interactions, while scientific knowledge (and the implementation of that knowledge) is measured and valued in terms of economic incentives. These multiple considerations of practice and policy are aggregated in one tangible space: rural farmlands in Texas. While the populace of rural communities is changing in response to varied concerns both social and geographic, land-use practices are also changing. And many of these practices are mundane in the context of farm life: walking the property, talking with neighbors, predator control, census recording, and contracting labor. However, these practices are legitimated in conservation management when accounted by the bureaucratic practices of property tax assessments. Discourses of economic and environmental change, as well as expert authority, are magnified through bureaucratic procedures.

This dissertation takes as its primary premise that constituents in the rule of law mediate how social order is constructed by governance structures. This is not to say that everyone participates equally in legal processes or even that everyone gets to choose how to participate in governing regimes. In fact, it is the opposite. Law is an ordering mechanism that functions to control discourses and participation in governance through

specific and formulaic processes. Meditations (and negotiation) concerning the rule of law take place as individuals figure out how to be legal participants in the everyday practices of law (or of being “law-abiding” citizens). As participants bring in different knowledge practices and cultural values to interpret the rule of law, determining which actions are legal (and which are not) is not just a top down consideration of governance, but also a means of enrolling constituents into governmental programs. While legal fictions, described in detail in subsequent chapters, provide the means by which to understand mediation, this chapter reviews interdisciplinary scholarship that examines how knowledge is mediated through formal (and often bureaucratic) structures. Importantly, these knowledge practices are a component of governance and those who engage in the procedures participate in particular forms of governmentality. So, while wildlife management as a tax valuation may be a contemporary practice, the social, political, and economic structures that support the practices are reflective of a complex legacy of governance, namely neoliberalism.

To understand how politics of knowledge practices translate into governing regimes, this literature review features scholarship across disciplines, including Science and Technology Studies (STS), cultural geography and political economy. It is divided into four parts to investigate how scholars have characterized and understand these issues. “Environmental Knowledge(s) and Governance” examines interdisciplinary scholarship in STS regarding expertise and the production of scientific knowledge. “Rural Communities” gathers work from rural sociology and anthropology to understand the major issues of contemporary rural development. “Neoliberalism” attempts to map out disparate views concerning how economy shapes governance. Lastly, “Bureaucracy”

identifies key works across disciplines regarding the mundane practices of governance through accounting procedures.

2.1 Environmental Knowledge(s) and Governance

Knowledge concerning the management of private lands is construed through policy initiatives as a means of governing those practices. A starting point for investigating knowledge practices is Shelia Jasanoff's concept of co-production:

co-production is shorthand for the proposition that the ways in which we know and represent the world (both nature and society) are inseparable from the ways in which we choose to live in it. Knowledge and its material embodiments are at once products of social work and constitutive of forms of social life (2004, 2).

As Jasanoff develops the concept as both a method and theory of analysis, the production of knowledge is a collaborative social endeavor that takes into account how we know the world (via scientific knowledge) and how we live in the world (via the rule of law). Co-production is a normative analysis of social action such that "we" is always only a hegemonic pronoun referring to those who make order (and not those subsumed by it). However, as a conceptual framework for understanding knowledge practice, co-production affords the means of examining how governance is structured. And as other STS scholars continue to elucidate the relationship between knowledge production and governance structures, the focus has changed from normative stances to understanding how multiple knowledge practices are negotiated, enrolled and marginalized (Law 2004; Mol 2003).

This focus on multiple ways of constructing knowledge about the world to create systems of governance is explored in three recently edited interdisciplinary volumes that attempt to understand how environmental knowledges are negotiated at the micro level and developed through political endeavors at the very macro level. *Knowing Nature: Conversations at the Intersection of Political Ecology and Science Studies* (2011) edited by Mara J. Goldman, Paul Nadasdy, and Matthew D. Turner focuses on how knowledge practices are produced and circulated through political actions. Specifically, this book presents a series of case studies that examines how knowledge about the environment is characterized as expertise. Thus, the identification and promotion of expertise is a political undertaking that creates hierarchies of environmental knowledge practices. While many of the chapters are salient to this dissertation, Nadasdy's chapter on unmasking the agricultural metaphors of wildlife management underpins my own analysis of why the legal fiction of conservation on private lands easily maps on to existing legal fictions. Within the larger field of eco-system management, agricultural metaphors, like harvest, fallow and cull, constrain the actions of wildlife management in such a way as to promote private property and landowner rights while also "maxim[ing] the crop for human benefit" (2011, 139). As will be discussed in subsequent chapters, this circulation of knowledge practices affords and constrains actions on private lands.

New Natures: Joining Environmental History With Science and Technology Studies (2013) edited by Finn Arne Jørgensen, Dolly Jørgensen, and Sara B. Pritchard, focuses on contemporary and historical narratives of resource and knowledge production primarily in the United States and Europe. As the title suggests, the volume focuses on how "historical phenomenon such as capitalism, consumerism, and industrialization are

modes of production or cultural values predicated not solely on social relations but also on assumptions about the environment and particular relationships between humans and the natural world” (3). As different strategies and initiatives for environmental protection and conservation develop, new ways of understanding what nature is and how humans relate to it characterize new policy developments. Dolly Jørgensen’s focus on the multiplicity of enactments states this framing even more concisely: “This is not to say that nature does not exist, but only that we know it through the versions of nature we produce” (2013, 53). As landowners, civil servants, and biologists interact and negotiate knowledge practices in Central Texas, *what* nature is—and how people interact or manage it—is characterized by the various ways individual politicize nature as a productive commodity.

Finally, *Neoliberal Environments: False Promises and Unnatural Consequences* (2007) edited by Nik Heynen, James McCarthy, Scott Prudham, and Paul Robbins examines economic structures of natural resource-based market economies to highlight the extension of economic development through neoliberal governance regimes. This critical volume argues that neoliberalism not only creates comprehensive governance structures across cultures, but also illustrates how those multi-scale governance regimes “produce predominantly environmentally undesirable and socially regressive political and economic outcomes” (2). Noel Castree’s final chapter posits the concept neoliberal ecologies to identify how difference across eco-systems is subsumed into stable social relations that re-make the natural world (2007). Castree’s focus on homogenization is important to examining wildlife management in Texas as a means of understanding how nature is transformed into a new commodity resource to produce the new market of

nature tourism in rural communities. When wildlife management was first conceived, it was as a market venture that would capitalize on the state's natural resources in a new way through the development of environmental tourism.

These volumes draw attention to the interdisciplinary scholarship conducted in which analytic frameworks highlight both institutionalized infrastructure and individuals negotiating meaning and place within these systems. Important to this dissertation are the ways in which these volumes foreground communities of practice and knowledge production concerning the environment. However, while these volumes illustrate the social relationships between knowledge and governance, this dissertation also examines how expertise and scientific knowledge is construed as a means of controlling political discourse. Two bodies of work examine how expertise is politicized to create authoritative accounts of environmental knowledge. First, contemporary scholarship in STS concerning citizen science and expertise reveals how contests of environmental knowledge and practice are negotiated to present new knowledge practices. However, significant contributions from environmental history and political ecology identified below analyze how participants in scientific knowledge practices do not only add to deliberative processes, but extend economic structures of the state.

As environmental knowledge is constructed and contested in rural communities, STS discourses on expertise, knowledge and practice provide a key analytic frame for understanding the tension resulting from contested knowledges. Within STS a recognizable literature exists that details how individuals, including public citizens, begin to take a lead in conducting practices previously reserved for scientific experts. When expert knowledge extends beyond the bounds of scholarly labor and scientific

institutions, citizen scientists are heralded as vital participants to deliberative governing processes (Epstein 1996; Fischer 2000; von Hippel 1991). However, knowledge claims about the environment are representative of a politics of knowledge. Goldman, Nadasdy, and Turner claim “what counts as valid understandings of the environment shapes contestations and outcomes” (2011, 2). Scholarship concerning knowledge practices such as these is relevant to my analysis to understand the various ways rural landowners came to look at and participate in discourses associated with wildlife management plans and their valuation strategies.

As concerned citizens begin to participate in the construction and validation of knowledge practices, new roles become available. Ellis and Waterton posit the term environmental citizenship to describe a relationship concerning volunteers and monitoring of biological diversity in the UK (2004). Building on scholarship in STS, they posit the notion of environmental citizenship to account for “the tenuous balance between subjective identities and the wider sense of belonging and constraint that make up ‘citizenship’” (Ellis and Waterton 2004,103). Active critique and dedicated participation in environmental issues characterize not just citizen scientists, but also this new form of citizenship. Desires to increase participation in environmental endeavors—most notably monitoring and collecting data—by volunteers challenges the limited view of volunteers-as-docents to encompass a reciprocal relationship of gathering data and submitting findings to and within larger research efforts. Ellis and Waterton claim, “communities of volunteer naturalists are being targeted and effectively harnessed to policy in diverse ways.... [including] [t]o fill known gaps in the understanding of the health and whereabouts of certain species” (ibid, 98). Furthermore, “volunteer identity

has a peripatetic nature moving between responsible biological recording for conservation and passionate engagement with nature” (ibid, 99). Other studies of naturalist programs outside of STS have found a similar tension within volunteers who both value a personal relationship with nature and characterize their participation in science programming as an extension of such passion (Bonneau et al 2009; Cash 2001; Guiney and Blair 2005; Guiney and Oberhauser 2009; Main 2004; Warner 2008).

While the previous works described build on Jasanoff’s concept of co-production, recent scholarship in STS challenges whether it is knowledge or practices that are co-produced in citizen science endeavors. Studying the North Carolina Sea Turtle Project, Cornwell and Campbell (2012) argue that despite the involvement of volunteers, it is not knowledge that is co-produced, but practices that are tailored to effectively support volunteers in gathering data for established scientific knowledge claims. As citizens become collaborators with scientists in environmental conservation projects, the material practices of conservation adjust to address the participants at work but do not necessarily create new modes of understanding either of the environment or conservation more generally. In Cornwell and Campbell’s research, volunteers’ knowledge concerning data collection was not always valued. Instead, there was a steady negotiation of practices to prioritize the standards of the scientific institution conducting the research while taking into consideration volunteers’ first hand knowledge.¹¹

¹¹ This research adds an interesting nuance to canonical texts in STS concerning boundary work and boundary objects that highlights how knowledge *and* practices adjust to accommodate multiple actors (Bowker 2005; Galison 1999; Gieryn 1983; Star and Griesemer 1989; Turner 2005). In Cornwell and Campbell’s findings, the knowledge boundaries (and the ensuing boundaries of authority) of biologists are impervious to volunteers, while the practices adjust to accommodate different actors. However, as Cornwell and Campbell (2012) point out, data collection practices are contingent to

Scholarship focused on citizens, science, participation, and deliberative practices does not coalesce into identical stories of progressive change. Instead, relations between institutions and individuals are negotiated and mediated, producing disparate results. However, the role of citizens remains difficult to account, and, importantly, is not always a dichotomy between knowledge and ignorance. As Kimura and Kinchy (2016) make clear, “the interpretive frameworks that analysts bring to their work on citizen science.... [is] one of the key reasons why it is difficult to generalize about the virtues of citizen science” (353). The politics of the ethnographer have as much to do with the analysis and value of citizen science efforts as do the politics of those being observed. While expert authority may be negotiated in these instances, one has to look to interdisciplinary work in political ecology, environmental history and STS to cultivate nuanced understanding of practices and contests of knowledge to reveal systemic constructs of economic value in environmental practices.

As concerted efforts are developed across a wide spectrum of ecological regions, local community organizations, as well as state and federal institutions, work to restore rural areas to wilderness (Fiorino 1995; Freyfogle 2003; Johnson and Klemens 2005; Klyza 2001; Linklater 2013). Importantly, concepts (and the practices they generate) like wilderness, restoration, management, conservation, and preservation, do not have a singular meaning when practiced in such diverse social networks. In Texas, this is most obvious as wildlife management is construed as a means of agriculture, conservation and development. As Igoe persuasively argues, the terms and practices of conservation

infrastructural standardizations and systems of authority. The accommodations that took place did not directly challenge the role of the scientific institution, but instead volunteers asserted control of both space and labor (i.e. practices) to assert knowledge claims.

change according to locale and time (2013). Efforts to distinguish concepts like these often reflect political and economic allegiances more than strictly defined efforts and practices. Quoting Büscher and others (2012), Igoe proposes that dominant forms of “conservation are recast as essentially a-political problems amenable to technical intervention” (Igoe 2013, 63). Furthermore, these practices have

“intensified with the recent rise of neoliberal conservation, under which conservation has been transformed from a project of ‘saving the world from the broader excesses of human impacts under capitalism (to one dedicated to) entraining nature to capitalism, while simultaneously creating broader economic possibilities for capitalist expansion” (ibid).

The political economy in which conservation, participatory science, and other environmental practices exist foregrounds the economic value of natural resources as a primary means of appraising properties.

While Igoe focuses on native Tanzanians’ efforts to distinguish their practices apart from colonial regulations, and reveals the systemic neoliberal valuation procedures in play, the scholarship of William Cronon performs a similar historical analysis of American geographic and economic expansion. In both *Changes in the Land* (1984) and *Nature’s Metropolis* (1991), Cronon reveals the complex social and political relations necessary in the construction of natural resources as commodities. As competing valuations of land and resources are mediated and negotiated through socio-technical-economic systems, the agricultural-industrial view of resource and property transition to reflect dominant ideologies of production. Distinguishing prairies from fields of grain and forests from timber, Cronon extends Marxist notions of a first nature and second

nature to consider how human constructions involving natural resources are economic endeavors that privilege a capitalist regime of production.

Cronon's work highlights the contests of domestication practices, property rights, and exchange values as negotiations of capital production. Inquiries such as these reveal that expert authority in environmental development is only partially aligned with scientific expertise. Knowledge practices (and the communities supported by programs like wildlife management) are informed by dominant economic policies and regimes. However, the ways in which dominant regimes manifest are not clear demarcations of capitalist expansion. Lynne Heasley's *A Thousand Pieces of Paradise* (2005) investigates the Kickapoo Valley in Wisconsin to understand how competing claims concerning the value of property and ownership are contested when conservation management practices take hold. Heasley concisely argues that "three areas of disagreement have been especially powerful in shaping the politics of land use: the function of property, the fluidity of property rights, and models of property in US law" (2005, 6). Heasley's account is instrumental for understanding how property rights are contingent to the social contexts in which those rights function. Heasley promotes the identification and leveraging of multiple community values as a means of understanding and evaluating changes in rural communities instead of framing environmental histories as narratives of value that support static notions of singular politics of land use.

Complementing this focus on the interplay of multiple values and actions at play in environmentalist settings, the edited volume, *New Natures*, focuses on the roles of cultural scripts and social action framing for understanding the multiple ways in which diverse actors interact with each other and their environment. Finn Arne Jørgensen

introduces the concepts of large technological systems, scripts and enrollment to account for how technological infrastructure influence action (2013, 72). In his analysis, he highlights how cultural scripts prescribe sets of actions for multiple actors interacting with policy initiatives. Alternatively in the same volume, Kevin C. Armitage focuses on the role of framing scientific knowledge and expertise to account for social actions (2013). Armitage expands on Benford and Snow's (2000) collective action frames in social movements to highlight the role of scientific knowledge as both diagnostic and prognosis frames for implementing new farming practices concerning erosion. In both of these essays, actors exploited an existing social value to implement specific policy initiatives.

Focusing on cultural scripts and community values, Heasley, Finn Arne Jørgensen and Armitage highlight how both scientific knowledge and constituency is developed. As landowners engage in wildlife management in Texas, cultural scripts are leveraged as communities and identities transition to accommodate these new practices. While Heasley's work accentuates the differences between established community values concerning property claims, both Finn Arne Jørgensen and Armitage highlight how constituency is developed through frames employing scientific knowledge. These texts underscore the importance of established community practices in rural areas beyond accounts of citizen science efforts. Viewed together, Cronon, Heasley, Armitage, and Finn Arne Jørgensen promote a framework that situates knowledge production in dialogue with both local practices and dominant economic agendas. These macro and micro scales are not easily teased apart because they are so intertwined in the everyday practices of individuals. Important to these mediations and negotiations is the

community in which practices are constructed and implemented. The following section helps to situate rural communities in environmental scholarship.

2.2 Rural Communities: Spaces of Transition and Practice

As rural populations grow in the Western United States, land use practices—and how those practices support new migrants and established landowners—are contested (Castle 1995; Correia 2013; Daily and Ellison 2002; Knobloch 1996; Weber 2003). In rural communities, Hassanein (1999) argues that properties and landowners who were once embedded in conventional agricultural practices like farming and ranching successfully transition to alternative land management practices when networks of support structures are established to guide and facilitate change. As advocates for alternative practices engage in attempts to change policies and garner institutional change, rhetorical shifts in language and practice begin to structure new avenues of support (Killingsworth and Palmer 1992).

While the scholarship previously discussed provides a framework for understanding knowledge practices, scholarship concerning the specific locale of those practices reveals how the context of rural communities is not only unique, but also always changing in relation to external factors. This literature investigates how rural communities transform and I review three related concepts from this literature—rural restructuring, amenity migration and social capital—to illustrate two main arguments. First, while emphasis in this literature focuses on transforming rural communities, the causes for change are almost always identified as external to the communities: either through migration, legislation, or external entrepreneurial policies. Second, the lens

through which transformations in rural communities is often focused on the economic development of natural and cultural resources. These two analytic foci accentuate economic motivations of external actors and de-emphasize grass roots change, or the ways in which rural communities participate in their own restructuring. Despite these limitations, this scholarship provides a useful set of frames for understanding and characterizing transitions and practices in rural communities.

Defining the boundaries of a rural community requires more than the U.S. Census Bureau's "all population, housing, and territory not included within an urban area."¹² In this dichotomous relationship between urban and rural, differences within rural populations and their geographies are glossed over to create a homogenous population and landscape counter to high-density urban areas.¹³ Importantly, as Clare C. Hinrichs claims, differences of and in rural spaces are often characterized by complex narratives or amalgamations of "landscape, tradition and place," constructing different notions of value and identity (1996, 259). The contemporary and historical narratives contextualizing rural spaces are charged with subjectivities and practices that negotiate

¹²The Census Bureau's identifies the classification of urban and rural as "fundamentally a delineation of geographical areas, identifying both individual urban areas and the rural areas of the nation...urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses." United States Census Bureau. "Urban and Rural," *Geography*, <http://www.census.gov/geo/reference/urban-rural.html> (Accessed July 20, 2017).

¹³ The term "exurbia" is used in some scholarship to identify communities beyond suburban development in an effort to distinguish a spectrum of population density. Exurbia is one end of spectrum that categorizes urban and suburban (Taylor and Hurley 2016). The term draws a different set of boundaries beyond the dichotomies of rural and urban to distinguish and highlight a spectrum of economic development and population density. However, while 'exurbia' is a contemporary move in rural studies, I use 'rural' in an effort to remain consistent with most of the texts cited in this literature review.

identities and struggles, but are distinguishable by the visual cues of scarce population density and open space.

As rural communities in the US transition away from agricultural occupations, through migration to urban centers and the availability of alternative employment in rural areas, small family-owned farms experience diverse consequences (Hart 1995; Lobao and Meyer 2001). Agricultural production no longer represents stable foundations of identity or employment, and rural communities are no longer stable bastions formed around agricultural production. Instead, rural communities are conflicted tumultuous spaces in which diverse occupations and social strata are in negotiation (Beyers and Nelson 2000). Furthermore, as new job opportunities supplant traditional occupations in agriculture the link between occupation and place that previously characterized why people lived in rural areas is challenged. Individuals' livelihoods are no longer defined by their relationship to the production of food resources, relationships to land management, or stewardship (Hart 1995). Instead, as new policies are implemented to combat poverty, drought, education, conservation, remediation and other issues, rural populations construct new meaning and value to make sense of their communities. DuPuis and Vandergeest's (1996), edited volume, as well as Lobao and Meyer's (2001) review of recent scholarship, provide concrete examples that illustrate how macro policy initiatives concerning agricultural change, such as the development of agricultural loans and insurance, lead to substantial societal changes in rural communities, including increased reliance on global trade and finance. These socio-economic descriptions of rural communities are salient to considerations of why landowners in Texas consider enrolling in wildlife management. As conventional occupations in agriculture recede,

opportunities (or at least the economic necessity) for alternative lifestyles and employment develop.

The concept of rural restructuring, highlights the economic value, demographic growth, and environmental concerns of rural communities to examine how the effects of forming and reforming societal class are linked to the constructed spaces people inhabit (Nelson 2001). While systems of economic valuation may be persistent, “restructuring may lead to altered sets of meanings and transformation in both individual and collective identities” (ibid, 399). Importantly, Nelson argues, “with the shift from resource extraction to preservation and consumption of landscapes, new class divisions are likely to emerge in rural Western communities” as concerns of economy and culture inform transitions in rural communities (ibid, 398). Citing empirical research in the Western U.S., Nelson is clear to point out that within communities restructuring and transformation of both identity and place is varied and diverse.¹⁴ As scientific knowledge and new practices are privileged and developed on private lands in Texas, Nelson’s frame for analysis points to how class structures and identities may be altered. As wildlife management tax assessments become a means of valuing knowledge in conjunction with property, the socio-economic ramifications can be diverse. However, as landowners incorporate the requirements of the assessment into their quotidian practices, questioning how and why some practices are taken up and others omitted might begin to reveal the characteristics of rural restructuring that are salient to the community.

¹⁴ While Nelson’s focus on rural restructuring was initially contested in rural studies scholarship, issues of transformation of rural communities, political economy and cultural identity remain the dominant focus of rural studies (Hoggart and Paniegua, 2001).

As Texas policies encourage nature tourism and attempt to leverage the colloquial wide open spaces to create new economic opportunities, scholarship from rural geography frames these changes in terms of the development of new forms of capital. In characterizing the ways in which rural communities have changed in relation to political economy and cultural identity, Clare J.A. Mitchell (1998, 2013) has expanded the concept of creative destruction (Harvey 2007b; Schumpeter 1942), or the ways in which the development of new forms of capital is reliant on the destruction of natural resources, to posit creative enhancement.¹⁵ Mitchell's analysis of the construction of multifaceted economic markets in rural is a positive spin on rural develop such that "the addition of an innovative function" does not displace subjectivities, but creates supplemental commodities (Mitchell 2013, 376). Mitchell argues that as consumer demand grows, geographic constraints and stakeholder contribution play out in rural communities, transforming identities to reflect these new entrepreneurial ventures. Mitchell asserts that the "destruction of the amenity environment upon which the community was created" is a prime affect of creative destruction (Mitchell 1998, 284). As policies concerning nature tourism develop in the 1990s in Texas, understanding how commodities are envisions in Texas—as a means of re-imagining agricultural lands as conservation spaces—reveals the economic imagination at play in neoliberal endeavors.

Creative destruction and/or creative enhancement take shape as landowners negotiate how they might participate in wildlife management. While these concepts

¹⁵ Creative destruction is preliminary a Marxist term expanded most notably by David Harvey (2007b) to identify the ways in which rational landscapes are depleted in the production of capital. I present Mitchell's work in this literature review because of her extensive scholarship and focus on rural communities.

frame a critique of population expansion and economic development, it is useful to turn to scholarship focused on amenity migration to understand why these changes may take place. Gosnell and Abrams' review of amenity migration scholarship claims, "the movement of people based on the draw of natural and/or cultural amenities can be thought of as both driver and implication" in the contemporary transformations of rural communities (2009, 303). While the authors present a variety of definitions for the concept in an effort to understand the breadth of changes in rural communities, for the purposes of this chapter, I highlight the attraction of natural landscapes as amenities. Transitions in the ownership of natural landscapes result "in significant changes in the ownership, use and governance of rural lands" (ibid). Natural amenity migration involves not only changes in the social and economic structures of rural communities, but also the

political alliances and policy preferences...relating to natural resource management...[and] changes in patterns of land development, use, and habitation.... [that] serve to alter the socially constructed meanings of those spaces, rewriting the rules of what kinds of people, activities, and social relationships 'belong'"(Gosnell and Abrams 2009, 311).

As properties change hands in rural communities, new landowners bring additional political values and practices to their properties, influencing the ways in which the community functions.

This is most obvious in Texas when large agricultural tracts are subdivided into smaller suburban or exurban communities. While fence lines and geographic additions like rock walls or artificial ponds often obscure neighbors, these new community

members still own a small part of the amenity that is the open space of Texas. Specific case studies in environmental conservation and land use in Texas illustrate these claims. Through conversion and fragmentation of farm- and ranchlands, the ability to conduct large-scale land management practices is compromised to accommodate smaller tracts of land (Kjelland et al 2007; Lai and Lyons 2011; Sheridan 2007; Sorice et al. 2012). In a quantitative study of over 312 landowners in Central Texas, Sorice and others (2013) concluded that changing land ownership in rural communities—based on the incentive of natural and cultural amenities—directly transforms the surrounding ecosystem of rural communities. The authors conclude that changes to the culture of land use behavior identified through the motivations of land management practices¹⁶ of new landowners, reveals that “changes in land ownership create new and different disturbances on the landscape that lead to changes in ecosystem structure and function” in comparison to “production-oriented landowners” and “mainstream conservation land management practices”(Sorice et al. 2013, 150). The normative structures of land use practices are

¹⁶ Sorice and others (2013) focused on four aspects of land management: grazing management, woody plant management (controlling brush), restoration (reseeding grass and forests), and water and riparian management. Interestingly, the group added an option for landowners to claim “not applicable” to each category, which, when chosen, they (the researchers) interpreted as landowners not engaged in conservation practices. The switch from land management to conservation management within this article is interesting and needs more investigation. Conservation, like other land-use concepts such as preservation, agriculture, has multiple meanings across a variety of scholarly fields. The assumption, which the authors are upfront about, is that engaging with conservation practices “enhances the sustainability of rangelands” (Sorice et al. 2013). This research, conducted in the upper watershed along the Brazos River in Central Texas assumes that rangelands are the normative land use policy. The authors of the research tie sustainability and conservation to a particular type of land-use: pasturing. However, this ecoregion is identified as Post Oak Savannah or Blackland Prairie, depending on the agency doing the identifying, and is characterized by both open spaces (i.e. potential rangelands) and forests. While this doesn’t necessary change the validity of their conclusions, it is helpful to draw attention to the dominance of agricultural production not only in rural communities, but also research conducted in Texas generally.

challenged as new landowners move on fragmented properties and the geographic dimensions of landownership change, resulting in substantial changes to landscapes.

Additionally, social capital plays a major role in determining how farms continue to exist in changing rural areas (Inwood and Sharp 2012; Libby and Sharp 2003; Sharp and Smith 2004). Libby and Sharp identify social capital as the means by which “capacity for action and the accomplishment of some type of goal” can be achieved (2003, 1194). Through empirical case studies, they illustrate how social capital helps to resolve conflicts over land use and planning as individuals attempt to identify common goals across large swaths of property(s) (Libby and Sharp 2003). As farmers and non-farmers form new relationships in rural communities, negotiations concerning environmental issues, as well as the economic values of agriculture and farmland preservation, rely on the quality of social relationships formed in conjunction with the practices of individual landowners (Sharp and Smith 2003). As new people relocate to rural areas and become engrossed in social relationships within their communities, decisions concerning land use reflect common community goals.

The dominant claims within this literature concerning rural restructuring, amenity migration, and social capital implicate migrants in an effort to account for changing land use practices. The fragmentation of lands to accommodate amenity migrants, as well as recreational tourists, directly affects the geography of the region. While Mitchell might categorize this as the twin effects of creative destruction and creative enhancement, concerted efforts in Texas to link fragmented properties into continuous conservation zones in attempts to preserve the geographic regions of open spaces. (Olenick, Kreuter, and Conner 2005; Parkhurst and Shogren 2007; Pincetl 2006;

Shogren, Parkhurst, and Settle 2003; Sorice et al. 2011). Efforts of private lands conservation rely on a variety of collaborative efforts including implementing policy initiatives, consensus building, and educational efforts between landowners and community members (Cooke et al. 2012). While amenity migration may re-focus capital consumption to local communities, analysis of how natural resources are politically and legally developed is omitted. This effectively neglects investigations of *why* the construction and value of amenities are important components in contemporary changes to rural communities. Furthermore, considerably less attention is given to the critical evaluation of changing practices regarding established landowners who transition from agriculture to conservation. Despite the idea that novel community involvement from recent migrants changes the social dynamic of rural communities, rural landowners in Texas are facing internal considerations as well (discussed in detail in Chapter Six).

Texts from STS posit an alternative view of change negotiated as much by rhetorics of the value of scientific knowledge as by new members of the community, and situate change in terms of ecologies of knowledge in which the various components of a community are “a set of linked interdependencies” (Starr 1995, 2). Understanding how these tensions between inclusion/exclusion and knowledge/practices are constructed and coproduced within governance structures requires investigations that examine the mundane bureaucratic practices as laypersons and experts interact with state agencies.

2.3 Neoliberalism

Scholarship in history, geography, and the social sciences has attempted to understand and reveal the multiple ways neoliberalism has developed as both an

economic theory and a political policy, but for the purposes of this dissertation, I will only recite an abbreviated account of neoliberalism as a means of governance. But first, defining neoliberalism is a political act that requires one to carefully evaluate the implications (and the omissions) of attempting to pen a complex scenario into a relatively simple definition. Before putting forth a definition, I offer these definitions from prominent scholars in the field:

- “Transatlantic neoliberalism ... is the free market ideology based on individual liberty and limited government that connected human freedom to the actions of the rational, self-interested actor in the competitive marketplace” (Stedman Jones 2012, 2). In his history of neoliberal politics, Stedman Jones posits that while neoliberalism may have developed as an intellectual and academy theory of economy, multiple actors worked to translate the theory into an economic policy in the United States and the United Kingdom to structure participation in market economies and focus on constituents as rational participants motivated solely by the potential for economic gain.
- “Neoliberalism is in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedom and skills within an institutional framework characterized by strong private property rights, free markets, and free trade” (Harvey 2007a, 2). As a Marxist geographer, Harvey narrates a brief history focused on how systemic inequality is structured around the production of new forms of capital, geographically and socially separating people into two camps: those who have wealth and those who do not.

- Neoliberalism encompasses the “principles of optimisation, technologies of subjectivity and subjection, and elements usually linked to citizenship, such as nation, territoriality and rights, ... combined and recombined in accordance with market forces” (Hilgers 2011, 359). While Hilgers refuses to identify one main trajectory of neoliberalism, he focuses on how neoliberalism is always a set of practices implemented to privilege market-driven forces.
- Neoliberalism is “the remaking and redeployment of the state as the core agency that actively fabricates the subjectivities, social relations and collective representations suited to making the fiction of markets real and consequential” (Wacquant 2012, 68). Drawing on the work of Brenner and Theodore (2002), Wacquant focuses on identifying “actually existing neoliberalism,” and posits that neoliberalism is a structure that rewards normative actions through social discipline.
- “Neoliberalism is conceptualized not as a fixed set of attributes with predetermined outcomes, but as a logic of governing that migrates and is selectively taken up in diverse political contexts” (Ong 2007, 3). Ong posits that neoliberalism is not a single stable governing structure, but instead it is a “mobile technology” that “interacts with situated sets of elements and circumstances” (Ong 2007, 5). Stated another way, neoliberalism looks different in different places because it is a means of governing for global economic goals that is tailored to local conditions.

While the list of accumulated definitions of neoliberalism could continue, I highlight these in particular because they get at the relatively limited spectrum of things

one might address when speaking of neoliberalism. The first two definitions focus on how neoliberalism fails to account for marginalized practices. And the latter definitions attempt to identify how neoliberalism is a deliberate mechanism for taking context not as a challenge to hegemonic power, but a means of enrolling new constituents.

From a macro level view of nation states to micro-local instantiations of specific practices, conceptualizing neoliberalism as an analytic frame is never one structure, but a means to see a series of actions conducted by humans and characterize those actions in relation to both government and economy. Foucault identifies this as governmentality, or “the tactics of government which make possible the continual definition and redefinition of what is within the competence of the state and what is not” (Foucault 1991, 103). However, the actions of re/defining the scope of government are not just completed by the nation state itself. Instead, neoliberal governmentality reveals the formal relationships of state and society that are given power through the market economy (Foucault 2010, 117) so that the state becomes legitimate through “the guaranteed exercise of an economic freedom” (Foucault 2010, 83). In this way, neoliberalism as an analytic frame highlights how participation in the state is always ever participation in the economy. Neoliberal governmentality frames practice as a means of conditioning the self to adhere to power (Hilgers 2011, 358). From Harvey’s focus on capital accumulation to Ong’s mobile technologies, framing individual action in terms of scale reveals the importance of studying the everyday actions of individuals to adhere or reject the legitimating structures of government and economy.

Thus, neoliberalism is a loosely defined set of governing practices. Neoliberal governance is the construction of new capital markets such that the successful

participation in these new economic forms translates to the successful participation in society writ large. Those persons who do not participate are marginalized, while those who do participate assume the conditions of market governance. However, successful participation does not in itself connote wealth and well-being. Instead, successful participation is the social discipline necessary to continue involvement in the market economy at hand.

To this end, recent scholarship in STS has put forth a nuanced articulation of how neoliberalism functions. Citing Tyfield (2010) Rebecca Lave states, “the treatment of knowledge as a target of appropriation, an undercapitalized realm that can restart the process of capital accumulation, is a signature of neoliberal science regimes” (Lave 2012 24). Furthermore, “scientists attempt to create forms of research that will enable new environmental and legal markets to function” (Lave, Mirowski, Randells 2010, 668). As science creates new knowledge about the world, that knowledge is not used to improve public well-being, but to create and sustain the production of new capital markets. As a concept, neoliberal science regimes reveals how knowledge about the world is made legitimate through governing procedures that focus on market outcomes.

However, there are at least two main pitfalls to defining a research area such as neoliberal governmentality. First, characterizing practice a priori of fieldwork in such a way as to outline a positivist trajectory of institutional history (in this case, neoliberalism) can fail to acknowledge aspects that do not fit within the prescribed frame (Aker and Tang 2016a, 2016b). Observations that reinforce the framing are easily identified, while things that do not conform are omitted. This kind of scholarly censorship is directly linked to the second pitfall. As social problems are identified by

the state, “social science does little more than ratify [those issues] whenever it takes them over as “sociological” problems” (Bourdieu 1999, 2). In studying environmental conservation in rural communities, state agencies have already worked hard to identify the social issues at stake for those populations. While there is no easy solution to avoiding these pitfalls, I have attempted to construct a frame for analysis in this literature review that incorporates reflective practices of analysis while avoiding interpretations of bureaucratic practices as only neoliberal actions. The next section of the review highlights the ways in which studying governmentality is not just the study of neoliberalism but importantly it is the study of legitimating structures of participation in governance regimes.

2.4 Bureaucracy

In this final section of the literature review, I outline key interdisciplinary themes to the study of bureaucratic practices. Primarily, the study of bureaucratic documents extends ethnographic and historical research to the documentation of mundane legal procedures. These documents help to situate how relationships and practices between institutions and individuals are mediated and negotiated. Furthermore, bureaucratic practices reveal how policy initiatives construct compelling narratives based on existing and novel cultural values to enroll constituencies in new governing practices.

The contemporary forms of bureaucratic participation and legitimization required for property valuation highlight two main components of neoliberal governmentality practices in Central Texas. First, as Escobar posits, participation in management and the ensuing bureaucratic practices as a means of natural resource development is also

participation in legitimating structures of neoliberal governance (Escobar 1995). As landowners submit documentation to adhere to the tax valuation, they are also lending credence to state governance concerning economic development and policy in rural communities. Secondly, as Foucault outlines, property “is the necessary intrinsic governmentality that makes you function and only within which you can function” (Foucault 2010, 94). Property is the means by which landowners are allowed constituency in governing processes and property management becomes the way to interpret one’s legitimate participation in the neoliberal regime of economy (i.e. property as a potentially productive resource). Taken together, management practices concerning property and development may be considered the epitome of neoliberal governance in Central Texas.

When bureaucratic practices and evaluative measures becomes the means by which participation and organization is constructed, the implications of these procedures manifest in new governing authorities. Citing Max Weber (1947), Stephen Bocking posits that administrative evaluations translate “the authority of science into political power” (2004, 21). Focusing on strict delineations between experts and non-experts, Bocking argues that as these forms of analysis gain hold and characterize participation in environmental policy, “technical experts present their knowledge as neutral fact, insulated from public accountability by a wall of bureaucracy” (ibid). Furthermore, authority is justified in these hierarchical relationships “because of the experts’ capacity to shape basic categories of thought and language and thereby to influence people’s perceptions of what exists, how it should be understood, how it can be controlled” (Bocking 2004, 22). Bocking’s examination of scientific privilege in environmental

policy is helpful to understand how legitimacy is structured and enforced in policy initiatives. However, by focusing on macro level governing structures his claims fail to highlight how micro-local determination and expertise is negotiated in conjunction with external policy endeavors. What is interesting to wildlife management in Texas is how landowners' knowledge about their lands is used as a means of enrolling participants into the practice. While Bocking posits embracing science as a political endeavor to implement democratic practices and deliberation into environmental policies, scholarship in other fields helps to elucidate more nuanced views of science practices and claims in policy initiatives, as well as the ensuing bureaucratic practices.

Michèle Lamont names the study of these practices the sociology of valuation and evaluation (SVE) (2012). She posits, "SVE focuses on (e)valuation as it happens... in practices and experiences, in what people spend their time doing, through latent or explicit dialogues with specific or generalized others" (Lamont 2012, 205). Drawing on the work of Charles Tilly (1995, 2008) and Pierre Bourdieu (1979, 1993), Lamont argues that core to these evaluative processes are efforts to categorize and legitimate practices to establish hierarchies of worth. Furthermore, within these processes there is often a plurality of criteria (Lamont calls these technologies and cultures of evaluation) that reflects or reinforces systemic inequality and privilege. As processes of valuation are legitimated in institutions and categories of practices are formed to adhere to those legalities, there arises a spectrum of constituents who participate to varying degrees of success within such processes.

While Lamont posits the necessity of future scholarship in comparative SVE, scholars in anthropology have already begun to flesh out the everyday practices that

contribute to these bureaucratic systems, hierarchies' and cultures. Drawing on the work of new scholarship in anthropology, Matthew Hull argues, "documents are not simply instruments of bureaucratic organizations but rather are constitutive of bureaucratic rules, ideologies, knowledge, practices, subjectivities, objects, outcomes, [and] even the organizations themselves" (Hull 2012, 253). Similar to Lamont's focus on the construction and implementation of hierarchical structures, Hull's review highlights the role of documents in forms of governance. While Hull is careful to avoid both the use of terms "ontological" to describe scholarship in the field and "agency" to describe any characteristic of these objects, the tension between deterministic views of objects and practices is discernible. While documents and practices are key to understanding the ways in which constituencies are developed, mediation and negotiation of knowledge and practices are critical also. Importantly, Hull emphasizes the materiality of bureaucracy beyond issues of representation to focus on the action of documentation. Records of practices are a novel source and complement to ethnographic studies that provide a unique means of studying the relationships between humans and their environments, but like most discussion of technologies, it is important to refrain from deterministic interpretations.

Expanding bureaucracy to incorporate not just documentation, but also constituency within an institution or regime, Elodie Fache (2014) examines how policy initiatives concerning conservation and the ensuing bureaucratic requirements conflate environmentalist-led policies with neoliberal regulatory practices. Building on the research of Beatrice Hibou (2015), she builds a compelling argument. First, "neoliberal bureaucratization...is the linking of individuals and institutions associated with different

scales of action....[T]he most local actors coproduce categories, norms, general and formal rules with state administrations through the involvement of diverse levels of intermediary actors and devices” (Fache 2014, 269). Through bureaucratic practices various actors negotiate the production of categories and practices at different moments within the development and implementation of policy. Second, she claims, “community-based natural resource management programmes are a locus where rationales of empowerment and neoliberal principles, although distinct or even mutually exclusive in appearance, are intrinsically entangled, and that these entanglements can be described as a phenomenon of ‘bureaucratic participation’” (Fache 2014, 268). The implementation of policy is not solely reliant on participation at the local level, but the negotiation of a particular set of bureaucratic procedures to both adhere to and reinforce multiple rationales or subjectivities.

Fache’s scholarship presents an important analytic link between two frames for analysis. First, participation in bureaucratic-based conservation practices highlights how neoliberalism constructs constituents through bureaucratic procedures and enrollment. Second, studying bureaucratic participation reveals actually existing neoliberalism (Brenner and Theodor 2002; Wacquant 2012), or the actions and conditions that reinforce economic governance structures. However, while Fache and scholars of bureaucracy like Lamont and Hull point to particular practices as governing procedures, scholarship in genre analysis reveals how participation is shaped by the constraints of bureaucratic forms. Rhetorical theorist Carolyn Miller explains that genres represent action and contribute situation and motive to categories of discourse (Miller 1984). Referencing the work of Jamieson and Campbell (1982) she states that genre is “a

complex of formal and substantive features that create a particular effect in a given situation” (ibid, 153). The effects of genres are formed through clear motives of the person speaking and are “organized around situated action” (ibid, 155). The recurrence of rhetorical situations, and the ability to determine or classify occurrences, is indicative of genres as social action.¹⁷ Identifying bureaucratic practices as genres presents an opportunity to understand how documents mediate actions between participants.

While both Hull and Lamont identify the potential of bureaucratic evaluative practices to mediate actions between institutions and constituents, identifying texts as a specific genre form acknowledges that the analysis of bureaucratic documents requires more than asking who is allowed (and not allowed) to speak through the genre, but also how “those structures embody social attitudes, motives, and actions with political and cultural implications” (Coe, Lingard, and Teslenko 2002, 5). Bureaucratic forms—for a time, at least—stabilize participation “as socially standard strategies” between diverse scales of action, i.e. between institutionalized ideology and individual actors (ibid, 2). As genres are constructed and enacted, they conform to particular ideologies and are components of larger policy narratives. While systems of evaluation and accountability are primarily the implementation of neoliberal governance, these bureaucratic genres are given credence as they are tied to narratives that resonate with cultural values. Examining wildlife management in these terms complicates the relationship between local expertise and biologists working in TPWD who draw on scientific practices. As landowners negotiate meaning, mediate practices, and enroll in wildlife management,

¹⁷ Star and Bowker also take up this argument as it relates to science more generally. Bowker, Geoffrey C., and Susan Leigh Star. *Sorting Things Out: Classification and Its Consequences*. Cambridge, Massachusetts: MIT Press, 2000.

evaluating how and why the valuations are enacted complicates a strict hierarchical conception of neoliberal governmentality.

As bureaucratic tools are implemented to stabilize practices around policy initiatives, compelling narratives are distributed to enroll subjects in accordance with dominant policy narratives (Roe 1994). As policies of conservation are taken up, participation in various forms of bureaucratic documentation and evaluation dominate. Within conservation biology, Robertson and Hull promote the notion of a tournament of value in which practices are tied to policy agendas. Advancing a policy of public ecology the authors accentuate the role of evaluative practices as a means of constructing effective policy around environmental concerns that reflect social values and goals (Robertson and Hull 2001). Drawing on the work of Dorothy Smith (1990, 122) I characterize these documents as the foundations of ruling relations by highlighting how “institutional processes which organize, govern, and regulate the kind of society in which we live” are created through the concerted actions of bureaucratic participation.

As individuals participate in wildlife management tax valuations, intricate cultural and policy narratives of conservation, economy, and expertise overlap to legitimate everyday practices in rural communities as environmental conservation efforts. Examining these practices from an interdisciplinary frame situates tax valuations as political legal technologies. Citing Clarke and Fujimura (1992), Annelise Riles describes law as an instrumental infrastructure that implements tools as political agents (Riles 2005). Bureaucratic legal and financial documents and the practices they support alternate between enforcing, constructing and re-imagining infrastructure (Riles 2006). Focusing on the “agency of the technicalities themselves” she argues, “the tools play

such an important role in the production of knowledge, changes in seemingly mundane tools can lead to fundamental epistemological shifts” (Riles 2005, 985). As new practices and technologies are instantiated into the disciplinary infrastructure of tax valuation, new political agencies take hold and begin to shape the types of knowledge and expertise developed and valued. While Ong does not cite Riles’ work directly, there is considerable overlap between their works. Legal instruments are mobile technologies constructed and implemented as political tools.

2.5 Conclusion

From these literatures some foundation claims regarding knowledge and governance can be extracted. First, neoliberalism is a state-building endeavor that subsumes knowledge as a potential market product. Second, bureaucratic practices reveal the mundane forms of this enterprise. Third, as rural constituents are enrolled in neoliberal initiatives, communities are restructured to create new market economies. And finally, as scientific knowledge is subsumed in the governing market, knowledge practices are implemented as validations for economic production over public well-being.

While these are important claims to ground an analysis of contemporary environmental governance, the literatures reviewed also foreground key concepts in this dissertation. From interdisciplinary scholarship in STS, the social value of knowledge practices are constructed by compelling narratives that link contemporary practices to oftentimes-historical cultural values. From rural studies, the specific concepts of amenity migration and rural restructuring work to focus attention on how social relations in rural

communities change. Finally, scholarship examining bureaucratic practices encourages new research to focus on seemingly mundane procedures to conduct multi-scale analysis regarding actually existing neoliberalism. The following chapters in this dissertation build on these literatures to investigate how wildlife management was developed, the legal framework within which it gains momentum, how landowners practice management, and the consequences of management as a form of tax valuation.

3. CONDITIONS OF NEOLIBERALISM IN TEXAS DURING THE 1990S

Wildlife management was developed as a legal category of agricultural tax property valuation in Texas in the mid-1990s as multiple initiatives across state, federal, and local agencies converged to create new economic opportunities in rural communities by preserving open space lands. However, wildlife management was only the last in a series of economic reforms that began with Ann Richards' election as governor in 1990. Richards was the 45th Governor of Texas (and the 39th elected from the Democratic Party), but her narrow win (49.47% to her opponent's 46.92%)¹⁸ is representative of the two-party system that had developed in the state during the 1980s (Haynes and Wintz 2007). As the Democratic Party moved to the left and advocated for more social reforms and minority representation during the 1980s, conservative democrats moved to the Republican Party to maintain conservative attitudes and values (Haynes and Wintz 2007; Tolleson-Rinehard and Stanley 1994). However, as Richards ran against the Republican candidate Clayton Williams, the 1990 Texas gubernatorial race was "bitter, expensive, and no holds barred" according to Tolleson-Rinehard and Stanley's analysis of the primary campaign (1994,1). As the two stumped across the state, they become caricatures of Texan identity. Richards drew on her "tough" personae as a reformer in state government (from 1982-1990 she was the State Treasurer, a precursor to the current State Comptroller) to advocate for progressive restructuring of state agencies.

¹⁸ Dave Leip's Atlas of U.S. Presidential Elections. "1990 Gubernatorial General Election Results – Texas." *US Election Atlas*. <http://uselectionatlas.org/RESULTS/state.php?fips=48&year=1990&f=0&off=5&elect=0> (Accessed July 20, 2017).

She was known for her quick wit and comebacks; perhaps the most notable is the epitaph she gave to George H. W. Bush at the 1988 Democratic National Convention as the keynote speaker: “Poor George, he can't help it. He was born with a silver foot in his mouth” (Richard 1988). On the other hand, the Republican candidate Clayton Williams maintained a macho cowboy business-savvy persona, and his campaign focused on dragging out Richards’ past history of alcohol abuse and divorce. However, while Richards won the election, Tolleson-Rinehard and Stanley describe the campaign as “alienating enough to resurrect that old Texas cliché of a choice between the ‘evil of two lessers,’ both candidates having been so bruised and bloodied that, for many [voters], neither candidate could be wholeheartedly supported” (1994, 6). Despite the brutal campaign, Richard’s victory was a return to power for the Democratic Party in Texas and as she moved into the office she proposed extensive reforms to imagine a progressive and more equitable system of governance.

Richards’ “New Texas,” as the reforms were called, was steeped in a program called budgeting for outcomes such that each state agency was audited and then restructured to produce specific outcomes rather than processes of administration (Martin 2002, 254). This focus on production instead of process took many forms, including the consolidation of responsibilities across agencies and even the elimination of some state departments. While Richards advocated for state agency reforms, the budgeting for outcomes structure that was implemented interpreted state agency success—for example, the treatment of victims of domestic violence—as a product that could only be produced with the appropriate financial planning of the agency.

While Richards may have been viewed as a progressive liberal in some aspects of her tenure as governor (especially concerning health care, education, and her inclusive appointments of women and minorities to state agencies and departments), her focus on “deliverables” reflected the neoliberal politics dominating Texas at the time. As the oil economy sharply declined in the 1980s and Texas’ other major industry, agriculture, continued to decline, Richards, like most Texas politicians at the time, saw the fostering and support of new markets as a means to solve the problems of unemployment and the rising deficit of the state budget (Barkdull and Tuman 1999; Collier et al. 2013; Haynes and Wintz 2007). This is, in part, not a reflection of Richards’ personal agenda, but a consequence of the wielding of political power by the state legislature. While the governor’s office may be the most visible office in the state, the legislature is the governing body that carries the most weight through its ability to create, pass, and even block legislation (Haynes and Wintz 2007; Collier et al. 2013). Despite this division of power, the “New Texas” reforms were instantiated through collaborative efforts not only with state agencies and the Governor’s Office, but also the legislature who was required to approve the new budget structure of the state.

Importantly, Richards focused her economic development programs by linking global production, such as her support for the North American Free Trade Agreement (NAFTA), with local entrepreneurial ventures that expanded old and fledgling Texas businesses. Working with the state legislature, she created new incentives for aerospace, electronic, environmental, and life science industries to develop in the state (Richards 1992). This focus on economic development is in line with Harvey’s definition of neoliberalism as an endeavor to provide “individual entrepreneurial freedom and skills

within an institutional framework characterized by strong private property rights, free markets, and free trade” (Harvey 2007a, 2). Richards and the state legislative support of NAFTA, (and the tax incentives that were issued to businesses physically present in the state) reified the notion that with globalization new financial opportunities would abound for local entrepreneurs interested in developing niche markets concerning transportation and distribution of goods.

However, while many Texans feared the loss of jobs with NAFTA, Richards convincingly focused on how the specific geography of Texas was a crossroads that goods and services would physically pass. This crossroads would bring the global market to Texas while also shipping Texas-made products to the world. This new economy would be localized to such an extent that, as Richards would argue, individual opportunities would by necessity develop (Richards 1992). This focus on locale is in line with Ong’s proposition that neoliberalism is a “mobile technology” that “interacts with situated sets of elements and circumstances” (Ong 2007, 5). For politicians supporting NAFTA, the physical geography of Texas—its roads and highways, as well as its capability to produce and service the global movement of capital—would provide the key elements to support local opportunities for global market ventures. Further, these new businesses would serve to improve the overall well-being of the state; in the 1990s, the global economy as represented by NAFTA was good for Texas (and by extension, Texans) because it would, quite literally, pass through the state. Perhaps most obvious to Richards (and most Texans listening to her) were the practical limitations of traveling through such an immense landscape; the great size of Texas would necessitate the refueling of trucks shipping goods between Mexico, the United States and Canada.

Trucks (and their drivers) would have to stop, refuel, eat, and sleep in the state, all activities that could be turned into business opportunities.

Importantly, supporting entrepreneurial endeavors while maintaining individual property rights was a cornerstone for development in Texas during this time. As will be described in detail below, debates concerning private property rights and ownership dominated the news media at this time. Rural gentrification and amenity migrants were beginning to change the economic structure of rural communities as outsiders moved to rural areas and purchased farmland to convert to part-time hobby-style ranching ventures (Friedberger 1999; Sorice et al. 2013). Furthermore land fragmentation, the splintering of large properties into smaller parcels, created new opportunities for urban residents to purchase their own private piece of the state (Johnson and Klemens 2005). Concern over industrial pollution and the property rights of landowners were often conflated, but as Richards restructured environmental regulatory agencies, these concerns were redirected to question (or support) the rights of rural landowners. However, new environmental conservation efforts at both the state and federal level required that landowners look beyond their private property rights to larger eco-regions and habitats.

In this chapter I describe these contests between economic development and conservation in four vignettes to examine how discursive themes of development, consumption, property rights, and entrepreneurialism came together to establish wildlife management as a tax valuation. First, as Governor Ann Richards attempted to restructure state government, auditing agencies attempted to identify how new opportunities for economic development could be implemented across the state. While much has been written on Richards' reforms to schools and prisons, little attention has focused on her

environmental agenda. Through a brief examination of two state task forces, I identify how restructuring in the state was linked to changes in thinking about how the development of natural resources should be governed.

Second, as the Texas Parks and Wildlife Department (TPWD) implemented federal funds for conservation on private lands, a new rhetoric of consumption was developed to imagine how the public might engage with nature. Through federal grants and internal programming, TPWD established a new discourse concerning how natural resources should be appreciated by focusing on a “consumption” model. In this section of the chapter I focus on how Richards and TPWD leveraged a cultural heritage of hunting and outdoorsmanship to promote economic development concerning nature tourism in rural communities. In this discursive register, TPWD attempted to map out how the public interacts with natural resources by highlighting non-consumptive activities—such as bird watching, photography, camping, and hiking—in contrast to hunting and other consumptive activities.

Third, as the Endangered Species Act and federally mandated critical habitat plans gained a foothold in the state, tensions between private and public responsibility of wildlife came to a head. As multiple species were listed as endangered, and the United States Fish and Wildlife Service (USFWS), and the Department of Interior more generally, became involved in the creation of critical habitat plans, resistance to federal and state mandates by private property owners to participate in these plans came to a head. Using archival material from Robert Brandes, I describe how private property rights came to dominate state discussions concerning conservation. Finally, when wildlife management passed as an amendment to the state constitution in 1995,

environmentalism in the state was redefined as a responsibility of landowners through entrepreneurial development. By 1995, each of these contexts converged in a vote to change the constitution. This change promoted not just local control over wildlife habitat, but a network of support that maintained the status quo concerning property, and also expanded TPWD's influence and participation in private land management.

Emerging in the 1990s, these four thematic contexts reveal a substantial shift in conceptualizing the value of conservation, wildlife, and habitat in Texas. However, this shift is not without stark contradictions concerning hunting, economic development, and private land ownership. The core contradiction at stake is simple to identify. Wildlife may be a public good and resource, but the habitat those lives dwell and move through is privately owned. While multiple state and federal agencies hold jurisdiction over protecting wildlife (creating uniform practices and procedures to protect animals), millions of people were individually responsible for maintaining the integrity of the habitat. The thematic lenses identified in this chapter reveal the multiple challenges to thinking (and governing) habitat as a communal space composed of people and animals. Despite these challenges, wildlife management embraces these contradictions, with surprising consequences, by making habitat management a legal means of supporting wild lives on private lands.

3.1 Restructuring for Development

Ann Richards took the Governor's office in 1991 on a platform to reform both the budget and the structure of state agencies in an effort to cut spending and eliminate duplicate positions and responsibilities. Immediately establishing a set of performance

audits by the state comptroller's office of all state agencies when she reached office, Richards issued two strategic documents to envision the reforms identified in the audits. In *Blueprint for the New Texas* (1991a, 1), Governor Richards intended to assure Texans that "the reins of government are held by strong, steady, confident hands," characterizing her office as "the champion of ordinary citizens, not the privileged few." Importantly, accountability, ethical decision-making, and economic security were posited as key components to reform state government. In the follow-up document, *Building from the Blueprint* (Richards 1991b), the result of the audits revealed the duplication of tasks across multiple agencies and positioned these overlaps as a tax burden on Texans who were perceived to pay for the duplication of labor and positions through taxes. As agency budgets were linked to the taxes individuals paid (and not budgets approved by the state legislature), Governor Richards positioned reforms from the outside in. That is, reforming these institutions became a mandate from constituents who paid taxes and voted for Richards, and not necessarily a request from the office she held.¹⁹ The budget cuts, as well as the focus on structural reform across state agencies, set the stage for \$59.4 billion state budget that included a \$2.1 billion tax increase in 1991. While increased taxes may seem the antitheses to the rhetorical spin on reform the governor's office promoted, the two-year budget actually cut spending (i.e. the tax increase allowed the state to operate in the black and not accrue more debt), and set the stage for the long

¹⁹ Governor's Office Press Release "Governor's Report: Applying Lakeview Lessons to Texas," July 8, 1991, Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 95-019/892. This press release states, "[b]ut the people of Texas are fed up. They are fed up with business as usual and a bureaucracy where not one is in charge and the simplest decisions are months in the making. They want change in state government. They want accountability and accessibility in return for their tax dollars."

process of restructuring state agencies to align with the new budget.²⁰ In this way—by raising taxes, but decreasing the state budget—Richards’ office began the structural reforms promised during her run for office.

This context of reform explains how state agencies were linked to economic development regarding natural resources. An important component to these reforms was the creation of specific state task forces that attempted to address existing structural problems of state agencies, as well as investigate and propose reforms to larger problems in the state. While Richards organized many task forces during her tenure as governor, two task forces addressed natural resources.

The Texas Environmental Equity & Justice Task Force was assigned with examining the effects of environmental hazards on vulnerable communities. The task force reported to the newly consolidated Texas Natural Resources Conservation Commission (TNRCC)—previously two separate agencies, the Texas Water Board and the Texas Air Control—that was responsible for enforcing air and water regulations in the state.²¹ This new agency was an attempt to merge overlapping responsibilities concerning more than just the “inequitably distribution of environmental hazards” (Texas Water Commission 1993). The agency would take on ancillary issues concerning the protection, distribution and access to natural resources such as water, while also addressing environmental hazards, a catchall phrase for concerns of both industrial

²⁰ Governor’s Office Press Release “Governor’s Report: A New Beginning for Texas”, February 2, 1992, Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 95-019/892. and Governor’s Office Press Release “Governor’s Report: ‘no new taxes’ is good for Texas,” July 17, 1993 Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 95-019/892.

²¹ In 2002, TRNCC was changed to Texas Commission of Environmental Quality (TCEQ).

development and pollution. Responding to the task force report, TRNCC was identified as the agency responsible for providing “tougher and more consistent environmental enforcement” of state laws.²² The new structure and mandate of TRNCC created a state agency responsible for upholding and enforcing federal mandates concerning pollution and development. By situating an internal agency as an intermediary between federal regulation and local compliance, Texas could limit outside regulation of state-based industrial development.

However, reform was not limited to governing infrastructure but also extended to creating new economic opportunities and markets. In an effort to alleviate declining rural development in November 1993, the State Task Force on Texas Nature Tourism, an interagency committee co-chaired by the executive directors of TPWD and the Texas Department of Commerce, was organized (Muller 1991, 1994; Richards 1991a). Nature tourism represented an explicit attempt on the part of the task force to extend the economic possibilities of rural communities and to expand the definition of natural resources beyond resource extraction to include the economic viability of environmental conservation. The final report recommended the state provide incentives for conservation efforts, as well as educational programming, with an explicit policy focus of expanding rural economies. The task force broadly defined nature tourism as

discretionary travel to natural areas that conserves the environmental, social and cultural values while generating an economic benefit to the local community. In other words, nature tourists are travelers who spend their time and money

²² Ann W. Richards to Mr. Guy W. Taylor and Ms. Ruth K. Taylor, March 27, 1991, Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 96-147/1.

enjoying and appreciating a broad range of outdoor activities that have a minimum impact on the environment (STFTNT 1995, 2).

Importantly, this broad definition established the links between conservation and economic development. Nature tourism was imagined by the task force as the means by which rural communities might walk the line between, on the one hand, poverty and socio-economic decline (Jamal et al. 2004; Var 1997), and on the other hand, keepers of “the richest natural heritage of all the states ...[that has]...given rise to a unique identity and pride which is the basis of our [Texan] culture” (STFTNT 1995, 23).

NATURE TOURISM IN THE LONE STAR STATE



Economic Opportunities in Nature

A report from the State Task Force on Texas Nature Tourism.

Figure 5: The Final Report from the State Task Force on Texas Nature Tourism (1995)

This second task force attempted to cultivate a new value of natural resource development, highlighting the potential management role of private rural landowners. However, it is this complex sense of identity—at once impoverished *and* bountiful—that rural communities are burdened. It can be summed up by the phrase “land rich and cash poor,” and, as will be discussed in the next chapter, reveals the tension of rural landownership throughout the history of the state. So, while ownership of rural lands created its own sense of cultural identity linked to a history of independence and self-sufficiency, and promoting agriculture, the State Task Force on Texas Nature Tourism sought to create an alternative narrative of identity that drew on this history, but promoted rural lands as a potential resource for a new kind of development.²³ The task force advised action across four categories—conservation, legislation, education, and promotion—to develop and coordinate nature tourism in the state, and the group outlined a series of steps within each category to promote rural economic development. Intrinsic to each of these components was the notion of preserving the “enduring nature resource base” of the state (STFTNT 1995, 15).

In each of the four recommendations, communicating the value of land as a natural habitat for wildlife and recreation was prioritized. While conservation of nature was the means of creating the resource for tourism, education and promotion were viewed as important techniques to convince Texans of the importance and viability of the endeavor. Furthermore, the report argued, “rural landowners engaged in Nature Tourism should have the same tax advantages allowed for farming and ranching” as a means of incentivizing landowners to maintain the enduring nature resource base for

²³ There is also a companion publication published by TPWD that was co-published in with the State Task Force Report, titled *Making Nature Your Business* (TPWD 2002).

alternative economic development on private lands (STFTNT 1995, 6). As the State Task Force on Texas Nature Tourism posited legislative and land management reform to address rural economic decline, nature was broadly conceived as a new resource for capital development.

Ann Richards' efforts at restructuring government changed not only how government looked from the outside, but also established state government as a means of securing new markets for development. In this classic neoliberal move—to consolidate government in an effort to produce and protect new markets—Richards strategically implicated and enrolled citizens in the effort to re-frame nature as potential capital for a new market. New rural development regarding environmental resources was envisioned as a means of both creating and leveraging an abundant resource for a new kind of consumer: the nature tourist. However, the biggest hurdle to this potential new market was not the consumer. In fact, the task force was clear to define who the consumer already was. The biggest hurdle was the private landowner, who could only benefit from the new market of eco-tourism after receiving education and training concerning new management practices to develop her lands appropriately.

While the Task Force recommended changing the tax code to allow for conservation on private lands, that would be one of the last steps in a concerted effort to support the preservation of open spaces in Texas. The recommendations were published in 1995, and TPWD had already started the process to create conservation management programs on private lands. The following section describes these efforts to enroll private landowners in conservation by re-defining how wildlife and habitat might be consumed, and by extension cultivated a new form of capital (and revenue) for the agency.

3.2 Changing Notions of Consumption

In 1990, TPWD received multiple federal grants to support programming for wildlife management on private lands, and in 1992 the agency created the Private Lands Initiative (PLI), an effort to partner with landowners to create best practices management guidelines. In this section of the chapter I outline how the PLI was implemented to create conservation practices on private lands by changing how individuals related to wildlife. While hunting and fishing had characterized a consumptive relationship in which animals were harvested (with TPWD controlling seasons and licensing fees), there was a concerted effort to support the production of new consumptive practices by redefining and setting guidelines for how various consumers might interact with wildlife.



Figure 6: Final Report of the Private Lands Initiative (1995)

In the United States wildlife are described as both publicly owned and a common resource, meaning that while no one person maintains possession of mammals, birds,

and fish, every person should have access to those resources. This understanding has been the foundation of the preservation of federal lands as a means of protecting the spaces where animals live, most notably in the development of the National Parks Service. However, these sentiments are also expressed in the Endangered Species Act (ESA), which establishes the importance of conserving vulnerable populations of flora and fauna. United States Fish and Wildlife Service (USFWS) is the agency responsible for maintaining the ESA and the protection of vulnerable species. However, individual states are additionally responsible for creating management practices for wildlife and habitat not specifically identified as endangered by the federal agency, including establishing and issuing licenses and fees for hunting and fishing seasons. What is left out of these responsibilities is clear jurisdiction that prioritizes a concise understanding of how wildlife move through federal and state lands, as well as public and private property. In an effort to bridge this gap, the Federal Aid in Wildlife Restoration Act, also known as the Pittman-Robertson Act of 1937, allocates funds through USFWS to individual state agencies through a process of state reporting and federal reimbursement.²⁴ This act consolidates federal taxes on firearms and ammunition for hunting and sports, and re-allocates the taxes to state agencies to support wildlife conservation efforts, including education and outreach, scientific research, and the purchase of lands. Relevant to this discussion on habitat, funds from the act are not restricted for use on public lands, but are instead used to facilitate the conservation of

²⁴ The yearly allocations of funds to states via the Pittman-Robertson Act, as well as information about the act, are available on the federal agency's website. United States Fish and Wildlife Service. "Budget." *Division of Budget*. <http://www.fws.gov/budget/> Accessed July 20, 2017).

wildlife habitat across each state. From 1990-1999, TPWD received a series of grants²⁵ from the Wildlife Restoration Act to formally develop wildlife management practices on private lands. Examining these grants provides an opportunity to understand how private lands and landowners were enrolled in conservation practices.

In Texas, TPWD is the recipient agency to the Wildlife Restoration Act and in 1991 was allocated \$7,216,000 for projects concerning outdoor education, as well as species and land management.²⁶ Because the act allows for a regular and somewhat predictable influx of money each year (as opposed to state budgetary funding in Texas, which is allocated every two years), the agency developed projects that could be

²⁵ W-129-M (“Habitat Enhancement on Private Lands”), W-107-R (“Wildlife Resource Planning”) and W-124-M (“Wildlife Management Areas”) were multi-year, multi-million dollar grants from the National Fish and Wildlife Foundation (NFWF). The reports submitted to TWPWD and NFWF were accessed at: Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission. Additionally, in 2003, the Office of the Inspector General investigated the reimbursement of these grants by the Department of the Interior in 1996-1997 (the grants were ongoing) and found TPWD to resolve approximately \$200,000 in questionable reimbursement funds to NFWF. Office of the Inspector General and U.S. Department of the Interior. “Advisory Report: Costs Claimed by the State of Texas, Parks and Wildlife Department, Under Federal Aid Grants from the U.S. Fish and Wildlife Service From September 1, 1995 through August 31, 1997,” Report No. 2003-E-0019, Washington, DC, March 2003.

²⁶ It is important to note that even though vast amounts of money are available for allocation, only a small portion are actually claimed by state and federal agencies. Estimated allotments for Fiscal Year 2015 from the Wildlife Restoration Act for Texas were approximately \$37.5 million and in 2016, \$32,144,324 funds were available to the state. Daniel Ashe to State Fish and Wildlife Agencies, April 23, 2015, United States Fish and Wildlife.

<http://wsfrprograms.fws.gov/Subpages/GrantPrograms/WR/WRFinalApportionment2015.pdf> (Accessed September 15, 2016) and United States Fish and Wildlife Service.

“Final Apportionment of Pittman-Robertson Wildlife Restoration Funds for Fiscal Year 2016.” *United States Fish and Wildlife*.

<http://wsfrprograms.fws.gov/Subpages/GrantPrograms/WR/WRFinalApportionment2016.pdf> (Accessed September 15, 2016).

sustained for multiple years.²⁷ Beginning in 1990, TPWD began two long-term projects. The following subsections detail these programs to reveal how conservation on private lands was structured as a means of consuming natural resources of the state.

3.2.1 Funding Project W-124-M: Wildlife Management Areas

The first program, “Wildlife Management Areas” spanned six years, from 1990-1995, with a break in the program for the year 1993. Identified as Federal Aid Project W-124-M in the summary performance and final reports submitted to USFWS, the primary focus of the program was to increase public use in wildlife management areas (WMAs) throughout the state.²⁸ WMAs are much like state parks, in that they are publically owned lands that are managed by TPWD.²⁹

Over the course of the reports submitted for this program there is a change in defining the kinds of activities the department attempted to promote and support. Early reports distinguish between consumptive (hunting) and non-consumptive (birding, hiking, canoeing, etc) activities. The majority of the activities listed in the reports focus

²⁷ While funds from the act are available for distribution, the formula for allocating funds to the states restricts access based on legitimate lands, populations and programming. According to TPWD, recent allocations average about \$9 million and are reimbursed to the state (approx. 75 cents for every dollar the state spends). Texas Parks and Wildlife Department. “Pittman-Robertson Wildlife Funding.” *Texas Parks and Wildlife Department*. <https://tpwd.texas.gov/education/pittman-robertson-wildlife-funding> (Accessed September 15, 2016).

²⁸ Copies of these reports were viewed at TSLA: Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission.

²⁹ According to “Land and Water: Resources Conservation and Recreation Plan” (2013, 62) by TPWD “Wildlife Management Areas (WMA) [are] sites managed by TPWD to perform wildlife and habitat research, conduct resource management education, and provide public hunting, hiking, camping, bird-watching and other outdoor recreation opportunities.”

on seemingly subtle changes to hunting seasons, access to public hunting areas, and bag counts (the promotion and distribution of licenses for a specific number of species to be killed/harvested), as well as the development of promotional materials for hunting opportunities.

As TPWD promoted hunting, the agency complied with its constitutional mandate to support hunting and fishing. However, in the early 1990s, hunting was also a political tool used by Governor Richards to promote her own authentic Texas identity—drawing not only on her con-current hunting and fishing activities (she remained an avid dove hunter and angler throughout her tenure as governor), but also on a longer rhetorical history of conservation that posited hunting and hunters as key participants and supporters of conservation efforts (Gunter and Oelschlaeger 1997; Knight and Riedel 2002; Mieczkowski 1995; Telfair II 1999). She leveraged her own experiences to emphasize the importance and enjoyment of being outdoors more generally, and went so far as to proclaim state hunting and fishing days on September 28, 1991, September 26, 1992, and September 25, 1993 (Office of the Governor 1991, 1992, 1993).³⁰

³⁰ Office of the Governor, "Official Memorandum: State of Texas" September 28, 1991, Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 96-147/6. Office of the Governor, "Official Memorandum: State of Texas" September 26, 1992, Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 96-147/6. Office of the Governor, "Official Memorandum: State of Texas "September 25, 1993 Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 96-147/6.

Annie, get your gun

(Or how the Governor learned to turkey hunt)

By TOMMY HUMPHREY
As told to Lee Leschper
Central Texas Outdoors

KINNEY COUNTY — Talk about pressure.

There I was calling to a big Rio Grande gobbler. Hiding in the mesquite. Doing what I love best in the whole world.

Except that, on my right sat Andy Sansom, executive director of the Texas Parks and Wildlife Department, the head honcho of wildlife in Texas.

And on my left sat his boss, the Governor of the State of Texas, Ann Richards.

And behind us sat Dan Klepper, outdoor writer for the San Antonio Express and News, ready to record and report every mistake I make.

Of course, as former head of the Texas Chapter of the Wild Turkey Federation, I am supposed to be the gobbler guru. Like I said, pressure.

It was Sunday morning, the next-to-the-last weekend of spring turkey season on the Humphrey ranch in Kinney County. The year before, Parks and Wildlife Commissioner Walter Humphrey and I had cooked up the idea of a Governor's hunt, to thank all the states which participate in Texas's eastern turkey restocking program.

Well, the governor's invitational hunt fell through when I

back to camp.

We took off again to find Ann a bird.

We were doing the Del Rio Death March. Walking hard and fast, stopping to call and work turkeys when they'd answer.

Ann never complained or slowed down. She stayed right with us.

We worked two gobblers for a solid hour. I'd call and they'd gobble right back. But they wouldn't come in. Finally we screwed up and tried to move too close, spooking them.

She lived every minute. Now the pressure was really on. It was 10:30 a.m. The governor had to leave by noon. Could we find her a turkey?

The eyes of Texas were upon me.

Driving down a ranch road in the jeep, we spotted three jakes crossing the road right in front of us. At this point I just wanted a turkey, any turkey. A Jake would do just fine.

We went 150 yards up the road, got out and walked back down to where the turkeys crossed.

I set a decoy about 30 yards out in the sender and started calling. Nothing answered.

about 35 steps, framed under a arching mesquite limb. I could see the "Uh oh, something ain't right here:" look on his face.

The other two gobblers were in full strut and totally oblivious.

"Ann, can you see him?"

"Yeass!"

"Have you got a bead on him?"

"YEESS!"

"Then Take Him!"

I heard as well as saw the shot slap into the branch just above the gobbler's head. He took off at a dead run.

Without being told, Ann jacking another shell into the shotgun.

"Shoot again!" I bellowed, even as she was pulling the trigger.

That gobbler rolled stone dead at 55 yards.

And he turned out to be the biggest gobbler of eight taken on the ranch that weekend, with a 10 1/4 inch beard and 1 1/4 inch spurs.

Even I wouldn't have written a script that good.

And the only greater pleasure was seeing how the Governor enjoyed the experience.

She made the comment, after seeing what Andy had done and getting to experience the rigors of



Photo by Don Klapper, San Antonio Express-News

Governor's gobbler

Governor Ann Richards displays her trophy for a turkey gobbler, taken this spring with the help of expert turkey hunter Tommy Humphrey, executive director of the Dallas Safari Club, pictured here with the Governor.

Figure 7: "Annie, Get Your Gun"

In this news clipping, Ann Richards is pictured with a recently shot wild turkey (Humphrey and Leschper 1992).

In her speeches and remarks, Richards focused on the dominant role of hunting and hunters in preservation and conservation of nature. In the official declaration of the 1992 state hunting and fishing day, she proclaimed:

For over 100 years, sportspeople have been in the forefront of the conservation movement. Not content with merely vocalizing their support, hunters and anglers have advocated and supported conservation legislation and wildlife management programs, and they have requested special fees and taxes on their equipment which help pay for wildlife management and other conservation programs.... The conservation programs supported and financed by Texas hunters and anglers

have benefitted hundreds of wildlife species from deer and wild turkeys to antelope and bald eagles. This is wildlife that all Texans can enjoy.”³¹

Richards’ focus on hunting and fishing was reminiscent of a conservative stance among environmentalists in the state, as well as nationally, who viewed the value of conservation efforts as a means of ensuring future recreational opportunities (Telfair II 1999).

In the federal aid reports for W-124-M, TPWD identified two distinct user groups to distinguish these two modes of outdoor recreation.³² A consumptive user was meant to identify hunters and anglers, while non-consumptive encompassed everyone else who entered wildlife management areas.

Importantly, in the early 1990s hunting and other consumptive uses were linked to the financial viability of conservation. Through a variety of licensing fees and permits, hunters provided a substantial sum to the operating budget of TPWD. However, as the demand for non-consumptive use, that is, photography, birding, and hiking (or as Richard’s labeled them “lookers and smellers and listeners”)³³ expanded, the agency had yet to establish how to capitalize on those activities. Research conducted via W-124-M,

³¹ Office of the Governor, “Official Memorandum: State of Texas” September 28, 1991, Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 96-147/6. This sentiment as reinforced in letters to constituents as well: Ann W. Richards to Ms. Peggy Maceo, September 25, 1992. Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 96-147/1.

³² W-107-r-18 is a survey result conducted by TWPD to survey the different perspectives, however, it mostly focused on hunters and hunting. Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission.

³³ Ann W. Richards to Mr. W. L. Heyne, May 17, 1991. Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 96-147/1.

while providing support for hunting, also proposed a means to charge the “lookers and smellers and listeners” for access to wildlife management areas. The Texas Conservation Passport Program was developed in 1991 and implemented in 1992 to “provide access to wildlife management areas for participation in scheduled nonconsumptive activities”³⁴ and “to obtain financial support from nonconsumptive user groups.”³⁵ TPWD was cautious to limit the overlap of consumptive and non-consumptive user groups (one can assume that the idea being hunters and birders probably should not be in the same area at the same time) and purchased lands specifically for non-consumptive use. In effect, identifying this new user group created a new model for expanding what it meant to be a consumer of nature, and, in turn, a supporter of the conservation efforts of the agency.

However, while the definition of who could consume nature was changing in the state, *where* consumption might take place was also being negotiated. In 1993, legislators passed a Senate Bill 179 allowing TPWD to permit hunting in public parks, as well as wildlife management areas. The terms of the bill stated that the agency could close parks to non-hunters (heretofore disallowed) and issue permits for over-populated and exotic species in those areas. Despite opposition from a variety of organizations, the bill passed and funding for W-124-M provided the means by which to both educate

³⁴ Performance Report, Federal Aid Project No. W-124-M-3, Wildlife Management Areas, Job No. 1: Increase Public Hunting Opportunity. Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission.

³⁵ Performance Report, Federal Aid Project No. W-124-M-2, Wildlife Management Areas, Job No. 1: Increase Public Hunting Opportunity. Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission.

consumers in the form of hunting and create new financial opportunities for consumption in a loosely defined category of conservation.

3.2.2 Funding Project W-129-M: Habitat Enhancement on Private Lands

At the same time as W-124-M was supporting the promotion of various forms of consumption on wildlife management areas, another, much more extensive federally funded project was established. W-129-M, “Habitat Enhancement on Private Lands” began in 1991 and continued to 1999. On a very general level this project was intended to support the development and maintenance of wildlife management on private lands in the state. However, unlike the previously described project, “Habitat Enhancement on Private Lands” focused specifically on non-game wildlife. This federal aid was divided into a series of formal jobs, from educational publications and outreach programs to the development of management practices. For each job, separate reports were submitted to USFWS, identifying the key actions and results of each job category. As identified in these reports, the first project job was “Nongame and Urban Wildlife Information Development,” and in reports from 1991 and 1992 the main tasks associated with this job were to develop new brochures and books, as well as regularly occurring magazine columns in multiple publications.³⁶ In 1993, as the publications were completed and the

³⁶ Performance Report, Federal Aid Project No. W-129-M-1, Habitat Enhancement on Private Lands, Job No. 1: Nongame and Urban Wildlife Information Development. Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission and Performance Report, Federal Aid Project No. W-129-M-2, Habitat Enhancement on Private Lands, Job No. 1: Nongame and Urban Wildlife Information Development. Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research

columns were established as reoccurring components to magazines, this project job was folded into the third job associated with project, “Information Transfer on Wildlife and Wildlife Management Practices.”³⁷ In the reports, information transfer was identified as “advice to landowners, wildlife managers and hunters [that] should provide for preservation of habitat and improvement in the quality of the habitat as a key to maintaining healthy and productive wildlife populations for future generations.”³⁸ As these project jobs melded into one another throughout the course of W-129-M, landowners, and not hunters, were identified as the key group to successfully support conservation efforts.

While many project jobs (and ensuing reports) were affiliated with W-129-M, including activities on specific species and habitats, it is worth mentioning the second job, “Demonstration of Practices” to further highlight the importance of private landowners’ management practices to the agency. As described in the reports, private landowners were not encouraged to discontinue agricultural practices on their lands. Instead, agriculture and conservation were advanced as complementary practices that required new management techniques. The report states, “practices demonstrated will include proper livestock-game grazing programs to enhance habitat... [and] ... to benefit

reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission.

³⁷ Performance Report, Federal Aid Project No. W-129-M-2, Habitat Enhancement on Private Lands, Job No. 1: Nongame and Urban Wildlife Information Development. Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission.

³⁸ Performance Report, Federal Aid Project No. W-129-M-2, Habitat Enhancement on Private Lands, Job No. 3: Information Transfer on Wildlife and Wildlife Management Practices. Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission.

wildlife and livestock.”³⁹ Furthermore, “negative wildlife practices will be specifically identified and alternative management activities to attain positive wildlife and economic benefits will be stressed.”⁴⁰ While landowners became the main focus of this project, wildlife management was viewed as compatible with agricultural practices like livestock production.

In addition to specific jobs within the project, W-129-M supported another TPWD program, the Private Lands Enhancement (PLE) program, the formal effort of the agency to guide and support conservation on private lands. While PLE began in 1973, it was not until the 1990s that it established formal technical guidance procedures through the deployment of wildlife biologists who worked closely with landowners to develop site-specific management practices. Recognizing that wildlife moved through spaces—and that 95% of those spaces were not only fenced (forcibly limiting the movement of species) but managed for agricultural production (which constrained the opportunity for habitable spaces for wildlife)—required the agency to develop new programs in an effort to maintain its constitutional mandate to preserve wildlife.

Projects supported by W-129-M were used to supplement those efforts, resulting in the Lone Star Land Steward award, for which the conservation endeavors of individual landowners were recognized.⁴¹ For the duration of W-129-M, between twelve

³⁹ Performance Report, Federal Aid Project No. W-129-M-2, Habitat Enhancement on Private Lands, Job No. 2: Demonstration of Practices. Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission.

⁴⁰ Ibid., 3-4.

⁴¹ Performance Report, Federal Aid Project No. W-129-M-2, Habitat Enhancement on Private Lands, Job No. 2: Demonstration of Practices. Texas Parks and Wildlife Department: Project Reports at the Texas State Archives, 1938-2007, Wildlife research

and twenty-six landowners were awarded the honor each year. While TPWD created and guided landowners in developing new management practices, the award reified private landownership as the vital component to conservation in the state.

Taken together, these federally funding projects supported a shift in considerations for TPWD. Changes to who might consume wildlife—and what that consumption would look like—presented an opportunity to focus on a new non-consumptive user group. Moreover, as landowners were enrolled in new management practices further opportunities were developed to provide incentives for conserving wildlife and habitat.

However, these definitions of consumptive and non-consumptive use of public goods and spaces were only the latest instantiation of attempting to identify appropriate public use of the parks service. Beginning with the development of the Texas State Parks Board in the 1930s, the state struggled to identify what activities were appropriate for the public to engage. At that time, the state was eager to accept federal funds for the creation of a national park along the Rio Grande. Eventually, Big Bend National Park was formed, but not before the state embarked on an extensive radio campaign to educate Texans on the importance of the “passive” appreciation of nature. While “active” use may have been the model for state parks, (mostly through the construction of recreational facilities like baseball diamonds, tennis courts and picnic pavilions sites by the Civilian Conservation Corps in the 1930s), “passive” appreciation of nature’s beauty

reports, 1938-1999, Archives and Information Services Division, Texas State Library and Archives Commission.

was deemed more appropriate for the public to understand and experience the value of expansive natural spaces like Big Bend.⁴²

Common to both of these changes in forms of parks appreciation in the 1930s and the 1990s was the availability of federal funding to state park agencies concerning conservation. As the National Parks Service expanded to Texas, new funds were made available to the state to secure private lands for public use, as well as create new jobs and training facilities for potential park development and employees during the development of Big Bend National Park. But these funds depended on creating a reliable base in the public who would adhere to the “national . . . movement to conserve our national resources from the destructive exploitation of civilization bent largely on the accumulation of material wealth.”⁴³ This statement from a scripted radio announcement from the National Parks Service in 1936 posits conservation as antithesis to economic development. While the rhetoric of non-consumptive use draws on similar concerns of preserving natural resources, by the 1990s non-consumptive users were key to economic participants in rural areas.

Yet, as TPWD shifted focus in the 1990s from consumptive activities like hunting to non-consumptive activities like supporting conservation practices on private lands, the agency attempted to address a primary concern of conservation efforts in the

⁴² This division was made explicit through the examination and study of two series collections at Archives and Information Services Division, Texas State Library and Archives Commission: Texas State Parks Board 1935-1937, 1939, 1934 and Texas State Parks Board 1936, 1934. These are located in the archive in boxes: TPWD_2005/041-7 (Texas State Parks Board 1935-1937, 1939, 1934) and TPWD_2005/041-8 (Texas State Parks Board 1936, 1934)

⁴³ Radio Announcement from the National Parks Service, Dec 30, 1936. Texas State Parks Board 1935-1937, 1939, 1934. Archives and Information Services Division, Texas State Library and Archives Commission.

state: how to preserve wildlife—considered a public good—when that wildlife was rarely on public lands. Partnering with non-hunters and agricultural landowners to develop new comprehensive practices provided new opportunities to capitalize on wildlife by creating new forms of consumption. However, as will be described in more detail in the following section of this chapter, the overlapping responsibilities and positions of state and federal agencies concerning conservation practices had created a tumultuous relationship with private landowners at the time.

3.3 Prioritizing Property Rights

Both the State Task Force on Nature Tourism and the federally funded TPWD projects situated private lands as spaces for conservation and the production of a new kind of capital consumption. However, concurrent to the previously described events, another much more contentious situation was developing in the state. In 1988, USFWS had listed six endangered species near the Austin, Texas area: the black cap vireo (a small bird) and five invertebrates (insects) associated with the Edwards Plateau, a region west of Austin, as well as the Edwards Aquifer, the major source of water for the region.

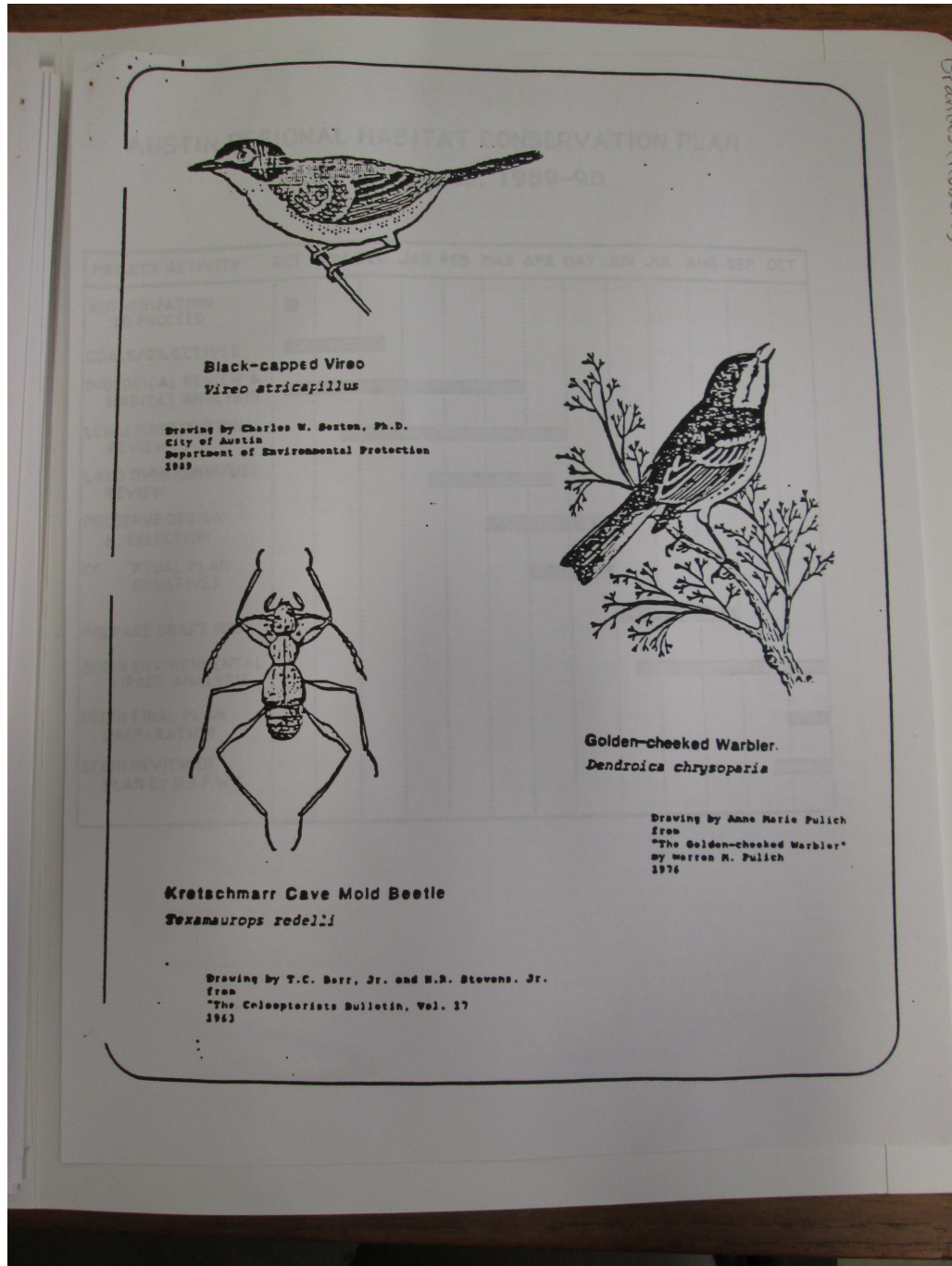


Figure 8: Detail from Material Produced by David Braun for BCCP

This page from introductory materials (Braun, n.d.). illustrates three species that the group hoped to protect by establishing habitat protection guidelines and practices.

Citing habitat loss through urban development and land fragmentation, the federal agency was also considering listing four more species: the golden cheek warbler (another bird) and three plant species native to the area.

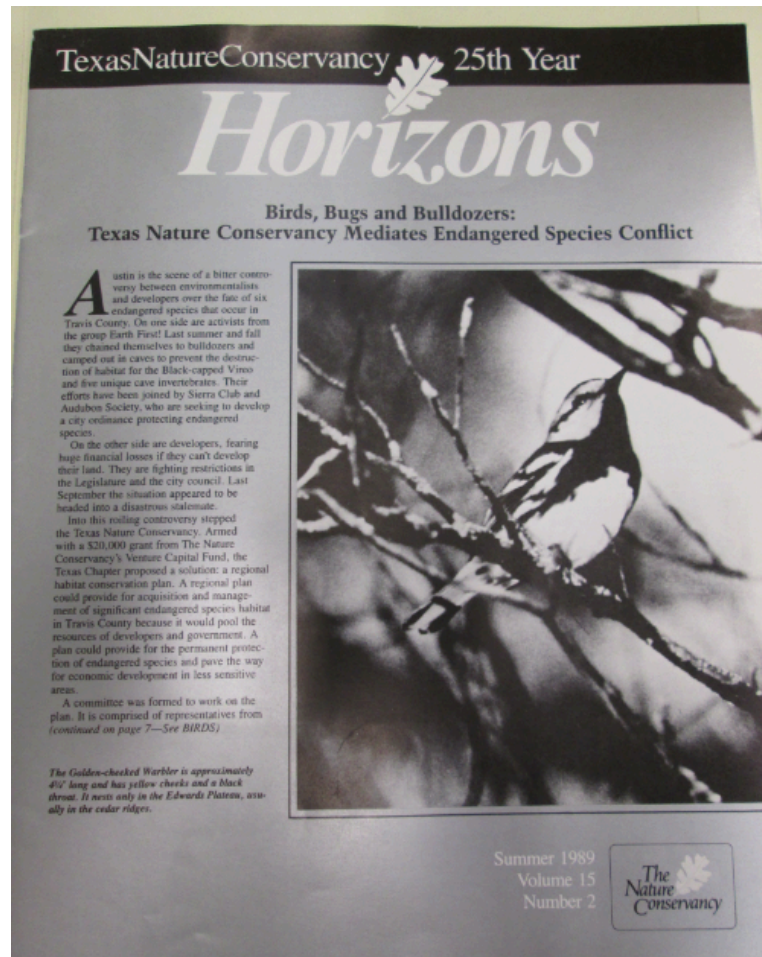


Figure 9: Cover of *Horizons* Magazine with Golden Cheek Warbler Highlighting the dominant role of the Nature Conservancy in protecting the habitat of the Golden Cheek Warbler, this issues of *Horizons* pits conservation against development bulldozers (Texas Nature Conservancy 1989).

The federal identification of species as, on the one hand, endangered or, on the other hand, a potential “candidate” for listing, sets in motion a series of mandated federal actions as described in various regulatory statutes under the Endangered Species Act.

Very generally, the Department of Interior authorizes USFWS to develop comprehensive conservation plans that local state agencies, in partnership with USFWS, are responsible for carrying out, most often through the co-development of management with local landowners and state agencies, and occasionally through court sanctioned procedures. The plans are called critical habitat plans (CHPs) and reflect a concerted effort to engage various stakeholders in the development of regional efforts to protect endangered and critical species.

Furthermore, as these endangered and critical species were identified in the state by USFWS, key geographies near Austin, were also identified as vulnerable habitat. The Edwards Aquifer (an underground body of water) and the Edwards Plateau (the above ground land that acts as a filter for water to enter the aquifer) compromised most of this vulnerable habitat, and lay to the west of Austin in what is traditionally known as “West Texas.” Colloquially identified as the Texas Hill Country, this area of the state is composed of limestone outcroppings, juniper (cedar ash) trees, and alternating clay and sandy soil. This landscape is distinctive to the state and might be described as barren with scrubby dark green trees, bright red stone cliffs and pale grey soil. And, in comparison with East Texas and its fertile prairie lands, the Edwards Plateau presents a stark contrast, not only through the visual differences in the landscapes of the state, but in how those lands are used. While areas east of Austin (as distinguished by Interstate Highway 35, that divides the state north to south from the Dallas-Fort Worth metropolx to the Rio Grande Valley, just above San Antonio) are laid out in grid patterns producing livestock and crops for the state’s \$36 billion agricultural industry, West Texas is indicative of the state’s frontier legacy, with few settlements, larger tracts of land and

minimal agricultural production. As Austin and the surrounding suburbs began to grow in the late 1980s, *where* development might take place was determined by perceptions of this so-called “unproductive” landscape to the west of the city. The development of new residential and industrial suburbs seemed to be the solution to converting this barren landscape into a productive space for urban development. However, as USFWS and TPWD began to examine not only the habitat of listed endangered species, but also the habitats of candidate species, the land west of Austin took on new meaning as disparate parties attempted to weigh in on where and how development might take place.

Beginning in 1988 and through the early 2000s, using funds from the Endangered Species Act distributed through USFWS, TPWD began a series of studies examining population and habitat of the golden cheek warbler. As a federally identified “candidate species,” TPWD requested funds from USFWS to monitor the population and habitat of the golden cheek warbler over the course of several years and developed local management plans in an effort to prevent the species from being listed as endangered.⁴⁴ An early report from December 1990 stated:

The standard wisdom among researchers working with golden-cheeked Warblers has been that habitat fragmentation causes a decline in the population level.... A conclusion of this study is that habitat *elimination* and not habitat fragmentation will have a major impact on the long-term survival of the bird. If wildlife managers and planners seek to preserve Golden-cheeked Warbler habitat, it makes little difference whether habitat is set aside in large or small patches, as

⁴⁴ This information is outlined in the report: “Significant Accomplishments: Texas Parks & Wildlife Department: Endangered Resources Branch: 1994-95” Clyde Alexander Papers, Archives and Information Services Division, Texas State Library and Archives Commission.

long as the preserved habitat is away from present or future dense urbanization”
(emphasis added).⁴⁵

In this way, potential development of property for suburban expansion was linked to the elimination of habitat for the species. And as a result of reports such as these, urban and suburban sprawl became the most obvious threat to both the warbler and the vireo.

In response (and seeking a local solution) the city of Austin began work to create a habitat management plan for the city for the Edwards Plateau. Through the creation and reporting of committees and subcommittees, the city initiated the Austin Regional Habitat Conservation Plan, which later became the Balcones Canyonland Conservation Plan (BCCP). Mediating the development of this project (and putting up the first \$22,000 of the projected \$350,000 funds for the plan) was the Texas chapter of The Nature Conservancy, a non-governmental conservation group.⁴⁶ David Braun, the director of the Texas Nature Conservancy, was the vice chairman of the executive committee for the BCCP, while Bruce Todd, the mayor of Austin, was the chairman.⁴⁷ Initially the committee was composed of seventeen members representing eight state agencies, four developers, four environmentalists and the Nature Conservancy.⁴⁸ The executive committee took recommendations from the steering committee (composed of

⁴⁵ Performance Report, Project E-1-2, Job No. 3.3: Golden-Cheeked Warbler Breeding Status and Habitat. December 20, 1990. Robert Brandes Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 98-309/1.

⁴⁶ Braun, David. "What is the Texas Nature Conservancy, and Why is it Involved in the ARHCP?" Robert Brandes Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 98-309/1.

⁴⁷ Balcones Canyonlands Conservation Plan: Final Draft. February 1992. Robert Brandes Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 98-309/1.

⁴⁸ Minutes of the December 9, 1998 Meeting, Travis County Regional Habitat Conservation Plan. Robert Brandes Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 98-309/1.

the same group of people) to move the planning process for the Edwards Plateau forward.

While the BCCP created a plan for the endangered species west of Austin along the Edwards Plateau, an equally concerted effort between state agencies and the legislature was in the making as a water conservation plan was developed for the Edwards Aquifer. In addition to concern for the habitat of endangered species below ground, the aquifer itself was estimated to be at approximately half capacity drawing the concern of TNRCC, the aforementioned restructured state resource conservation agency. Citing drought conditions and over taxing the water table, in 1992, John Hall, the Texas Water Commission (TWC) Chairman, appropriated the aquifer from the city of San Antonio.⁴⁹

However, multiple people and agencies throughout the state discredited these actions as an instance of government seizing control over a local issue. Most vocal in these disparaging remarks was Rick Perry, who was Agricultural Commissioner from 1991-1999, and who declared that Ann Richards' appointees had "declared war on your legal right to water," claiming that the state had unlawfully claimed jurisdiction over the Edwards Aquifer.⁵⁰ Compounding the effort to create a conservation water plan for the aquifer was a federal lawsuit filed in 1992 by the Sierra Club against the Department of the Interior and USFWS for failing to protect the endangered species at the aquifer.⁵¹ But

⁴⁹ Scott, Stefanie. "Water Boss Hall Making Waves." June 7 1992. Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 95-019/829.

⁵⁰ Elliot, David. "Richards' 'New Texas' Assailed." *Austin American Statesman*, June 19, 1992. Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 95-019/829.

⁵¹ "Ruling 'won't affect' Sierra Suit," June 13, 1992, Ann Richards Papers, Dolph Briscoe

it was not until a year later, after Secretary of the US Department of the Interior, Bruce Babbitt, stepped in to offer “assistance at this critical juncture to take whatever steps are necessary to protect the resources of Edwards Aquifer,” that legislators passed a bill that created a plan to meet both the local needs of water access and the federal concerns of the endangered species at the Edwards Aquifer.⁵² However, as the Department of the Interior, and by extension Bruce Babbitt, stepped in to help Texas legislators adhere to federal requirements concerning the Endangered Species Act and water conservation at the Edwards Aquifer, the Balcones Canyonland Conservation Plan was being challenged from the inside.

As the BCCP added new members to the executive committee to represent a diversity of stakeholders in the process of developing the plan, tensions between those members began to play out in both the media and in the larger politics of state government. Center to these challenges was Robert Brandes, a member of the executive committee of the BCCP, filling the newly prescribed role of landowner for the group. Brandes took a lead role in questioning the efforts of not only other committee members, most notably David Braun, but also the city of Austin, USFWS, and the Department of the Interior more broadly. Writing letters to local papers and speaking at both state legislative and local USFWS hearings, Brandes called out what he considered to be the unfair consideration of landowners and the potential economic value of their land. Speaking at a state legislative hearing in 1991 for HB 2717, he argued for private landowners’ rights, asserting that the Endangered Species Act, as well as the HCCP,

Center for American History, The University of Texas at Austin, Box 95-019/829.

⁵² Bruce Babbitt to Ann W. Richards, Bob Bullock, and Pete Laney, April 16, 1993. Ann Richards Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 95-019/691.

“specifically excludes consideration of economic impact as a factor to be considered” in the identification of both endangered species and the process of creating conservation habitat plans.⁵³ While Brandes continued to participate as a member of the executive committee on the BCCP until 1995 when a final plan was presented and approved, his concerns of private property rights is indicative of larger debates in the state leading up to the gubernatorial election in November 1995.

For Brandes, and others like him, the actions instigated by the listing of endangered and critical species directly challenged property owners’ “right to own and responsibly utilize private property.”⁵⁴ Speaking at an endangered species hearing in 1995, Brandes claims that changes “to our country’s historic understanding and concept of land ownership and use are not coming within the framework of the democratic process [but] are occurring through bureaucratically mandated regulations and strategically organized group pressures.”⁵⁵ Drawing directly on rhetoric published by the CATO Institute, The Competitive Enterprise Institute, and The Property Rights Foundation, Brandes identified the procedures of creating habitat management plans, as well as the implementation of federal regulations regarding the Endangered Species Act, as a direct affront to potential economic development. For Brandes ownership was not just a right to make decisions concerning property, but also a right to use property as the

⁵³ Brandes, Robert, Comments before the House Environmental Affairs Subcommittee, re: HB 2717, May 7, 1991. Robert Brandes Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 98-309/4. House Bill 2717 (1991 in 72nd Regular Session) for the Balcones Canyonlands Conservation Plan did not pass. Instead, it was left pending in a committee with the regular legislative session ended in 1991. Bill Authors: Elliot Naishtat and Glen Maxey.

⁵⁴ Brandes, Robert, Statement to the House of Representatives Committee on Resources, Endangered Species Hearing, March 20, 1995, Robert Brandes Papers, Dolph Briscoe Center for American History, The University of Texas at Austin, Box 98-309/3.

⁵⁵ *Ibid.*, 3-4.

means of gaining economical advantage in whatever way the property owner desired. The federal- and state-mandated coordination of conservation management practices between properties directly challenged landowners' rights to capitalize on the potential utility of real property.

Perhaps not so surprisingly, in 1995, Texas State legislators took up this battle as well. Senate Bill 14, known as the Private Real Property Preservation Act, created a new structure for landowners' interactions with state and federal "takings" to protect private landowners. While the BCCP dominated headlines, and a plan was initially passed by the Austin and surrounding areas, the passage of SB 14 established a conservative view of public agencies on private lands.⁵⁶

3.4 Making Landowning Entrepreneurs into Wildlife Managers

In the 1995 November election, Texans did not just vote in a new governor (George W. Bush), but they also voted on fourteen amendments to the state constitution. These amendments aimed at simplifying state government by addressing the key forms of accountability that Richards had established during her gubernatorial reign, specifically concerning legislative loopholes and outdated laws. While these proposed amendments addressed issues ranging from student loans to veteran's housing to investing in South Africa after apartheid, Proposition 11 (Prop 11) amended the

⁵⁶ In an effort to consolidate this chapter, I have left out two other components to the BCCP and private property section that I leave out. The first concerns Richards drastic back pedaling concerning the state's dealings with the Department of Interior Secretary Bruce Babbitt leading up to the 1994 gubernatorial election. The second includes the various lawsuits and ruling filed against Babbitt by state lawmakers and NGOs operating in Texas that charged the federal agency was either doing too much (and infringing on private property rights) or too little (and so not carrying out the responsibilities of the Endangered Species Act).

agricultural tax valuation to include wildlife management as a categorical activity for the taxation on open-space lands. In this section of the chapter, I describe how wildlife management as a tax valuation developed and combined the discourses of development, conservation, and property rights to set a new tone for environmentalism in the state.

While Texans voted to pass Prop 11, two additional legislative bills actually amended the state codes to address the legality of wildlife management. While both the state senate and house passed these bills in May of 1995, they could not take effect until after the November election that established the main premise—wildlife as form of agricultural—had passed in the general election. The first bill, House Joint Resolution Bill 72 (1995) (HJR72), amended the state constitution to include wildlife management as a form of open space land valuation based on its productive capacity. This law equated wildlife management with farming and ranching as a means of taxing privately owned lands. The second bill, House Bill 1358 (1995) (HB1358) amended the Tax Code to define wildlife management and set the baseline criteria for management practices.

Taken together, Prop 11, HJR72 and HB1358 enacted the suggested policy initiatives of the State Task Force on Texas Nature Tourism and extended the reach of TPWD's Private Lands Initiative program described earlier. Both bills were sponsored by Representative Clyde Alexander a Democrat from District 12 in Central Texas and a member of the Task Force. The proposed legislation of tax valuation was reviewed in both the State House and Senate review boards and Kirby Brown, a biologist from TPWD who worked on the Private Lands Initiative, gave testimony to the review boards, endorsing the wildlife management tax valuation as a means of promoting conservation efforts on private lands. Newspaper articles at the time highlighted the joint backing of

both Democrat and Republican House and Senate members, as well as op-ed pieces and pamphlets, emphasized wildlife management as beneficial to game animals like deer and turkeys, in addition to migratory animals like birds and insects. Groups such as the Audubon Society and the Nature Conservancy also supported the passing of the legislation, expressing the hope that new avenues of conservation might be opened as more individuals in the state began to actively engage with wildlife management.

Leading up to the November vote, wildlife management was discussed as a compromise between property owners and environmentalists. As an op-ed news piece by David Braun claimed, “the amendment is a step into a dynamic new era of free-market environmentalism, which engages people through their economic self-interest.”⁵⁷ The amendment was positioned against the Rachel Carson era of “anti-establishment ... obstructionist tactics”⁵⁸ and was interpreted by many as a new wave of environmental action that preserved private property rights.⁵⁹ In this superficial dichotomy, landowners needed a financial incentive to become environmentalists. This can be identified in the press tour representative Clyde Alexander took to promote Proposition 11, the bill to include wildlife management as a form of agriculture. In the distributed fact sheet for the press tour, specific effort was placed to engage multiple views of support:

House Bill 1358 has widespread support from environmental, agricultural and property rights groups. The bill would satisfy both those who advocate property

⁵⁷ Braun, David. “Environmentalism Finally Goes Mainstream.” *Dallas Morning News*. November 26 1995. Clyde Alexander Papers, Archives and Information Services Division, Texas State Library and Archives Commission.

⁵⁸ *ibid.*

⁵⁹ Multiple documents from C. Alexander files, including news clippings and support letters from environmental organizations highlight the collaborative efforts (and discourses) necessary to pass the amendment.

owner control of land use and those who advocate policies promoting environmental protection.⁶⁰

The potential success of wildlife management was linked not with environmentalism alone but with entrepreneurialism as well. Additionally, the value of conservation was linked to development of new markets in rural communities. In a press release from Alexander's office promoting around-the-state news conferences the Representative conducted, he argued, "Proposition 11 should also encourage the continued economic growth of nature tourism based on wildlife, including hunting, fishing, photography, bird watching and the like."⁶¹ As a member of the State Task Force on Texas Nature Tourism, this mixed discourse of environmentalism and incentives reflected the unique composition of the Task Force, and identified the complex social relationships at play during the early 1990s as state agencies attempted to adhere to Richards' proposed infrastructural reforms and delimitate agency responsibility, while at the same time building on long term projects (like TPWD's Private Lands Initiative), as well as economic problems like the decline of development in rural communities.

⁶⁰ Fact Sheet on House Bill 1358, Clyde Alexander Papers, Archives and Information Services Division, Texas State Library and Archives Commission.

⁶¹ Press Release, State of Texas, House of Representatives, Clyde Alexander, News Media Advisory, October 31, 1995. Clyde Alexander Papers, Archives and Information Services Division, Texas State Library and Archives Commission.

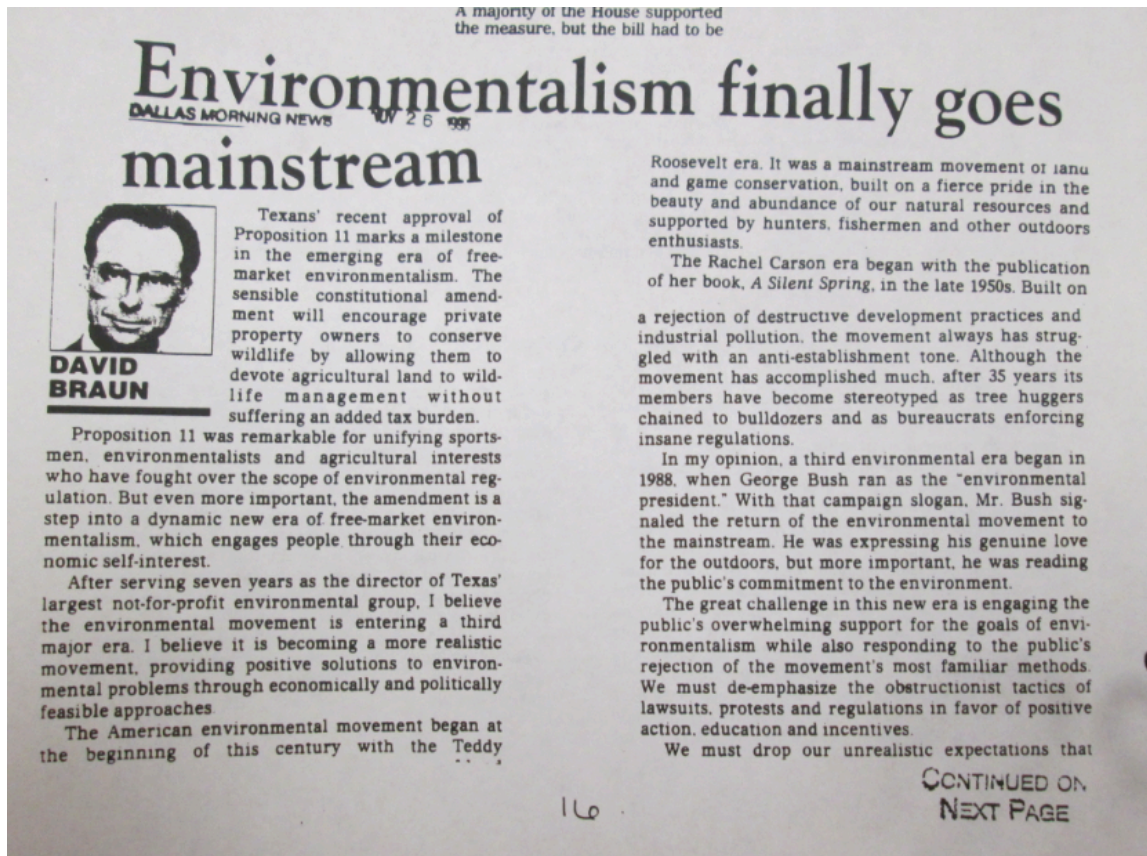


Figure 10: "Environmentalism Finally Goes Mainstream"

In this short article by David Braun, environmentalism is linked to economic choices (1995).

However, the ways in which these discourses were codified through tax assessment reveals the organizational capacity to legitimate new and disparate social relationships and practices. When Proposition 11 passed in 1995, two major changes were legitimated in rural communities. First, (and perhaps the most obvious), the definition of agriculture changed so that landowners were no longer required to position their properties in terms of removable production, but in terms of larger eco-system services. In this way, production was subsumed by service development so that nature tourism, not crop and livestock production, became the projected means of livelihood in

rural communities. Second, state agency support in rural communities transitioned from Texas A&M and the extension offices (AgriLife) to TPWD, opening up new legitimating practices with land management. These two legitimating practices (new forms of agriculture combined with new forms of agency support) effectively transitioned how landowners could value their participation (as environmentalists) and identity (as managers) in rural communities. The strange combination of environmentalism and economic self-interest provided a new identity of managerial practices to legitimate conservation on private lands as another means of resource management.⁶² As landowners interpreted their participation as legitimate, a finite set of practices was established that reinforced social relations and hierarchies of worth (or power) through bureaucratic formulations.

3.5 Conclusion

By examining these four overlapping contexts of infrastructural reform and so-called economic self-interest as distinct discursive themes, the various perspectives and conflicts concerning environmental conservation and private property come to light, and as constituents resolve them, the local conditions of neoliberalism are made evident.

Further, these events highlight the ways in which the general characteristics of

⁶² In an earlier draft of this chapter presented at the Agricultural History Society in 2014, Kendra Smith Howard labeled this “conservation industrial complex,” based on the work of the panel organizer Joshua Nygren. Nygren defines these interactions between corporations and conservation efforts as “a network united by shared interests in promoting and practicing soil and water conservation” (2016). However, my work on managerial and entrepreneur development takes a different focus. While the development of new production services (such as tractors from Caterpillar or soil testing kits from Monsanto) feeds into an already established market of conservation, this chapter attempts to get out how those markets were initially created by enrolling constituents into conservation management.

neoliberalism were translated into specific forms or mobile technologies in Texas.

Brenner and Theodore identify instances of actually existing neoliberalism as

the contextual *embeddedness* of neoliberal restructuring projects ... as they have been produced within national, regional, and local contexts defined by the legacies of inherited institutional frameworks, policy regimes, regulatory practices, and political structures (2002, 349 italics original).

Taken separately, each reveals an interesting—and sometimes stereotypical—story of Texas government. However, together these events capture the social negotiations of governance regimes by constituents in response to the construction of economic markets in consideration of local conditions.

Positioning taxes as a means of reform had many consequences. First, it codified natural resource conservation through the language of tax assessment. Furthermore, by positing taxes as a means of entrepreneurship, conservation, and reform, those who engaged in the assessment were enrolled in this complex mash up of identities. If landowners wanted to participate in conservation practices, participation in particular tax categories became the means to do so. Participation in the assessment legitimated and limited specific courses of action that landowners could take regarding land use practices on their properties. Smith argues,

once the institutional language has been substituted for detailing, the information it locks in cannot thereafter be recovered. It is a language which is capable of subsuming and claiming an indefinite variety of actual sequences of action, transforming the indeterminate into the determinate, producing them as typical organizational events (1990,154).

These social relations, or “how individuals’ actual practices are articulated to and coordinated in social courses of action” (Smith 1990, 124), engaged landowners in the bureaucratic practices of tax assessment as a means of conservation and enrolled constituents in a managerial position of accountability. This complex social relationship required landowners to assume novel practices of management, and as the assessment was codified into multiple laws, enrolled them in social relationships with state agencies. The relationships and articulated actions governed the means by which conservation was practiced through legitimating bureaucracy.

Elodie Fache labels these interactions bureaucratic participation, or “a process that interrelates a multiplicity of actors and interconnects different levels of values and agencies” (Fache 2014, 283). This process relies on individual constituents to conduct state-based initiatives. In the specific case of wildlife management, agricultural landowners were enrolled into conservation efforts as potential entrepreneurs. This reframing of markets in rural communities—from conventional agriculture production to nature tourism and wildlife conservation—did not substantially change the social configuration of who can be an agricultural landowner. Instead, it posited new practices of agriculture.

Importantly, the discourses concerning development, consumption, property rights, and entrepreneurialism were subsumed into a new way of identifying as a legitimate rural landowner. Said another way, participation in wildlife management did not necessarily change who participated, but how a landowner participated. This distinction is important in consideration of how neoliberalism functions as a mechanism that takes context seriously. The conditions for participating in wildlife management

were not newly constructed from scratch. Instead, new practices were mapped onto existing agricultural land values, most prominently those concerning the rights of private property.

Bureaucratic participation in tax valuations created the means by which landowners were enrolled as extensions of policy initiatives to preserve public goods. As official documents were developed for the tax valuation, these practices were translated into bureaucratic categories and documentation to legitimate wildlife management valuations. In this new legal narrative, the hypothetical landowner was not only acting in her own self interest, but by doing so was enacting a particular form of cultural identity based on the productive value of agricultural lands. Environmental conservation as envisioned through the practices of wildlife management was an extension of agricultural land management practices derived from state policies that reinforced four key factors to landownership. Primarily, natural resources were assets that could be *developed* through concerted efforts between the government and the market. These assets had the potential to be *consumed* within new market structures. The *property rights* of landowners to control practices were prioritized, as long as those rights meshed with the potential construction of new markets. Landowners were expected to be *entrepreneurs* in their communities, supporting new markets through the production of new goods and services. In return, these new economic ventures would create economic stability in rural communities without further governmental influence.

Wildlife management gained credence because these discourses so easily mapped on to what it meant to be an agricultural landowner. The program maintained private property rights and responsibilities, and it supported individual management choices by

landowners. However, when wildlife management became a formal component of the Texas constitution, the legal fiction of wildlife management as agriculture had to draw on legal narratives to legitimate environmental conservation on private lands. In the next chapter, I explore the legal codes in detail to understand how wildlife management functions as a legal fiction that reinforced the productive value of land.

4. LEGAL FICTIONS AS GENRES OF SOCIAL ACTION: HOW PROPERTY VALUES ARE CONSTRUCTED

In 1997, Pete A.Y. Gunter and Max Oelschaeger wrote, “[s]omewhat the frontier mentality, the notion that nature’s bounty is unlimited, virtually free for the taking, must be put behind us as we enter the twenty-first century” (ix). Their book, *Texas Land Ethics* (1997), drew on the work of Aldo Leopold (1949) to propose a new way of thinking about the geography of Texas. While Leopold focused on an American landscape and the need for concerted conservation efforts that drew on personal relationships with nature, Gunter and Oelschaeger sought to localize Leopold’s land ethic to the specific cultural and geological landscape of Texas. Their strategy, as the quoted sentence above illustrates, was to focus on the ability to change one’s perception, to reverse one’s stance on the value of natural resources, and to acknowledge the crises of environmental degradation as a moment of political action through self-reflective evaluation. Specifically, Gunter and Oelschaeger claim that Texas is no longer a frontier, despite the mainstream rhetoric that continued (and continues) to claim unlimited opportunity for economic surplus in the state through natural resource development. The epitome of this is “The Giant Slurbs,” the sprawling urban areas of Central and East Texas, that the authors use as a short hand to link urban development with a mentality of continuous economic growth without detrimental consequence (Gunter and Oelschaeger 1997, xiv). In an essay from 1999, they clarify their stance towards the market economy even further to claim, “to think about a Texas land ethic means that considerations outside the market will influence land-use decisions” (Gunter and Oelschaeger 1999,

48). Specifically, Gunter and Oelschaeger hoped to create the ethical considerations and actions that conserve the ecological integrity, stability and beauty of Texas.

However, while *Texas Land Ethics* (1997) was a reoccurring text in my fieldwork, used by interview respondents as a means of situating their wildlife land management practices within larger considerations of environmental ethics, the resistance to re-evaluate the relationship to nature is pervasive in the state. In Mark Friedberger's account of rural land management practices in Central Texas from the 1950s to the 1990s, he describes how new landowners ("gentrifiers") perceived cattle ranching as a form of environmentalism such that "pasture would save the land" (Friedberger 1999, 281). In this view of grazing there was no difference between pastures planted for livestock grazing and native prairie lands.

In my own work with the Texas Master Naturalists, I also encountered reluctance to re-evaluate conventional agriculture like livestock production in consideration of environmental conservation. In a workshop conducted for the El Camino Real Chapter in February 2016, I divided participants into five groups and asked each to design a healthy riparian area. This project was based on the participatory design program of the Texas Parks and Wildlife Department (TPWD) to create landowner-specific riparian management practices after the severe flooding on the Blanco River the previous year. The Blanco River flooding not only caused the loss of the life, but millions of dollars in damages to state and private property as roads, bridges, and homes were swept away in flash floods in the Spring of 2015. While flash flooding is relatively common in Texas, the amount of destruction caused by the Blanco River flood was as much a result of the management practices of landowners living on the river's edge, as it was the river's

tendency to flood.⁶³ Both the Nature Conservancy and biologists from TPWD identified the grazing practices of cattle that were allowed to freely access the water's edge, as well as the manicured lawns of recreational landowners who wanted clear access to the river for fishing and swimming, as the main culprits leading to the damage caused by flooding. Ranchers failed to limit cattle's access to the river and, over time, as the animals crowded the river's edge for water, they trampled grasses and trees necessary to hold soil and rocks to the riparian buffer, or that part of the river's edge that divides the water from its surrounding area and prevents sediment from eroding. Additionally, as landowners trimmed their lawns and prevented the growth of trees and brush around the river (in an effort to maintain a manicured look to their yard as they accessed the river) vegetative root structures were stymied. These root structures are vital to the absorption of water into the soil and allow for the quick re-absorption of water after a flood episode. Compounding these effects was the lack of water in the river, as drought conditions limited the flow of water throughout the state. Accumulating over time, the combination of ranching and recreational ventures along the banks of the river failed to take into account the diverse vegetative environment needed to recover from flooding events.

In the workshop, I asked participants to create an access way to the river, identify specific plants necessary to compensate for flooding and to designate a "development-free" flood plane. Through their comprehensive training and volunteer efforts, these terms and practices were not new to the members of this Master Naturalist chapter.

While I presented to the group interview data with TPWD on their efforts to create new

⁶³ Kalifa, Tamir. "Blanco River Flood Exacerbated by Manicured Lawns on the Riverbanks." *Newsweek*, September 25 2015. <http://www.newsweek.com/2015/09/25/blanco-river-flood-exacerbated-manicured-lawns-riverbanks-371524.html> (Accessed July 20, 2017).

management practices along the Blanco River, the consequences of the flooding concerning the Blanco River were well known to participants at the workshop. However, at the end of the workshop when each of the five groups reported on their plan, I was surprised that one group maintained open access for cattle, as well as a weekend home close to the water's edge. While this is only an anecdotal portrayal of land management practices—and not even “real” practices at that—as the chapter members discussed their plans, no members were willing to confront the outlying group on their practices, despite acknowledging the detrimental effects of those practices early on in the workshop. While there are no doubt many reasons why members did not want to rock the boat, and call out their fellow participants on potentially detrimental practices, this experience illustrates the difficulty of establishing a Texas land ethic that disentangles economic production and development, property rights, and conservation efforts.

In this chapter I set out to present a framework for understanding and evaluating how property is tied to the cultural and productive value of land in Texas. I draw and expand on the concept of legal fictions (Fuller 1967; Moglen 1990; Riles 2011) to reveal how the value of real property is constructed legally through tax law and culturally through rhetorical framing that situate landownership within a unique Texan work ethic. In this context, legal fictions are genres of social action (Miller 1984), in which participation in the fiction (in this case tax law) supports and attempts to structure specific land management practices grounded in social identity. I develop a key framework for understanding and evaluating how environmental conservation on private lands in Texas was established through the implementation of a series of legal fictions concerning ownership and the productive value of land. While the previous chapter

described the development of the property tax incentive, this chapter examines how property tax functions as the legal means of enrolling landowners in wildlife management. This chapter is divided into three sections. The first section lays out the theoretical frame of legal fictions as social action and draws on a politics of technology approach to foreground how bureaucratic participation legitimizes such action. In the second section I describe the cultural and legal history of landownership in Texas through the theoretical frame of legal fictions to reveal how the productive capacity of land is legally valued in the state. In the final section of this chapter I discuss how environmental conservation is subsumed within the appraisal valuations of land as a form of agriculture. I conclude the chapter by identifying the contradictions and gaps in practice that are left unaccounted within this legal structure.

4.1 Legal Fictions as Social Action

Wildlife management is a property valuation that characterizes conservation on private lands as a form of agriculture. As described in the last section, wildlife management emerged as an amalgamation of multiple historical and discursive contexts in Texas. While themes of development, consumption, property rights, and entrepreneurship came together to establish the tax valuation, wildlife management became a legitimate property valuation because it is a legal fiction. Legal fictions are the variable discursive forms, constructions, and reconstructions of facts in oral and written arguments, briefs, and opinions implemented in legal disputes (Fuller 1967). They are a key feature of common law when participants in adjudication reinterpret facts, evidence, and testimonies in variable ways to present alternative narratives of those same facts and

evidence (Fuller 1967, Moglen 1990). In this section of the chapter I present a theoretical frame that evaluates legal fictions as genres of social action and draw on a politics of technology approach to foreground how action is made legitimate through participation.

4.1.1 Legal Scholarship

Contemporary legal scholarship regards legal fictions with skepticism because they purposefully present evidence and situations that might not accurately reflect the dispute at hand (Knauer 2010; Smith 2007). For example, perhaps the most famous legal fiction in recent US memory involves the directive issued during the O.J. Simpson murder trial, “If it doesn’t fit, you must acquit.” In this legal fiction, the defense linked material evidence of the murder—a glove—to the defendant’s ability to comfortably wear the evidence, challenging alternative narratives of intent and opportunity. This narrative of the evidence links the glove to a murderer *who has small hands* and not to the defendant’s own large hand, revealing the importance of rhetoric in legal cases as means of controlling the narrative viability of evidence (Cotterill 2003).

Additionally, participants in the court construct and implement legal fictions to adhere to relevant statutes, laws, and precedential adjudication. As Eben Moglen claims, fictions promote “variation of fact, rather than alteration of law” (1990, 51). The ability to construct pieces of evidence and facts into narratives with compelling arguments that uphold statutes relies on various metaphors and cultural understandings of action to illustrate how particular laws might be interpreted. In the trial mentioned above, the small glove is linked to the way a person might normally wear a glove in everyday life, not with how a murderer might wear a small glove to avoid suspicion. An analysis of

legal fictions reveals the unique characteristic of law as a social structure in which multiple and variable constructions of facts can be adjudicated (i.e. whether these facts are true or not may not matter to settling the dispute) (Knauer 2010; Moglen 1990; Pottage 2007; Schauer 2015). Said another way, the truth lies in the narrative or legal fiction constructed with the evidentiary proof, legal procedures, and relevant statutes that is most compelling to the adjudicator (be it judge or jury).

According to Moglen (1990), legal fictions are the bending force of law such that the rule of law is not a static structure, but instead mediated by contests of fictional narratives between legal participants referencing facts and evidence. And scholars such as Annelise Riles argue that fictions go beyond court adjudication to regulatory and legislative legal situations (2010, 2011). While most legal scholarship concerning legal fictions focuses on evidence and constructions of fact within adjudication (Smith 2007; Schauer 2015), Riles (2010) identifies fictions throughout the law, and specifically in legislative and regulatory law. In this analysis, fictions are not limited to interpretation of evidence, but are the basis of the construction of legality itself.

However, as one can imagine, legal fictions allow for a diverse set of legal practices to develop. Legal fictions focus attention on specific characteristics of the law motivated by various stakeholders. They represent contested issues such that different actors attempt to negotiate and act on different meanings and ramifications of the fiction. As statutes are written, they are composed of a variety of legal fictions that create both the condition for the necessity of the law, as well as the actions required to maintain adherence to the law. Perhaps the most obvious fiction in US law is the one that claims corporations are people. But, salient to this dissertation another example helps to reveal

both the condition and social action of legal fictions. The Endangered Species Act identifies both the condition and the actions necessary to construct legitimate participation. As a regulatory procedure, the primary assumption is that species are endangered. This is the condition of the law. Scientific evidence and compelling cultural narratives of wilderness spaces and infringing development in the United States support the legal fiction of endangerment. The law is only implemented when proof of endangerment is gathered. This is the social action the legal fiction of endangerment supports: monitoring and then protecting endangered species as a means of adhering to the law. So, while there may be some dispute concerning *where* in the law legal fictions reside, it is by understanding this dual role of legal fictions that I argue we can begin to identify the ubiquity of legal fictions in the U.S. legal system.

4.1.2 Genre Analysis

While identifying these two key characteristics of legal fictions (the condition and action of legality) is important to understanding *how* fictions function in legal practices, an additional insight is needed to understand how laws create authority for those participating in regulatory and policy initiatives. As laws are implemented, legal fictions provide a structure for legality, and, in turn, give authority to legitimate some practices and make others illegal. Legal fictions are rhetorical devices used to create compelling narratives (Bennett 1978, 1979), but as a genre form they also structure social actions (Miller 1984). I propose a frame for analysis that identifies and evaluates legal fictions as genres to get at the social actions they support and also marginalize.

Genre texts coordinate efforts across domains and structure systems of discursive control (Campbell 2004; Foucault 1972; Mills 1997; Smith 1999). Identifying legal

fictions as a genre involves unraveling the complex formation of form, function, and authority of legal fictions as social actions. Because genres represent action and contribute situation and motive to categories of discourse (Jamieson and Campbell 1982; Miller 1984), legal fictions can be identified as specific discursive forms for the authoritative interpretation of facts in law. The recurrence of these rhetorical situations and the ability to determine or classify their occurrences is indicative of social action. Importantly, analyzing legal fictions through the generic frame reveals “the achievements of particular speakers and writers” (Miller 1984, 165) and one can assume that their failures are also recognizable. Genre analysis provides a means to understand how legal actions are characterized, and who can participate in the law. Furthermore what can be said and how it can be said characterizes the authority with which one can legitimately implement a legal fiction. This last component of legal fictions determines who can utilize this fiction with specific authority and expertise. Miller identifies this reliance on expertise as a means of codifying who can talk as an argument from authority (Miller 2003). This is different from interpreting expertise as a performance (Hilgartner 2000), and instead reinforces texts, and speech acts particularly, as reproducing, supporting, and sustaining ruling and power relations (Campbell 2004; Schryer 2002; Smith 1990).

4.1.3 Politics of Technology Approach

As a method of analysis, genre forms provide a means of understanding how specific forms of knowledge are structured in legal disputes. However, a politics-of-technology approach foreground how legal fictions are implemented to create practices that adhere to ideological authority (Hilgartner 2009; Jasanoff 2006; Winner 1986).

While legal fictions are genres of social action, they are also legal technologies enacted for political advantage to govern future disputes and set in motion a rule of law reflecting ideological values and leveraging specific knowledge practices (Riles 2005, 2011). As legal fictions are evaluated in this dissertation, the political discourses are revealed to highlight the shared generic characteristics. Evaluating legal practices in terms of a politics-of-technology approach highlights both how legal fictions are instruments used in the variant constructions of facts and how law is a systemic construction of technicalities (Riles 2004, 2005). Within STS scholarship, the politics-of-technology approach has been limited to a critical investigation of the development and implementation of specific (and usually physical) artifacts in the world that coerce interaction through specific affordances (Winner 1986; Norman 1988). However, as Riles (2007) and other legal scholars (Boyd 2010; Pottage 2007; Valverde 2009) have adapted this approach, the ways in which legal practices are implemented as tools with specific rules for use to uphold the rule of law, the politics-of-technology approach reveals how different legal tools contain different ideological constraints. Citing scholarship in STS (Clark and Fujimura 1992), Riles (2005) states,

technologies come into being in order to overcome the political and epistemological limits of existing knowledge, and hence these technologies are best understood quite literally as politics by other means. Because the tools play such an important role in the production of knowledge, changes in seemingly mundane tools can lead to fundamental epistemological shifts (985).

Riles describes law as an instrumental infrastructure that implements technical (and hence political) tools to reaffirm the rule of law. Furthermore she posits that the political

agencies of legal technologies also have the potential to construct and perform new knowledge and new forms of expertise (Riles 2006). Drawing on her anthropological study of collateral in global finance, Riles demonstrates how legal fictions are placeholders for gathering the conditions of collateral for the purposes of establishing and issuing credit. As global structures of credit are established through banking procedures, the legal fictions of collateral establish where and when the material artifacts used as insurance for loans and debt can be held. Within Riles' analysis, legal fictions are not only epistemic practices of law, but are implemented as ideological processes that "transpose one kind of politics onto another technical terrain [that] produces a qualitatively different ...experience of ethics, crises, culpability, human judgment and fallibility" (Riles 2010, 814). Thus, legal fictions are implemented as technologies with their own set of ensuing politics.

To summarize, legal fictions are genres of social action. Legal fictions construct the condition of the law and determine the actions taken to adhere to the law. By evaluating legal fictions through a generic frame of social action, who can participate, what can be said, and how participation is structured can be revealed. Finally, a politics of technology approach reveals how legal fictions are instrumentalized as ideological tools within the rule of law. However, while law may be an instrumental infrastructure of bureaucratic practices that implements tools as political agents, there is potential within the infrastructure not only to enforce the rule of law, but also to re-construct and re-imagine it.

In this dissertation I examine the discourse of wildlife management as a legal fiction. As landowners complete the bureaucratic requirements, they adhere to the

generic conditions of the legal fictions. However, as landowners, biologists, and appraisers communicate with each other concerning the bureaucratic practices, the legal fiction of wildlife management as a form of agriculture expands to include supplemental practices that accommodate multiple discourses of environmental conservation. In response to these negotiations, landowners supplement the legal tax forms with additional documentation, and they create binders as evidence of their land management practices. In the following chapter I examine these discourses and material practices in detail to evaluate how the legal fictions of wildlife management as a form of agriculture is negotiated.

4.2 History, Background, and Relevancy

While evaluations of legal fictions help reveal how narratives of legality are constructed, and establish specific practices that adhere to law, understanding the cultural source of fictions' compelling rhetoric is also important. A discussion of the historical and social value of land and property management helps to understand how compelling legal fictions have been created in the state to incentivize conservation efforts. The value of land and landownership in Texas is not only a legal relationship between individuals and the state, but also a shared cultural value that draws on a rich history of independence, self-reliance, and productivity.

4.2.1 The Rhetoric of Land in Texas

Beginning as a Spanish colony and then as a republic, Texas did not value land as a commodity in itself, but instead, the legal value of land was based in the potential of land *to be developed*, which, as will be discussed in the following section, in Texas is

codified through property tax valuation and assessment. Land in Texas is valuable for its potential for development. Thomas Lloyd Miller describes how, in lieu of a stable monetary system, a fiduciary system of payment based on land was developed to pay soldiers, accrue debt, and set aside space for future development including industry and a public fund for education (Miller 1972). The value of land was not equal to a particular amount of money, but instead was part of a system of colonialism to give individuals a place not only to settle, but also to develop. While who received these lands changed from Tejanos to Anglos throughout the 1800s, the incentive to develop new spaces for agriculture and towns remained dominant. It may seem ironic in retrospect that for much of its history, Texas lacked the natural resources (precious metals, fossil fuels, or otherwise) to establish an independent monetary system. However, the consequence of this financial situation has been that the majority of land, approximately 97%, was distributed up until 1970 not as a single commodity, but as means of debt and potential development by the state (Miller 1972). It is upon this value of land as a means of future capital production (and not necessarily as a commodity in itself) that legal fictions concerning land and ownership in Texas rely.

4.2.1.1 Land's Potential Value

The difference between potential development and actual value is a key frame in understanding the cultural value of property ownership in the state. As land was given to individuals for service to the state, that land was given with specific intention for future development. Writing about the events leading up to the Texas Revolution in the 1830s, Miller (1972) highlights how both citizenship and land were given together to people who were willing to fight for Texas against the central Mexican government. Ownership

of land connoted a particular identity and following the Texas Revolution, this identity was linked to cattle ranching and cotton farming, two predominately speculative endeavors that relied on (at the time) international markets of trade. It was the price of these commodities (what might currently be thought of as a “futures” market)—and the perception that all landowners could participate in that system of production—that lent value to land in Texas.

4.2.1.2 Land is Value

However, this value significantly changed in the decades leading up to the 20th Century. While it is not my purpose to educate the reader on this varied and multi-cultural history of Texas, two substantial changes to land management efforts during this time are worth noting. First, as the value of property was linked to the potential sale of cattle, cotton and other forms of capital, lands were consolidated in a variety of ways (from cooperatives to individually owned ranches) in an effort to increase production. As a consequence, these properties were fenced; in an effort to both (for example) keep cattle in and thieves out. While a familiar and often mythologized period of “frontier” history, barbwire and other fencing devices were an effective means to differentiate between properties and make obvious claims of ownership. However, as the productive value of cattle (and other commodities) was tied to the value of land (for example, x number of cattle per acre) new investment opportunities were created in Texas. As corporations invested in land, cattle, and other commodities for future profit, the value of land was intrinsically linked to production. In this way—by physically identifying the legal boundaries of property through fencing and by identifying land as productive

value—the value of land changed from potential value of producing commodities to the value of commodity production.

While this change may seem small, the consequences have established not only how land has both legal and cultural value, but also how that value is translated into taxable income. Examining property tax law in Texas reveals how the productive value of land is a legal criterion used to evaluate (and tax) land use. Which in turn, reveals how categories of property taxation legalize some land management practices and make others illegitimate.

4.2.1.3 The Legal Fiction of Productive Value and Its Generic Components

It is within these overlapping cultural and legal values of landownership that the productive value of land ties landownership to one's livelihood and sense of identity. Historically, land in Texas is “worked” rather than “preserved” and the property tax system, as well as the legislative changes to the tax law, have enforced this legal fiction of productive value of land. As stated earlier, legal fictions establish both the condition of the law and codify specific forms of social action. Within the Texas Tax Code, these forms are relatively easy to identify. However, one first has to identify in the Tax Code the particular taxable category of real property to examine. Because the majority of lands in Texas (92.3%⁶⁴) are taxed as agriculture—and wildlife management is a form of

⁶⁴ There are approximately 167,624,960 acres of land in the state and according to a report from the USDA, 154,793,400 are agricultural lands in rural communities. Natural Resources Conservation Service, “2012 National Resources Inventory Summary Report August.” *NRCS*. <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/nri/> (Accessed July 20, 2017).

agriculture in the tax system—understanding how these categories are implemented gets at how the legal fiction of the productive value of land is maintained in the law.

State constitutional codes reveal how tax law legitimates the cultural value of production on private lands in the state (i.e. the condition of the law). Unlike other states, Texas does not have a state income tax. Instead, the state has developed a sales and property tax system to supplement state income. Property taxes are the means by which the state taxes (the productivity of) landowners. Before delving into the codes and legislation, it is important to briefly note that in most appraisal districts in Texas, land appraised as agriculture is taxed at almost a tenth of the value of other real property valuations.⁶⁵ This lower valuation incentivizes landowners to maintain agricultural appraisal and so pay a lesser property tax to the state each year. The code designates landowners who “fall out” of the agricultural category to be subject to additional taxes, thus penalizing non-agricultural use of open space in Texas through higher tax rates.

⁶⁵ Texas has 253 Appraisal Districts (CADs), which roughly map on to the 254 counties in the state. Districts submit data to the State Comptroller’s office, which then establishes for each CAD the property tax rates for the specific regions in the county. Districts monitor real estate prices, as well as land use practices, to establish the taxable rate for each individual property in the county.

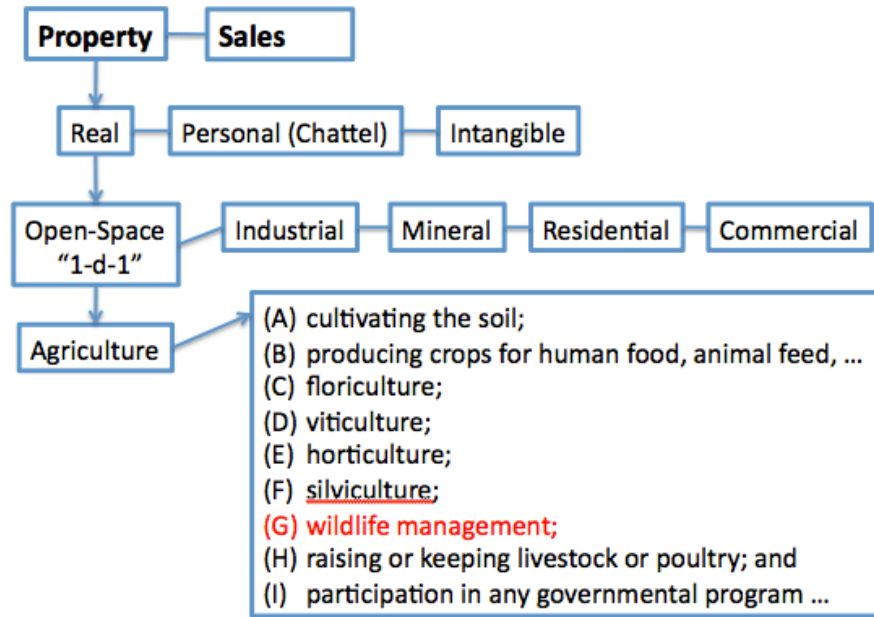


Figure 11: Tax Categories in Texas

In this simplified figure produced by the author, property taxes are composed of three subcategories, including real property. In turn, real property is composed of multiple sub-categories, including open space, which contains only the sub-category of agriculture. However, the agriculture category has many sub categories, including wildlife management, highlighted in red.

Understanding the generic components of the productive value of land as a legal fiction requires investigation into how land and its value are understood in the state. Examination of the Texas State Agricultural Code, the Tax Code and the Parks and Wildlife Code, provides a greater understanding of agricultural appraisal value. It is the coordination of these three separate codes that creates both the condition of productive value of land and the action of particular forms of management. These in turn establish the authority of the legal fiction.

The Tax Code establishes the qualifications for lands legally identified as agriculture.⁶⁶ The current code states,

to promote the preservation of open-space land, the legislature shall provide by general law for taxation of open-space land devoted to farm, ranch, or wildlife management purposes on the basis of its productive capacity⁶⁷

As appraisal districts provide valuation for agricultural lands, the productive capacity of land is given in lieu of the market value of the land. While the statute states that both productive capacity and market value should be recorded by the appraisal district landowners are taxed on the former to promote the preservation of rural lands.⁶⁸

When wildlife management was incorporated into the tax code as a form of agriculture in 1995, two legislative bills were implemented to address this issue of productive capacity (the condition of the law) by establishing specific management practices that should be met to gain the valuation (the social action of the law). Wildlife management was first introduced into the tax code in 1991 as way to use land “to propagate a sustaining breeding population of indigenous wild animals to produce a harvestable surplus of those animals for human use, including food, medicine, or recreation” (House Bill 1298 (1991)). However, at the time there was concern that legislative changes to the tax code were unconstitutional and few appraisal districts

⁶⁶ As discussed earlier in this dissertation, open space lands is a legal category that only contains agricultural lands.

⁶⁷ This is the current language of the tax code that reflects the revisions discussed in following paragraphs. The Texas Constitution. Article 8. Taxation and Revenue. Subsection 1-d-1. (1995).

⁶⁸ Texas Property Code. 2015. Chapter 23: Appraisal Methods And Procedures, Subchapter C: Land Designated For Agricultural Use, Section 23.46: Additional Taxation.

implemented the valuation.⁶⁹ However, after a statewide vote in 1995 passed a constitutional amendment to include wildlife management as open-space valuation, House Bill 1358 (HB1358) re-defined wildlife management and required landowners to increase specific management practices listed in the definition from two to three management practices. With the new bill in 1995, the phrase “to produce a harvestable surplus of those animals” was removed. This change in definition falls in line with the State Task Force on Texas Nature Tourism’s recommendation (described in the previous chapter) that recreation in Texas was no longer defined solely by hunting, but included alternative activities related to wildlife and the value of nature more broadly. Changing the definition of wildlife management and yet maintaining the agricultural valuation based on productive capacity confirmed the legal fiction of productive value of land in Texas. So, “sustaining a breeding population of indigenous wild animals for human use” became the social action for wildlife management that supported the legal fiction of the productive value of land. Importantly, this change in language also reflected the changing forms of consumptive and non-consumptive practices that Texas Parks and Wildlife was also attempting to promote. While hunting represented consumptive use of wildlife on public lands, wildlife management as a tax valuation established another means of consuming wildlife.

As a legal fiction, the actions required to meet the terms of the wildlife management as agriculture were also identified in HB1358. Seven management practices were listed in the definition of wildlife management, and as stated early, landowners

⁶⁹ In 1991, House Bill 1298 by Representative Hugo Berlanga had passed, an initial change to the 1-D-1 code to allow for wildlife management as a legitimate agricultural use. In 1995, HB 1358 was intended to clarify this bill when Prop 11—the constitutional amendment—passed.

were required to choose three of those practices to maintain adherence to the valuation. However, it was not until 2001 when House Bill 3123 (HB3123) identified these practices as standards within the tax code that official forms and procedures were developed to prove adherence to the valuation. While the original bill for wildlife management passed in 1995, there had been no obvious standards for landowners to follow or for appraisal districts to examine when property was categorized as wildlife management. Before the bill passed, the bill analysis⁷⁰ conducted by the State Senate for HB3123 identified that while the comptroller “has the authority to develop guidelines...technical questions concerning wildlife habitat are bound to arise.”⁷¹ HB3123 set out to identify TPWD as “best equipped to resolve issues of this nature.”⁷² In the first bill analysis by the Ways and Means Committee of the Texas House this focus was key:

Such standards are authorized to establish mandatory minimum acreages a property owner must use primarily for the purpose of wildlife management, taking into consideration the activities required for land to qualify for wildlife management use, the type of indigenous wild animal population the property owner is propagating, the region in the state in which the land is located, or any other factors or considerations the department determines are relevant to the

⁷⁰ Different committees within the legislature review each bill as it is proposed and create a bill analysis to ensure that the bill adheres to the constitutional and legislative requirements of the state.

⁷¹ Texas. Office of House. Ways and Means. *Bill Analysis: H.B. 3123*. 2001. April 22, 2001. 77th Regular Session.

⁷² Texas. Office of House. Ways and Means. *Bill Analysis: H.B. 3123*. 2001. April 22, 2001. 77th Regular Session.

establishment of minimum acreage standards for the qualification of land for wildlife management use.⁷³

When the bill passed, the Tax Code was amended to state, “the standards adopted may require...taking into consideration one or more of the following factors ...” Key to this discussion is the last factor: “any other factor the Parks and Wildlife Department determines is relevant” (Texas Tax Code. Section 23.521 (2001)). The reference to TPWD in the Tax Code identifies wildlife management as more than just an agricultural practice. These standards significantly establish wildlife management not only as a form of agricultural production but also as a means of environmental conservation by categorizing productive capacity as a means of conservation. These standards equate the productive value of land with conservation management standards as defined by TPWD and not solely by a presupposed market value of goods produced on the land.

4.2.2 Legal Fictions and Authority

The legal codes interact and self-reference each other to create a definition of agriculture and authorize appraisal districts to enforce legal participation. As the framework laid out at the beginning of the chapter stipulates, legal fictions also structure the authority to establish legitimate participation. In this case the legal fictions of productive value of land coordinate disparate efforts across state agencies. The agency authorized to create standards for wildlife management is not the same agency required to enforce and manage those standards. TPWD is responsible for developing conservation practices, while the appraisal district is responsible for evaluating the productive capacity of land.

⁷³ Texas. Office of House. Ways and Means. *Bill Analysis: H.B. 3123*. 2001. March 30, 2001. 77th Regular Session.

As two distinct state agencies are given responsibility to establish/enforce wildlife management, the question becomes who has final authority to determine whether or not specific landowners are in compliance with the tax code regulation? In the previous section I outlined how the tax code defined wildlife management. However, because wildlife management is constitutionally a form of agricultural production, the Texas State Agricultural Code also defined these practices. The Texas Agricultural Code has nine individual titles describing key components of agriculture in the state, and it is within Title 1 “General Provisions” and Title 8 “Protection and Preservation of Agricultural Operations” that the specific practices of agriculture are defined. In Title 1 agriculture is identified as “a critical element in the economic, cultural and historical development of this state” (Texas Agricultural Code Title 1, Chapter 2, Section 2.002 (1999)). Title 8 goes on to identify specific qualifying practices for agricultural operations (including wildlife management). However, agricultural land is defined as “any land the use of which qualifies the land for appraisal based on agricultural use as defined under Subchapter D, Chapter 23, *Tax Code*.” (italics added, from the Agricultural Code Title 8, Sec. 251.006, changed in 1997).

As the Agricultural Code references the Tax Code to define what constitutes “agricultural lands,” when read together, the codes reaffirm the legal fiction of the productive value of agricultural land. Further, as the Agricultural Code points to the Tax Code (and by proxy, the appraisal district agents) determinations about what constitutes legitimate agricultural practices is given to the agency responsible for accounting for economic value of the state. It is the productive economic value of agricultural lands that the state prioritizes. Although Title 1 of the Agricultural Code states agriculture is “a

critical element in the economic, cultural and historical development of this state,” a hierarchical evaluation prioritizes economic value. In the Tax Code “land designated for agricultural use is appraised at its value based on the land's capacity to produce agricultural products.” (Texas State Tax Code Sec. 23.41. 1979). While the Tax Code may acknowledge TPWD’s authority to create the standards for evaluation as discussed earlier, it is the Agricultural Code’s reference to the Tax Code that establishes the appraisal district as the authoritative agency to determine legitimate practices regarding agriculture. The following chapter examines the consequences of this issue in more depth.

4.3 Discussion: Legal Fictions

Because agriculture is culturally and historically valued for its economic production, new practices introduced as agricultural have to maintain this dominant discursive register. In this final section of the chapter, I examine how legislation concerning environmental conservation in Texas complicates how ownership of land is viewed by drawing on contradictory discourses of stewardship and production. First, agricultural management practices as outlined by the Tax Code referenced the productive capacity of the land to legitimate not only a property’s appraised evaluation, but also the legitimacy of property owners. However, as TPWD established standards, landowners were re-framed as stewards of future biodiversity. Yet, common ground between the two agencies was created by the accounting procedure of the formal bureaucratic plans that foregrounded the productive value of land. While all agricultural lands within an appraisal district are taxed at the same rate, this rate is determined by the

aggregation of production on conventional agricultural lands. For wildlife management lands to be taxed as agricultural lands, within each appraisal district, there must always be conventional agricultural production. For example, in Milam County in 2012, 77,951 acres were identified as cropland, 453,701 acres were identified as rangeland, and 10,761 acres were identified as wildlife management.⁷⁴

4.3.1 Apparent Contradictions Within the Discourse

While the productive capacity of wildlife management on private lands may seem like a contradictory means of conserving open space, returning to the legal fiction helps to identify how lands (and land ownership) in Texas conform to the cultural value of land. The legal fiction of agricultural land as productive value reinforces two opposing perspectives of private land ownerships as identified by Benson, Shelton and Steinbach (1999) and Cooke and others (2011). One “extreme” of a property rights rhetoric interprets that livelihood is linked to land use and production. However, as wildlife management becomes the means of keeping ownership of large agricultural tracts of land, another extreme is revealed that highlights how governance is the means by which preservation will take shape. In this dichotomy, wildlife management is antithesis to agricultural production. However, despite these contradictions, wildlife management valuations have increased across the state. In 1997, two years after the valuation was deemed constitutional, 91,852 acres were appraised as wildlife management across the state, though in Milam County no acres were under the valuation

⁷⁴ This data comes from the Texas Comptroller of Public Accounts and is consolidated by the Institute for Renewable Natural Resources at Texas A&M University for the Texas Land Trends Project. Institute of Renewable Natural Resources. “Texas Land Trends.” *Texas Land Trends*, <http://txlandtrends.org> (Accessed January 4, 2017).

at that time. However, in 2012, 3,214,705 acres were appraised as wildlife management with 10,761 of those acres in Milam County. While wildlife management accounts for only 0.02% of agricultural use in the state (and also 0.02% in Milam County) three million acres is not a paltry sum.

4.3.1.1 Stewardship and Nature Tourism

Stewardship is the middle ground to understanding how these contradictions are embraced. As described in the previous chapter, wildlife management was established as a means of developing a resource for nature tourism. In the scenario outlined in the final report by the governor's task force, creating incentives for conservation on private lands was a primary recommendation (STFTNT 1995). These incentives would be developed through education ("provide training and outreach" (ibid., 19)), legislation ("agricultural exemption" (ibid., 20)) and promotion ("develop volunteer guidelines" (ibid., 21)). Nature tourism was envisioned as a means to "developing our future economy" which would be "inclusive of sustainability along with profitability" (ibid., 23). Incentivizing conservation in Texas was a means of promoting economic development in rural communities (Jamal, Skadberg, and Williams 2007; Var 2005). However, as Jamal Skadberg, and Williams describe it, incentives were needed because private landowners were experiencing an "agricultural crisis" (2007, 194). Conservation efforts that would support nature tourism would be a means to replace declining incomes. As envisioned by the task force, nature tourism would still draw on the productive value of land, however, that productivity would not be linked to conventional farming and ranching, but to a burgeoning tourism industry.

TPWD's Private Lands Initiative (PLI) report complements this change as well. Published in 1995, just as legislation concerning the agricultural value of wildlife management was passed, the PLI report provides substantive practices to legitimating the work of environmental stewardship. The report states,

through many of these projects we are demonstrating the successful, compatible integration of traditional agriculture operations with wildlife habitat management and conservation. We are showing the value of native grasslands and wetlands to native ecosystem health, and the significant economic and ecological returns from sustainable natural assets (Gissell and Brown 1995, 9).

Taken from the introduction of the report, the phrases "showing the value" and "economic and ecological returns" provide the frame for understanding how value in this context is linked to stewardship practices that emphasize economic development.

4.3.1.2 Stewardship as Agricultural Production

In the mid-1990s, the productive value of land was a legal fiction that blurred the boundary between economics and environmental stewardship to promote nature tourism and to incentivize conservation on private lands. As nature tourism emphasized the importance of wildlife management, conservation practices were developed by TPWD as a means of economic sustainability in rural communities. On private lands in Texas, conservation has become an agricultural practice that reinforces the productive value of land because such practices were legitimated as incentives for production. For example, while farmers may produce crops and ranchers raise livestock on agricultural lands, stewards develop wildlife habitat for tourism consumption. So through a combination of formal bureaucratic practices established in the Tax Code and TPWD's promotion of

PLI, the productive value of land remains as a key component of the legal fiction in conservation on private lands in Texas.

Further, while no one may legally own wildlife—a public resource managed by an assortment of state and federal legislative initiatives—habitat for wildlife is decidedly owned by individuals. Wildlife management attempts to reconcile this fundamental contradiction in environmental efforts in Texas by situating new modes of land management, and spinning the issue as an economic problem of declining rural development. As conservation was legitimated as a means of development, ownership connoted the ability to exercise a property rights discourse that privileged the *right to develop*.

As described in the introduction to this chapter, a national discourse concerning environmental stewardship draws on Aldo Leopold's land ethic to promote collective action that rejects economic development in favor of environmental preservation. However, in Texas stewardship was re-framed to privilege individual action and economic responsibility. Even though Gunter and Oelschaeger (1997, 1999) attempted to localize a land ethic to the state and pushed against economic development, the textual discourse of wildlife management as form of agricultural production focused on the productive capacity of land.

4.4 Conclusions

In this chapter I have laid out a theoretical frame for examining the characteristics of legal fictions as genres of social action. Analyzing the tax category of wildlife management as a form of agriculture, I have identified how one particular legal

fiction—the productive value of land—is implemented as means of social action that links rural economic development to environmental stewardship. A cursory investigation of the cultural history of potential land productivity that transitioned to productive land management is used to illustrate how legal fictions concerning land use have changed in Texas. As illustrated in the examination of wildlife management, legal fictions are genres of social action that characterize both participation and authority. On the one hand, landowners are expected to participate in conservation efforts to support rural development. On the other hand, conservation practices are enforced by appraisal districts that determine legitimate agriculture practices in conjunction with TPWD.

While a generic analysis of legal fictions helps to reveal the specific conditions of legality, some contradictions remain unresolved and difficult to make sense. In examining the qualities of the legal fiction (the productive value of land), the social action in wildlife management greatly challenges the privilege of landownership. In this instance, while livelihood is no longer linked to production, the value of land remains linked to productive capacity. This strange amalgamation of a new view of environmental stewardship was imagined based on a *consumptive* value of land as a form of recreation for potential economic development (i.e. nature tourism). Furthermore, while the tax category was established as a means of rural development, as the next chapter will explore in depth, the practices supported by the appraisal districts in their annual review of property taxes are linked to scientific observation and not economic development. So while TPWD may have been legislatively positioned as the expert agency to develop the practices of wildlife management, the authority of instituting legitimate practices circumvents that expertise in unexpected ways.

The legal fiction of the productive value of land within the tax code was used to enroll landowners and implement governance schemes that preserved the value of private property. However, wildlife management structured potential economic development by establishing a series of conditions that legitimated the valuation, conforming to Fache's (2014) description of bureaucratic participation as principles of neoliberal management. It is within this context that conservation was implemented as economic development. Wildlife management as a property valuation is an example of actually existing neoliberalism (Brenner and Theodore 2002) in which environmental stewardship is linked to the productive value of land such that conservation on private lands can only be an economic venture. The value of property and the structure of bureaucratic governance shaped environmental efforts by reframing them as potential economic markets, a quintessential quality of neoliberalism.

However, legal fictions are not on their own mobile technologies of neoliberalism as Aihwa Ong (2007) describes. Instead, fictions are implemented along specific principles. In this case wildlife management drew on the local history and conditions of Texas tax law to interpret environmental conservation efforts on private lands as an economic endeavor that focused on the productive value of land. However, what is left open to examination is the kind of value environmental conservation relies on to legitimate the practice as a productive endeavor. The following chapter examines how scientific knowledge is valued by landowners, appraisers, and biologists to legitimate wildlife management. While the economic productivity of wildlife management—specifically the effort to create markets for nature tourism in rural communities—has yet to become popular in the state, landowners collaborate with

biologists and garner feedback from appraisal districts to submit detailed binders documenting their land management practices. While this chapter focused on laying out the framework for understanding legal fictions as genres, the following chapter examines the contradictions within the legal fiction to understand how landowners presently practice wildlife management by evaluating how scientific knowledge is valued in the bureaucratic practices of tax valuation.

5. ENVIRONMENTAL CONSERVATION ON PRIVATE LANDS: HOW EXPERTISE ABOUT NATURE DEVELOPS AS LANDOWNERS PRACTICE WILDLIFE MANAGEMENT

5.1 Introduction

In the previous chapter, I examined how the tax valuation of wildlife management was conceived as a means to promote economic development in rural communities through the legal fiction of agriculture and the productive value of land. However, as practiced in rural communities currently, wildlife management is not an economic endeavor. In this chapter I examine how the tax valuation is practiced as a means of developing expertise about the environment, circumventing the entrepreneurship envisioned by the policy. As landowners, biologists, and appraisers interact to create legitimate practices, knowledge about agricultural lands transforms from isolated plots of lands to larger environments. And as landowners practice specific forms of conservation on their properties, they develop new expertise concerning the viability of environmental conservation. Drawing on the work of E. Summerson Carr (2010), this chapter examines expertise not only as what people know, but what people practice. The knowledge practices of conservation are tangible physical acts that landowners hone through seasonal efforts. As these practices are translated into the legal fiction of agricultural as productive value, bureaucratic participation and documentation becomes the means by which conservation expertise is valued as a productive use of land.

Early on in my preliminary research for this dissertation, I was given the opportunity to look through a binder Katherine Bedrich used to keep track of her wildlife management tax valuation practices. As described in the introduction, Mrs. Bedrich was

my primary interlocutor, introducing me to local landowners, state agents, and community leaders. It was through her generosity and descriptions of her experiences that I was able to begin to understand how property tax characterized aspects of her everyday life. As I spoke with other landowners in Milam County, I began to get a sense of how they had been encouraged by appraisal districts and the Texas Parks and Wildlife Department (TPWD) biologists to participate in citizen science programs, such as census counts and water quality monitoring, to re-cast the practices of conservation biology into the financially beneficial tax valuation of wildlife management. These collaborations worked to move landowners into the more advantageous tax category by translating the scientific practices of conservation into the everyday practices of land management.

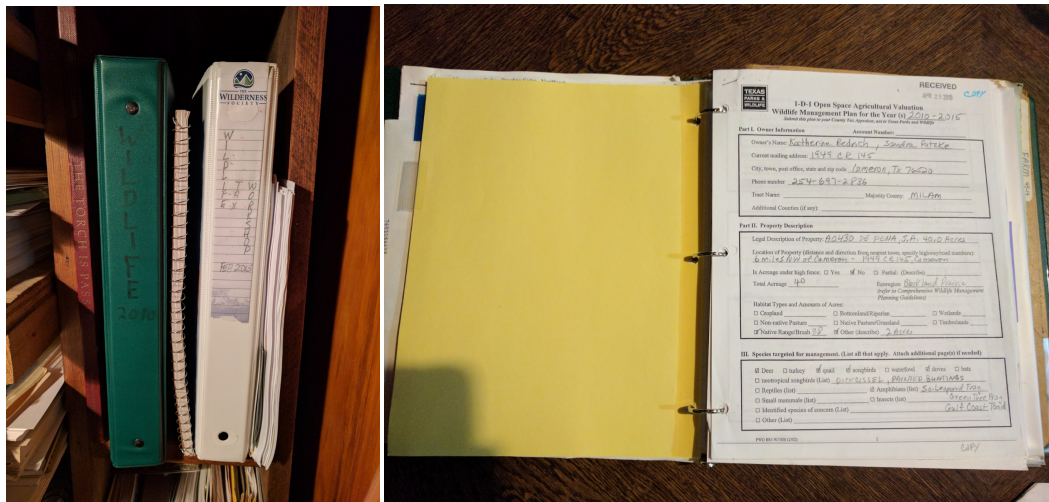


Figure 12: Katherine Bedrich's Wildlife Management Binders

As illustrated in these photographs by the author, Katherine Bedrich's tax forms organized in binders. Most landowners I spoke with organized and shared their documentation in similar formats.

In this chapter I examine how these collaborations between landowners and state agents construct the productive value of lands in Texas, i.e. the legal fiction of wildlife

management as a form of agriculture described in the previous chapter. At stake is how the legal fiction of wildlife management can be translated into the bureaucratic management practices of the productive value of land. This legal fiction ties the formal tax valuation of land to productive capacity, establishing a reduced tax classification by interpreting wildlife management as an economic venture that draws on the productive capacity of land. However as wildlife management is subsumed within tax law as a means of agricultural production, the collaborative practices developed between landowners and biologists reinforce the productive capacity of the property by drawing on the productive value of scientific knowledge and practices. This chapter examines how concerns of development, consumption, property rights, and entrepreneurialism (the discursive themes identified in Chapter Three) merge together to create the legal practices of wildlife management by drawing on ethnographic research conducted between 2014-2016.

I draw on ethnographic research, primarily interviews and participant observation conducted in Milam County (located in Central Texas), to understand how participation in citizen science programs legitimates the wildlife management tax valuation, and in this chapter I attempt to illustrate two main claims about the practices of wildlife management and social actions generated by legal fictions. Primarily, the Milam Appraisal District interprets evidence of participation in these programs as proof of legitimate practice. As landowners submit the formal paper work each tax season, they supplement these reports with additional information regarding the various programs they are involved. In interviews conducted with appraisers in the county, these supplemental data are used as evidence to confirm adherence to the tax property

valuation of wildlife management. In Milam County, wildlife management landowners kept track of this supplemental information through detailed binders. During my research, I was given access to eight binders, which confirmed landowner participation in citizen science programming. However, it was through interviews and conversations with the District Appraiser, Dyann White, that the ubiquity and necessity of this supplemental information was confirmed.

Additionally, biologists and landowners work together to create new management practices that address the specific concerns on each property. These practices (and the distribution to other properties and documentation in the bureaucratic tax forms) are the legitimating practices of wildlife management that maintain the productive value of land documented in binders and submitted to appraisal districts. In these two ways, the bureaucratic practices of wildlife management (as recorded in the land management binders) retain the legal fiction of the productive value of agricultural lands by linking the scientific practices of wildlife management with the productive value of agriculture.

Empirical research garnered from interviews and observation, as well as the bureaucratic texts of the tax valuation, reveals how participation in wildlife management is made into legitimating practices that reinforce the productive value of land. Through an account of a typical outing in my fieldwork, I describe the socio-economic conditions of Milam county, drawing in key concepts from rural studies and geography described in the literature review. I include interview data from a variety of sources, including the appraisal office, landowners, and participant observation with biologists and TPWD administrators to flesh out the bureaucracy of wildlife management. I also draw on

descriptions of tax forms, and the binders created by landowners that document wildlife management. Appraisers use these to determine if properties adhere to the valuation. Finally, I examine the legal fiction of wildlife management to understand how the everyday practices of environmental conservation are discursively linked to the productive value of land.

In this analysis I highlight the discursive dexterity of participants—both landowners and biologists—that ties participation in citizen science programs to the bureaucracy of wildlife management to understand how landowners’ practices reaffirm development, consumption, property rights, and entrepreneurialism, albeit often in contradictory ways. By examining how various participants employ multiple discourses—from environmental stewardship to the value of scientific practices—this chapter illustrates how the legal fiction of wildlife management draws on a variety of warrants to legitimate conservation on private lands. While previous chapters described the cultural context of the development of private real property agricultural valuation (as the productive value of land) and the development of wildlife management in the 1990s as potential entrepreneurial ventures, this chapter highlights how participants actually employ multiple discourses to position their practices as legitimate. The binders of tax information created by landowners are key to this deployment, which document and legitimate practices by offering proof of citizen science participation. Thus, the binders act as warrants for the legal fiction of agriculture and provide evidence of the productive value of land by documenting scientific endeavors.

5.2 Learning to be a Naturalist in Milam County

During my fieldwork, I reached out to landowners, biologists and Milam County appraisers concerning wildlife management practices. I conducted interviews and as I developed relationships with landowners and biologists I was invited to join landowners on their properties. I was able to see first hand the effects of wildlife management practices, and, occasionally, I was able to help with those practices.

In the fall of 2015, I joined the Good Water Chapter of the Texas Master Naturalists in Williamson County, just west of Milam County. The Naturalists Chapters are a volunteer program sponsored by both TPWD and AgriLife, the county extension program in Texas. Akin to the Master Gardener program found in other states, the Master Naturalist Program was developed by the state to create a volunteer work force that would help to create and implement educational and outreach programs in both urban and rural communities to promote the appreciation of nature. The initial training includes forty hours of classes that educate volunteers on the geology, water, flora and fauna of the state, and to maintain membership volunteers participate in additional volunteer and training requirements. While the chapters vary considerably in size (from hundreds of members in urban areas like Dallas to approximately twenty active members in Milam County), the sponsorship by state agencies helps to lend credence to the unique programming of each chapter. While I had worked with the El Camino Real Chapter in Milam County for several years prior to my fieldwork, I joined the Good Water Chapter to not only meet new interlocutors, but also go through the primary training of

environmentalism condoned by the state.⁷⁵ As a member of a chapter, I met additional landowners in surrounding counties, as well as civil servants from a variety of state agencies through workshops and conferences. While I was a member of a neighboring county chapter, the training across chapters is very similar due to a shared textbook and a common pool of lecturers from state agencies. Good Water members knew of my research; many members had been faculty at local universities and colleges and have often asked for updates on my research. However, while training in Williamson County was convenient, I maintained close ties with members of the Milam County Chapter, most of whom had agricultural properties valued as wildlife management. My aunt, Katherine Bedrich was an active member of the group and I had volunteered at events for several years. As I lived in Milam County in 2015, it was this group of volunteers that I had the most interaction and developed the strongest relationships.

Many notable members of this group took special interest in my work, the questions I asked, and gave me encouragement to complete my degree. I had been introduced to these members through the generosity of my aunt, who (I am told) spoke highly of my work. However, as I stayed in the community, I became especially close to several members. With these members, we began our relationship through formal recorded interviews, and as I volunteered and attended meetings and other community events, I like to think we developed close friendships. Our shared love of the outdoors and willingness to meet new people and do new things, I hope helped to create friendships in my home community that were unavailable to me before.

⁷⁵ While I intended to join the El Camino Real Chapter (ECRC), due to the training schedule of ECRC (biannual at the time) I choose to join the Good Water Chapter because they had an evening training class over a three month period that allowed me to conduct field and archival work during the days while attending classes in the evening.

In the narrative below, I recount an outing with Lily Ann,⁷⁶ a member of the El Camino Real Chapter of the Master Naturalists. Lily Ann is in her 60s, a retired chemist who worked at the now-defunct Alcoa plant⁷⁷ who I spent much time with volunteering, going to classes, and driving through the country side searching for new and native flora and fauna. I first met her while conducting interviews with landowners whose properties were valued as wildlife management. In this recounting, Lily Ann and I have agreed to meet up in Minerva, a very small town in central Milam County.

Minerva has had a population of sixty since the mid-1980s and two small churches; there is only a slight curve in US Highway 77 that marks the few homes that make up the town. At one point Minerva had been a vibrant oil town, but now it was a small country crossroad, with only a few homes and churches to speak to its vibrant past. Dyann White, the district appraiser, considers places in Milam County like Minerva “precarious places.” When asked if Milam County, and Minerva specifically, is similar to other parts of Texas, she states

⁷⁶ A pseudonym, she preferred to remain anonymous.

⁷⁷ The Alcoa plant was a lignite mining plant in Rockdale, the second largest town in Milam County, used to produce aluminum. Lignite coal mining in Central Texas is common and has created many jobs in rural communities as the energy produced by lignite is not “worth” transporting to larger communities and so small manufacturing plants are planned in conjunction with the lignite mine. Texas is the fourth largest producer of coal in the United States and lignite mines in rural communities present a lucrative, albeit fleeting, opportunity for rural communities to benefit economically from fuel extraction. Unfortunately, while mining may be an affordable energy source for impoverished rural communities, the profitability of mining is closely tied to the price of gas. As the price of gas decreases, lignite mines close, leaving rural communities in the lurch through economic disenfranchisement and environmental blight. While the Alcoa plant in Rockdale has closed as an aluminum plant, (and it received multiple awards as a mining reclamation site) it remains a landmark as one of the largest energy plants and employers in the area.

not really....in that there is job growth in other places in Texas. There's not job growth here.... We really need to get some industry in Milam County. We really do. If for no other reason than the taxing entities aren't going to be able to provide infrastructure with declining property tax values.⁷⁸

Minerva, like the other small towns of Milam and surrounding counties, is a precarious place because its future is uncertain. Without a strong job market, young people in the area continue to move away and the population continues to shrink. For White, the money collected through taxes financially supports the infrastructure of communities, and the decline in infrastructure directly influences the decline in population. As communities shrink the necessary infrastructure, like schools, roads, and utilities, negatively impact residents who can opt to move to another community.

As I drove down the highway and through the small town at the time I did not even realize how familiar I was with the kind of socio-economic conditions in the county I passed. I hardly gave the homes a second glance, instead focusing on my car's GPS map that told me I should be coming to the Christian Church on the outskirts of the town in just a few hundred yards. That was where I agreed to meet Lily Ann, who generously offered to help me with a new application I downloaded to my smart phone: iNaturalist.

With her white hair, bright orange shirt and brown pickup truck, Lily Ann was not easily missed on the side of any county road. She had a reputation of stopping anywhere at anytime to inspect and photograph anything on the side of the road: from skunks killed on the road to crow poison growing along a fence line. While we both attended a training session for iNaturalist given by a biologist from TPWD at the

⁷⁸ Dyann White (District Appraiser, Milam Appraisal District), interview with the author, November 2015.

Rockdale Library just a few weeks before, I had not yet started entering information into the application. While about ten of us attended the training session, Lily Ann was no novice, as participants joked that she had the most entries in the county and perhaps even had identified more native species than the biologist from TPWD teaching the class.

Touted as an online forum intended to “connect people with nature,”⁷⁹ by recording observations of plants, animals, and artifacts like tracks and scat, iNaturalist aggregates observations of species submitted by users, visualizes observations as maps with location and entry data, and allows participants to participate in groups such as “Wildflowers of North America” and “Herps of Texas” (a play on the term herpetology, meaning reptiles and amphibians). As users entered data (a photo with location information are the minimum requirements), entries were vetted by other users. Entry observations are identified with species names and when another user confirms identification, that observation is elevated to research grade. At the time of the training session, Lily Ann had over two thousand entries, about half of which were marked as research grade.

While her friends joked about her being late to meetings because she had been examining something interesting on the side of the road, they referred to her as a local expert who could answer the seemingly esoteric questions of roadside eco-systems. Rebecca Ellis and Clair Waterton (2014) have posited the term environmental citizenship to elucidate how data gathering endeavors like iNaturalist and other monitoring programs have transitioned environmentalism beyond docent efforts to active

⁷⁹ iNaturalist. “What is it?” *iNaturalist* <http://www.inaturalist.org/pages/what+is+it> (Accessed February 2, 2016). The page stated that iNaturalist is a “crowdsourced species identification system and an organism occurrence recording tool.”

participation in larger research efforts. However, as participants produce documentation and enter data into research projects, they negotiate both the production of categories and their adherence to multiple subjectivities (Fache 2014). In this way, the practices of participation in iNaturalist and other citizen science programs are bureaucratic procedures that enroll participants into governing processes that value scientific knowledge practices as extensions of governance policies (Hull 2012; Lamont 2012).

Lily Ann's participation in research grade entries highlights the dichotomy of scientific knowledge production on the iNaturalist platform. As an amateur without formal affiliation to a biology laboratory or research group and lacking a formal degree in a field in biology, other users will always check and vet her entries before she receives the research grade. However, because Lily Ann's entries are rarely disputed and she has such a large amount of entries, she has gained prestige within her community as a person who not only has intimate knowledge of the flora and fauna of Milam County, but who is also an interlocutor between members of the community like herself and scientific experts, such as the regional biologists who confirm her identifications.

As I pulled into the parking lot in mid-September, the hay fields surrounding the church were already cut and the bales arranged along the fence lines. The fields were a pale yellow and the small church—comparable to many such churches in the area (painted white and surrounded by oak trees)—could have been built fifty or hundred years ago. Lily Ann was already there, across the dirt road, with her camera in hand, looking at some plants in the ditch. When I got out of my car, she walked with a halting gait to greet me. She said that we would not be able to identify many plants this day because it was too dry and nothing was blooming. As an example, she pointed to the

roadside she had just examined, and said that while she could not identify the plant beyond saying it is bee blossom, or a subspecies of *Gaura*, the exact identification would be impossible to identify without a flower. Despite these seasonal limitations, we both shrugged our shoulders, and agreed to drive around the countryside identifying plants and animals as we could.

When I got into the passenger seat of her pick-up truck, Lily Ann told me that this area was where she grew up and that we would travel down the back roads behind Minerva that she had not been down in twenty years or so. As we drive along, Lily Ann interwove stories of her life growing up in this area, riding horses, walking to school and going to church, with comments on the plants and animals we saw. Driving east of Minerva, we pulled over multiple times to look at plants. The roads were roughly compacted dirt, and while we did not see many other people, those that drove past left billowing dirt clouds in their wake, forcing us to quickly roll up our windows and pull to the side as we waited for the dust to settle. Beyond the *Gaura*, there were some plants we could identify. We easily found Canadian Rye (*Elymus canadensis*), a grass with a distinctive fuzzy green seed head at this time of year.

As we rounded one corner, we came to a low-lying area, covered with vines. We pulled over to the side of the road to investigate. While the east side of the road had vines growing over trees with large softly rounded edges, the west had vines close to the ground with deeply lobed leaves. Despite these differences, we came to the conclusion that while visually different, both plants were mustang grapes (*Vitis mustangensis*). Lily Ann clarified that the difference between the two plants was their age. Those on the east side were older, more mature vines, while those on the west were probably less than a

year old. If we had been here a month earlier, both vines would have been full of grapes, making identification much easier for myself. But at the time I relied on Lily Ann's experience and knowledge to correctly identify the plant.

Further down the road, bull nettle (*Cnidoscolus stimulosus*) and snake cotton (*Froelichia gracilis*) were also easy to identify, the former with its striking thorny green leaves in flat rosettes with small yellow flowers along the sandy soil and the latter a forb with fluffy white seeds interspersed along tall stems. I told Lily Ann that I remembered as a child stomping through fields of bull nettle, crying profusely as the stinging hairs of the leaves caught on my bare feet and hands. I uncomfortably laughed off her concerned look, realizing not all children were allowed to run through pastures bare foot. But the snake cotton was a new grass to me and we examine the plant carefully.

In this way, both Lily Ann and I linked the natural history of the landscape to our own personal history and experiences. As we made our way back to Minerva, Lily Ann pointed out places where churches, schools, train stations, and stores had been. She drew on details from her own family and childhood as a means of understanding the landscape, flora and fauna, and I take to heart her example. As I worked (and continue to work) on my own identification skills, remembering—and then retelling—the stories and experiences has become its kind of knowledge practice. Such that, as I recite the particular habits of plants and animals to whatever available audience happens to be around, I confirm what I know as a display of my own (rather narrow) knowledge and experiences. Remembering, and then reciting, the names, habitats and characteristics of specific flora and fauna align with E. Summerson Carr's claim, that "expertise is something people do rather than something people have or hold" (2010, 18). Developing

expertise is not only *to know* specific things, but also *to practice* those things through actions and interactions. As Lily Ann and I worked with the iNaturalist platform and also drew on our personal memories to reinforce our understanding of the flora around us, we conducted our own memory practices, or meshed our technical understanding with our social experiences (Bowker 2005; Downey 2007).



Figure 13: Animal Identification

In this photograph by the author, tracks from (left to right) a great heron, an opossum, and a white tail deer are examples of the kind of photographs that might be uploaded and shared via iNaturalist.

For example (and to return to snake cotton), in mid-September at this stage of the plant's annual cycle, only tall spindly stalks were visible to make an accurate identification. However, in the next few months, I easily identified snake cotton on roadsides as fuzzy seed heads formed along the length of the stalks. The shape of the plant was indicative to the mowing practices of landowners. Seed heads, reaching as tall

as three feet, revealed that the plant (and the road side) had not been mowed in some time, while short seed heads spreading along the ground indicated regular mowing and gave the roadsides a 'snowy' feel as the white fluffy seeds dispersed. While I had no familial experience or story to tell with snake cotton, as an ethnographer, identifying snake grass (and whether or not it has been mowed) was a means to see the actions of others in the county. Plots of land and private drives that previously appeared abandoned now seem maintained as the snowy seed heads of snake cotton could be seen close to the ground.

Looking at (and then interpreting) these telltale signs of management was a practice shared by others in the county as well. Tim Siegmund, a wildlife biologist who works for the TPWD, called this informal means of garnering expertise a "piecemeal process." I interviewed Tim initially in 2013 and at that time he had been working for TPWD for four years. When asked about the difference between going to school to practice conservation and learning from experience, Siegmund said, "there's something to be said for experience, but I guess what I mean is you can get exposed to a much more broad base by going to school and doing these things." Yet despite his formal training, he described himself as a "better biologist" at the time of the interview than he was four years previously because of the experiences he had accumulated on the job. He stated,

the more local knowledge and then also the more experience you have talking with folks and doing projects yourself, you just get those little details and nuances you wouldn't've [would not have] had before. Maybe I had the

knowledge of the overall process but not of the actual interworkings [sic] of the properties.⁸⁰

Tim's piecemeal process is not just limited to his own practices of linking the knowledge he gained as a student with the experiences of working as a biologist with landowners, but extended to understanding how conservation is practiced in Texas. It is not quite a trial and error means of implementing specific practices, but more of a search to create the social connections needed to understand the particular characteristics of local ecosystems.⁸¹ Understanding how to see and correctly interpret properties and management practices was a concern for the appraisal district as well. In the same interview mentioned previously Dyann White stated,

A wildlife property just really looks like a property not being used at all. So it's really hard to tell. We rely very heavily on the property owner and their annual

⁸⁰ Timothy Siegmund (Wildlife Biologist, Texas Parks and Wildlife Department), interview with the author, December 2013.

⁸¹ "Searching" is also a way to think about where biology is practiced (private lands) and who has access (a small group of biologists). Access to private lands in Texas by scientists studying specific species, habitat and/or terrain is not easy to attain. Interestingly enough, David Braun, who was previously the director of the Texas Chapter of the Nature Conservancy, has set up a law firm to help negotiate access to private lands. EcoLab is a firm that matches scientists at public universities with private landowners to conduct research that adheres to another property tax valuation: ecological laboratory (EL). In addition to providing access for research, EL lands provide landowners with an alternative avenue to the reduced 1-d-1 valuation. While the ag valuation is given after seven years of ag production, if a property is categorized as EL for three years, the property can then be transitioned into wildlife management, in essence skipping the conventional agricultural valuation. Braun estimates perhaps only 150 properties are categorized as EL in Texas. Dyann White, the appraiser for Milam County identified that in 2015, three properties had applied for the valuation, the firsts for the district.

reports. We find that most true wildlife property owners are proud of their operation and love to tell you about it.⁸²

As wildlife management increased in Milam County, knowledge about legitimate conservation practices had created a new visual literacy as one traveled through the landscape. Wildlife management challenged appraisers to see productivity in a new way. However, to appraisers in the district, the rise of wildlife management in the county reflected the growth of precarious places, to use White's term. While landowners practicing wildlife management were proud of their work, their properties were not operations in the agricultural sense of the word. On wildlife-managed lands few, if any, cattle are visible, and there are no evenly plowed fields of crops. There are no hired hands to work the land, fewer tractors to plow and till soil, no transportation of livestock, and a substantial change in the purchase and production of seed and grain from predominantly GMO crops to micro-scale harvesting and planting of native and local seeds and grains.

⁸² Dyann White (District Appraiser, Milam Appraisal District), interview with the author, November 2015.



Figure 14: Wildlife Managed Property

This photograph by the author pictures a road used to enter a wildlife managed property in Milam County. Notice the lack of gravel on the road, fences, or other signs of conventional agricultural practices.

However, “precarious places” is also a phrase that helps to understand how rural restructuring (or the ways in which economic development reorganizes rural communities (Nelson 2001)) and amenity migration are taking action in Milam County. It is by the absence of these actions (economic development and new community members) that precarity structures rural livelihood throughout Milam County. As small communities disappear, creative destruction (or how new entrepreneurial ventures impact rural communities) provides a frame for analysis to understand the discrepancy between landownership and community development (Harvey 2007b; Mitchell 1998, 2013; Schumpeter 1942). While the tax valuation of wildlife management was

developed as a policy to promote nature tourism in the 1990s, the economic imagination that posited natural resources (like open spaces) as potential sites for development loses impetus when confronted with additional constraints of rural poverty, unemployment, lack of education, and poor housing.⁸³

However, despite these limitations or the ability to garner income from their land, landowners continue to enroll in wildlife management. And, to use a statement I often heard while conducting this research, wildlife management is more than just bluebird boxes. Individual practices of wildlife management are not valued singularly. Instead, (and as I will examine in the next section) landowners have to communicate the various management practices as a cohesive whole, and presenting that cohesiveness to the appraisal district is a key component to legitimating a property's valuation. While White stated, "we [the appraisal district] don't have to have a book" of documentation, she highlighted that including copies of census counts and photographs were components that provided proof of the valuation for the appraisal district.⁸⁴

It is through participation in programs like iNaturalist that landowners maintained the documentation that will be submitted to the appraisal district office. As we drove through Minerva, Lily Ann and I stopped at the town cemetery to enter our observations in iNaturalist.⁸⁵ On its own, this application is different from other citizen

⁸³ According to data accumulated by the Economic Innovation Group in their 2016 Distressed Communities Index, Milam County has a 20% poverty rate, 50% unemployment, and 19% of adults are without a high school degree (Economic Innovation Group 2016).

⁸⁴ Dyann White (District Appraiser, Milam Appraisal District), interview with the author, November 2015.

⁸⁵ Ultimately, teaching me how to use iNaturalist was not a success. I am not invested in the application and for a variety of reasons I am uncomfortable with the location tracking and logging aspect of the application.

science projects in that it does not stand alone as a census tool, but instead acts as a gateway to other census monitoring projects. For example, and in contrast, programs like FeederWatch, NestWatch and the Great Backyard Bird Count are hosted and organized by Cornell University's Lab of Ornithology (often referred to as the Lab of O) and aggregate observations and survey data from across the world to produce information about migration, species population, and habitat. People who want to participate in those programs have to meet specific requirements, including fees and hourly commitments, as well as enter data into applications designed by the Lab of O.

Alternatively, within iNaturalist, a user can choose to actively link observations to census projects similar to those organized by the Lab of O or leave observations unclassified, allowing the program to sort based on identification (and not project or region). By choosing how to participate, two kinds of projects are distinguishable in iNaturalist. A personal project involves one or two users and limits observations to a particular time or space. For example, a user can create a project to document animal tracks in their back yard over the course of a year. As described previously, when users post images, their observations are vetted by other users and identified as research grade a category that communicates to other users the validity of the observation. This kind of feedback is not available in other programs like NestWatch, but instead iNaturalist provides a forum through a comments section for each observation. In this way, iNaturalist is considered to be a crowd sourced data platform so that if 2/3 people who comment on a user's observation are in agreement about the identification, then the observation is elevated to research grade.

However, in the second kind of project on iNaturalist users can link individual observations to larger projects to create comprehensive species counts across defined eco-systems. This latter project type can have hundreds of participants and can span many years. For example, “Herps of Texas” is a project on iNaturalist that has observations of reptiles and amphibians (herpetofauna) from 2006 to the present across the state. However, the 2/3 schema for research grade is abandoned for projects such as these. In these cases, one specific curator is responsible for vetting identifications. And in the case of “Herps of Texas” observations are funneled into Texas Nature Trackers and the Texas Natural Diversity Database, programs developed by TPWD to monitor species for conservation planning.

While Lily Ann and I drove around the country side to create our own entries for iNaturalist, interviews with both Dyann White and Tim Siegmund (as well as informal conversations with their colleagues) confirmed that entries from iNaturalist, as well as other citizen science projects, are wildlife management tools used by landowners as a way of monitoring and reporting the flora and fauna on their property specifically for the valuation. And information collected with these tools is used to supplement the required formal paperwork. In the next section I examine the impact of these supplement components by examining the tax documents.

5.3 Documenting Expertise and Practicing Conservation

For properties to be appraised as wildlife management, landowners must submit specific paperwork to the appraisal district. These formal documents act as the evidence of specific land management practices, and provide the proof of adhering to the legal

requirements of the program. However, in Milam County (and many other counties throughout the state), landowners submit much more than the required documentation in an effort to avoid potential challenges to their claim that the property is indeed in wildlife management. However, in addition to these documents of proof, appraisers perform visual inspections of properties every three years. While landowners (and their neighbors) may witness the conservation activities that take place on a property, the appraiser herself maintains the final authority to witness practices and identify those practices as either legitimate or illegitimate.

5.3.1 The Geography of Property Tax Law in Texas

For land to be appraised as agriculture in Texas, landowners must first submit an application stating their intention to participate in agricultural valuation. For all agricultural valuations, including crop and livestock production, as well as wildlife management, landowners are required to submit a one-page form (titled “1-d-1 Agricultural Use Appraisal”) to the district office prior to the first year’s valuation. To illustrate this system of bureaucracy, I will use the fictional example of Ms. Smith to explain the various steps landowners go through to receive the agricultural property valuation. For example if Ms. Smith purchased twenty acres of land in Milam County in June of 2015 (and she wanted that land to be taxed as agriculture), she would submit the one-page form to the appraisal district office between January and April the following year (2016). After receiving the document, the appraisal agent would consult the district records to determine if the property had been valued as agriculture before Ms. Smith’s purchase.

The Milam Appraisal District (MAD) is one of 253 appraisal districts in Texas. The office has three registered professional appraisers, a professional designation that confirms licensing and training of the appraisers. Property tax valuations are geographically organized by Independent School Districts (ISDs). Milam has ten ISDs: six stop at the county borders, and four are shared with surrounding counties. The boundaries of the Milam district conform to the boundaries of the county, though appraisers work with surrounding county districts regarding shared school districts.

Property taxes in Texas are the main source of income for ISDs. In the early 1990s, there was an effort to equalize the source of funding for ISDs across Texas by initiating a “Robin Hood” property tax plan: wealthy ISDs were required to transfer funds to neighboring impoverished ISDs. However, as the policy went into effect, many have contested the constitutionality of the program. In May 2016 the Texas Supreme Court ruled that while the program was constitutional, additional legislative reforms were needed. As a result, municipal bonds have replaced the Robin Hood source of funding, such that new facilities are tied to potential investment opportunities.⁸⁶

In a report by the Institute of Renewal Natural Resources at Texas A&M University through the Texas Land Trends project, Milam County is composed of 654,080 acres.⁸⁷ The population is slowly declining in the county: 26,872 in 2012 and

⁸⁶ Most famously in Texas, these bonds are created to fund multi-million dollar football stadiums. Smith, Morgan. “Texas 60 Million Hightschool Football Stadium.” *Texas Tribune*, May 27, 2010. <https://www.texastribune.org/2010/05/27/texas-60-million-high-school-football-stadium/> (Accessed July 20, 2017).

⁸⁷ The webpage for Texas Land Trends identifies that the raw data used for this report comes from USDA Census of Agriculture, Texas Department of State Health Services and Texas Comptroller of Public Accounts and reflects information gathered for the years 1997, 2002, 2007, and 2012. Institute of Renewable Natural Resources, “About the

24,256 in 2014.⁸⁸ In 2012, approximately 542,400 acres were classified as agriculture and of that 10,761 were identified as wildlife management.⁸⁹ According to the Milam Appraisal District Annual Report for 2015, county agricultural lands are divided into 9,252 parcels; meaning 9,252 privately owned agricultural properties are in the county.⁹⁰ While the 2015 annual report from MAD states that 598,123 acres were in agricultural use, the report does not say how many acres were designated as wildlife management. However, data from Texas Land Trends in 2012 reveals that 10,761 acres in the county were designated as wildlife management. Additionally, in 2014, there were 21,173 real property accounts; meaning that the county has 21,173 privately owned parcels of lands. This doesn't necessarily mean that 9,252 people own each parcel individually. Or that 21,173 people in the county own private property. Instead, one person may own multiple properties throughout the county, while, obviously, some people own no property in the county at all. Because Texas is both a non-disclosure state (meaning that individuals tax reports are not available for public inquiry) and there is no state income tax (meaning that individuals are not required to report to the state what kind of job they have or how

Data,” *Texas Land Trends*, <http://texaslandtrends.org/data/Home/AboutTheData> (Accessed January 4, 2017).

⁸⁸ The most recently available information regarding land use for the county is from 2012. Milam County is 1,022 mi² which equals 654,080 acres total. Institute of Renewable Natural Resources report identifies 26,872 people in 2012, and the Milam Appraisal District 2015 report (which reports data regarding 2014, the previous year) identifies 24,256. However, because Texas is an on-disclosure state, these numbers are estimates based on taxes based and census data. Institute of Renewable Natural Resources, “Milam County,” *Texas Land Trends*, <http://txlandtrends.org/data/Trends/County/Milam> (Accessed January 4, 2017). *Milam Appraisal District*. “2015 Annual Report.” Accessed July 21, 2017. <http://www.milamad.org/milam-ad-annual-report-2015/>.

⁸⁹ Institute of Renewable Natural Resources, “Milam County,” *Texas Land Trends*, <http://txlandtrends.org/data/Trends/County/Milam> (Accessed January 4, 2017).

⁹⁰ Milam Appraisal District “2015 Annual Report.” *Milam Appraisal District*. Accessed July 21, 2017. <http://www.milamad.org/milam-ad-annual-report-2015/>

much income they are taxed), determining who owns what and how much—and then comparing that to who does not—is difficult.

As a non-disclosure state, it is the State Comptroller who confidentially aggregates all tax valuations across the state, and then sets statewide assessment rates on each kind of property (agriculture, residential, industrial, etc). It is up to each district to then compare the statewide rate with the market value rate (determined by real property sales in the county for the previous year, or in the case of agriculture, with the productive value of crop and livestock production) and set property tax rates for the county according to land use. Individual district rates must come within 5% of the state rates. According to the MAD Annual Report for 2015, the market value of all lands in the county is \$3,512,444,451, but the total taxable value is \$24,980,777.⁹¹ For example, because agricultural, industrial, and mineral properties are taxed on their productive value, each of these valuations is taxed on its individual potential productive capacity—which is significantly less than its market value.⁹² While the agricultural rate for each

⁹¹ Milam Appraisal District, “2015 Annual Report.” *Milam Appraisal District*. Accessed July 21, 2017. <http://www.milamad.org/milam-ad-annual-report-2015/>

⁹² While I recognize that discussions of property tax rates might be yawn inducing, here is a short illustration to clarify: For example, while one acre in Milam County may have a retail value of \$1000, the tax a rancher would be assessed for the cattle raised and then sold per acre would be \$100 (based on the information from White). So, given that according to state reports, most of the grazing land in Milam County is suitable for 3 cattle per acre. And the average (this varies greatly depending on market conditions, time of sale, and transportation!) profit from the sale of each cow is \$200. The total profit for one acre of grazing land would be \$600 (\$200 per cow x 3 cows), meaning that the rancher is taxed at about 17% of the productive value of land ($\$100 / \$600 = .166$). But, as in all tax valuations in Texas, if you didn’t sale your cattle for that amount, you can petition to the district and supply receipts to be more accurately taxed on the amount you actually made (if it was less than the amount set by the district). I think this may be helpful in thinking about the debt cycle of farming and ranching, as well.

ISD is not made public, speaking with Dyann White, the Chief Appraiser of Milam, the average agricultural tax across the county is approximately a 1/10 of the market value.⁹³

The appraisal district's records include previous tax files on each parcel, as well as visual assessments conducted every three years concerning each property in the county. In addition to consulting satellite images, agents spend most of their time driving county roads, consulting agency maps, and visually assessing each property for evidence of agricultural use. Evidence for agriculture is often straightforward and usually consists of identifying the presence of livestock and/or plowing and harvesting of crops.

With that out of the way, let me return to the example. If the office can confirm that Ms. Smith's property is used for agricultural production, Ms. Smith is sent a bill for the taxes owed on her property. However, if the office cannot confirm the presence of agriculture, Ms. Smith will be asked to submit receipts as proof of conducting agriculture. Because Ms. Smith just purchased the property, she may be unable to prove that the property was valued as agriculture prior to her purchase. Hopefully, Ms. Smith checked with the district office before purchasing her land to ensure that the property was valued as agriculture. If it was not, she will have to conduct financially viable agricultural practices on her property from four to seven years to obtain the agricultural valuation. For this example, we will assume that Ms. Smith property previously had the

⁹³ However, the 2014 and successive yearly rates is currently under dispute. While Milam raised property taxes as much as 10% based on sales data, the State Comptroller's evaluation found the district to be 15-25% below the state estimated rate (the district has to be within 5% of the state rate). In a press release, White states the market value sales data does not support the state's claims. In January of 2016, the comptroller's office sent out a voluntary survey to all agricultural landowners to try to gather data concerning the productive value of their land. Milam Appraisal District, "Press Release: Property Value Study Results." *Milam Appraisal District*. Accessed July 21, 2017. <http://www.milamad.org/wp-content/uploads/2015/03/Combined-Press-Release-2015.pdf>

agricultural valuation before she purchased the land. However, because she is a new owner, she will have to re-apply for the agricultural valuation by submitting a “1-d-1 Agricultural Use Appraisal” form.

Combining information from the Texas Land Trends report and the Milam District Appraiser, if Ms. Smith purchased twenty acres of land at \$1,531 an acre, she might pay \$3062 in taxes for the year. However, if Ms. Smith wanted to keep her agricultural valuation, but instead of farming or ranching, she is interested in wildlife management, Ms. Smith’s process of valuation requires more than the submission of the 1-d-1 Agricultural Use Appraisal form. For properties to transition to wildlife management, two conditions have to first be met. First, five of the previous seven years the property had to be assessed as agriculture. For example, if the property Ms. Smith purchased was initially put on the market in 2008, but she did not purchase the property until 2014, for five of the seven years while the property was on the market it had to have been appraised as agricultural. The easiest way for this to happen is through a grazing lease agreement.⁹⁴ For example, the rancher next door might have contracted with the previous property owner to let her cattle graze in the fields for x number of months each year. In return, Ms. Smith can show the agreements to the appraisal district board to prove that agriculture (in this case grazing) was practiced on the land for five of the previous seven years.

Second, Ms. Smith must submit a nine page initial application to the tax appraisal office, titled “1-D-1 Open Space Agriculture Valuation Wildlife Management Plan for

⁹⁴ According the IRNR Texas Land Trends report, Milam County is predominantly used for grazing (453,701 of 654,080 acres are classified as rangeland). Institute of Renewable Natural Resources, “Milam County,” *Texas Land Trends*, <http://txlandtrends.org/data/Trends/County/Milam> (Accessed January 4, 2017).

the Year(s) _____” (subsequently referred to as the 1-D-1 plan). This document requires applicants to propose 5-10 years of wildlife management plans for the property (as indicated by applicants filling in the blank at the end of the form title with prospective years, for example “2010-2015”). While other agricultural exemptions require proof (in the form of receipts) of the *past* year’s land management activities to demonstrate adherence to agricultural valuation (and the reduced tax appraisal), the 1-D-1 plan requires landowners to present to the state a wildlife management plan for *future* evaluation. Landowners are encouraged (but not required) to work with TPWD wildlife biologists to determine appropriate goals and TPWD publishes several guides for each eco-region of Texas to provide instruction and information on a variety of practices listed in the nine-page form.⁹⁵ As the basis on which the appraisal is granted, the form addresses general areas of wildlife management, though landowners only have to choose three specific practices to focus on for any given property. These categories are listed on the plan as: habitat control, erosion control, predator control, making census counts to determine population, provide supplemental supplies of water, provide supplemental supplies of food, and provide shelters. In determining which categories to adhere and plan for, applicants check boxes next to general descriptions such as “gully shaping” or “establish windbreak.” In addition, if applicants worked with a TPWD biologist, the report from the biologists (often a five to ten page document) is also included. These materials are submitted to the appraisal district, and upon approval at the end of each

⁹⁵ While TPWD provides free support and access to both people and documents for landowners to develop their own plans, several for-profit businesses offer these services as well. Often marketed towards properties hoping to establish commercial hunting and fishing activities, within TPWD as well as the landowners and educators I have interviewed, these companies are viewed as predatory, often misinforming potential wildlife management landowners.

year landowners must additionally submit annual reports updating their management activities based on the information submitted in the original 1-D-1 plan. Copies of the 1-D-1 plans and the annual report are included in the appendix section of this dissertation.

Annual reports are similar to the initial plan, with seven main categories and check boxes; however, as long as a landowner is able to routinely check three boxes of designated wildlife management each year, there is not a strict requirement from the appraiser's office for continuity from year to year, although, deviation from the plan is often documented by the inclusion of supplemental material justifying the barriers and hurdles to keeping up with the initial plan. This is most notable in plans that reference controlled burn of fields and wooded areas. While burns help to reduce invasive undergrowth and the production of dormant seeds, the dry conditions of the state have meant that many properties continuously postpone burning endeavors.

Speaking with both landowners in Milam County and the district appraisers, the annual reports are most often supplemented with additional information. Flora and fauna census, participation and correspondence between state and national agencies concerning individual practices such as the introduction of native grass species, precipitation reports, photographs, and participation in educational seminars are all included in yearly plans. These additional materials point to larger networks of participation (and legitimization) that landowners engage. Speaking with county appraisers and TPWD biologists, these additional materials are evidence of valid wildlife management practices that the yearly tax forms are unable to record. These legitimating networks (as documented in the bureaucratic tax forms) demonstrate how landowners and appraisers value and

participate in the construction and validation of wildlife management as a form of agriculture.

5.3.2 The Components of Bureaucracy

Drawing on the formal interviews with landowners, biologists, state appraisers, and administrators from TPWD, as well as contacts and discussions had through my participation in the Texas Master Naturalist Program, I have been able to examine and compare wildlife management tax reports across Milam County. Very generally speaking, these reports are similar. In addition to the official documents, landowners submit supplemental material, including photos, census counts, and participation in state- and nation-wide citizen science projects. Using these self-reporting documents, tax appraisers interpret the supplemental material as legitimate proof of adherence to the tax valuation.

In this section, I examine in close detail the tax forms of Katherine Bedrich, mentioned in the introduction of this chapter and draw on interviews with other landowners and biologists to understand how these supplemental features function. Analysis of ethnographic fieldwork highlights how the supplemental documentation submitted by landowners as standard components to the tax valuation function as evidence of legitimacy. I describe how these materials have become standardized as a means of legitimating the wildlife management tax valuation.

Importantly, as identified in the introductory chapter, Katherine was my aunt (my mother's sister) and the property that she lived on belonged to her mother (my maternal grandmother). While this familial proximity limited the kinds of questions I asked and the research I have completed, it also afforded me the opportunity to examine in varied

detail one set of tax forms and management practices across a specific property from the beginning of the assessment until her death in November 2015, and compare those forms with other landowner binders. In addition to examining her yearly reports, I have participated in wildlife management practices across her property for the past three years. In the spring, we have identified and counted native grasses and migratory birds on her property. In the summer, we have harvested native seeds together and attempted to negate the impact of non-native plants. In the fall and winter, we have planned for future wildlife management on the property, including the propagation of native plants. However, Katherine Bedrich's management plans were her own, and while I was very interested in understanding what she did (and grateful that she allowed me to participate), her conceptions of wildlife management were based on her own experiences and reflected her own considerations of the value of wildlife. Furthermore, she was also a Master Naturalist and it was through her training that her work as a wildlife manager developed.

Katherine Bedrich's binder contained her yearly reports to the tax office, as well any notes she kept concerning her management practices and expenses from the time she began wildlife management in 2010. Two main characteristics became apparent as I examined her binder. First, each successive year resulted in more supplemental documents submitted to the tax office. And in the years 2014 and 2015 she abandoned submission on the official 1-D-1 annual form in lieu of her own documentations.⁹⁶

⁹⁶ I did not realize that Katherine stopped submitting the official documents until I visited the appraisal district with her husband, my Uncle Charlie, as we attempted to figure out the steps of transitioning property ownership in December 2016 after Katherine's death. In previous conversations that I had with Katherine, I had assumed (or was led to believe, it is hard to tell) that she submitted the 1-d-1 Annual Plans along

However, submitting alternative documents was not unique to her submission. Edward Nycz, also a landowner in the area, was one of the earliest participants in the valuation, starting wildlife management in 1997. At that time, no official forms to complete for the appraisal district. In lieu of official documents, Nycz submitted the original letter from the TPWD wildlife biologist he met to create a management plan. The letter contains a list of practices to implement on his 100 acres of oak forest to attempt to return the property to a typical example of the post oak savannah ecosystem that his property was a part. Nycz continued to submit these kinds of documents to the appraisal districts. These included reports from biologists conducting controlled burns, census reports of flora and fauna, as well as receipts concerning the machinery and labor he has hired in an attempt to clear invasive species from the property and maintain a large pond near his home. As with Bedrich's documentation, Nycz's omission of the formal documents does not de-legitimate his participation. As I viewed additional wildlife management binders and spoke with appraisers, the formal documents were not the criteria by which adherence was judged. According to appraisers, these documents provided little tangible evidence of wildlife management practices. Instead, legitimacy

with the supplemental pages. However, at the visit to the MAD, Carol DeLong, a records technician in the office, generously pulled the documentation on file for us to examine in an effort to accurately file taxes in April 2017. When I asked DeLong for the previous year's 1-d-1 forms, she stated that Katherine had not submitted those. Instead, she told us, multiple times a year Katherine would stop into the office to talk about her property. Conveying her sympathy for our family's loss, DeLong said that those conversations about Katherine's property really convinced her about the importance and legitimacy of Katherine's practices. As my Uncle attempted to communicate his own work on the property—digging tanks and shredding the pasture—the underlying message of DeLong's words seemed clear to me. To maintain the wildlife management valuation would require more than my uncle working on the property as he had been. It would require a discursive dexterity on our part—both in the forms and in person—to communicate to the office the legitimacy of continuing Katherine's work as our own.

was constructed by the supplemental documents landowners created and submitted to the tax office. Often contained in three-ring binders, these documents provided the evidence of wildlife management by demonstrating the lengths by which landowners negotiated and expanded the meaning of wildlife management.

5.3.3 Expanding Bureaucracy

Beginning with Katherine Bedrich's initial 1-D-1 plan submitted in 2010, she included two additional sheets of documentation. The first sheet contained the heading "Wildlife Land Management" in bold with the Property ID, the landowner's name, the legal name of the land⁹⁷ and the county. The sheet contained two boxes under this heading labeled "2010" and "2011" followed by three subheadings, "2010/2011 Participate in," "Species on Property-2010" and "Goals and Objectives." The second sheet was a map of her property with cryptic notions explained in a key on the bottom right as "Bluebird nest box," "Brush pile," and "Pond."

On the first sheet, the box labeled "2010" listed activities Bedrich had completed in the past year, including "Construction of Blue Bird nest boxes" and "Removal of some giant cane by mowing." The box labeled "2011" contained a similar list of activities, such as "Construct Blue Bird nest boxes and place on eastern property" and "Continue moving, plowing and spraying giant cane." Positioned across from each other at the top of the sheet, these boxes list the activities performed on her property in consideration of the categories listed on the 1-D-1 plan and report forms. The 2010 box

⁹⁷ This is the De Pena listing of the original property, a legal ID assigned when Texas was a republic.

described activities she had already performed while the 2011 box described activities she would perform the following year.

RECEIVED
FEB 16 2011 *grh*

Wildlife Land Management
Property ID – 14740 – Katherine Moore Bedrich
61355 – Sandra Moore Patzke
Legal: A0430 DE PENA, J.A., 40.0 ACRES
Milam County, Texas

<p>2010</p> <ul style="list-style-type: none"> Construction of Blue Bird nest boxes Brush piles formed Spot spraying of Johnson grass Pond #2 & 3 dams maintained Pond #2 & 3 stocked with minnows Removal of some giant cane by mowing Disc around 2 acres for controlled burn Control Imported Fire Ants with organic material 	<p>2011</p> <ul style="list-style-type: none"> Construct Blue Bird nest boxes and place on eastern property Build brush pile on west property Continue spot spraying of Johnson grass Plant grass on pond dams to prevent erosion Continue mowing, plowing and spraying giant cane Control burn of 2 acres Plant native grass seeds Continue organic control of Imported Fire Ants
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

2010 / 2011 Participate in:
NEST WATCH -Monitoring Blue Bird nest boxes
MONARCH WATCH – counting Monarchs on journey North and South
AMPHIBIAN WATCH – Monitoring frogs and toads at Ponds / Texas Parks and Wildlife
TEXAS SEEDS OF SUCCESS - collection of native seeds for Lady Bird Johnson Wildflower Center and Millennium Seed Bank.

Species on property- 2010

Grasses	Several native grasses growing; propagation from wind and animals
Mammals	Seven species sighted
Birds	43 recorded
Amphibians	Five species
Reptiles	Three species
Snakes	Four species
Insects	Butterflies, grasshoppers, beetles, moths, dragonflies, damselflies and many others

Goals and Objectives:
 Build habitat areas on property for wildlife. Maintaining ponds for erosion; and water for wildlife Use controlled burns and seed planting to restore native grasses. Remove invasive species – Johnson grass, giant cane, mustard through spraying and mowing.
 To return property to native prairie by providing native grasses, nesting, shelter, and food for wildlife

Figure 15: First Page Katherine Bedrich’s 2010 Tax Forms

However, the following subheadings contained additional information not covered in the 1-D-1 form. Under the subheading “2010/2011 Participate in,” was a list of items in all capitals, including “NEST WATCH” and “MONARCH WATCH” with a short text following, such as “monitoring Blue Bird nest boxes” and “counting Monarchs on journey North and South.” Under the subheading “Species on Property-2010,” a short

list of classifications, including “Grasses,” “Mammals,” and “Birds” was followed by notes on the quantity observed, such as “Grasses - Several native grasses growing, propagation from wind and animals,” “Birds—43 recorded” and “Mammals - Seven species sighted.” The final subheading, “Goals and Objectives” contained the following text in the figure below:

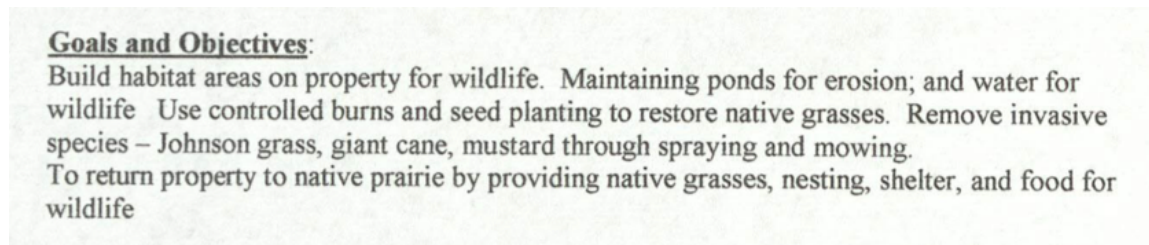


Figure 16: Detail of the Tax Form

While this 2010 packet was Bedrich’s first yearly submission to Milam Appraisal District, this supplemental page did two important tasks that the 1-D-1 forms do not.

First, it was a strategic effort to value species by quantifying their presence on the property. While the quantities were listed without specific identification (i.e. no species names are listed), the presence of such variety was presented as a value in itself. Second, the final statement identified habitat in two contradictory ways: primarily, as discrete spaces on the property (“habitat areas”), but then also as complete eco-system: a “native prairie.” This contradiction was revealing. On the one hand it reinforced the productive capability of land by positing quantities of habitat. On the other hand, the prairie habitat was assumed to be the sum of its parts (“native grasses, nesting, shelter, and food”).

It was this notion of the prairie and its parts (and other landscape-scale terminology) that separated the supplemental documents—and the legitimacy of wildlife management—from the 1-D-1 forms and agriculture more generally. The 1-D-1 forms

separated conservation efforts into discrete components by instructing landowners to adhere to three out of seven individual practices. However, the supplemental forms attempted—to varying degrees—to value the parts as components of a complete system. In effect, placing the practices together into a concerted conservation effort.

In interviews, this landscape view was important among landowners engaged in wildlife management. Joyce and Michael Conner are landowners in Milam County whose 700-acre property is in wildlife management. In speaking about the kind of property they wanted, Joyce attempted to talk about the property as a whole habitat. She said,

It's hard to visualize how can you have a population of deer and coyotes. And I wanted diversity of the animals. *I wanted the full cycle.* And I felt that even though the animals wouldn't know if they crossed the fence they may not live that I could provide *an environment that was large enough* to pretty much. I mean other than a cougar could not possibly [live here]. But bobcats, raccoons, all the animals that we have, even the deer could [live in] *a full eco-system.* Is that what it's called? *A full range of the whole cycle of all the animals: the predators and predated animals could survive out here [italics added].*⁹⁸

Joyce's attempt to use the terms "full cycle," "eco-system" and "whole cycle" sheds light on the tensions between the tax valuation and conservation efforts more generally. While the Conner's talked about their property and practices as a whole, the categories in the bureaucratic forms separated the components of an eco-system into specific

⁹⁸ Joyce and Michael Conner (Landowners, Milam County), interview with the author, February 2016.

practices of management. In an effort to accommodate their comprehensive practices, they also submitted supplement tax documents (89 pages total in 2015).

Returning to the interview with Dyann White, the Milam County Chief

Appraiser:

We find that most true wildlife property owners are proud of their operation and love to tell you about it. So if someone is not very forthcoming or they can't document that they did these projects and that's one that's usually red flagged that they really might not be using the property. But another, the largest challenge, the newest challenge that we have is property owners who are using their property for just game hunting. That's not an approved ag use. And white tailed deer, local deer, that's ok for wildlife. But if they aren't doing any other practices, it's not wildlife either. The problem occurs in that they don't come tell us, "we're taking all the cattle off because we're going to be a hunting property" they don't report that. So we kinda find it and it's like, "ok, that's not ag. if you haven't applied for wildlife, it's not wildlife either" So you've got to .. (chuckle) now we have a big problem.⁹⁹

White's focus on deer illustrates the difference between parts of wildlife management and the whole that appraisers look for, and harkens back to the cultural heritage of hunting discussed in Chapter Three. However, White's stance that deer were not enough for conservation was an interesting contrast to Ann Richards' claim that hunters are conservationists, and it signifies an important shift in environmentalism in Texas. While the policy of wildlife management may have gained credence by leveraging the rhetoric

⁹⁹ Dyann White (District Appraiser, Milam Appraisal District), interview with the author, November 2015.

of hunting, as practiced now, something more than individual species identification is needed.

Tim Siegmund, the wildlife biologist from TPWD, also illustrated this shift when he stated,

...for wildlife management I don't think managing for a particular wildlife species is very important. What I think is important is overall stewardship of the land, so not over grazing, not over fertilizing not over use of herbicide. Those things, those are I think are important long term, for the long-term health of the land. These are the things I was talking about that are very difficult to explain to somebody who has just bought a piece of property and are looking at it.¹⁰⁰

Siegmund's focus on "overall stewardship of the land" was revealing not only for his focus on a comprehensive view of an environment, but also because of his identification of who might be best suited to understand the "long-term health of the land." By evoking the inexperience of new landowners, he identified experience as a key component to developing and implementing successful wildlife management practices.

Examining the binders of wildlife management reveals the kinds of experiences developed by landowners over time. In Katherine Bedrich's 2014 report she had increased the kinds of citizen science programs she participated. The "Participate in" categories had increased from four to nine, with the addition of Project Feeder Watch,

¹⁰⁰ Timothy Siegmund (Wildlife Biologist, Texas Parks and Wildlife Department), interview with the author, December 2013. In a follow-up correspondence, Siegmund clarified, "...a single species might be what starts the conversation, but then I can then educate, and possibly even direct efforts to a more holistic, environmental management aspect. So, deer for example might open the door that allows for a conversation on nature's benefits and habitat that benefits all species." The next subsection describes this approach in more detail.

Cornell Backyard Bird Count, Hummingbird Roundup, Invasive Species (a program supported by the Texas Forest Service), Moth Watch Week, Lost Lady Bug and iNaturalist. Amphibian Watch and Texas Seeds of Success were no longer listed. The species counts were no longer grouped together on the first page and instead, the reader was instructed to “see attachment.” And, with the addition of “plowing” and a few grammatical corrections, the goals and objectives remained the same. However, instead of one page containing both the current year and the following year’s plans, this information was contained on two pages followed by twelve additional pages elaborating on the information listed on the first page. Additionally, the final page contained the heading “Workshops and programs—2014,” listing ten programs she had attended throughout the year.

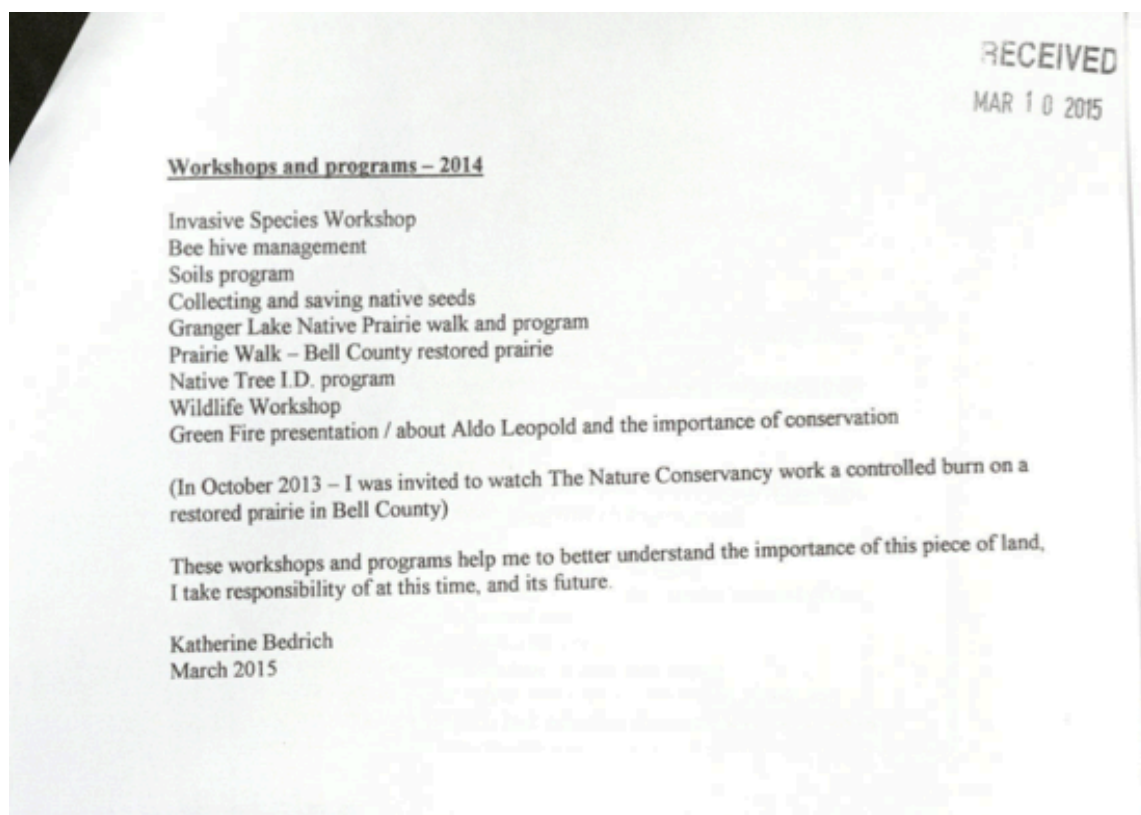


Figure 17: Detail of Last Page from Katherine Bedrich’s 2014 Tax Forms

While Katherine Bedrich's documentation of her activities had increased with time, it was through a brief look at first document from 2011—documenting her wildlife management activities from the previous year—that caught my initial attention as a scholar. When I first viewed her binder, my impression was that the binder was an interesting artifact representing a concise archive of material practices, documenting project management efforts in a concise way. I thought it would be an invaluable resource to future generations who continued to work the property and I imagined (incorrectly) that this information would be amalgamated by some state agency to understand environmental efforts across the state. However, this was not the case. The appraisal documents were used only as evidence for the tax valuation. It is only when landowners participate in other programs that the data might be amalgamated by state agencies—not as a cohesive whole, but as components within larger census programs.

The work that the binder (and others like it) did as a discursive object points to the everyday bureaucratic efforts on private land concerning governance and conservation. The binder was a documentation of specific experiential knowledge practices. The brochures and abandoned drafts of tax forms presented insights into how she negotiated what was required with what she actually did. As a material artifact, the binder presented a rare opportunity to examine the everyday practices of management. As yearly reports and notes were added to the binder, entries discursively pointed to legitimating affiliations that linked Bedrich's land management practices to governing institutions, scientific communities, and neighboring properties. This discursive dexterity legitimated her practices and conformed to particular neoliberal governance structures that assigned economic and scientific value to bureaucratic practices. However, as

landowners incorporated these forms into material practices (and encourage others to do the same), two seemingly contradictory values of property were revealed. First, by situating private property tax assessment as the institutional bureaucracy where wildlife conservation efforts take place, conservation practices on properties were limited by the boundaries of the property. As animals move through space, the legal boundaries of private lands superimposed blinders on landowners that actively shielded knowledge of animals before and after the animal stepped onto the property. As a consequence, knowledge of habitats and behavior was linked to small parcels of land. However, as landowners participated in citizen science programs, this information was re-positioned across eco-systems. Second, as landowners were encouraged to participate in citizen science programs that helped to visualize plants and animals moving through space and time, TPWD used those platforms as a means to gather and analyze data from private property. Early in this chapter I described a training session that I attended concerning iNaturalist. This workshop was developed and led by a TPWD wildlife biologist who had created several subgroups on the platform to collect information about specific species on private lands. While participation in citizen science programs provided evidence of legitimate wildlife management practices, participation also created a window for state agencies to examine wildlife management on private lands.

5.4 Expertise as a Knowledge Practice

One of the first steps for landowners to transition properties from conventional agriculture to wildlife management is to contact TPWD and schedule to meet a wildlife

biologist. TPWD has divided Texas into eight wildlife districts and each district has between seven and ten wildlife biologists whose responsibility is to provide technical

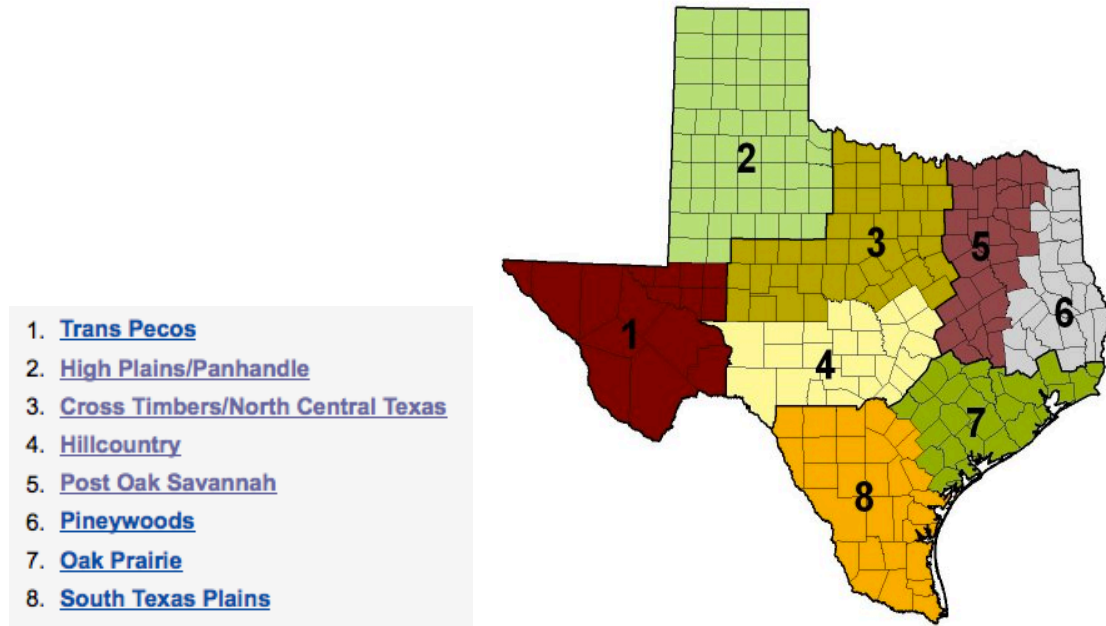


Figure 18: TPWD Regions for Technical Guidance

In this map produced by TPWD (“Find a Biologist”) the state is divided into eight ecoregions. Compare with Figure 2.

guidance to private landowners concerning wildlife management. These biologists do not only work with landowners in the wildlife management valuation, but also offer guidance to anyone who asks. Technical guidance is a term of art within the bureaucracy of TPWD that refers to the management practices the department would like to instill on properties. Each wildlife district has a published “Comprehensive Wildlife Management Planning Guidelines” that landowners can download. Tailored to the particular ecoregion, these guides provide information and best practices on a variety of practices including habitat, erosion, predator control, as well as plans on water, food, and shelter for wildlife.

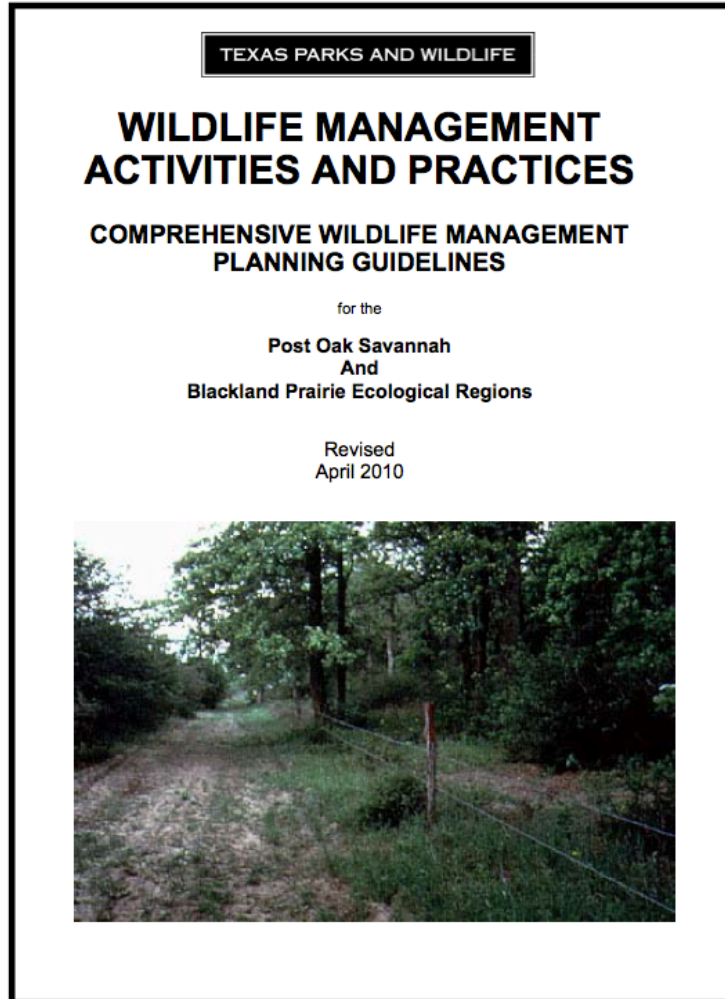


Figure 19: TPWD Planning Guidelines the Ecoregions of Milam County
An example (TPWD 2010) of the documents produced by TWPD to assist landowners with developing wildlife management practices.

However, when landowners meet with biologists, this information is customized according to the landowner and property. These on-site visits are composed of two parts. Initially, the biologist and landowner talk about the management practices currently implemented on the property. These initial discussions can be difficult for both the biologist and the landowner as each try to gauge the motivations of the other. Through professional development and advice from district managers, biologists are encouraged

to refrain from specifically condemning practices like overgrazing, or the planting of invasive species. Instead biologists are tasked with the responsibility of creating narratives of cause and effect. Alternatively, landowners feel out biologists in similar ways, attempting to understand how government agents can suggest successful programs without imposing an undue financial or labor burden.

For instance, a rancher may have cattle grazing on non-native grass in a pasture containing a creek. While this kind of rangeland practice is common in Texas, these kinds of pastures have detrimental effects for water recharge zones and species diversity. As cattle clip the grass to about an inch above the dirt, the roots of the grass, already very shallow become even shallower, preventing rainwater from leeching into the ground and recharging the creek bed and underground aquifers. Additionally, as cattle interact with the creek, feeding on water plants and disturbing fish and amphibians, soil erosion and other issues come to the forefront. Over years, a pasture such as this becomes inhospitable to diverse wildlife and water retention, resulting in a rather barren landscape that requires the landowner to invest in gravel to line the creek and prevent erosion, purchase hay and other grains to supplement the food source of the cattle, and create a host of other financial burdens. While it may be easy for the expert biologist to come in and point to the cattle as the main problem, this kind of finger pointing is exactly what turns off the landowner. While it may be easy to point to the ignorance of ranchers as the cause for environmental degradation, this kind of deficit model blame game fails to take into account the diverse social and cultural practices at play.

On outings with Tim Siegmund, he specifically addressed this issue, and in an interview with his manager, John Silovsky, Siegmund's ability to speak with people and

gauge their reaction, and maintain relationships with diverse landowners was a skill Silovsky has worked to develop with all the biologists he oversees. In describing the characteristics he attempts to cultivate in the biologists, Silovsky stated,

You have to be willing to absorb some shots, or take some shots, or understand when to step back and when to push a little bit. Some people make different management reasons, or decisions for different reasons. And being able to understand that is sometimes challenging. So what makes a good biologist in my opinion is somebody that's a better listener than he is maybe a speaker.¹⁰¹

This focus on listening acknowledges the larger social works that landowners depend.

Farmers and ranchers in Texas contend with a volatile market economy that instills the tiniest margin of financial gain. For cattle ranchers and farmers, this gain is often limited to tens of thousands of dollars a year, with most farmers operating in a deficit. Cutting margins, including landscape management, for financial gain is common practice for a variety of reasons. Farmers and ranchers take on yearly loan structures that often force tight margins throughout a year of management. Additionally, AgriLife agents, who provide guidance and education materials to rural landowners, promote technology and financial fixes to environmental problems like erosion and feed management, encouraging farmers and ranchers to purchase novel non-native grass seed, nitrogen-rich fertilizers and farm equipment to counteract practices that degrade land productivity. While many farmers manage fields through crop rotation and no-till (or minimal till) processes, there remain constant financial constraints that limit the work of farmers and ranchers.

¹⁰¹ John Silovsky (District Leader, Texas Parks and Wildlife Department) interview with the author, February 2016.

Compounding this is a deeply instilled cultural value that links rural landowners with an independent and self-sufficient identity. While the caricature of a Texan parodies these values as gun-toting libertarians vying for Texas' independence, in reality, the lack of government support structures, venues for collective action, and the geographic distance between communities and resources has resulted in a rural identity that values independent decision-making over rigid governmental control (McLemore 2004).¹⁰² As wildlife biologists and landowners meet,¹⁰³ these are the concerns that characterize many of the interactions as these two people attempt to find common ground. John Silovsky, the TPWD manager for Central and East Texas recounted recent interactions:

I've been to two different properties over the last couple of months now. One guy told me that, "There hasn't been a government employee on my property for three years and so you should be really thankful that you're here today." And the other gentleman who's visit was just here within the last two weeks. He was dropping f-bombs and he was mad that he even had to have us out there because

¹⁰² An excellent overview of this cultural history is Laura Lyons McLemore's *Inventing Texas: Early Historians of the Lone Star State* (2004). McLemore surveys a variety of early Texas history texts to document the multiple cultural narratives that have contributed to this stereotype of Texan identity.

¹⁰³ While TPWD biologists and landowners meet for the wildlife management valuation, they more often come into contact through the distribution of hunting permits and tags. While hunting in Texas requires a permit for individual hunters (depending on the species to be hunted), hunting on private property requires individual landowners to acquire "tags" for each potential animal that will be harvest/hunted/killed. So, for a hunter to kill a doe on private land, she not only needs a hunting license (for herself) but a tag that will be placed on the deer after it is killed. TPWD biologists who visit and examine the private land distribute these tags to landowners, who are then responsibly for making sure every animal killed on the property is properly accounted. This information is reported to game wardens, who monitor hunting in the state. In this way, the agency controls hunting seasons and bag limits (how many animals can be harvested during a specific period of time), in essence keeping track of the health and population of species in the state.

we have something he needed but he didn't ... want us out there.that's a challenge. He also commented, "Man, this is my property, I ought to be able to do with it what I want." And for a variety of reasons whether it would be deer or turkey or other wildlife ... these are public resources. They are for the state of Texas, the people, not you, just because you own that property. So, sometimes those philosophies are conflicting individually, [and] it can be challenging.

These first meetings between landowners and biologists set the tone for future meetings. To return to the grazing example above, biologists often pick one or two practices to critique and attempt to narrate the environmental problems on the land through changes in the practices. For example, a biologist might highlight how fencing cattle away from the creek will allow for more plants to grow along the banks, preventing soil erosion. In this way, a relatively simple solution is suggested without detailing a host of other problems.

As biologists continue to meet with landowners, often spanning multiple visits over several years, relationships form that result in landowners taking on new management practices that take into account wildlife and natural resource conservation. These kinds of knowledge claims, values, and expertise about wildlife management are representative of a politics of knowledge. As various actors contest knowledge, hierarchies of value are codified and enacted through legitimating practices. Furthermore, as Goldman, Nadasdy, and Turner claim, "what counts as valid understandings of the environment shapes contestations and outcomes" (2011, 2). As new knowledge claims are crafted and made legitimate, new discourses of expertise arise. Expertise is the practicing of specific knowledge claims, which, in turn, legitimate

specific hierarchies of power. Collaborative efforts unfold and different discourses arise as these practices are taken up. These discourses of best practices on the part of biologists and decision making by landowners are incorporated into both actions and legitimating structures. Importantly, their implementation reveals how stratification within knowledge claims foregrounds some claims of expertise while back grounding others.

Uncovering how landowners in Texas and wildlife biologists foreground specific land management practices and background other practices makes obvious the stratification of legitimating practices as knowledge hierarchies concerning both conservation and adherence to tax valuations. These practices reveal and situate the various ways rural landowners came to look at and participate in discourses associated with wildlife management plans (i.e. the tax valuation), their valuation strategies, and larger practices of conservation. Furthermore, these stratifications of knowledge allow some landowners to interpret their own actions beyond tax valuation and re-position their practices of wildlife management as environmental stewardship and conservation.

However, enacting expertise requires a kind of indoctrination through education, so that the actions of expertise (the speech acts, as well as the practices) conform to a dominant value system. As participants transition to experts, specific artifacts of expertise are revealed to legitimate the expert and practices in the hierarchy. TPWD biologists are recognized in tax documents and legislation as the experts to address the practical changes necessary for the valuation. However, in interviews with biologists and landowners, two different means of adhering to the valuation are linked to two different identities of landowners. On one hand, there are property owners only interested in the

minimal required practices. On the other hand, there are owners who are interested in doing more.¹⁰⁴ The minimum adherence requires landowners to complete three out of seven categories of wildlife management listed in the tax valuation forms. The three most common items are shelter (often bluebird boxes), census (counting bluebirds) and invasive species control (killing feral pigs). In comparing experiences with two different landowners, Katherine Bedrich and an unnamed person, Tim Siegmund stated,

But once I identify that they just want the tax valuation and are looking to do the minimum necessary to get it, I don't go into any deeper detail about function. But Katherine. Very interesting. She can do different things like ... doing a plant identification, identifying species on her property. That can be on the census cause you're taking a census of what's on your property. She established bluebird boxes and she monitors those. So she's doing two: censuses, plus she's got the bluebird boxes [shelter]. She established native grasslands. They reworked their ponds. So she's basically getting every one [of the categories]. They disced the property and done sunflower planting. Those are all things [on the tax valuation forms]. ... She provides supplemental food. She goes out and collects native seeds. So she's way over the top compared to most people. So the ability of the people that'll spend more time explaining not only the act of it, but then why you do it. Why it's important.¹⁰⁵

This distinction between two kinds of management was important because it revealed how the valuation practices and interactions with biologists stratified both knowledge

¹⁰⁴ “More” is limited by financial factors including purchasing seed and tractor equipment or labor and temporal constraints as many landowners work off the farm.

¹⁰⁵ Timothy Siegmund (Wildlife Biologist, Texas Parks and Wildlife Department), interview with the author, December 2013.

claims and the availability of expertise. While Siegmund knew the relationship between my aunt and myself, and his comments might have seemed biased to present a positive spin for me concerning my relations, his distinction between two kinds of landowners was apparent as I joined him on outings to other wildlife management landowners. This kind of vetting was vital as Siegmund attempted to determine the conditions under which landowners might successfully enroll in the valuation. In the first scenario described above, minimal information was provided to easily allow landowners to adhere to the minimum requirements of the valuation. However, in the second scenario, a different relationship was cultivated between the biologist and Katherine Bedrich, as exemplified in this quote from Siegmund:

In fact, the majority of plants in my front yard are from right in the corner of her [Katherine's] yard. I got a whole bunch of her salvias.¹⁰⁶

After this statement, he laughed, highlighting a tension in this role reversal. Katherine Bedrich provided the biologist with a native species of salvia (*Salvia coccinea*), proving her proficiency in native species propagation. Because expertise is practice and knowledge, the ability to grow native plants was indicative of Bedrich as an expert concerning native flora. And so, the biologist was the recipient of her specialized knowledge (growing salvia), substantially repositioning the role of expert.

Furthermore, the salvia was an artifact that represented a cultural object within wildlife management. Carr labels this an object of knowledge that inscribes particular knowledge claims (2010, 19). Evaluating these practices revealed the stratification and positionality of experts around particular objects of knowledge in wildlife management.

¹⁰⁶ Siegmund, interview.

As the biologist acknowledged Katherine Bedrich's propagation of the salvia, he also revealed a changing hierarchy of knowledge in which expertise was shared between the landowner's practice and the biologist's value of the object. The propagation of the salvia was situated as a means of mastering a particular kind of knowledge practice. In this case, the value of the practice took on new meaning and revealed Bedrich as an expert in conserving and promoting native flora.

However, within wildlife management, and the tax valuation forms, different artifacts highlighted the stratifications within the hierarchy of conservation expertise. A common refrain from biologists, landowners and tax assessors was "wildlife management is not just bluebird boxes." As stated earlier in this chapter, bluebird boxes were part of the minimum requirement many landowners choose to implement. Yet, the bluebird box was also a gateway object into the valuation. These nesting boxes fulfilled the first requirement of the valuation: providing shelter for wildlife. As relatively simple objects to construct or purchase and then position on a property, bluebird boxes were consistently the first wildlife management artifacts implemented by landowners. However, during tax assessor's evaluations, the boxes were the first to be dismissed as insubstantial proof of maintaining the valuation.

Understanding bluebird boxes in this way, as both a minimum requirement of tax valuation and a gateway into other management practices, revealed how the wildlife management valuation subsumed specific practices of environmental conservation to legitimate land management practices. As landowners made decisions concerning how to incorporate wildlife management on their properties, they also made decisions concerning the value of specific conservation efforts. While bluebird boxes represented a

minimal buy-in on the part of the landowner, they also represented a first step in the conservation enrollment. Census counts required landowners to engage with the different kinds and amounts of native flora and fauna on each property, and the box acted a gateway into these more complicated accounting procedures in which the accurate identification of species became a second legitimating factor in the process of valuation. However, support for and participation in consensus counts extended beyond TPWD to national level species censuses such as the Lab of Ornithology's Project FeederWatch and iNaturalist's region-specific census reporting projects.

As landowners were divided into categories by biologists, these categories are indicative of the willingness of landowners to engage in complex practices of conservation efforts. The objects of knowledge, such as the bluebird boxes and salvia, served to differentiate and make obvious the legitimating hierarchies that individuals participate. As components of knowledge claims, bluebird boxes represented minimum involvement and social value of conservation practices, while the propagation of native species like salvia and native grasses characterized practices of expertise concerning wildlife biology. Furthermore these objects also highlighted the degree to which the collaborative labor of participants was used to legitimate expert practices (Carr 2010). In the examples above, landowners meeting minimal requirements of the valuation had very little interaction with biologists. However, the landowners interested in more elaborate practices beyond minimum requirements instantiated complex social arenas in which landowner properties also became sites for experimental research. This was exemplified in the Siegmund's interview:

Other folks who call me and I go and visit their property and we'll come up with a broad array of things. Most of my native grass projects I've actually come off of wildlife tax valuation requests. So they'll actually turn into real on the ground beneficial things. Because they want the wildlife tax valuation and they want more wildlife. And so we'll go out and do (something) beneficial projects with native grass, which are good for a whole host of species. When I say native grass, essentially we are trying to do prairie restoration but we are only planting a few species. So 12 species ... does not a prairie make. (laughter)¹⁰⁷

These native grass projects were collaborative sites of experimental expertise instigated by participation in the wildlife management valuation. As the success or failure of these projects was communicated to other participants and even published in scholarly journals, landowners' experiences were legitimated in codified and political knowledge claims. Seed viability, propagation rates, the longevity of perennial and annual plants, as well as a variety of other factors and observations were compared and communicated to new enrollees in the valuation. These communications and actions were not just projected by the biologists, but also between landowners. Successful native grass projects were discursive objects that participants used to illustrate the complexity of their own expertise and their integral role in shaping prairie restoration projects.

Participants in wildlife management negotiated a complicated social path in environmental conservation. Biologists weeded out landowners initially interested in only minimal requirements. However, those participants interested in the "why" of wildlife management (as stated in the first quote) were enrolled into more complex

¹⁰⁷ Timothy Siegmund (Wildlife Biologist, Texas Parks and Wildlife Department), interview with the author, December 2013.

projects of conservation and collaborative labor practices. Interpreting these practices as stratifications of knowledge and expertise revealed how these categories of participants were legitimated in the same tax valuation process. It also highlights the incentives of wildlife management as a tax valuation beyond financial gain to understand the diverse social arenas in which landowners participate.

5.5 Conclusion: Local Knowledge, Legal Fictions and Social Actions

As described in the previous chapter, legal fictions are a key feature of common law in which participants construct evidence, argumentation, and rhetoric into compelling narratives to adjudicate disputes (Fuller 1967; Moglen 1990). As compelling narratives are written into legislation, participating in the legislation requires enacting (and re-enacting) those narratives as everyday practices. However, legal fictions operate as a form of genre, supporting specific social actions. Because genres represent action and contribute situation and motive to categories of discourse, legal fictions formulate authoritative interpretations of legal, scientific, and even economic practices (Miller 1984; Jamieson and Campbell 1982). As a frame for analysis, genre provides a means to understand *how* legislation is authoritative and *who* can participate legitimately, as well as *what* can be said and how it can be said, to characterize the authority with which one can legitimate a legal fiction. As landowners participate in wildlife management tax valuation on agricultural lands, *what* they can do, *how* they can do it, and *who* authorizes legitimating practices can be understood through generic analysis of the tax legislation,

as well as the forms and supplemental materials landowners submit to prove adherence to the valuation.

As described in this chapter, who witnesses (and then testifies) to the adherence of property values creates a new regime of authority and expertise on private lands. For example, the Chief Appraiser of MAD, Dyann White, evaluated wildlife management through her understanding that those properties looked unproductive in comparison to conventional agricultural lands. However, her authority to compare land use and then approve specific properties as valuable was a means of testifying to the legitimacy of wildlife management. This sanctioning of conservation on private lands was only one means of witnessing changes in land use policies.

In addition, landowners persuasively employed expertise to legitimate their efforts by generating and sharing tax documents to communicate adherence to the tax valuations. Within these texts, references to citizen science programs, as well as documentation of collaborative efforts between biologists and landowners, revealed the properties as sites as expertise practices. Miller claims this “reliance on expertise is an argument from authority” (2003, 168), and as expertise concerning technical knowledge substitutes scientific or technocratic ethos for governance, evidence-based modes of social action was privileged over local knowledge structures and experiences. In the appraisal forms, landowners leverage an ethos of science that drew on the perceived superiority and neutrality of evidence-based knowledge practices and reinforced a knowledge deficit based understanding of how lay people could interact with scientific practices. While this substitution played out in material texts, in face-to-face

relationships, an alternative knowledge practice developed that is more akin to Fischer's participatory inquiry, in which experts move

beyond merely providing analytical research and empirical data [and instead] the expert acts as a 'facilitator' of public learning and empowerment [and] as a facilitator, he or she becomes an expert in how people learn, clarify, and decide for themselves (2000, 40).

As legal fictions are employed to incorporate wildlife management as a form of agricultural valuation, two divergent sets of social actions have developed to both legitimate and enroll landowners in the bureaucratic practice. On one hand, landowners conformed to bureaucratic practices and informal appraisal policies that interpret evidence-based practices as legitimate. On the other hand, landowners and biologists negotiated practices and meanings in deliberate participatory meetings to create plans and implement management practices. Wildlife management is a genre of legal fictions that characterize who can speak and what can be said. However, as these two diverse social actions—bureaucratic participation and management planning—take place, the function and form of the genre has changed.

Wildlife management as a legal fiction situates social action by determining the social boundaries of speech acts. As landowners submit tax forms and appraisals review the forms, the function of the fiction is to legitimate management practices. The form of the fiction is to draw on technocratic expertise to create authoritative knowledge practices in the forms of evidence and observation. Alternatively, as landowners and biologists met to discuss management practices, the function of the fiction was to enroll landowners in conservation. However, the form of the fiction was one of participatory

inquiry, or collaborative knowledge practices. The landowner and the biologist attempted to create common ground to develop appropriate conservation practices that took into account the social and economic considerations also at play.

It is this practice of valuing expertise that is reproduced in the wildlife management binders and appraisal process. As users see how their work is vetted as scientific, a particular practice of expertise is reinforced that values evidence, and is endorsed by established experts. As landowners list citizen science programs and appraisers rely on this information as legitimate wildlife management, an alternative structure for legitimate valuations is constructed that foregrounds scientific knowledge about private properties. Including citizen science projects on tax forms leveraged external legitimating structures based on scientific practices. Furthermore, it is through this new kind of visual literacy that the productive value of land is maintained. For example, as the appraiser Dyann White describes wildlife management as an operation, she re-inscribes the discourses of development, consumption, property rights, and entrepreneurialism to legitimate conservation efforts on private lands.

However, while conservation expertise may be a practice that landowners have developed to adhere to the legal fiction of agriculture as the productive value of land, larger ramifications become evident when knowledge practices are linked to the potential production of capital. Rebecca Lave (2012, 32) concisely states,

As knowledge claims produced under neoliberalized conditions are circulated and applied they advance commercial interests, heighten the impacts of social inequality, and enable the neoliberalization of as yet un(der)capitalized realms.

Lave uses the phrase neoliberal science regimes to posit how knowledge practices in the sciences are subsumed into governance regimes that promote and attempt to sustain the development of new markets. As environmental conservation in Texas is practiced as wildlife management, the program not only challenges what agriculture means, but more importantly, the practices challenge what conservation might mean. In the next chapter I examine the consequences of wildlife management as a governance regime through the lens of domesticity, or how the divisions between public and private are reconstituted. As knowledge about wildlife is codified as agriculture production through the legal fictions and bureaucratic practices, the distinctions between public and private practices and responsibilities also transition to accommodate neoliberal constructions of property and management.

6. THE (POLITICAL) CHALLENGE OF DOMESTICITY (OR HOW SCIENTIFIC KNOWLEDGE CONCERNING WILDLIFE IS TRANSFORMED INTO PRIVATE RESOURCES)

In the previous chapter, I examined how the construction of legality concerning wildlife management was established. As landowners enrolled in the wildlife management property valuation as a form of agriculture, appraisers accepted the enrollment in consideration of supplemental documents and participation in citizen science programs. The legal fiction of wildlife management as a tax valuation of the productive value of agricultural land relied on negotiations between landowners, biologists, and appraisers to evaluate productive value in documentations of scientific knowledge practices. This is a slight of hand that is a condition of the legal fiction, in which the value of agricultural commodities is replaced with the value of scientific knowledge. However, this condition is not mediated at the macro scale of governance. That is, this valuing of scientific knowledge was not a component of the original development of the new tax valuation intended to develop new rural economic opportunities concerning nature tourism. Instead, the role of supplemental documentation that provides evidence of participation in citizen science programs became an informal condition of the valuation as appraisers, landowners, and biologists worked to understand how and why wildlife management *could* be considered a means of taxing and accounting for the productive value of land. As a consequence, scientific

knowledge is a component of the micro-level scales of governance, i.e. the everyday practices of being governed.

In this chapter of the dissertation, I examine two issues concerning scientific knowledge practices. Primarily, I analyze the greater consequences of these micro-scaled negotiations and practices by evaluating wildlife management as a form of domesticity, or how public knowledge is made private (McKeon 2009). As landowners incorporate scientific knowledge and participation into the management of agricultural lands *and that knowledge is valued as a productive commodity*, this chapter evaluates how knowledge about environmental conservation substantially changes as well.

Domesticity has been an analytic frame in Science and Technology Studies (STS) to understand labor in the home, and work that investigates changes to domesticity reveals how labor and gender are co-constructed to accommodate new social norms (Dickenson 1997; Marvin 1990). These works in STS highlight the micro instantiations of labor to understand how technologies are used to produce (and reproduce) specific labor regimes. Important to this dissertation is the notion that technologies in the home are different than technologies outside the home, such that “outside technologies” are gendered masculine, while “inside technologies” are gendered feminine (Cohen 2005). Furthermore, this work is extended in the study of bureaucratic practices such that administrative work is gendered similarly (Stivers 2002). In both instances, science is used as a means of legitimating a particular method of engaging with technology, and when women are incorporated into those practices, they are gendered as masculine (i.e. competent, rational, and efficient). Yet, despite these co-constructions of technology, gender, and labor, contemporary work that examines

agricultural practices outside of the house challenges these normative stances of gender as physical dichotomies between the home and all other spaces. Further, new research conducted by the United States Department of Agriculture acknowledges that women's farm labor has been substantially under-documented (Hoppe and Korb 2013).¹⁰⁸ Given the breadth of this work in STS, my focus on domesticity expands these constructions to understand how divisions of labor are also divisions of governance. As a consequence, domesticity is more than just a construct of inside/outside or masculine/feminine. Instead, it is a construction of authority concerning public responsibility and private actions that is often mapped onto gender to reinforce social inequalities according to divisions of labor. By highlighting this expanded notion of domesticity this dissertation documents how changes in the public sphere of governance are by necessity also changes in the private sphere.

Secondly, I investigate the particular form of scientific knowledge at play. While landowners use the language of biodiversity conservation to account for species diversity and environmental habitat, their documented practices reflect efforts at what I label agricultural remediation. Landowners re-imagine their properties and develop new labor practices that attempt to undo perceived damage to the land from previous agricultural ventures. What constitutes public and private substantially change as landowners assume new management practices. Importantly, these changes are not just isolated categorical

¹⁰⁸ In this report, the USDA establishes new criteria to account for the work of women that includes not only bureaucratic work affiliated with running business ventures, but also re-evaluates how property ownership historically characterized how the agency collected data. Hoppe, Robert and Penni Korb. 2013. "Characteristics of Women Farm Operators and Their Farms." *USDA Economic Research Service* No. (EIB-111). <https://www.nal.usda.gov/afsic/us-statistics-women-and-minorities-farms-and-rural-areas> (Accessed July 20, 2017).

changes, but they amount to changes in concerning knowledge about the world—specifically, how environment and wildlife is subsumed into a management system that governs rural landowners through bureaucratic participation. The colloquial difference between nature and culture shrinks as wild lives become things “to be managed.” However, wildlife management continues an environmentalist focus on stewardship, but the difference in contemporary practices in Texas is that stewardship is construed as private enterprise made legitimate by drawing on both the productive value of private land and the responsibilities of landowners. While stewardship remains the purview of public regulatory structures housed within the Department of the Interior at the federal level of government, stewardship in Texas takes a sharp turn away from state regulation to give prominence to private landowner rights and responsibilities. This is due, in part to the unique conditions of Texas. While 5% of the state is publically owned (and only a small portion of that is set aside for environmental conservation), agricultural lands, while dominating the landscape, are fragmented to accommodate urban development and population growth.

This is best exemplified in the professional and technical guidance publications from the Texas Parks and Wildlife Department (TPWD) that address the unique conditions of Texas conservation efforts. These guides posit a tension between wildlife as a common resource and the private rights of individual landowners to develop properties for economic gain. Kirby Brown, a biologist and program director for TPWD, writes, “traditions and/or economics continue to drive decisions by the bulk of Texas farmers, and wildlife and its habitat are a concern only to a small minority” (1999, 255). Intrinsic to Brown’s assessment is that a dichotomy exists in which economic drivers

degrade the conditions of wildlife and its habitat. But his assessment also gets at the difference concerning the changing governance structure of public and private goods. As described in earlier chapters, wildlife are public goods and are regulated by state and federal agencies. And in Texas, these public goods (and the services used to regulate those goods) are by necessity found on private lands. The tension Brown describes between economic decisions and a small minority is really a tension concerning the responsibility of public services when those services are forced into the proximity of private enterprise.

However, as technical guidance publications are used to steer the practices of rural landowners, specific attention is paid to developing a visually literacy of degradation. In a guide to restoring riparian areas, Matt Wagner attempts to make explicit to the reader the conditions leading to compromised conditions:

Major factors that contribute to degradation of riparian zones in Texas include construction of roads, dams, reservoirs and impoundments, uncontrolled grazing, point and non-point pollution, urban development and timber cutting (2004, 3).

Wagner goes on to distinguish vegetation and wildlife that are dependent on riparian habitats, and offers the reader, presumably a private landowner, guidance concerning how the area can be managed for wildlife. As conditions of economic development are posited as antithesis to wildlife management, nature tourism, including hunting, are advanced as alternatives to industrialized development.

In these various guides, privatization of environmental stewardship is a component of neoliberal governance, in which markets and commodities are developed to create the means by which a public goal, in this case conservation of open spaces, is

accomplished. Wildlife management was initially conceived of as a means for developing nature tourism, and as such, small business entrepreneurs would have been the most logical participants. However, nature tourism for individual landowners has not yet established itself as a viable economic opportunity to rural landowners. Instead, successful landowners have mastered what Killingsworth and Palmer (1992) label eco-speak, the ability to communicate the ethical conditions of conservation to the appraisal district for evaluation purposes. In these scenarios, the means of stewardship (property and management) is transformed from a common ethic (akin to Aldo Leopold's land ethic) to a private responsibility. The authors argue that these rhetorical stances are a means of negotiating the ethical conundrum of conservation. On the one hand, the impetus to let nature be without intervention, and on the other hand, the epistemological affects of actually being in nature. It might best be seen in Katherine Bedrich's bureaucratic documents examined in the last chapter. Katherine Bedrich leveraged the new knowledge she developed to understand the history of the land by implicating her labor, or responsibility, as a means of creating a future common good. As will be described in greater detail below, it is by this conflation of private responsibility and public goods that substantial changes to domesticity occur.

However, (and as described in Chapter Three) the property tax valuation of wildlife management developed within the context of neoliberal pursuits. The restructuring of Texas state agencies responsible for the protection of natural resources, public private partnerships between federal agencies, TPWD and landowners, as well as the development of the Balcones Canyonland Conservation Plan in the Austin area, contextualized the development of the wildlife management property tax assessment as a

novel means of conserving open space while protecting individual landowner property rights. However, the consequences of wildlife management are much more substantial than the construction of rural neoliberal governance policies. As stated earlier, participation in wildlife management significantly changes an individual's knowledge about (and relationship to) the environment. Domesticity provides an analytic frame by which to understand these changes within the context of neoliberalism.

6.1 Domesticity as a Knowledge Practice

As wildlife management is formalized as a means of assessing the productive value of land, the form and function of environmental conservation, and participants' relationship to the land, change to accommodate this new form of interaction. Importantly the distinctions between public and private become more tenuous as public resources are managed privately. As public resources like wildlife and habitat are managed privately, the delimitations between the two adjust not only to reflect the construction of new markets, but also to redefine the differences between what can be managed and what cannot. As described earlier in this dissertation, wildlife in Texas, and throughout the United States is publically owned, while habitats are often privately owned. As wildlife move through private spaces, the delimitations between public and private are intertwined, sitting in motion the conditions by which the tax valuation of wildlife management *can* account and manage for publically owned resources.

These changes to management are ultimately changes to domesticity, or how knowledge about the world acts to “‘to naturalize’ or ‘to familiarize’ the great, the distant, the worldly, the strange, or the foreign by ‘bringing it home’—through the

medium of the little, the proximate, the local, the familiar, or the native” (McKeon 2009:327). The formal and informal structures created and implemented to distinguish public displays of knowledge are distinct from private displays. While McKeon’s historical analysis is extensive, and draws on a long history of modernity within Western literatures and knowledge practices, at the heart of his analysis is the spatial representation of knowledge forms, such that as public structures are made private, the domestic sphere expands to accommodate new labor, gender and disciplinary responsibilities (2009, xxii). In his work, the distinction between public and private are distinctions of productivity that are set by generic conditions. For example (and to combine insights from Carolyn Miller’s work on genre as social action (1984) and an example from McKeon’s text (2009)), experiments (as a genre form that functions as a social action developed through the concerted efforts of Robert Boyle) distinguish private from public knowledge. Through the practice of the experimental method a private and domestic form of knowledge is created that relies on a local and particular display of insight concerning specific objects. One might think of Evelyn Fox Keller’s *A Feeling for the Organism* (1984), in which through practiced familiarity personal and intimate knowledge is developed that influence scientific practice. However, as that knowledge is abstracted to address common, or even universal displays of the same or similar phenomenon, public knowledge is created that establishes a common means of knowing and engaging in the world. It is this public display of knowledge that establishes authoritative views of the world.

Domesticity conforms to scholarship in STS that investigates distinctions between public and private as they relate to scientific knowledge production. Steven

Shapin and Simon Schaffer's *Leviathan and the Air-Pump: Hobbes, Boyle, and The Experimental Life* (1985) also examine the development and institutionalization of the experimental method during the 17th Century. As secular and profane knowledge practices were disputed, the author's show how "[s]olutions to the problem of knowledge are solutions to the problem of social order" such that as new ways of understanding the natural environment took hold, new forms of governance were developed that privileged who could practice science and how science could translate into authoritative accounts of knowledge about the world. Donna Haraway extends this work in *Modest_Witness@Second_Millennium. FemaleMan©_Meets_OncoMouse^a: Feminism and Technoscience* (1997) to highlight how witnessing displays of knowledge transform private practices into public authority. Experiments—and the knowledge garnered from them—are not valued in isolation, but are valuable as displays of witnessing that establish *who* can know and who speaks with authority.

Domesticity, as a framework for analysis reveals how and why divisions between public and private are created and enforced through governance and knowledge practices. While McKeon focuses on revealing how divisions in gender and class are systemized through sanctioned knowledge practices based on labor, the process of labeling actions and things domestic is a means of taking something unfamiliar and compartmentalizing it according to specific boundaries and limits. The constructed differences between public and private are further magnified as distinct conditions of productivity are applied to each as a means of governance. Private enterprise is culturally valued as productive because it reproduces social structures of authority and submission, while public practices (and resources) are defined by their separation from

the private. This overly simplistic distinction highlights the ways in which collective action is posited against private ventures. Given the example of experimentation described previously, the private enterprise of accumulating knowledge is transformed through witnessing into collective and public actions that are used to govern subjectivity.

6.2 The Limits of Conservation of Private Lands

Domesticity is the way in which objects, animals, and people are made familiar through governing practices that attempt to legitimate property rights—as an implicit means of productivity—by delimitations of private and public knowledge practices. As wildlife and wildlife habitat on private lands are codified according to both tax law and technical guidance publications, knowledge about the wild is bounded by those practices. This bounding substantially changes knowledge about nature in two ways. As wildlife management is regulated as a property tax valuation, public knowledge—and in this case, ownership—concerning wildlife is challenged by removing the care of wildlife from the public sphere to the private sector. Wild lives are domesticated by the creation of managerial knowledge practices and this, in turn, situates wildlife as productive resources for privatization.

However, the claim that wildlife management has completely usurped public knowledge and ownership has some constraints. The temporal limits of the year-to-year assessments, the physical expanse of environmental eco-regions, and the inability to create management practices across property lines are real barriers to interpreting wildlife management as comprehensive environmental stewardship from the private realm. As a property tax valuation, wildlife management is only a year-to-year

commitment, severely limiting how landowners can envision and enact long-term conservation practices. While landowners submit five to ten year plans during the initial application process, this limited time frame does not allow for longer considerations of time necessary in the development of conservation practices. Examples of these might include the lifespan of trees and other long-lived flora and the generational development of targeted species that would attempt to account for healthy population of fauna such as deer.

Additionally, while TPWD publishes guides according to specific eco-regions, landowners pick and choose from those practices, making comprehensive conservation out of reach of any individual property. Because the valuation is based on agricultural revenue (i.e. the productive value of land, or an accounting of costs and earnings), there is no mechanism in the wildlife management valuation that accounts for the monetary costs of conservation. Said another way, managing for a biodiverse prairie or wetland requires ongoing monetary costs of accumulating acreage and labor that the tax assessment is unable to account.

Finally, wildlife management begins and ends at the property line of the landowner, resulting in inconsistent practices across fence lines. The differences between two properties can sometimes nullify wildlife management as agricultural, and industrial runoff into common waterways can potentially harm native species and habitat.¹⁰⁹ Furthermore, the state's reluctance to limit the construction and form of tall

¹⁰⁹ As I was completing my fieldwork in the summer of 2016, just such a controversy was gaining momentum in Milam County near the community of Gause. A large farming operation had just applied to the county for a permit to apply treated human sewage from Arkansas to crop fields as a fertilizer. However, this agricultural property shared a property line with an equally large wildlife management property via a seasonal

fences prevents larger wildlife like deer and antelope from moving through shared habitat areas.¹¹⁰ These physical constraints and deterrents to the movement of species across private land severely limits the comparison of privately conducted conservation with efforts on public lands.

Alternatively, while wildlife management constrains conservation efforts across time and space (very generally speaking), the practices initiated in the valuation expand conservation efforts in unintended ways. At the onset of the valuation, private landowners work with TPWD biologists to create local wildlife management practices, constructing conservation strategies that are attainable by amateur environmentalists. These novel practices developed through collaborative efforts with state agents are gateway efforts that create new opportunities for individuals to see the impact of conservation efforts, and potentially develop new strategies for conservation. Additionally, because private property practices have been “hidden” from the state’s view, as biologists work on new lands with landowners, new knowledge about the viability of conservation practices is created. New knowledge concerning seed propagation rates, seasonal stream cycles, and the remediation of soil saturated with fertilizers and pesticides is created that draws not only on the local regional experience

creek that fed into Little River, a tributary of the Brazos River, one of the largest watersheds in Texas. The concern of the wildlife management landowners was that runoff from the crop fields would irreversible damage the riparian ecology of the creek and severely set back their wildlife management practices.

¹¹⁰ Tall fences actively curtail the movement of deer, feral pigs, and depending on their construction, smaller mammals and ground fowl. Tall fences in Texas are a concern of TPWD, but are viewed by the state as a means of protecting property rights. While fences for livestock production are usually limited to four or five feet high, tall fences (from six to twenty feet high) are representative of an effort to police boundaries for humans and non-humans alike by creating difficult to penetrate barriers. Importantly, these boundaries are limited to state or national boundaries, or even industrial property divisions. In Texas, tall fences can exist on any property division.

of landowners, but also the amalgamation of information across private lands by the interpretive work of biologists.

Returning to the concept of witnessing as described in the previous section, these concerted efforts of landowners and biologists affirm the development of a new kind of knowledge practice. It is reliant on collaborative multi-scale or bidirectional forms of practices that draws on a diversity of perspectives. In this rather simplistic illustration, landowners witness the formal scientific practices of biologists while biologists witness the everyday management practices of landowners. Because these are not isolated or solitary events (instead they are repeated, translated, and provide the foundations for enrolling new landowners), wildlife management has become a venue for the construction of new kinds of knowledge about the viability of conservation on private lands in Texas.

The tax valuation of wildlife management is composed of contradictions. As described above, the everyday practices that landowners engage are limited by the physical boundaries of their properties. However, because appraisers seek supplemental proof of conservation, individual landowners participate in citizen science programming from which they gain new knowledge about conservation and wildlife more generally. Because of these contradictions, conservation on private lands in comparison to public lands not only looks different, but also has a substantially different impact on the environment. Because wildlife management is conducted primarily on lands that had previously conducted conventional agriculture, the kinds of practices available to landowners are not practices linked to the preservation of an imaginary pristine natural space. Instead, wildlife management reveals that conservation of open lands is a

remediation project that attempts to negate agricultural development through fragmented and piecemeal efforts.¹¹¹

6.3 Conservation and the Remediation of Agricultural Lands

The legal fiction of wildlife management as agriculture attempts to address the embedded contradiction of remediation. The productive value of agricultural lands has changed from the production of a commodity to the remediation of development. At the beginning of this chapter, I stated that within the legal fiction of wildlife management the value of agricultural commodities is replaced with the value of scientific knowledge. The scientific knowledge at play is not the general language of biology and biodiversity studies, but specifically, it is critical language and practices focused on re-reimagining properties by removing the remains of agricultural production. As illustrated in the previous chapter, tax documentation compares practices across multiple years to identify pragmatic solutions to remediation problems.

Remediation, in this sense, is the process to develop new land management practices to re-imagine properties as they might have looked before agricultural practices drastically changed not only the look of the land, but its chemical composition as well. Practicing wildlife management is not only to accommodate diversity, but it is to *cultivate* biodiversity by efforts that eliminate the effects of agricultural production. Further, the practice of cultivating habitat is itself a domestic act that standardizes

¹¹¹ An alternative hypothesis came from Frieda Knoblich in her book *The Culture of Wilderness: Agriculture as Colonization in the American West* (1996) in which she argued that westward expansion of agricultural production across North America was a means of colonizing the wilderness, such that, one may assume, the contemporary cultivation of wilderness is an attempt at decolonizing.

management practices for public resources on private lands. The effects include the propagation of non-native species like giant cane and Johnson grass, which on agricultural lands are used to prevent erosion and provide fodder for grazing. However, in the official wildlife management tax forms, both of these plant species are listed as invasive species that need to be controlled through specific management practices. Soil erosion and riparian development are two more examples of changes to agricultural lands that wildlife management attempts to account. While soil erosion is a problem to farmers and wildlife managers alike, the control of erosion can vary. In farming, alternative planting and plowing methods are used to tier properties and prevent the erosion of topsoil.¹¹² However, in wildlife management, the cultivation of perennials is often promoted as a solution to unintended changes in the landscape brought on by erosion. Riparian development is similarly split. Agricultural practices look to easily access water for livestock and for siphoning for crops, effectively creating systems for moving water around a property. However, wildlife management attempts to keep water in place for two main purposes. These purposes are to recharge aquifers through filtration and to develop habitat for riparian species like wood ducks, frogs, and even small mammals like bobcats and foxes. Prescribed burning of wildlife properties, in which grasslands and forested areas are burned to add nutrients to the soil and instigate the propagation of specific seeds, as well as eliminate invasive species like the small yaupon tree, are another example of the remediation techniques that run contrary to conventional agricultural practices.

¹¹² *A Thousand Pieces of Paradise* (2005) by Lynn Heasley examined these practices in the farming communities of Wisconsin.

While this is only a short list of examples, it is through the refinement of these types of practices that the productive value of wildlife management becomes the remediation of agricultural properties through the development of scientific knowledge practices that highlight not only biodiversity conservation, but also critical knowledge about micro environmental problems. As landowners turn in the formal, as well as the supplemental, documents of the tax assessment they draw on the productive value of these knowledge practices to legitimate the legal fiction of wildlife management as agriculture.

These formalized means of interacting with wildlife show how domesticity is a means of cultivating knowledge about the world to manage private enterprise. When knowledge about wildlife and habitat is made private, new delineations between public and private are structured to reiterate the legal fiction of the productive value of land. Wildlife management as agriculture is a legal fiction that establishes the productive value of land as the condition of the fiction. And as a property tax assessment a particular means of productivity has to be identified. While conventional agricultural assessments draw on actual sales of commodities like cotton and cattle, wildlife management draws on the cultivation of remediation practices to establish the productive value of land. Domesticity in this case is the social action garnered to cultivate practices that attempt to remediate agricultural lands by providing new habitat for wildlife. The formal and informal requirements of the tax valuation identify the social action required to adhere to the law. The social action is not only the evidence of scientific knowledge in the supplemental tax documents, but also the practices of that knowledge, specifically the means of remediating agricultural lands.

6.4 Domesticity and the Generic Components of Legal Fictions

If wildlife management is a mobile technology of neoliberalism (Ong 2007) or an instance of actually existing neoliberalism (Brenner and Theodor 2002), then it begs the questions: *what* is the new commodity that developed, *where* is the new market and *who* participates in that market. Looking to the previous chapters, these questions are easily answered. Properties that are taxed as agricultural are the new commodity. As the price per acre in Texas rises, land that has the lower agricultural tax rate is ultimately more beneficial to new property owners. So-called “bedroom” communities within one or two hours driving distance from major metropolitan areas present new markets for urban commuters. Central Texas, and Milam County specifically, offers an abundance of marginalized agricultural lands, as well as easy access to Austin, Houston and College Station, three large urban areas in the state. However, to answer *who* can participate with success in the valuation we must return to understanding legal fictions as a genre of social action as described in Chapter Four.

As a genre form, legal fictions also establish what can be said and how it can be said to characterize the authority and expertise with which one can legitimately implement a legal fiction. Carolyn Miller (2003) labels this expertise as an argument from authority, and in wildlife management authority is established on multiple fronts. Primarily, an authoritative cultural history of productive agricultural lands is embedded in the tax valuation of private properties. The taxing of the productive value of land marks a shift in governing private properties. While previously lands had been viewed a valuable commodity in and of itself, as the legal codes adjusted, the productive capacity of land became the means of taxation. This authoritative cultural narrative, as it is

embedded in tax law, provides a means of assessing normative management practices such that as wildlife management developed, a new means of assessing productivity (beyond the production of a commodity) had to arise. Wildlife management was originally envisioned to support a rural tourism economy, and the tax valuation was developed to create new markets and entrepreneurs in rural communities. As such, wildlife management was initiated at the macro scale of legislation as a mobile technology of neoliberalism that would indoctrinate rural landowners into a new market economy through managerial training and evaluation. If nature tourism had been successful, the productive value of land would have been obvious as small consumer-driven businesses developed.

However, the failure of nature tourism to catch on has required new ways of interpreting and measuring the productive value of land. Eben Moglen, in his treatise on legal fictions maintains that legal fictions “reflect the bending force which the [common law] system applies to facts” (1990, 48) While the phrase “bending force” is a rather poetic means of imagining the rule of law, the gist of it can be understood as appraisers and landowners negotiate what practices are made legitimate as the micro practices of wildlife management are subjected to approval. As landowners became managers, appraisers interpreted evidence of the scientific tasks of remediation as facts that legitimate the fiction. Composed of both descriptions of specific efforts to re-imagine and change properties into viable habitat, as well as participation in larger citizen science efforts, wildlife management requires landowners, appraisers, and wildlife biologists to mediate (or bend) the local practices cultivated on each property to fit within the facts that establish the productive value of land.

6.5 Conclusion

Neoliberalism subsumes knowledge practices to establish new commodity forms, in this case changing potential rural entrepreneurs to wildlife managers. As wildlife management transitions farmers and ranchers to environmental stewards, new knowledge and distinctions regarding the divisions between public and private are instantiated in the legal values of property and ownership. As environmental conservation gains momentum, the management of wildlife and habitat create new practices of domesticity. As a result, the delimitations between public resources (such as wildlife) are subsumed into the legal categories of private resources. This process substantially changes the meaning of environmental stewardship by situating conservation not as a public or national effort, but as a means of protecting private property. These efforts are maintained by cultivating wildlife and habitat on agricultural lands through remediation efforts that seek to re-imagine how private properties look and function.

As McKeon examines domesticity as a frame for understanding divisions of knowledge in public and private venues, changes to divisions of labor become the way of identifying new forms of domesticity. This is the political challenge of wildlife management—both as a neoliberal venture and as a means of making practices domestic. Wildlife management is environmental conservation on private lands. Formerly conducted by state agencies to protect and conserve nature and the (romantic) perception of pristine open spaces throughout the country, environmental conservation was conceived as a public good and responsibility of national and state governance structures. However, wildlife management substantially challenges this ruling

relationship between natural spaces and individuals by removing the macro-governing systems and instantiating private control and management of open spaces. It is the unique conditions of Texas—95% privately owned and predominately agriculturally driven—that inform this transition of conservation efforts away from the protection of public amenities to the remediation of private lands. In these efforts, the labor of conservation substantially changes from the public to the domestic, with little understanding of the consequences of such an exchange.

Primarily, conservation labor on private lands reinforces the marginalization of small landowners as “land rich and cash poor” as described in earlier chapters. Wildlife management reifies the cultural value of land, but does little to establish a viable commodity, instead tying landowners to vast acreages that require arduous labor practices but elicit no monetary gain. In consideration of domesticity, these private efforts at remediation currently remain private because they are witnessed by appraisers as productive labor and not collective action. The temporal limits of the year-to-year assessments, as well as the physical expanse of environmental eco-regions in comparison to the inability to create management practices across property lines, are real barriers to interpreting wildlife management as public service. Instead, wildlife management reifies private property rights by negating the public good of conservation and situating evidence of scientific knowledge practices of remediation as the productive capacity of land.

7. CONCLUSION: INHIBITING HABITAT AND INHERITING PROPERTY

There is a fundamental contradiction in the practices of environmental conservation efforts on private lands in Texas. When private landowners enroll in conservation efforts, they legitimize bureaucracies that are structured by both formal requirements and informal social actions. Collaborations between landowners, biologists, and appraisers legitimize specific practices while marginalizing others that fall beyond the boundaries of the properties. For example, while landowners can establish practices that develop habitat for migratory birds, these practices are limited by neighboring conventional agricultural practices that actively inhibit habitat. The bureaucratic practices of wildlife management promote isolated practices of environmental stewardship, which in turn severely limit the effectiveness of individual landowners to conserve the open spaces of Texas.

Landowners in Texas take for granted the right to property and ownership of open spaces, and they are constrained by the legal requirements in tax assessments that prioritize the productive value of land. In this scenario, the value of property is not based on its resale value; instead the categories of tax assessment are focused on the potential production of crop and livestock commodities. This has resulted in governing practices that incentivize landowners who participate in conventional agriculture. Wildlife management, while creating new venues for habitat development, is ultimately constrained by the tax code that subsumes wildlife management under the category of agriculture.

Legal fictions are the means by which legitimacy is constructed as participants interpret social actions to adhere to legal statutes. For example, as tax appraisers issue valuations of private lands managed for wildlife, those valuations are based on the productive value of neighboring agricultural. Wildlife management lands (and their landowners) benefit from this lower assessment by paying a reduced tax rate. However, legitimacy is also constructed as landowners, biologists, and appraisers negotiate the bureaucratic requirements of the tax assessment. The binders that landowners create provide additional documentation of environmental stewardship and reveal how new knowledge practices are created.

Nevertheless, wildlife management relies on agricultural production to maintain the legal justification. While there is increased participation in wildlife management, the tax incentive only remains in place because farming and ranching lands are taxed on their productive gain. If conventional agricultural practices were to be eliminated in any appraisal district, the valuation structure (or the means by which landowners are incentivized to conserve wildlife habitat) would not be sustainable. This legal fiction irreparably ties conservation efforts to agricultural production and establishes the largest contradiction (and legal fiction) of the tax code.

However, as landowners engage with a larger community of citizen scientists, they collaborate with neighbors to build forms of constituency that link conservation practices across property lines. They develop new venues for environmental knowledge and experience. These combined efforts challenge hegemonic models of knowledge production by drawing on micro-level practices and experiences to create new expertise about the environment. Importantly, as neighbors collaborate in wildlife management

practices, the legal fiction of wildlife management as agriculture is also challenged. However, environmental conservation on private lands is not extensively practiced in Texas. In 2012, only 0.02% (a little more than three million acres) of agricultural lands are appraised as wildlife management. And while three million acres may seem like a large amount, in a state that prides itself on its vast open spaces (150 million acres of agricultural lands), the efficacy of wildlife management—either as an entrepreneurial venture for nature tourism, or as a comprehensive form of environmentalism—has yet to be established.

This inability to re-imagine the value of land beyond financialization is at the heart of Gunter and Oelschaeger's Texas land ethic (1997). Calling for a new relationship between humans and open spaces, they seek to challenge the very notion of natural resources as a form of capital, and instead focus on stewardship as a means of preserving nature for future generations. Zachary Smith (2009) calls this the environmental policy paradox, that "we often understand what the best short- and long-term solutions to environmental problems are, yet the task of implementing these solutions is either left undone or is completed too late" (xi). However, Nadasdy's (2011) perspective on environmental efforts is more specific. He claims that the conditions by which knowledge about wildlife is produced and circulated structure the actions of environmentalism. The focus on a land ethic privileges private ownership and fails to re-imagine what land (and, by extension, nature) might be without human management.

While the land itself may have yet to substantially change, what have changed are the new responsibilities that landowners take on to conserve public goods. Landowners work with biologists and appraisers to not only create new management

practices, but also to create new knowledge practices that legitimate conservation in a property regime that privileges productivity. In this dissertation I have situated Texas in relative isolation from other conservation efforts. However, the concerns driving conservation in Texas are concerns that face most conservation efforts, including population growth, economic development, and climate change. The population in Texas, like the rest of the world, is projected to grow; estimates project that the state's population will double in size, from 26 million to 50 million by 2050. Furthermore, as economic development is politicized as a means of constructing good governance systems, *where* and *how* the physical components of capital will be located is up for grabs. The lack of concerted municipal planning structures and strong conservation efforts translate to continued land fragmentation in exurban areas (Taylor and Hurley 2016). Finally, as the United States continues to fail to recognize the dire effects of climate change (and specifically as states like Texas continue to label climate change effects as alternatively weather cycles or cycles of drought), the productive capability of agricultural lands will continue to degrade.¹¹³

¹¹³ However, I think it is worth noting that while Texas' solutions to conservation may seem radical, they are interpretations of governance policies that are shared by a variety of legal entities (both humans and corporations) across the globe. Nationally, the debate in the US concerning fossil fuel extraction, as well as access concerning grazing and harvesting on public lands, dominate discussions concerning the role and value of public lands. Both South Dakota and Oregon have recently been the center of these debates. As new modes of extracting and distributing fossil fuels threaten spaces of native heritage and access to clean water, activists converged on the construction of pipe lines in South Dakota to challenge who has access to public lands and services. In Oregon, conservative ranchers and their compatriots occupied a wildlife refuge to draw attention to, among other things, the problems of access to public lands. While both of these examples contain varied political actions, taken together they represent how public stewardship is challenged by private enterprise.

Wildlife management is a re-imagining of environmental stewardship that draws on the productive value of land to situate stewardship as a private enterprise. While some may read these accounts of environmental conservation in Texas as conforming to stereotypes, my effort has been to elucidate how the rule of law (in this case property and tax law) structures social actions. As a legal fiction, the bureaucracy of wildlife management structures the conditions and forms of participation. However, because the bureaucracy is taken up by landowners, appraisers, and biologists who actually want to implement conservation, the rule of law is negotiated by these actors to such an extent that new practices and ways of knowing are created. However, while legal fictions are genres of social action in which forms and functions are negotiated through participation, not everyone has an equal voice. Within the property tax valuation, wildlife management as a form of agriculture relies on the productive capacity of property as a legitimating condition of ownership. While wildlife are not productive as commodities on private lands, the ways in which they are known (the knowledge practices that are used to manage habitat and wild species) are valuable as evidence of production.

7.1 Summary of the Dissertation Argument

Wildlife management, while a progressive means of addressing the conservation of agricultural lands, does little to create long-term practices. This is, in part, due to the neoliberal context within which the program was started. As described in Chapter Three, the effort to create the tax valuation was in part due to the effort to create new tourism markets for financial stability in rural communities. Private lands conservation was also

a response to the infringement of national regulatory structures on private lands in Texas to preserve habitat for endangered species. These neoliberal contexts, as exemplified by the discourses of development, consumption, property rights, and entrepreneurialism, were subsumed into a new way landowners could identify as a legitimate constituent of the rural economy. Bureaucratic participation in tax valuations structured how landowners were enrolled as managers and stewards of public goods. However, while the legal fiction of wildlife management as a form of agricultural structured participation, constituents negotiated environmental knowledge by creating new evidentiary procedures to account for larger eco-systems. Tax binders documented new knowledge practices from a variety of cultural sources; yet, they often ignored the financial valuation of practices. Instead, scientific knowledge and participation was substituted as a means of legitimating property-specific wildlife management practices.

However, while wildlife management materially changed land management practices on private properties, these changes were also changes to domesticity, or how individuals made wildlife familiar. As landowners actively developed and incorporated new knowledge practices on their properties, the divisions between public and private were re-negotiated to transition stewardship practices away from sole state responsibility to shared private enterprise. The differences between public and private were further magnified as distinct conditions of productivity were applied to wildlife management as a means of governance. As landowners subsumed wildlife into agriculture valuations, stewardship of nature translated to management of productive goods.

7.2 Consequences of Conservation on Private Lands

Conservation practices on private lands are a valuable means of immediately conserving vulnerable areas. However, while environmental conservation is valuable apart from commodity production, (Biermann et al 2012; Kotzé 2014; Lidskog and Waterton 2016), short term public-private partnerships continue to structure how environmental conservation is conducted (Balmford et al 2002; Gowdy and Krall 2013). These public-private partnerships present two glaring dilemmas that either a) envision stewardship apart from landowner rights or b) fail to create long-term goals.

Two new conservation efforts in Texas confirm the continued inability to overcome these constraints. First, the Inland Fisheries department in the Texas Parks and Wildlife Department is currently creating new management guidelines to protect the watersheds of Texas. This is in response not only to projected water shortages in the future, but also to protect native fish and habitat made vulnerable by point and non-point sources of water pollution. However, these guidelines are only conceived as landowner management guides. As communicated in an interview with the head of the department, the effort is to enroll landowners who are physically in these watersheds as voluntary water stewards. This program does not account for water contamination that happens on lands not abutting waterways. Further, by focusing on private landowners (and not on industrial zones along waterways), the program fails to address additional polluters. A second example of the constraints of current conservation programs on private lands is the development of ecological laboratories on private lands. In an interview with David

Braun¹¹⁴ these programs are developed to provide university scientists opportunities to access restricted habitats on private lands. Private lands that meet the requirements for ecological laboratories are also given the agricultural tax valuation, though the amount of acreage in the state is very small (approximately 25,000 acres across the state). Both of these programs reveal how the legal structures of private property and productive value actively challenge concerted long-term efforts to conserve open spaces apart from development. Further, while characterized as conservation efforts, both rely on strict delimitations of property boundaries to enroll landowners, severely restricting both where and how conservation takes place.

Finally, as described in Chapter Five, landowners in Milam County participate in environmental conservation for reasons other than potential economic development. While wildlife management was developed as means of creating new markers for rural stability, landowners have created alternative rationales for conducting conservation on private lands. Private landowners in rural communities are focused on the future inherited value of their lands as those lands retain a monetary value to the immediate next generation. Wildlife management is an opportunity for landowners to maintain ownership of marginalized agricultural lands. These lands are then legally passed from parents to children as a financial legacy that relies on the productive value of the land.

However, the legal fiction of the productive capacity of agricultural lands is an social action that structures who can participate by privileging the production of goods, and, in turn, establishing a financial property tax system in rural communities based the

¹¹⁴ David Braun was the executive director of the Texas chapter of the Nature Conservancy in the 1980s and 1990s that worked to develop the Balcones Canyonland Conservation Plan described in Chapter Three.

sale of those goods. Wildlife management was conceived as a means of creating new rural tourism ventures. As a tax valuation of agricultural lands, wildlife management is dependent on neighboring conventional agricultural lands that produce commodities and establish the rates of property tax. Nature tourism, while an interesting policy for development in rural communities, has been ineffective in creating new and widespread economic markets across the state's private lands.

Importantly, because landowners use wildlife management as a means of preserving private lands as inheritance, a new legal fiction is in the process of being developed. In Chapter Three I established two dominant legal fictions that have historically characterized the legal value of private property in Texas. Initially, the potential value of land centered on future development in the state, which created a predominant private property regime of ownership such that 97% of the state was allocated for private ownership. Potential landowners were given property as a means of payment with the expectation that the land would be used for developing a more stable state. As property taxes were implemented in the state, the potential value of land shifted to the productive value of land. The sale of agricultural commodities was used to establish the taxable value of land. The tax codes identified agricultural production as the legitimate means of determining the value of rural lands and communities. Now, as wildlife management increases without the development of a new market economy for rural tourism, it is the potential loss of inherited property that establishes the value of land and legitimates conservation practices on private property in Texas.

By identifying this new legal fiction of the inherited value of land, I embrace the contradictions of the legal fiction of wildlife management as a form of agriculture on

private lands that is reliant on bureaucratic participation to preserve public goods through private management. Returning to the story of the ocelots in South Texas described in Chapter One helps to clarify these contradictions. As private landowners in Texas partner with a federal agency to protect an endangered species, they implicitly acknowledge that they are participant to a legal fiction that creates the conditions and actions for protecting a particular species, in this case the ocelot. The Endangered Species Act is linked to the species itself and the preservation of habitat is a consequence of the condition of the fiction, and the social action resulting from this condition. And with the increase in population of the ocelot, it is a successful policy. Stated another way, the legal fiction of endangerment is a compelling narrative that supports the policy of conserving species.

Wildlife management draws on these legal fictions of conservation efforts and substantially changes the legal value of private property in Texas. It was envisioned as a means of maintaining the taxable value of private lands by creating a new productive commodity through tourism markets. But as landowners enroll in the program and fail to create new economic endeavors, the legal value of land no longer matches the legal fiction. Specifically, the publicly owned commodities of wildlife cannot be valued by financial gain. However, wildlife management acts a placeholder for landowners. It sets the minimal conditions for maintaining ownership, and allows for landowners to pass along properties to the next generation with minimal financial investment.

As stated in the previous chapter, these changes are not just isolated categorical changes to law, but they amount to changes in how environment and wildlife is subsumed into a governance regime of management. In turn, this system governs rural

landowners through bureaucratic participation. Importantly, the legal and colloquial differences between public and private shrink as wild lives become things that are actively managed. However, wildlife management is focused on environmental stewardship that was initially construed as private enterprise made legitimate by drawing on the productive value of private land.

Table 2: Changes to the Private Property Regime of Texas

Private Property Regime	Potential Development	Productive capacity	Inherited Private Property
<u>State's Intent</u>	System of payment	Promote Agricultural Production	Develop Nature Tourism
<u>Financial value of land</u>	Accrue debt for war and defense	Tax value based on income from commodity	Habitat as a private good
<u>Consequence of regime</u>	Colonize and develop	Reliant on global markets of production	Temporarily limited conservation on private lands based on annual incentives

Private lands are re-imagined in Central Texas and more properties participate in wildlife management. These include the “working lands” of conventional agriculture to the development of new practices that conserve the natural habitats for wildlife and draw on knowledge about larger swaths of contiguous eco-systems. This change is a change in domesticity or how divisions between public and private are managed. This defining quote from Michael McKeon bears repeating to understand domesticity as a knowledge practice such that:

knowledge about the world acts to “‘to naturalize’ or ‘to familiarize’ the great, the distant, the worldly, the strange, or the foreign by ‘bringing it home’— through the medium of the little, the proximate, the local, the familiar, or the native” (2009, 327).

The differences between public and private are further re-imagined as private lands become habitat for public wildlife. The public practices of management that govern state and federal lands are reworked for private landowners, in turn creating new land management practices across the state. While environmental stewardship remains the purview of public regulatory structures at the federal level of government, at the state level stewardship in Texas takes a sharp turn away from state regulation to give prominence to private landowner rights and responsibilities. This is accomplished by developing a new legal fiction that draws on the productive value of land to protect the inherited value of property.

Yet, there remain limitations to the program. Wildlife management constrains conservation efforts across time (it is only a yearly tax valuation, allowing landowners to change practices from year to year) and space (it maintains the boundaries of private properties with no incentives for contingent or shared practices). However, the practices initiated in the valuation expand conservation efforts in unique ways. At the onset of the valuation, private landowners worked with biologists to create local wildlife management practices, constructing conservation strategies that are attainable by amateur environmentalists. These novel practices developed through collaborative efforts can be interpreted as gateway efforts that create new opportunities for individuals to experience the impact of conservation efforts on private lands. Additionally, because

private property practices have historically been hidden from the state's view, biologists' work on private lands creates new (and public) knowledge about the unique regions of the state and the specific conditions of private properties. Wildlife management draws not only on the micro local conditions and experiences of landowners, but also on the amalgamation of information between private lands by the interpretive work of biologists who move across these properties.

7.3 Future Work

Despite the constraints listed above, environmental conservation on private lands is a progressive means of conserving open spaces, if only because as yet no other means is readily available in Texas. While conservation land trusts (non-profit organizations that hold property titles in perpetuity and coordinate conservation efforts across neighboring boundaries) are slowly gaining credence in Texas, they remain marginalized as a conservation effort in the state.

However, other states have attempted to create new forms of governance structures that take conservation as a long-term process. In New York, municipalities have partnered with bordering farms to create firm boundaries for development. Most notably in the Finger Lakes region of central New York, towns such as Cortland and Dryden have created long-term contracts with municipal land trusts to prevent the fragmentation of farms along the municipal boundary, and force industrial and residential development to remain within the municipally-zoned regions of the town. Alternatively, in the same region in New York, national parks and forests have partnered with local agricultural producers to allow grazing and harvesting of wild foods on public

lands. New York State offers a variety of spaces and solutions to examine how different conservation efforts can be coordinated to reserve natural spaces from development and meet the local cultural and social conditions of the regions.

A different strategy has been developed in New Mexico along the Rio Grand in the lower half of the state. Responding to new laws in Colorado (the upper regions of the river) that allow the siphoning of water by private landowners, and concerted efforts in Texas to keep the river flowing to the Gulf of Mexico, federal initiatives in New Mexico have constructed vast agricultural flood plans to take economic advantage of cyclical drought and flood events. Constructed as both a wildlife refuge and an agriculture producer, the Bosque Del Apache Wildlife Refuge and the surrounding private and public lands just south of Albuquerque imagine the conservation of environmental spaces as concerted efforts of agricultural production and wildlife preserves.

Federal departments like the Department of the Interior and the United States Fish and Wildlife Service have purview to uphold national regulations like the Endangered Species Act in efforts to conserve natural areas. However, it is only through state-level efforts that species and habitat are protected as federal agencies partner with state programs. Yet, given the recent cuts and restructuring of federal program in consequence of a new presidential administration, the longevity of these programs can be called into question. Currently, conservation efforts are dependent on political climate, and the funding needed to promote long term programs will remain in doubt given the fickle nature of federal politics. Environmental conservation efforts should be resilient to these fickle politics, and so more work should be put forth to conceive local policies apart from national endeavors.

Resilient policy should be created that latches on to local cultural and social community identities and regionally specific concerns. In Texas, this means creating policy that directly addresses landowners' desire to distribute property as a financial asset to future generations. The inherited value of property is a legal fiction that can be leveraged by the state to encourage multi-generational conservation efforts by enrolling not just landowners in tax-based initiatives, but their inheritors as well. Continued focus on the local contexts of environmental conservation helps to identify the broader impacts of neoliberal governance structures that subsume local knowledges into global commodities. Such a novel policy would address both the concerns of landowners and would also decrease the fragmentation of agricultural lands. Large farms and ranches are fragmented into smaller plots for residential development when properties are sold for profit instead of maintained for conservation. Developing a policy in which the inherited value of property is greater than the real estate value of property would help to prevent this kind of fragmentation in rural communities. However, developing this kind of value would require more than a legislative act.

The Texas land ethic presents a starting point for new conservation policies in the state to promote a new understanding of the value of open spaces. Focused on land-community ethics, Gunter and Oelshlaeger state "a land ethic involves us in our natural world and orients us toward fruitful ways of living in a world without wrecking it" (1997, 135). However, the authors omit tangible steps toward developing the ethic into a pragmatic formulation for conservation policies. Land-community ethics requires human participants to first acknowledge the non-human participants that are contingent to the preservation of open spaces. Gunter and Oelshlaeger rightfully posit this as the biggest

hurdle to Texas (and Texans) because it significantly challenges the resource-focused viewpoint that drives private property ownership in the state. However, twenty years after the publication of that text, it is time for the next step in further developing the Texas land ethic.

One possible direction is Peter Taylor's ethics of participatory processes (2015). Taylor addresses the need to take seriously participants concerns to develop processes that address ecological complexity, and create structures for participation in complex initiatives while not losing sight of the dynamic nature of various participants. This ethic is composed of five ideals: engagement, participation, cultivating collaborators, transversality, and fostering curiosity. Importantly, each of these ideals is a not a stable quality one can easily check off a list. Instead, these ideals are a continuous program to take stock of the community when new situations develop (and one might imagine as goals and milestones are met). Taken together, these two ethics can provide the means by which local solutions to the loss of open spaces are addressed by continuously taking stock of participants and situations, and addressing problems and solutions in pragmatic and equitable ways.

Translating the Texas land ethic as a participatory project to create inter-generational conservation efforts on private lands will not be an easy task. However, the ethics of participatory processes developed by Peter Taylor is a natural extension of the land-community ethic that Gunter and Oelshlaeger advocate. With concerted efforts and deliberation, a new role for Texas lands can be developed. Texas is on track to re-image the value of land in the state, but that process will require stepping beyond notions of economic development as a the sole structure for incentivizing change. New work in the

state must be completed to address the lack of education and resources in rural communities that would promote new modes of thinking about the natural resources that surround and characterize these areas.

While it is beyond the purview of this dissertation to cohesively lay-out new policies initiatives to the state, I hope that by revealing the varied motivations of landowners and mapping them on to the bureaucratic practices required by the state I have completed the foundational work to developing such policy. A new Texas land ethic would have to address the inherited value of property in rural communities. Research must take into account both the social infrastructures that support such values, as well as alternatives that might be implemented to challenge individuals to think differently about the role of real property in a family's legacy. Intergeneration ethics can provide a frame for understanding stewardship in a larger abstract scale. And state agencies can act on policies that expand beyond the boundaries of single parcels of land.

7.4 The Extended Case Method and the Practice of Witnessing Changes in Governance

This dissertation has benefited from Michael Burawoy's extended case method (1998), a means of analyzing ethnographic research through considerations of micro practices that can be generalized to larger policy issues. I have used the dichotomy of public/private as a means of understanding what's at stake in conservation on private lands in Texas. Understanding the changes in who is responsible for public resources as a discursive change in understanding domesticity reveals the importance of this dichotomy in the U.S. environmental conservation policy. As public governance efforts

to conserve the environment are re-positioned as private enterprises, new authorities are constructed to witness (and make legitimate) these changes. In the history of science, this is most famously epitomized by Shapin and Schaffer's (1985) description of the development of the scientific method and the work of Robert Boyle. As experimentation was developed as a means of understanding the world, those who witnessed such acts became authorities concerning the natural laws and issues presented. Donna Haraway has expanded our understanding of witnessing to implicate ourselves in the conditions of creating narrative structures. And legal fictions provide an analytic framework for understanding how social order is created through mundane bureaucratic practices.

“Valuing Constituency” is the process by which governance concerning the environment transitions from the public sector to the private sector through the implementation of the bureaucratic practices of private property valuations. It is the ways in which private landowners are made into stewards of public goods through tax incentives that are intrinsically tied to the value of private lands and the legitimate (bureaucratic) practices of landowners. While this case study is focused on Texas, this process of transferring responsibility and initiating private/public partnerships as formal structures of governance exists across contemporary environmental conservation efforts.

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APPENDIX

A. Wildlife Management Tax Forms

(on the following pages)

Part IV. Management Plan Goals and Objectives

Describe the wildlife management **goals** (what you want the property to look like, or want to be able to do with it) and **objectives** (how you intend to achieve these goals) for this piece of property. You may use an additional page if needed. (Note: This space will expand as you type.)

Part V. Qualifying Wildlife Management Activities

Check the wildlife management practices to be implemented on the property during the coming year that will support and achieve your management goals. A minimum of three practices is required.

<input type="checkbox"/> Habitat control	<input type="checkbox"/> Provide supplemental supplies of water
<input type="checkbox"/> Erosion control	<input type="checkbox"/> Provide supplemental supplies of food
<input type="checkbox"/> Predator control	<input type="checkbox"/> Provide shelters
<input type="checkbox"/> Making census counts to determine population.	

Part VI. White tail Deer and Mule Deer Population Management

Is hunting to be a part of this wildlife management plan? Yes No
If YES, type of hunting: Lease hunting Family/guests only Both
List deer harvest for past three seasons:
Year: _____ Bucks: _____ Does: _____
Year: _____ Bucks: _____ Does: _____
Year: _____ Bucks: _____ Does: _____
Population Management Goals:
Target Density for Pre-season Deer Population (fall density) _____
Target Sex Ratio (does/buck): _____
Target Production (fawns/doe): _____
Other (may be age, weight, antler measurements, browse conditions, etc.) _____
Deer Harvest Strategy (numbers, types of deer to be harvested to achieve goals): _____

Part VII. Wildlife Management Association Membership

Are you a member of a wildlife management association (co-op)? Yes No
Are you a member of a wildlife property association? Yes No
Name of wildlife property co-op/association, if YES is checked. _____

2. EROSION CONTROL

Pond construction and repair

Surface area (acres): _____ Number of cubic yards of soil displaced: _____

Length of dam (feet): _____ Planned date of construction: _____

Additional Information: _____

Gully shaping

Total acres to be treated: _____ Acres treated annually: _____

Seeding mix used for reestablishment of vegetation: _____

Planned date of construction: _____

Additional Information: _____

Streamside, pond, and wetland revegetation. Techniques used:

Native hay bales Fencing Filter strips Seeding upland buffer

Rip-rap, etc. stream crossings Other: _____

Planned date of construction: _____

Additional Information: _____

Herbaceous and/or woody plant establishment on critical areas (erodible)

Establish windbreak Establish shrub mottes Improve plant diversity

Improve wildlife habitat Conservation/no-till practices Manage CRP cover

Additional Information: _____

Dike/Levee Construction/Management

Reshaping/repairing erosion damage Revegetating/stabilize levee areas

Install water control structure Fencing

Additional Information: _____

Establish water diversion

Type: Channel Ridge

Slope: level graded Length (feet) _____

Vegetated: No Yes

If Yes: Native: _____ Crop: _____

Additional Information: _____

3. PREDATOR CONTROL

- Imported red fire ants (verify prior to application that product is labeled for pasture use)
 - Control of cowbirds Grackle/starling/house sparrow control
Method of control: Trapping Shooting Baiting Scare tactics _____
 - Coyotes Feral hogs Raccoon Skunk Bobcat Mountain lion
 - Rat snakes Feral cats/dogs
Method of control: Trapping Shooting M-44 (licensed applicators)
 Poison collars (1080 certified, licensed, applicator) Other _____
- Additional Information:* _____

4. SUPPLEMENTAL WATER

- Marsh/Wetland Restoration or Development*
 - Greentree reservoirs Shallow roost pond development Seasonally flooded crops
 - Artificially created wetlands Marsh restoration/development/protection
 - Prairie pothole restoration/development/protection Moist soil management units
- Planned date of construction: _____
- Additional Information:* _____

- Well/trough/windmill overflow/other wildlife watering facilities*
 - Drill new well Depth: _____ Gallons per minute: _____
 - Windmill Pump Pipeline: Size: _____ Length: _____
 - Modification(s) of existing water source
 - Fencing Overflow Trough modification Pipeline
- Distance between water sources (waterers): _____
- Type of wildlife watering facility:
- | | | | | | |
|------------------------------------------------|---|-------|-------------------------------------------------------|---|-------|
| <input type="checkbox"/> PVC pipe facility | # | _____ | <input type="checkbox"/> Drum with faucet or float | # | _____ |
| <input type="checkbox"/> Small game guzzler | # | _____ | <input type="checkbox"/> Windmill supply pipe dripper | # | _____ |
| <input type="checkbox"/> Plastic container | # | _____ | <input type="checkbox"/> In-ground bowl trough | # | _____ |
| <input type="checkbox"/> Big game guzzler | # | _____ | <input type="checkbox"/> Inverted umbrella guzzler | # | _____ |
| <input type="checkbox"/> Flying saucer guzzler | # | _____ | <input type="checkbox"/> Ranch Specialties guzzler | # | _____ |
| <input type="checkbox"/> Other: | | _____ | | | |
- Additional Information:* _____

- Spring development and/or enhancement*
 - Fencing Water diversion/pipeline Brush removal Spring clean out
 - Other: _____
- Additional Information:* _____

5. PROVIDING SUPPLEMENTAL FOOD

Grazing management Prescribed burning Range enhancement

Food plots Size: _____ Fenced: Yes No

Irrigated: Yes No

Plantings: Cool season annual crops: _____

Warm season annual crops: _____

Annual mix of native plants: _____

Perennial mix of native plants: _____

Additional Information: _____

Feeders and mineral supplementation

Purpose: Supplementation Harvesting of wildlife

Targeted wildlife species: _____

Feed type: _____ Mineral type: _____

Feeder type: _____ Number of feeders: _____

Method of mineral dispensing: _____

Number of mineral locations: _____

Year round: Yes No If not, state when: _____

Additional Information: _____

Managing tame pasture, old fields and croplands

Overseeding cool and/or warm season legumes and/or small grains

Periodic disturbance (Discing/Mowing/Shredding) Conservation/no-till

Additional Information: _____

Transition management of tame grass monocultures

Overseed 25% of tame grass pastures with locally adapted legumes

Species planted: Clover Peas Vetch Other: _____

Additional Information: _____

6. PROVIDING SUPPLEMENTAL SHELTER

Nest boxes Target Species: _____
 Cavity type. # _____ Bat boxes. # _____ Raptor pole. # _____
Additional Information: _____

Brush piles and slash retention
 Type: Slash Brush piles Number per acre: _____
Additional Information: _____

Fence line management Length: _____ Initial establishment: Yes No
Plant type established: Trees Shrubs Forbs Grasses
Additional Information: _____

Hay meadow, pasture and cropland management for wildlife Acres treated: _____
Shelter establishment: Roadside management Terrace/wind breaks Field borders
 Shelterbelts Conservation Reserve Program lands management
Type of vegetation: Annual Perennial
Species and percent of mixture _____
 Deferred mowing Period of deferment: _____
 Mowing Acres mowed annually: _____
 No till/minimum till
Additional Information: _____

Half-cutting trees or shrubs
Acreage to be treated annually: _____ Number of half-cuts annually: _____
Additional Information: _____

Woody plant/shrub establishment
Pattern: Block Mosaic Strips: Width: _____
Acreage or length established annually: _____ Spacing: _____
Shrub/tree species used: _____
Additional Information: _____

Natural cavity/snag development
Species of snag: _____ Size of snags: _____ Number/acre: _____
Additional Information: _____

7. CENSUS
<input type="checkbox"/> <i>Spotlight counts</i> Targeted species: _____ Length of route: _____ Visibility of route: _____ Dates (3 required) A. _____ B. _____ C. _____ <i>Additional Information:</i> _____
<input type="checkbox"/> <i>Standardized incidental observations</i> Targeted species: _____ Observations from: <input type="checkbox"/> Feeders <input type="checkbox"/> Food plots <input type="checkbox"/> Blinds <input type="checkbox"/> Vehicle <input type="checkbox"/> Other _____ Dates: _____ <i>Additional Information:</i> _____
<input type="checkbox"/> <i>Stand counts of deer</i> (5 one hour counts per stand required). Number of stands: _____ Dates: _____ <i>Additional Information:</i> _____
<input type="checkbox"/> <i>Aerial Counts</i> Species counted: _____ Type of survey: <input type="checkbox"/> Helicopter <input type="checkbox"/> Fixed-wing Percent of area surveyed: <input type="checkbox"/> Total <input type="checkbox"/> 50% <input type="checkbox"/> Other: _____ <i>Additional Information:</i> _____
<input type="checkbox"/> <i>Track counts:</i> <input type="checkbox"/> Predators <input type="checkbox"/> Furbearers <input type="checkbox"/> Deer <input type="checkbox"/> Other: _____ <i>Additional Information:</i> _____
<input type="checkbox"/> <i>Daylight deer herd/wildlife composition counts</i> Species: <input type="checkbox"/> Deer <input type="checkbox"/> Turkey <input type="checkbox"/> Dove <input type="checkbox"/> Quail <input type="checkbox"/> Other _____ <i>Additional Information:</i> _____
<input type="checkbox"/> <i>Harvest data collection/record keeping:</i> <input type="checkbox"/> Deer <input type="checkbox"/> Game birds <input type="checkbox"/> Age <input type="checkbox"/> Weight <input type="checkbox"/> Sex <input type="checkbox"/> Antler data <input type="checkbox"/> Harvest date <i>Additional Information:</i> _____
<input type="checkbox"/> <i>Browse utilization surveys</i> (thirty 12-foot circular plots required) <i>Additional Information:</i> _____
<input type="checkbox"/> <i>Census of endangered, threatened, or protected wildlife.</i> Species: _____ Method and dates: _____ <i>Additional Information:</i> _____

3. PREDATOR CONTROL												
<input type="checkbox"/> Imported red fire ants (verify prior to application that product is labeled for pasture use) <input type="checkbox"/> Control of cowbirds <input type="checkbox"/> Grackle/starling/house sparrow control Method of control: <input type="checkbox"/> Trapping <input type="checkbox"/> Shooting <input type="checkbox"/> Baiting <input type="checkbox"/> Scare tactics _____ <input type="checkbox"/> Coyotes <input type="checkbox"/> Feral hogs <input type="checkbox"/> Raccoon <input type="checkbox"/> Skunk <input type="checkbox"/> Bobcat <input type="checkbox"/> Mountain lion <input type="checkbox"/> Rat snakes <input type="checkbox"/> Feral cats/dogs Method of control: <input type="checkbox"/> Trapping <input type="checkbox"/> Shooting <input type="checkbox"/> M-44 (licensed applicators) <input type="checkbox"/> Poison collars (1080 certified, licensed, applicator) <input type="checkbox"/> Other _____ Additional Information: _____												
4. SUPPLEMENTAL WATER												
<input type="checkbox"/> <i>Marsh/Wetland Restoration or Development</i> <input type="checkbox"/> Greentree reservoirs <input type="checkbox"/> Shallow roost pond development <input type="checkbox"/> Seasonally flooded crops <input type="checkbox"/> Artificially created wetlands <input type="checkbox"/> Marsh restoration/development/protection <input type="checkbox"/> Prairie pothole restoration/development/protection <input type="checkbox"/> Moist soil management units Planned date of construction: _____ Additional Information: _____												
<input type="checkbox"/> <i>Well/trough/windmill overflow/other wildlife watering facilities</i> <input type="checkbox"/> Drill new well Depth: _____ Gallons per minute: _____ <input type="checkbox"/> Windmill <input type="checkbox"/> Pump <input type="checkbox"/> Pipeline: Size: _____ Length: _____ <input type="checkbox"/> Modification(s) of existing water source <input type="checkbox"/> Fencing <input type="checkbox"/> Overflow <input type="checkbox"/> Trough modification <input type="checkbox"/> Pipeline Distance between water sources (waterers): _____ Type of wildlife watering facility: <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> PVC pipe facility # _____</td> <td><input type="checkbox"/> Drum with faucet or float # _____</td> </tr> <tr> <td><input type="checkbox"/> Small game guzzler # _____</td> <td><input type="checkbox"/> Windmill supply pipe dripper # _____</td> </tr> <tr> <td><input type="checkbox"/> Plastic container # _____</td> <td><input type="checkbox"/> In-ground bowl trough # _____</td> </tr> <tr> <td><input type="checkbox"/> Big game guzzler # _____</td> <td><input type="checkbox"/> Inverted umbrella guzzler # _____</td> </tr> <tr> <td><input type="checkbox"/> Flying saucer guzzler # _____</td> <td><input type="checkbox"/> Ranch Specialties guzzler # _____</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Other: _____</td> </tr> </table> Additional Information: _____	<input type="checkbox"/> PVC pipe facility # _____	<input type="checkbox"/> Drum with faucet or float # _____	<input type="checkbox"/> Small game guzzler # _____	<input type="checkbox"/> Windmill supply pipe dripper # _____	<input type="checkbox"/> Plastic container # _____	<input type="checkbox"/> In-ground bowl trough # _____	<input type="checkbox"/> Big game guzzler # _____	<input type="checkbox"/> Inverted umbrella guzzler # _____	<input type="checkbox"/> Flying saucer guzzler # _____	<input type="checkbox"/> Ranch Specialties guzzler # _____	<input type="checkbox"/> Other: _____	
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<input type="checkbox"/> Other: _____												
<input type="checkbox"/> <i>Spring development and/or enhancement</i> <input type="checkbox"/> Fencing <input type="checkbox"/> Water diversion/pipeline <input type="checkbox"/> Brush removal <input type="checkbox"/> Spring clean out <input type="checkbox"/> Other: _____ Additional Information: _____												