A River Runs Through It: Assessing the Attitudes of Landowners along the Luling Paddle Trail

By Terry Jennings

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Abstract

In 1987, the President's Commission on Americans Outdoors recommended that communities establish public greenways along lands and waterways to provide recreationalists with open space access that is close to their homes (President's Commission on Americans Outdoors, 1987). This form of outdoor space is different than a traditional park in that greenways are longer, often more narrow, corridors that are conducive to walking, running, hiking and cycling. Moreover, several states and local communities have turned to creating paddle trails along scenic stretches of rivers in order to provide another opportunity for recreationalists to enjoy their natural surroundings. The Texas Parks and Wildlife has created such a program that promotes the use of popular rivers for paddling recreation. However, due to the linear nature of greenways, the space occupied often stretches through several tracts of private land. Some of the neighboring landowners of greenways have expressed apprehension toward these spaces because of concerns over a loss of property value, privacy, crime, liability, property damage and trespassing.

The *purpose* of this research is to assess the attitudes of landowners living along the Luling Paddle Trail before and after the opening of the trail. The *method* chosen in determining the attitudes of these landowners is surveys. The *results* show that although there is a slight concern over a loss of privacy and trespassing, most landowners do not feel trepidation toward the trail. The *conclusion* of this research explores the necessity of expanding this research to cover more river trails.

About the Author

Terry Jennings was born in Dallas, TX in 1973. He attended Texas A&M University from 1991 to 1996 where he received a Bachelor of Arts in English. After graduation, Terry moved to Austin where he has lived and worked ever since. He is currently employed as a research analyst for the City of Austin. Terry is finishing his Masters degree in Public Administration at Texas State University – San Marcos. An avid lover of the outdoors, Terry can be found (when not working, of course) paddling one of the pristine rivers of Central Texas.

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Chapter 1
Introduction

The alarm has been sounded concerning the need for Americans to get more exercise. It has been well documented that physical activity is essential to a healthy lifestyle and more people are taking to the outdoors to achieve this goal. However, as the urban centers of America continue to grow, and the area between those centers and the surrounding suburbs continues to shrink, available space for outdoor recreation has become scarce. Local and state governments have addressed this issue by converting available land into linear greenways.

In 1987, the President's Commission on Americans Outdoors recommended that communities establish these greenways along lands and waterways to provide recreationalists with open space access that is close to their homes (President's Commission on Americans Outdoors, 1987). This form of outdoor space is different than a traditional park in that greenways are longer, often more narrow, corridors that are conducive to walking, running, hiking and cycling. In some cases, these greenways run alongside a river or converted railroad line. Moreover, recreational greenways do not have to be on land. Several states and local communities have turned to creating paddle trails along scenic stretches of rivers in order to provide another opportunity for recreationalists to enjoy their natural surroundings.

Recreational paddling on Texas rivers and streams has been gaining in popularity over the last few years. In the state of Texas, there are 3,700 named streams and 15 major rivers that meander through 191,000 miles of Texas landscape. Central Texas in particular is a much sought after area for those looking to enjoy the solitude and serenity

that paddling on a river can provide. Whether the journey is in a canoe or kayak, the rivers and streams that flow over the Edward's Plateau offer this type of recreationalist a unique view of their natural surroundings.

Individuals have been navigating Texas rivers and streams for a very long time. Initially, paddling along a river was for a more practical reason like transportation and trade. The navigation right, set forth long ago by the Texas Supreme Court, states "[It has been] the settled policy and cherished object of the state to guard its navigable streams from obstruction and to secure and improve them as common highways of trade and travel for such of its citizens as might wish to use them for this purpose" (Texas Parks and Wildlife website). The navigation of Texas' inland and coastal waters is one of several "public rights and duties" specifically recognized by the Texas Constitution. A form of the right to travel, the navigation right is part of the liberty and the freedom of movement enjoyed by our society. Texas' laws on navigation have evolved under different governments during Texas' history. The laws are a blend of the civil law (the law of Spain and Mexico and the early Republic of Texas, which still applies to old land grants), the common law (court rulings), and statutes (acts of the Texas Legislature or the Congress of the Republic of Texas) (Texas Parks and Wildlife website).

As times have changed, and the need to navigate a river for the purpose of travel and trade has given way to the automobile and highway system, Texas rivers have once again become populated. This time however, the outdoor recreationalist has taken them over. The Texas Parks and Wildlife recognizes this form of recreation and has embraced it by developing their Texas Paddling Trails program. The idea behind this program is to promote this outdoor activity with detailed maps, signs indicating put-in and take-out

locations, and any other information useful to the recreational paddler. The program has been a success as TPW has officially designated eighteen trails in the state, with plans to add more (Texas Parks and Wildlife website). The designation of a trail usually does not involve any change to the river. TPW works with local communities to ensure that the trail in question has public access at the beginning and end. The sections of river that are considered for designation have usually been popular already by paddlers. The program is simply a promotional tool by the agency to get more people interested in this form of recreation.

Although the legal navigation of these rivers is set forth by the state legislature, the surrounding land is more often than not private property. TPW realizes this fact and makes every effort to warn the paddler to stay in his or her boat and not trespass on private property. However, little research has been conducted assessing the attitudes of the actual landowners living along these public waterways. There have, however, been studies addressing the concerns of landowners living along land-based greenways. Due to the linear nature of greenways, the space occupied often stretches through several tracts of private land. Some of the neighboring landowners of greenways have expressed apprehension for these spaces due to concerns over a loss of property value, privacy, crime, liability, property damage and trespassing.

This study attempts to assess the attitudes of landowners living near one of the Texas Parks and Wildlife's designated paddle trails. Specifically, the research will focus on the Luling Paddle Trail, which is a six-mile stretch of the San Marcos River just west of the town of Luling. First, a review of the current literature is assessed. In this review, the idea of a public greenway is defined and its history provided. Moreover, the benefits

of having such a space are explained. This will lead to an explanation of some of the issues that have been brought forth by landowners concerning the public space that runs adjacent to their private property. The purpose of this research is to assess the attitudes of landowners living along the Luling Paddle Trail before and after the opening of the trail. The method chosen in determining the attitudes of these landowners is surveys. The results show that although there is a slight concern over a loss of privacy and trespassing, most landowners do not feel trepidation toward the trail. The conclusion of this research explores the necessity of expanding this research to cover more river trails.

Chapter 2

Literature Review

Chapter Purpose

This chapter will examine the scholarly literature on attitudes of landowners living alongside public greenways. First, "greenway" will be defined and a brief history of such spaces will be considered. Second, the benefits of having and maintaining these greenways will be examined. Third, the existing research on issues brought forth by landowners living adjacent to these greenways will be investigated. The information from this final section will shape the hypotheses used to assess the attitudes of such landowners before and after a public paddle trail has been established.

Background on Public Greenways

Greenway Defined

Several definitions for greenway abound in the literature. The term is rather broad and has been used interchangeably with parks, foot trails, river trails and the like. Charles Little provides the most complete definition of the term in his book *Greenways for America*, 1990. He states the term "greenway" encompasses a broad range of green space including:

> 1. A linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route. 2. Any natural or landscaped course for pedestrian or bicycle passage. 3. An open-space connector linking parks, nature reserves, cultural features, or

> historic sites with each other and with populated areas. 4. Locally, certain strips or linear parks designated as a parkway or greenbelt (Little 1990, 1-2).

Defined more succinctly, a greenway has generally been accepted to mean any linear open space that is multifunctional by maintaining natural processes and providing recreational and aesthetic outlets (Brooks 2005, 5).

History of Greenways

Little identifies Frederick Olmstead as the pioneer of the greenway movement in America (Little 1990, 7-20). The Boston Park System is Olmstead's most notable greenway, created in the latter part of the 19th century. This approximately 25 km long trail system connected Franklin Park, Arnold Arboretum, and Jamaica Park to the Boston Garden and Common. Expanded years later by Charles Elliot, the system is now nearly 600 km in length and provides a wealth of recreational, as well as business opportunities for the citizens of Boston (Fabos 2004, 322). The success of the Boston greenway helped spawn a movement across the country over the next several decades. Landscape architecture began to take off as a viable profession and soon greenways were on the minds of urban planners everywhere. Cities like Portland, Chicago, Kansas City, and most notably New York, began to think differently about what it means to have a park system. Instead of the designated few acres that typically had been thought of as reasonable open space for the public, the idea of longer stretches of land that connect the smaller parks was beginning to take hold.

Benefits of Public Greenways

The benefits of having public greenways have been well documented. Economic stimulus is perhaps the most referenced reason given by public planners (Brooks 2005). It has been shown that public parks, trails, or open green space have all benefitted the local economy. Brooks shows that local businesses see an increase in sales from visitors to these spaces compared to those businesses located further away. Increases in property value for those living near or adjacent to green spaces have also been noted (Brooks 2005, 26-27). Besides economic benefits, green spaces also provide a means of conservation for local governments. "At the local scale, greenspaces collectively play a critical role in providing environmental benefits such as removing air pollution, creating opportunities for recreation, fostering community cohesion, reducing noise, and providing wildlife habitat" (Flores et al. 1998, 304). It has been shown that preserving natural resources through conservation benefits a community in several ways. Finally, the health benefits for the citizens of a community cannot be overlooked. Parks, trails, and other forms of open green space provide an inexpensive way for people to enjoy a healthier lifestyle.

Economic Benefits of Greenways

Greenways have the potential to provide substantial and varied economic benefits to the communities through which they pass. There are benefits for individual landowners living along the greenway, as well as local businesses, and state and local governments (Markeson 2007, 1490-1494).

The benefits to the individual landowners include increased property value and increased home marketability. Several studies have been conducted to quantify the improved property value for these landowners and home owners. A 2000 study by Bolitzer and Netusil looked to see what impact open spaces had on the local property values in Portland, Oregon. This study did not look specifically at greenways but rather any type of open space that the Portland government possessed within its urban growth boundary (Bolitzer and Netusil 2000, 185-186). Public parks, golf courses, and natural areas were identified and the home values for residents living within the proximity of these areas were assessed. The authors' results "indicated that distance from a home to an open space and the type of open space can have a statistically significant effect on a home's sale price" (Bolitzer and Netusil 2000, 185-186). Specifically, homes that are located within at least a half of a block from the designated open space showed the greatest value increase. The general believe is that the aesthetic beauty of such spaces is positively correlated with the increase in home value. Such beauty has been identified as open space that possesses a view. The authors conclude that their results indicate an "important step toward quantifying the total benefits from preserving open spaces" (Bolitzer and Netusil 2000, 192-193).

Crompton feels that such results can be projected to greenway trails where again aesthetic beauty is present (Crompton 2001, 1-3). This is not to say those greenways with limited views or a narrow corridor are not positively associated with increased home values. In fact, greenways that provide access to the trail for nearby home owners have shown to improve value (Crompton 2001, 114-117). Crompton identifies nine separate studies that look at the impact of greenways on property values. Across eight of these

studies, he found that a range of 20 to 40 percent of those home owners surveyed felt the presence of the greenway did in fact enhance their property value (Crompton 2001, 115-116). He concluded that only a small portion of those surveyed felt the greenway had a negative effect on their home's value (Crompton 2001, 126-130).

A 2004 study conducted by Lindsey et al. looked to test the property value effect of a greenway trail in Indianapolis. The trail in question was the Monon Trail, which is a 10 mile long, converted railroad line that is now used for hiking and cycling activities. The researchers sent out surveys to all of the residents living within 100 feet of the trail. The results show that homes along the Monon Trail sold at a rate that was approximately 11 percent higher than the average sale price for the entire area (Lindsey et al. 2004, 80-81). The authors concluded that "presence near the Monon Trail or in a greenway conservation corridor has a statistically significant, positive impact on sales price" (Lindsey et al. 2004, 83).

Yet another study conducted in 2005 looked to test the impact of greenways on home values in the Austin area (Nichols and Crompton 2005, 321). The area of focus was the Barton Creek Greenbelt and Wilderness Park, just west of downtown. This greenway consists of 1,771 acres that includes 7.5 miles of hiking and biking trails, as well as parking areas and restroom facilities. The study looked at three surrounding neighborhoods adjacent to the greenway. Two of the neighborhoods had several access points to the greenway and one did not have access but did have substantial views of the trail. The authors, looking at sales data, concluded that the two neighborhoods with access points showed significant home value impact from their proximity to the greenway

and the third neighborhood showed only an insignificant increase (Nichols and Crompton 2005, 337-339).

Environmental Benefits of Greenways

As the current global trend toward urbanization continues to rise, and the density of city cores increases, the need to preserve green spaces becomes ever more important. In his book *How Greenways Work: A Handbook on Ecology*, Jonathon Labaree (1997) describes how greenways can lessen or prevent the environmental harm caused by development. He states, "Nature is a series of interactions among plants, animals, and even air, soil, and water. A healthy environment depends upon keeping those interactions intact" (Labaree 1997, 33). Labaree categorizes the importance of greenways through their use as habitats, conduits, barriers, filters, and sinks. As a habitat, a greenway provides scarce resources for the plants and animals living in an urban area. As a conduit, the greenway acts as a pathway between otherwise separated habitats. A barrier provides an essential protection between the more sensitive environmental regions and the surrounding urban center. As a filter, the greenway allows some animals or plants to pass freely between habitats and others to remain intact. The sink aspect of a greenway allows certain sediments, toxins or nutrients to pass (or not pass) safely into the soil (Labaree 1997, 48-52).

According to Fabos, wildlife biologists in the U.S. have estimated that it is necessary to preserve 10 percent of the natural landscape in order to maintain "maximum biodiversity for all significant flora and fauna" (Fabos 1995, 6). Studies have been conducted called "Gap Analysis" that tell scientists where the critical landscapes in need

of protection are located. Most of these landscapes are situated around or directly within existing greenways (Fabos 1995, 6-7). Thus, the protection of such spaces is crucial for the health of the larger ecosystem. Searns notes that greenways are now seen as a potential tool to help address a range of ecological issues including destruction of habitat, loss of biological diversity, degradation of water quality, erosion, flood damage and other considerations (Searns 1995, 65-67).

Urban planners have heeded the warning and are now taking into consideration the ecological impact of their urban designs. Flores et al. notes that this alarm about environmental quality and continued livable conditions of urban areas is now a motivating force for planning professionals (Flores et al. 1998, 295-296). Flores et al. looked at the New York City Metropolitan Area as a case study. The authors noted that planners involved in the project see the implementation of ecological ideas as a strategy for the betterment of not only the citizens of New York, but also for the natural resources upon which those citizens rely. Planners specifically look to the protection of existing ecosystems as vital to their goals. Those ecosystems are not only of the human kind but also of the kind that house animals as well as flora and fauna. Moreover, the coexistence of these varied ecosystems is important for the larger environment as a whole (Flores et al. 1998, 302). The New York case illustrates these concerns with planners following three important principles:

1. Create regional reserves to conserve the waterways and broad working landscapes that provide the region with fresh drinking water, harbor the area's most significant ecosystems, constitute our best recreation, and delimit the outward expansion of the region's urbanized core.

2. A full-scale reinvestment in urban parks, public spaces and natural resources to improve the environmental quality of our cities, provide a fair share of park land to urban residents, and help cities attract businesses and residents.

3. Create a network of greenways to connect and nurture our cities, suburbs, and protected landscapes (Flores et al. 1998, 302).

Social Benefits of Greenways

Perhaps the most obvious benefits of greenways are the social improvements they provide. The social benefits, however, need to be addressed in two forms. First of all, the linear characteristic of greenways provides tremendous recreational opportunities that cannot be found in a traditional park setting. Secondly, greenways can provide educational opportunities as well as historical heritage preservation.

The recreational opportunities provided by greenways have been well documented. Markeson notes that the rise of the automobile brought the more sedentary lifestyle that Americans have grown accustomed to. As citizens began to replace walking with driving, they started down a path that provided fewer motivations for physical activity (Markeson 2007, 1494-1495). As a result, fewer opportunities were provided by local and state governments to achieve physical exercise. Traditional parks were certainly available but their intended use was geared more toward traditional team sports and less toward individual exercise. The greenway, in contrast, is different from a traditional park in that it provides a long, continuous stretch of space to walk, run, or ride a bicycle. The closed loop aspect of a greenway ensures that the user will experience fewer obstacles like street traffic while on the greenway. Markeson mentions another

benefit of a long greenway is its greater accessibility to more residents than a traditional park (Markeson 2007, 1494-1495). A park is typically a few acres in a concentrated area, whereas a greenway can extend for miles with several access points for users to enter. This characteristic will bring more citizens to the greenway than a park.

Another social benefit derived from the use of greenways is education and historical heritage preservation. Fabos notes, "It is easy to see how historic heritage values are assigned to greenways. This is because most cultural features are near rivers and along shorelines, which have been for over thousands of years our major transportation routes" (Fabos 1995, 8). Therefore, most of the historical remains that possess heritage values will be found along the rivers and shorelines (Fabos 1995, 8-9). Again, greenways typically run the length of a waterway, especially rivers. Just as the environmental and economic impacts of these corridors have been documented, so too have the educational impacts. Shannon et al. note that the State University of New York has worked with the St. Lawrence-Eastern Ontario Commission to examine the unique visual and scenic resources of the region as the foundation for establishing a greenway tracing the St. Lawrence River (Shannon et al. 1995, 357).

Issues With Greenways

Although many recreational enthusiasts, along with local and state recreation agencies, generally feel that the development of greenways is a positive endeavor, some land owners living adjacent to these spaces have expressed concerns (Moore et al. 1994, 80-81). Property owners have voiced fears that these greenways will be problematic for them personally; causing, for instance, a loss of privacy, crime, and reduced property

values. According to Moore et al., some property owners "feel that ownership of the unused corridors adjacent to their properties should revert to them rather than being 'taken' for public use" (Moore et al. 1994, 80). Kaylen et al. have found similar concerns from landowners, stating that their apprehensions stemmed from a fear of increased congestion, litter, theft and vandalism (Kaylen et al. 1993, 281).

After thoroughly examining the current research at the time, Ivy and Moore published a rather extensive report on the literature toward this issue. When it comes to landowner attitudes toward the proposal of greenways, the authors state that the most common concerns expressed dealt with future property value, privacy, crime, landowner liability, trespassing and property damage (Ivy and Moore 2007, 43-44).

The 1993 study by Kaylen et al. looked specifically at the landowners' concerns about the potential consequences of having a greenway (in this case, a river trail) near or running through their property. Landowners were sent surveys asking to rate their concerns on several categories, including; privacy, noise, theft, vandalism, trespassing and liability. Furthermore, the surveys asked the landowners to give their feelings about the trail before and after it opened. Kaylen et al. then compared the results to see what changes, if any, the landowners had toward these issues. The results show a positive change for every category (Kaylen et al. 1993, 281).

Future Property Value

Of all the present literature concerning the attitudes of landowners toward proposed greenway space, the issue of future property value is the most cited. According to Nicholls and Crompton, opponents to greenways state that "property prices will

decline and the property tax base may be adversely affected" (Nicholls and Crompton 2005, 321). Crompton has noted that property owners sometimes feel that a greenway can cause property values to decline because they encourage a flow of non-local people to pass through neighborhoods (Crompton 2001, 115). The reasons given by these owners revolve around the notion that such activity will increase noise and congestion in an otherwise tranquil location (Crompton 2001, 115).

However, several studies have been conducted to test if these feelings by landowners are in fact justified. Nicholls and Crompton evaluated property values in an area just west of downtown Austin, Texas (Nicholls and Crompton 2005, 321). The area of focus was the Barton Creek Greenbelt and Wilderness Park. The study looked at three surrounding neighborhoods adjacent to the greenway. Two of the neighborhoods had several access points to the greenway and one did not have access but did have substantial views of the trail. The authors found that there was indeed a statistically significant rise in property value for homes located along the Barton Creek Greenway. In fact, the homes in focus were found to represent 20% of the average value of all the homes in the area (Nicholls and Crompton 2005, 335).

Privacy

Another reason often cited by landowners with concerns over the establishment of nearby greenways is privacy. As has been mentioned, the increased pedestrian traffic on a greenway tends to worry landowners for fear that the serenity that they worked hard to procure will be compromised. Benson notes that trust between landowners and recreationalists is key. Public and private sectors need to have trust if cooperation

between their respective interests is to be met (Benson 2001, 369-370). Property owners are also quite protective of their territory. This can lead to tremendous suspicion towards any suggestion by a government agency to make the adjacent land available for recreational use. The feeling is that although the adjacent property does not belong to the nearby landowner, the attitudes of those traversing close by will be that of entitlement (Gentle et al. 1999, 48-51).

According to the study by Kaylen et al., privacy was the top concern for landowners before and after the opening of the Missouri River Trail (Kaylen et al. 1993, 281). Perhaps this is due to the notion that privacy is an encapsulating concern for landowners. Fears of crime, trespassing and liability will be discussed below. However, in the minds of the landowner, privacy can take on all of these individual concerns. Therefore, it stands to reason that this issue would remain somewhat present on the minds of landowners before and after the opening of a greenway. It should be noted, however, that although Kaylen et al. find privacy the top concern before and after the opening of the trail, it did in fact show a positive change afterwards (Kaylen et al. 1993, 281).

Crime

Landowners have cited crime as one of the concerns they have for greenways near or adjacent to their property. Typically, this apprehension is described as a fear of theft by the users of the greenway. Generally, the nearby landowners of greenways have their homes and physical properties far away from the trails, but in some cases the distance is not great. In these cases, landowners fear a violation of their space is imminent, especially at night (Gobster 1995, 402-403). In addition to concerns for their own

property, landowners are also vocal about crimes toward trail users. They feel that the increased pedestrian traffic would lure criminals to the greenway in search of vulnerable targets like women, aging people, children and those with disabilities (Luymes and Tamminga 1995, 394-396).

Luymes and Tamminga (1995) offer suggestions for planning safer greenways through five key "safe community" principles rooted in the context of prospect and refuge theory. Those principles include: (1) visibility of others; (2) visibility by others; (3) choice and control; (4) environmental awareness and legibility; (5) solitude without isolation (Luymes and Tamminga 1995, 395-396). Signs, maps, lighting and self-policing are just a few of the ways that greenway developers can apply these principles for a safer user experience (Luymes and Tamminga 1995, 396-400).

Landowner Liability

Landowners often refer to concerns over the litigious nature of society when stating liability as a reason for not wanting to share space with a greenway (Wright et al. 2002, 184). As more and more landowners are seeing their property share space with public greenways, they are increasingly worried that the users of the greenway will hold them responsible for any injuries received. Liability is the one issue of landowners that holds more questions than it does answers. Landowners are often unaware of the legal rights bestowed upon them, as well as the rights of the greenway users (Miceli et al. 2001, 253). Brown summarizes some of the more frequently asked questions concerning property owner liability (Brown 1995). Questions over whether or not an owner can be sued by a greenway user, and what responsibilities the owner has to mitigate hazards are

the most common (Brown 1995). Other questions revolve around the effectiveness of posting signs, or the effect of nearby greenways on home owners insurance.

However, these questions tend to reflect more myth than reality. Wright et al. address several of these myths and offer more accurate information regarding the liability of landowners. The authors note that "common-law tort and property rules govern landowner duties and obligations to recreational users" (Wright et al. 2002, 184). Most importantly, the trespasser has very little protection under the law. As long as the landowner does not intentionally, willfully or wantonly cause injury to the trespasser, then they (the landowner) are protected legally (Wright et al. 2002, 185). It is not clear if the respondents in the Kaylen et al. study became aware of such laws after the Missouri River Trail opened, but their responses afterwards were positive (Kaylen et al. 1993, 281). This indicates that liability was less of a concern after the opening of the trail.

Trespassing

An often mentioned concern for landowners living along public greenways is that of trespassers. Property owners know that the established boundaries for recreational users are not always obeyed. Violators are not always malicious with their trespassing, landowners realize, due to poorly marked boundaries or simple confusion while traversing along a greenway. However, those property owners still do not want uninvited trail users meandering on their property. The study conducted by Kaylen et al. shows a positive change in attitude from landowners from the time a trail opened to the time it was in operation in regards to trespassing (Kaylen et al. 1993, 281).

Property Damage

Landowners have expressed concern for property damage in two different ways. One of these is careless, albeit accidental, damage to property. The other concern is over malicious vandalism or litter. The literature has stated that the causes of vandalism are often difficult to determine but there has been some insight into the problems that this destructive behavior causes for park managers (Samdahl and Christensen 1985, 446-448). Researchers have documented not only the impacts of vandalism on recreation areas but also the perceptions of park users and managers as to the motives of the offenders (Samdahl and Christensen, 1985). Samdahl and Christensen (1985) make mention of ecological psychology which is the naturalistic study of human behavior in an ecological setting. Citing Barker (1965, 1968, 1969), Wicker (1972, 1979) and Willems (1973, 1974, 1977), vandalism is often determined by releaser cues, or the condition of existing terrain or park equipment. If the environment is already in a state of dilapidation, or heavily marked by vandalism, then that environment is more likely to experience more of the same. The suggestion here is that diligent maintenance and cleanliness of a park setting is a good deterrent to vandalism.

Landowners also feel a concern for the effect of litter on nearby greenways. Budruck and Manning (2006) mention the impact that litter has on the image of a recreational setting and ultimately the funding that area receives. Landowners are concerned that neglect by the supporting agency of a greenway will spiral out of control and cause the area to become a haven for unwanted trash. However, the literature suggests that this concern is often unfounded and will change once a greenway has been established. One study shows a shift in the opinions of landowners regarding vandalism

and litter before and after the opening of the Missouri River Trail. In the researchers' assessment of the potential consequences of the trail, it was revealed that some of the landowners' concerns about the trails were decreased once the trail was opened (Kaylen et al. 1993, 281).

Conceptual Framework

Table 2.1 shows the conceptual framework for this study. A conceptual framework provides a connection between the formal hypotheses and the supporting literature. The literature has shown the development and importance of public greenways, as well as the concerns that nearby landowners possess for these public spaces. However, the literature also suggests these concerns are unfounded, or are at least exaggerated. Therefore, the purpose of this explanatory research is to assess the attitudes of landowners along the San Marcos River before and after the TPWD opened the Luling Paddle Trail.

Table 2.1: Conceptual Framework

Hypotheses	Supporting Literature
H1: Landowners' attitude toward **future property value** will show a positive change after the trail opened.	• Nicholls and Crompton, 2005 • Crompton, 2001 • Lindsey, Man, Payton and Dickson, 2004 • Kaylen, Bhullar, Vaught and Braschler, 1993 • Ivy and Moore, 2007
H2: Landowners' attitude toward **privacy** will show a positive change after the trail opened.	• Benson, 2001 • Gentle, Teasley, Bergstrom and Cordell, 1999 • Kaylen, Bhullar, Vaught and Braschler, 1993 • Ivy and Moore, 2007
H3: Landowners' attitude toward **crime** will show a positive change after the trail opened.	• Kaylen, Bhullar, Vaught and Braschler, 1993 • Ivy and Moore, 2007
H4: Landowners' attitude toward **landowner liability** will show a positive change after the trail opened.	• Kaylen, Bhullar, Vaught and Braschler, 1993 • Wright, Kaiser and Nicholls, 2002 • Ivy and Moore, 2007
H5: Landowners' attitude toward **trespassing** will show a positive change after the trail opened.	• Kaylen, Bhullar, Vaught and Braschler, 1993 • Ivy and Moore, 2007
H6: Landowners' attitude toward **property damage** will show a positive change after the trail opened.	• Kaylen, Bhullar, Vaught and Braschler, 1993 • Ivy and Moore, 2007 • Budruk and Manning, 2006 • Samdahl and Christensen, 1985

Chapter Summary

Public greenways are quickly becoming the outdoor recreation space of choice for many local and state governments. These spaces provide several benefits over traditional park settings because of their linear design. Walking, running, hiking, cycling and even paddling are the opportunities that await the recreationalist who chooses to utilize a public greenway. Beyond the obvious health benefits, greenways can provide an economic boost to a community as well as help to protect the delicate natural resources they encompass.

However, because of their length and popularity, greenways have been the cause of concern for many of the landowners living adjacent to these spaces. Landowners have expressed apprehension about the potential negative impacts that greenways have on property values, privacy, crime, liability, trespassing and property damage. The cited literature in this paper has addressed these issues as well as provided existing studies looking at the attitudes of landowners before and after the opening of a local greenway. These concerns have been shaped into formal hypotheses represented in a conceptual framework. These hypotheses will be tested by examining the attitudes of local landowners living along the Luling Paddle Trail on the San Marcos River.

Chapter 3

Methodology

Chapter Purpose

The purpose of this chapter is to present the methodology used to assess the attitudes of landowners living along the Luling Paddle Trail. Survey research was the method of choice. The surveys were mailed out to the landowners asking their opinions on issues presented in the conceptual framework. The survey is organized using the formal hypotheses from that framework and are as follows:

- H1: Landowners' attitude toward **future property value** will show a positive change after the trail opened.

- H2: Landowners' attitude toward **privacy** will show a positive change after the trail opened.

- H3: Landowners' attitude toward **crime** will show a positive change after the trail opened.

- H4: Landowners' attitude toward **landowner liability** will show a positive change after the trail opened.

- H5: Landowners' attitude toward **trespassing** will show a positive change after the trail opened.

- H6: Landowners' attitude toward **property damage** will show a positive change after the trail opened.

This operationalization is illustrated in table 3.1. Furthermore, this chapter will discuss the strengths and weaknesses of survey research, survey distribution, population and sampling, statistics, and human subject protection.

Table 3.1: Operationalization Table

Formal Hypotheses	Survey Questions
H1: Landowners' attitude toward **future property value** will show a positive change after the trail opened.	• Do you agree with the following statement (5 = strongly agree, 1 = strongly disagree) o Before the opening of the LPT, I felt my property value would be adversely affected by the trail. o After the opening of the LPT, I feel my property value is adversely affected by the trail.
H2: Landowners' attitude toward **privacy** will show a positive change after the trail opened.	• Do you agree with the following statement (5 = strongly agree, 1 = strongly disagree) o Before the opening of the LPT, I felt my privacy would be adversely affected by the trail. o After the opening of the LPT, I feel my privacy is adversely affected by the trail.
H3: Landowners' attitude toward **crime** will show a positive change after the trail opened.	• Do you agree with the following statement (5 = strongly agree, 1 = strongly disagree) o Before the opening of the LPT, I felt crime would increase because of the trail. o After the opening of the LPT, I feel crime is increased because of the trail.

Table 3.1: ***continued***

Formal Hypotheses	Survey Questions
H4: Landowners' attitude toward **landowner liability** will show a positive change after the trail opened.	• Do you agree with the following statement (5 = strongly agree, 1 = strongly disagree) o Before the opening of the LPT, I was concerned with liability because of the trail. o After the opening of the LPT, I am concerned with liability because of the trail.
H5: Landowners' attitude toward **trespassing** will show a positive change after the trail opened.	• Do you agree with the following statement (5 = strongly agree, 1 = strongly disagree) o Before the opening of the LPT, I felt trespassing would occur because of the trail. o After the opening of the LPT, I feel trespassing is occurring because of the trail.
H6: Landowners' attitude toward **property damage** will show a positive change after the trail opened.	• Do you agree with the following statement (5 = strongly agree, 1 = strongly disagree) o Before the opening of the LPT, I felt property damage would occur because of the trail. o After the opening of the LPT, I feel property damage is occurring because of the trail.

Strengths and Weaknesses of Survey Research

The type of research used in this study was survey research. Surveys were chosen because of their inherent strengths and abilities in measuring the expert attitudes and opinions of a subject (Shields 1998). Survey research is one of the best ways to gather the opinions of a group (Babbie 2004, 243). This flexible methodology allows the researcher to ask several questions on a topic while providing an adaptable means of analysis (Babbie 2004, 243). Moreover, survey research is an anonymous form of data collection that allows the respondent a more unguarded means of answering questions.

It should be noted, however, that there are weaknesses associated with survey research. Representation of the larger population is the goal for this type of methodology. When response rates are low or participation weak, the population may not be adequately represented (Babbie 2004, 244). It is also important to ensure that the questions presented on a survey are not too broad. This can cause the results to suffer because the specific intent of the question is lost on the respondent. Survey questions must also not be loaded. This is a common mistake in survey design and can easily skew the results. Furthermore, surveys are static and can not therefore take into account other points or questions raised by the respondent (Babbie 2004). However, this type of methodology is more than adequate for this study.

Survey Distribution

The distribution of surveys for this study was focused on any landowner whose property is adjacent to the Luling Paddle Trail. This trail is a six mile stretch of the San

Marcos River between U.S. Highway 90 and the historic Zedler Mill in Luling, TX. (See Appendix A for a map of the Luling Paddle Trail.) Since this portion of the San Marcos River is the division between Guadalupe County and Caldwell County, both appraisal districts were contacted. The addresses were received via email. The surveys were mailed to these addresses along with a self addressed stamped envelope for easy return. An example of this survey can be seen in Appendix B. The landowners were also sent reminder notices a few weeks later to help ensure a more complete set of data.

Population and Sampling

The population for this study includes all of the landowners who have property along the Luling Paddle Trail. There are a total of 23 privately owned parcels of land along the trail. The Luling Foundation Farm is the largest of these properties. The foundation worked closely with the Texas Parks and Wildlife in developing the trail. Therefore, the Luling Foundation Farm was not sent a survey considering its relationship with TPW and assumed understanding of the potential problems the trail could cause. As a result, on October 1, 2009, 22 surveys were mailed to the other private land owners. A reminder notice and copy of the survey were resent after two weeks to those who did not respond to the first survey. In all, nineteen surveys were received giving a strong representation (86%) to the population in question.

Statistics

The statistical method used in this study is the Wilcoxon Signed-Ranks Test. This test is a non-parametric equivalent of a paired t-test and was chosen due to the relatively

small sample size. The Wilcoxon test is designed to assess the difference between two treatments of a single sample (Gravetter and Wallnau 2004, 645). In this study, each landowner was asked to state his or her feelings concerning each of the categories forming the stated hypotheses, before and after the opening of the Luling Paddle Trail. The respondents were asked to rank their concerns. Questions on the survey are measured on a 5-point Likert scale where "1" represents "strongly disagree" and "5" represents "strongly agree".

The non-parametric Wilcoxon test compares the "before" and "after" scores of the respondents. The difference between the two scores determines the magnitude of change of opinion (Norusis 2000, 390). The test discards the ties and ranks the remaining differences from largest to smallest, regardless of sign. The null hypothesis for this test states that there is no systematic difference between the two scores, whereas the formal hypothesis states that there will in fact be a positive or negative difference (Gravetter and Wallnau 2004, 645). This research asserts that there will be a positive difference between the scores before and after the trail opened. This study hypothesizes that attitudes of landowners along the Luling Paddle Trail will positively change from their earlier concerns.

Human Subject Protection

The plan of this research project was submitted to the Institutional Review Board at Texas State University. The Board deemed the project to be exempt because of the assured anonymity of the respondents. The IRB exemption number assigned is

EXP2009I4239. The respondents were made aware of the anonymous nature of the project and that their participation was anonymous.

Chapter 4

Results

Chapter Purpose

The purpose of this chapter is to present the results from the survey mailed to land owners living along the Luling Paddle Trail. The survey, which can be seen in Appendix B, focused on the six hypotheses presented in this research. This data addresses the research purpose of assessing the attitudes of these land owners before and after the Texas Parks and Wildlife opened the Luling Paddle Trail.

Respondent Information

The addresses of the recipients were provided by both the offices of the Guadalupe County Appraisal District and the Caldwell County Appraisal District. The portion of the San Marcos River in question is a six-mile stretch that serves as the southern border for Caldwell County and the northern border for Guadalupe County. According to the Texas Parks and Wildlife, the put-in for this paddling trail is located just Southeast of where Highway 90 crosses the San Marcos River, approximately 5 miles west of Luling. The take-out is at the historic Zedler Mill off Laurel Avenue, which is located within the Luling City limits.

There are a total of 23 privately owned parcels of land along the trail. The Luling Foundation Farm is the largest property along the trail. The foundation worked closely with TPW in developing the trail. They were not sent a survey considering their relationship with TPW and assumed understanding of the potential problems the trail

could cause. Therefore, 22 surveys were mailed out on October 1, 2009. A reminder notice and copy of the survey were resent after two weeks to those failing to respond. In all, 19 surveys were received giving a strong representation (86%) to the population in question.

Future Property Value

As stated in the literature review, the concern of future property value is the most cited among property owners living adjacent to greenways. According to Nicholls and Crompton, opponents to greenways state that "property prices will decline and the property tax base may be adversely affected" (Nicholls and Crompton 2005, 321). Crompton has noted that property owners sometimes feel that a greenway can cause property values to decline because they encourage a flow of non-local people to pass through neighborhoods (Crompton 2001, 115). The reasons given by these owners revolve around the notion that such activity will increase noise and congestion in an otherwise tranquil location (Crompton 2001, 115).

The survey results however indicate that the landowners along the Luling Paddle Trail do not find the trail to be adversely affecting their property values. This is true for both before and after the opening of the trail. Only two of the respondents either strongly agreed or agreed that their property values would suffer before the trail opened. The same number of respondents either strongly agreed or agreed that their property values would suffer after the trail opened, as table 4.1 shows.

Table 4.1: Future Property Value

Survey Question	N	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1. **Before** the opening of the LPT, I felt my **property value** would be adversely affected by the trail.	19	4 (21%)	10 (52.6%)	3 (15.8%)	1 (5.3%)	1 (5.3%)
2. **After** the opening of the LPT, I feel my **property value** is adversely affected by the trail.	19	4 (21%)	11 (57.9%)	2 (10.5%)	2 (10.5%)	0

The Wilcoxon Signed Ranks Test show that seventeen of the nineteen respondents' scores were tied (i.e., no shift of opinion after the opening of the trail) and therefore discarded. The remaining two each showed a one point change toward less concern over any adverse affect of property value ($Z=-1.414$; $P>.05$; sum of positive ranks = 0; sum of negative ranks = 3). Although not statistically significant, this slight change moves in the direction of the hypothesis.

Privacy

According to the study by Kaylen et al., privacy was the top concern for landowners before and after the opening of the Missouri River Trail (Kaylen et al. 1993, 281). Perhaps this is due to the notion that privacy is an encapsulating concern for landowners. Five of the nineteen respondents either strongly agreed or agreed that privacy was a concern before the opening of the trail. The same number of respondents strongly agreed or agreed after the opening of the trail as well. Table 4.2 shows the results.

Table 4.2: Privacy

Survey Question	N	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
3. **Before** the opening of the LPT, I felt my **privacy** would be adversely affected by the trail.	19	4 (21%)	8 (42.1%)	2 (10.5%)	4 (21%)	1 (5.3%)
4. **After** the opening of the LPT, I feel my **privacy** is adversely affected by the trail.	19	4 (21%)	8 (42.1%)	2 (10.5%)	4 (21%)	1 (5.3%)

The Wilcoxon Signed Ranks Test show that all nineteen of the respondents' answers were the same before and after the opening of the trail and therefore discarded. Obviously no statistical test could be administered ($Z=0$; $P>.05$; sum of positive ranks = 0; sum of negative ranks = 0). This is an interesting result in that more than 25% of the respondents agreed that this issue is of concern to them both before and after the opening of the trail.

Crime

Landowners have cited crime as one of the concerns they have for greenways near or adjacent to their property. Typically, this apprehension is described as a fear of theft by the users of the greenway. Generally, the nearby landowners of greenways have their homes and physical properties far away from the trails, but in some cases the distance is not great. In these cases, landowners fear a violation of their space is eminent, especially at night (Gobster 1995, 402-403). The survey results indicate three respondents feel that crime would be an issue before the opening of the Luling Paddle Trail. There was no change in the number of respondents who felt that crime would be an issue after the trail opened. Table 4.3 shows the results.

Table 4.3: Crime

Survey Question	N	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
5. **Before** the opening of the LPT, I felt **crime** would increase because of the trail.	19	5 (26.3%)	10 (52.6%)	1 (5.3%)	2 (10.5%)	1 (5.3%)
6. **After** the opening of the LPT, I feel **crime** is increasing because of the trail.	19	4 (21%)	10 (52.6%)	2 (10.5%)	2 (10.5%)	1 (5.3%)

The Wilcoxon Signed Ranks Test show eighteen of the nineteen respondents' scores were tied (i.e., no shift of opinion after the opening of the trail) and therefore discarded. The remaining score showed a change toward *more* concern over the effect of crime ($Z=-1.0$; $P>.05$; sum of positive ranks = 1; sum of negative ranks = 0). Although not statistically significant, this slight change moves in the opposite direction of the hypothesis. This could be an isolated case of crime experienced by this one landowner.

Liability

Landowners often refer to concerns over the litigious nature of society when stating liability as a reason for not wanting to share space with a greenway (Wright et al. 2002, 184). As more and more landowners are seeing their property share space with public greenways, they are increasingly worried that the users of the greenway will hold them responsible for any injuries received. The results of this survey show only three of the nineteen respondents see liability as an issue before the opening of the Luling Paddle Trail. Interestingly, the number drops to just one after the trail opened. Table 4.4 shows the results for liability.

Table 4.4: Liability

Survey Question	N	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
7. **Before** the opening of the LPT, I was concerned with **liability** because of the trail.	19	3 (15.8%)	12 (63.2%)	1 (5.3%)	2 (10.5%)	1 (5.3%)
8. **After** the opening of the LPT, I am concerned with **liability** because of the trail.	19	4 (21%)	13 (68.4%)	1 (5.3%)	1 (5.3%)	0

The Wilcoxon Signed Ranks Test show fourteen of the nineteen respondents' scores were tied (i.e., no shift of opinion after the opening of the trail) and therefore discarded. The remaining five show a change toward less concern over any adverse affect of liability. This was the only issue where a statistically significant change occurred ($Z=-2.121$; $P<.05$; sum of positive ranks = 0; sum of negative ranks = 15). Four of those five non-tied scores moved one point toward a reduction in concern while one response showed a two point reduction in concern. This direction of change, as well as the statistical significance, uphold the hypothesis that landowners will feel less concern for liability after the opening of the trail than they did prior to its opening.

Trespassing

An often mentioned concern for landowners living along public greenways is that of trespassers. Property owners know that the established boundaries for recreational users are not always obeyed. Violators are not always malicious with their trespassing, landowners realize, due to poorly marked boundaries or simple confusion while traversing along a greenway. There were five respondents who either strongly agreed or agreed that trespassing was a concern for them before the Luling Paddle Trail opened.

The same number indicated that it was a concern after the trail opened. Table 4.5 shows the results.

Table 4.5: Trespassing

Survey Question	N	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
9. **Before** the opening of the LPT, I felt **trespassing** would be an issue because of the trail.	19	4 (21%)	8 (42.1%)	2 (10.5%)	4 (21%)	1 (5.3%)
10. **After** the opening of the LPT, I feel **trespassing** is an issue because of the trail.	19	4 (21%)	8 (42.1%)	2 (10.5%)	4 (21%)	1 (5.3%)

The Wilcoxon Signed Ranks Test show that all nineteen of the respondents' answers were the same before and after the opening of the trail and therefore discarded. Obviously no statistical test could be administered ($Z=0$; $P>.05$; sum of positive ranks = 0; sum of negative ranks = 0). This is an interesting result in that more than 25% of the respondents agreed that this issue is of concern to them both before and after the opening of the trail.

Property Damage

Landowners have expressed concern for property damage in two different ways. One of these is careless, albeit accidental, damage to property. The other concern is over malicious vandalism or litter (Samdahl and Christensen 1985, 446-448). Only two of the respondents strongly agreed or agreed that they felt their property was at risk for damage before the trail opened. The same number, two, felt this was an issue after the trail opened. Table 4.6 shows the results.

Table 4.6: Property Damage

Survey Question	N	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
11. **Before** the opening of the LPT, I felt **property damage** would occur because of the trail.	19	5 (26.3%)	11 (57.9%)	1 (5.3%)	2 (10.5%)	0
12. **After** the opening of the LPT, I feel **property damage** is occurring because of the trail.	19	5 (26.3%)	10 (52.6%)	2 (10.5%)	2 (10.5%)	0

The Wilcoxon Signed Ranks Test show eighteen of the nineteen respondents' scores were tied (i.e., no shift of opinion after the opening of the trail) and therefore discarded. The remaining score showed a change toward *more* concern over the effect of property damage ($Z=-1.0$; $P>.05$; sum of positive ranks = 1; sum of negative ranks = 0). Although not statistically significant, this slight change moves in the opposite direction of the hypothesis. This could be an isolated case of property damage experienced by this one landowner, much like what was seen in the category of crime.

Chapter Summary

This chapter looked at the results from the survey sent out to the landowners living along the Luling Paddle Trail. The landowners were asked about their attitudes toward several issues of concern that were raised in the literature. This study focused on six issues. They are: property value, privacy, crime, liability, trespassing and property damage. Overall, the landowners along the Luling Paddle Trail did not express strong concerns about these issues. Of the six issues examined in this study, only one showed a decrease in concern after the trail had opened compared to feelings before the trail opened. The topic of liability showed three respondents either strongly agreed or agreed

that this was an issue before the trial opened. After the opening of the Luling Paddle Trail, only one respondent expressed that they agree with this concern. The other categories saw no change in opinion after the trail opened when compared to feelings before the trail opened.

These findings indicate that landowners living along the trail do not see significant problems with the existence of a paddle trail. It is perhaps no surprise that trespassing and privacy saw a slight concern considering the nature of this type of trail.

Chapter 5

Conclusion

Chapter Purpose

This final chapter provides a summary of the findings from the surveys collected from landowners living along the Luling Paddle Trail. The landowners were asked to give their attitudes regarding six identified concerns that landowners have expressed as issues while living adjacent to public greenways. The six categories in focus for this research are property value, privacy, crime, liability, trespassing and property damage.

Summary of Research

The purpose of this research was to examine the change in attitudes of landowners living along the Luling Paddle Trail after the trail was opened. The paddle trail is just one of several types of public greenways that exist. This form of outdoor space is different than a traditional park in that greenways are longer, often more narrow, corridors that are conducive to walking, running, hiking and cycling. In some cases, these greenways run alongside a river or converted railroad line. Moreover, recreational greenways do not have to be on land. Several states and local communities have turned to creating paddle trails along scenic stretches of rivers in order to provide another opportunity for recreationalists to enjoy their natural surroundings. Next, the history and benefits of this type of outdoor recreational space was established in order to provide a basis for this research. If there is to be further designation of public land for this purpose, then it is essential to understand the benefits associated with it. The literature identifies

three key areas where greenways are beneficial to a community. One, they provide economic stimulus to the area they traverse. The benefits to the individual landowners include increased property value and increased home marketability. Another benefit of a greenway is environmental. As the current global trend toward urbanization continues to rise, and the density of city cores increases, the need to preserve green spaces becomes ever more important. Finally, greenways provide social benefits as well. The linear characteristic of greenways provides tremendous recreational opportunities that cannot be found in a traditional park setting. Furthermore, greenways can provide educational opportunities as well as historical heritage preservation.

Benefits aside, there are certainly some issues of concern with this type of public space. Property owners living near these spaces have voiced fears that greenways will be problematic for them personally; causing, for instance, a loss of privacy, crime, and reduced property values. One such study that looked to address the concerns of property owners living near a river trail was conducted by Michael Kaylen. His 1993 study looked specifically at the landowners' concerns about the potential consequences of having a greenway (in this case, a river trail) near or running through their property. Landowners were sent surveys asking to rate their concerns on several categories, including; privacy, noise, theft, vandalism, trespassing and liability. Furthermore, the surveys asked the landowners to give their feelings about the trail before and after it opened. Kaylen et al. then compared the results to see what concerns, if any, the landowners had toward these potential consequences.

Using Kaylen's research as a guide, this study developed a conceptual framework that identified six areas of concern for landowners living near the Luling Paddle Trail. A

survey was organized using the formal hypotheses from that framework and are as follows:

- H1: Landowners' attitude toward **future property value** will show a positive change after the trail opened.

- H2: Landowners' attitude toward **privacy** will show a positive change after the trail opened.

- H3: Landowners' attitude toward **crime** will show a positive change after the trail opened.

- H4: Landowners' attitude toward **landowner liability** will show a positive change after the trail opened.

- H5: Landowners' attitude toward **trespassing** will show a positive change after the trail opened.

- H6: Landowners' attitude toward **property damage** will show a positive change after the trail opened.

Just as Kaylen discovered, this research showed a slight concern from the respondents for these issues. Privacy and trespassing proved the most concerning, although just five of the nineteen either strongly agreed or agreed that such issues were present before and after the trail opened. Table 5.1 shows a summary of the survey results. Tables 5.2 and 5.3 show the results of the Wilcoxon Signed Ranks Test. No other category showed more than three respondents having strongly agreed or agreed. This is perhaps due to several factors. For one, the Texas Parks and Wildlife conducted public hearings well in advance of opening the Luling Paddle Trail. TPW was aware of the potential problems that such a trail might cause for the surrounding property owners

and gave an opportunity for those owners to express their concerns. Another possible reason for the landowner's slight show of concern for these issues could be in the proximity of the river to their actual houses. Since most of the homes are set back from the river itself, issues such as crime or property damage might not be an issue at all. Moreover, the swift current of the San Marcos River and the lack of much accessible bank might help to mitigate any temptation for these issues.

Table 5.1: Summary of Results

Survey Question	N	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1. **Before** the opening of the LPT, I felt my **property value** would be adversely affected by the trail.	19	4 (21%)	10 (52.6%)	3 (15.8%)	1 (5.3%)	1 (5.3%)
2. **After** the opening of the LPT, I feel my **property value** is adversely affected by the trail.	19	4 (21%)	11 (57.9%)	2 (10.5%)	2 (10.5%)	0
3. **Before** the opening of the LPT, I felt my **privacy** would be adversely affected by the trail.	19	4 (21%)	8 (42.1%)	2 (10.5%)	4 (21%)	1 (5.3%)
4. **After** the opening of the LPT, I feel my **privacy** is adversely affected by the trail.	19	4 (21%)	8 (42.1%)	2 (10.5%)	4 (21%)	1 (5.3%)
5. **Before** the opening of the LPT, I felt **crime** would increase because of the trail.	19	5 (26.3%)	10 (52.6%)	1 (5.3%)	2 (10.5%)	1 (5.3%)
6. **After** the opening of the LPT, I feel **crime** is increasing because of the trail.	19	4 (21%)	10 (52.6%)	2 (10.5%)	2 (10.5%)	1 (5.3%)

Table 5.1: ***continued***

Survey Question	N	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
7. **Before** the opening of the LPT, I was concerned with **liability** because of the trail.	19	3 (15.8%)	12 (63.2%)	1 (5.3%)	2 (10.5%)	1 (5.3%)
8. **After** the opening of the LPT, I am concerned with **liability** because of the trail.	19	4 (21%)	13 (68.4%)	1 (5.3%)	1 (5.3%)	0
9. **Before** the opening of the LPT, I felt **trespassing** would be an issue because of the trail.	19	4 (21%)	8 (42.1%)	2 (10.5%)	4 (21%)	1 (5.3%)
10. **After** the opening of the LPT, I feel **trespassing** is occurring because of the trail.	19	4 (21%)	8 (42.1%)	2 (10.5%)	4 (21%)	1 (5.3%)
11. **Before** the opening of the LPT, I felt **property damage** would occur because of the trail.	19	5 (26.3%)	11 (57.9%)	1 (5.3%)	2 (10.5%)	0
12. **After** the opening of the LPT, I feel **property damage** is occurring because of the trail.	19	5 (26.3%)	10 (52.6%)	2 (10.5%)	2 (10.5%)	0

Table 5.2: Wilcoxon Signed Ranks Test

		N	Mean Rank	Sum of Ranks
Property Value	Negative Ranks	2	1.50	3.00
	Positive Ranks	0	.00	.00
	Ties	17		
	Total	19		
Privacy	Negative Ranks	0	.00	.00
	Positive Ranks	0	.00	.00
	Ties	19		
	Total	19		
Crime	Negative Ranks	0	.00	.00
	Positive Ranks	1	1.00	1.00
	Ties	18		
	Total	19		
Liability	Negative Ranks	5	3.00	15.00
	Positive Ranks	0	.00	.00
	Ties	14		
	Total	19		
Trespassing	Negative Ranks	0	.00	.00
	Positive Ranks	0	.00	.00
	Ties	19		
	Total	19		
Property Damage	Negative Ranks	0	.00	.00
	Positive Ranks	1	1.00	1.00
	Ties	18		
	Total	19		

Table 5.3: Wilcoxon Signed Ranks Test Statistics

	Property Value	Privacy	Crime	Liability	Trespassing	Property Damage
Z	-1.414[a]	.000[b]	-1.000[c]	-2.121[a]	.000[b]	-1.000[c]
Asymp. Sig. (2-tailed)	.157	1.000	.317	.034	1.000	.317

a. Based on positive ranks.

b. The sum of negative ranks equals the sum of positive ranks.

c. Based on negative ranks.

Recommendations and Future Research

Although the results of this study did not show a significant concern on the part of the landowners living near the Luling Paddle Trail, it stands to reason that something can be learned from this study. As was mentioned, the issues of crime, property damage and decreased property value were of the least concern for these landowners. However, trespassing, privacy and liability did show some potential problems that future trail developers might want to pay attention to. For instance, although the results for both trespassing and privacy were not statistically significant, 25% of the respondents either agreed or strongly agreed that these were in fact concerns. Similarly, 21% of the respondents either agreed or strongly agreed that crime was a concern both before and after the trail opened. This number can not be overlooked by agencies looking ahead to future trail development.

Admittedly, this study was focused on one trail with few landowners nearby compared to other trails of this type. Further research on other river trails should be

conducted to better gauge the overall attitudes of these neighboring landowners. An aggregate study of all the current river trails in Texas would provide the Texas Parks and Wildlife a better feel of the attitudes of landowners living near these trails. The Texas Parks and Wildlife has plans to open more trails in other parts of the state and they may not find these nearby landowners to be as amenable.

Bibliography

Ahern, Jack. 1995. Greenways as a Planning Strategy. *Landscape and Urban Planning* 33:131-155.

Benson, Delwin E. 2001. Wildlife and Recreation Management on Private Lands in the United States. *Wildlife Society Bulletin* 29 (1): 359-371.

Bolitzer, B. and N. R. Netusil. 2000. The Impact of Open Spaces on Property Values in Portland, Oregon. *Journal of Environmental Management* 59:185-193.

Brooks, Heather Alisa. 2005. Landowners' Attitude Toward and Use of Adjacent Greenways that Contain Public Recreation Trails. Master of science degree thesis, State University of New York, College of Environmental Science and Forestry, Syracuse, New York. (April 2005).

Brown, Tommy L. 1995. Recreational Access and Owner Liability, Cornell Cooperative Extension (January 1995), 203.

Budruk, Megha and Robert Manning. 2006. Indicators and Standards of Quality at an Urban-Proximate Park: Litter and Graffiti at Boston Harbor Islands National Recreation Area. *Journal of Park and Recreation Administration,* 24 (3): 1-23.

Conine, Ashley, Wei-Ning Xiang, Jeff Young and David Whitley. 2004. Planning for Multi-purpose Greenways in Concord, North Carolina. *Landscape and Urban Planning*, 68: 271-287.

Crompton, John L. 2001. Perceptions of How the Presence of Greenway Trails Affects the Value of Proximate Properties. *Journal of Park and Recreation Administration* 19(3): 114-132.

Crompton, John L. 2001. The Impact of Parks on Property Values: A Review of the Empirical Evidence. *Journal of Leisure Research* 33 (1):1-31.

Darby, Stephen E. and Colin R. Thorne. 2000. A River Runs Through It: Morphological and Landowner Sensitivities Along the Upper Missouri River, Montana, USA. *Transactions of the Institute of British Geographers* 25 (1): 91-107.

Doehrman, Tessa Sue. 2007. Factors Influencing States' Success in Reaching Healthy People 2000. *Applied Research Projects*. Paper 249. http://ecommons.txstate.edu/arp/281.

Fabos, J. G. 2004. Greenway Planning in the United States: Its Origins and Recent Case Studies. *Landscape and Urban Planning* 68: 321-342.

Fabos, J. G. 1995. Introduction and Overview: The Greenway Movement, Uses and Potentials Greenways. *Landscape and Urban Planning* 33: 1-13.

Flores, Alejandro, Steward T. A. Pickett, Wayne C. Zipperer, Richard V. Pouyat and Robert Pirani. 1998. Adopting a Modern Ecological View of the Metropolitan Landscape: the Case of a Greenspace System for the New York City Region. *Landscape and Urban Planning* 39: 295-308.

Gentle, Paul, R. Jeff Teasley, John C. Bergstrom, H. Ken Cordell, Stanley J. Zarnoch. 1999. Private Landowner Attitudes Concerning Public Access for Outdoor Recreation: Cultural and Political Factors in the United States. *Journal of Hospitality and Leisure Marketing* 6 (1): 47-66.

Gobster, Paul H. 1995. "Perception and Use of a Metropolitan Greenway System for Recreation. *Landscape and Urban Planning* 33: 401-413.

Gravetter, Frederick J. and Larry B. Wallnau. 2004. *Statistics for the Behavioral Sciences.* Belmont, CA. Wadsworth/Thomson Learning.

Ivy, Mark I. and Roger L. Moore. 2007. Neighboring Landowner Attitudes Regarding a Proposed Greenway Trail: Assessing Differences Between Adjacent and Nearby Residents. *Journal of Park and Recreation Administration* 25 (2): 42-63.

Kaylen, Michael S., Hardeep Bhullar, David Vaught and Curtis Braschler. 1993. Rural Landowner's Attitudes Towards the Missouri River State Trail. *Journal of Leisure Research* 25 (3): 281.

Lee, Robert D. 1995. Recreational Use Statutes and Private Property in the 1990s. *Journal of Park and Recreation Administration* 13 (3): 71-83.

Lindsey, Greg. 1999. Use of Urban Greenways: Insights from Indianapolis. *Landscape and Urban Planning* 45: 145-157.

Lindsey, Greg, Joyce Man, Seth Payton and Kelly Dickson. 2004. Property Values, Recreation Values, and Urban Greenways. *Journal of Park and Recreation Administration* 22 (3): 69-90.

Little, Charles. 1990. *Greenways for America*. Baltimore: John Hopkins University Press.

Luymes, Don T. and Ken Tamminga. 1995. Integrating Public Safety and Use Into Planning Urban Greenways. *Landscape and Urban Planning* 33: 391-400.

Markeson, Gabrielle. 2007. A Tale of Two Greenways: A Comparative Study of Greenway Projects. *Fordham Urban Law Journal* 34: 5.

Marlin, Justin William. 2008. Bicycle Transportation Issues: Describing the Attitudes and Opinions of Cyclists in Austin, TX. *Applied Research Projects*. Paper 283. http://ecommons.txstate.edu/arp/281.

Miceli, Thomas J., Kathleen Segerson and Guanghui Li. 2001. When Should Providers of Recreational Land be Immune from Liability? *Journal of Real Estate Finance and Economics*, 22 (2/3): 253-272.

Moore, Roger L., Alan R. Graefe and Richard J. Gitelson. 1994. Living Near Greenways: Neighboring Landowners' Experiences With and Attitudes Toward Rail-trails. *Journal of Park and Recreation Administration* 12 (1): 79-93.

Moore, Roger L., Alan R. Graefe, Richard J. Gitelson and Elizabeth Porter. 1992. The Impacts of Rail-trails: A Study of the Users and Property Owners from Three Trails. *A report by the Rivers, Trails, and Conservation Assistance Program. National Park Service.* Washington, D.C. (February 1992).

Moufakkir-van der Woud, Christine A. Vogt, Joel Lynch and Charles Nelson. 2002. Converting Abandoned Railroads to Recreation Use in Isabella and Midland Counties: a Comparison of Residents and Business Adjacent to a Rail-trail. Proceedings of the 2002 Northeastern Recreation Research Symposium.

Nicholls, Sarah and John L. Crompton. 2005. The Impact of Greenways on Property Values: Evidence from Austin, Texas. *Journal of Leisure Research* 37 (3): 321-341.

Norusis, Marija J. 2000. *SPSS 13.0 Guide to Data Analysis.* Upper Saddle River, New Jersey. Prentice Hall.

President's Commission on Amreicans Outdoors. 1987. *Americans Outdoors: The Legacy, the Challenge*. Washington, D.C.: Island Press.

Rice, Colin C. 2008. Factors Contributing to Frequency of Municipal Annexation among Medium-sized Southern U.S. cities. *Applied Research Projects*. Paper 281. http://ecommons.txstate.edu/arp/281.

Samdahl, Diane and Harriet H. Christensen. 1985. Environmental Cues and Vandalism: An Exploratory Study of Picnic Table Carving. *Environment and Behavior* 17: 445-458.

Searns, Robert M. 1995. The Evolution of Greenways as an Adaptive Urban Landscape Form. *Landscape and Urban Planning* 33: 65-80.

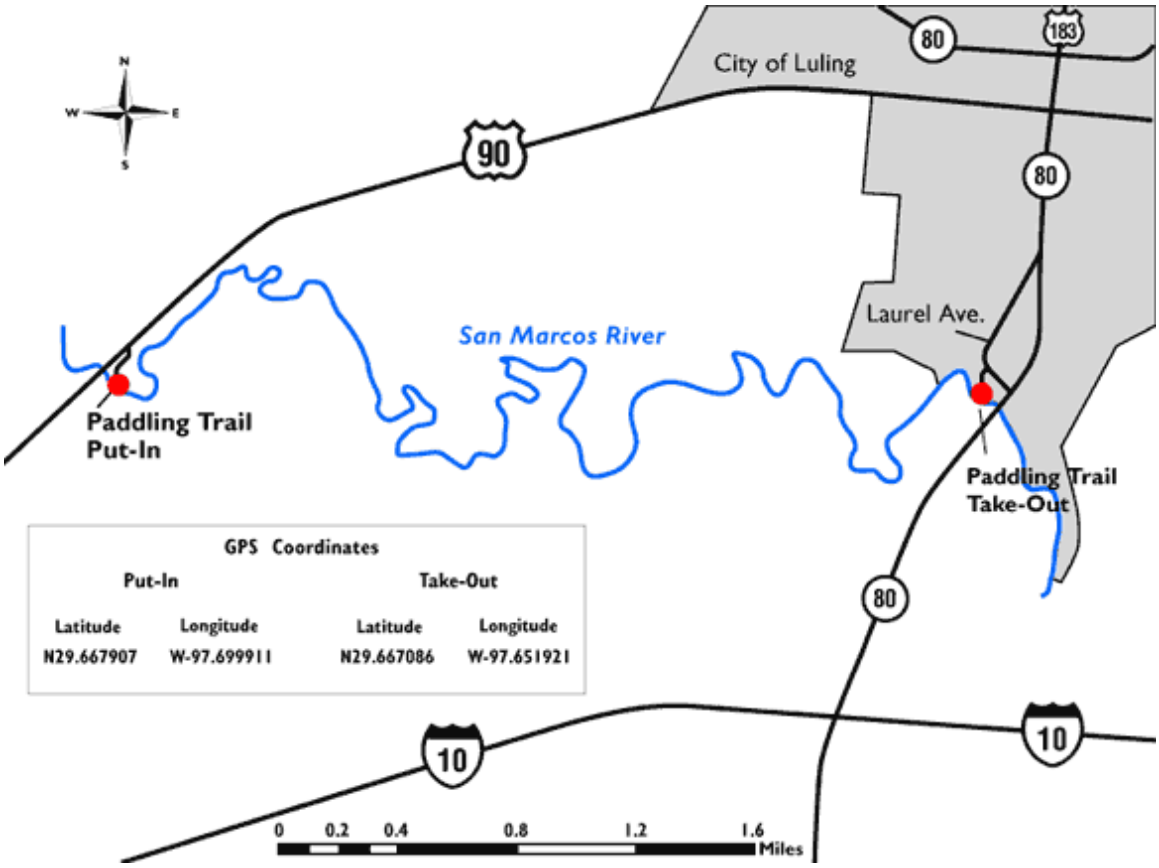
Shafer, C. Scott, Bong Koo Lee and Shawn Turner. 2000. A Tale of Three Greenway Trails: User Perceptions Related to Quality of Life. *Landscape and Urban Planning* 49: 163-178.

Shannon, Scott, Richard Smarden and Melinda Knutson. 1995. Using Visual Assessment as a Foundation for Greenway Planning in the St. Lawrence River Valley. *Landscape and Urban Planning* 33: 357-371.

Wright, B. A., R. A. Kaiser and S. Nicholls. 2002. Rural Landowner Liability for Recreational Injuries: Myths, Perceptions, and Realities. *Journal of Soil and Water Conservation* 57 (3): 183-191.

Appendix A

Luling Paddle Trail Map



Appendix B

Survey

Attitudes of Landowners Along the Luling Paddle Trail (before and after the trail opened)

The purpose of this survey is to assess the attitudes of those owning land adjacent to the Luling Paddle Trail. The trail opened on March 29, 2006. This survey will ask for opinions on specific issues before and after the trail opened. This survey should take just a few minutes to complete and the results will remain confidential. Participation is voluntary. Thank you for your time.

1. Before the opening of the LPT, I felt my property value would be adversely affected by the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

2. After the opening of the LPT, I feel my property value is adversely affected by the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

3. Before the opening of the LPT, I felt my privacy would be adversely affected by the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

4. After the opening of the LPT, I feel my privacy is adversely affected by the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

5. Before the opening of the LPT, I felt crime would increase because of the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

6. After the opening of the LPT, I feel crime is increasing because of the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

7. Before the opening of the LPT, I was concerned with liability because of the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

8. After the opening of the LPT, I am concerned with liability because of the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

9. Before the opening of the LPT, I felt trespassing would be an issue because of the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

10. After the opening of the LPT, I feel trespassing is occurring because of the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

11. Before the opening of the LPT, I felt property damage would occur because of the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree

12. After the opening of the LPT, I feel property damage is occurring because of the trail.

○ Strongly Disagree ○ Disagree ○ Unsure ○ Agree ○ Strongly Agree