

# PARKLAND AND OPEN SPACE IN THE TEXAS HILL COUNTRY



**June 2001**

This report was prepared for the Hill Country Roundtable by the Texas Center for Policy Studies



**TEXAS CENTER  
FOR POLICY STUDIES**

44 East Avenue, Suite 306 \* Austin, Texas 78701  
512.474.0811 phone \* 512.474.7846 fax  
tcps@texascenter.org \* www.texascenter.org

## TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>3</b>
<b>THE TEXAS HILL COUNTRY</b>	<b>5</b>
<b>THE NEEDS FOR PARKLAND AND OPEN SPACE</b>	<b>7</b>
<b>THE BENEFITS OF PARKLAND AND OPEN SPACE</b>	<b>8</b>
<b>SOURCES OF PARKLAND AND OPEN SPACE</b>	<b>10</b>
<b>PROTECTING PARKLAND AND OPEN SPACE</b>	<b>13</b>
<b>RECOMMENDATIONS</b>	<b>19</b>
<b>REFERENCES</b>	<b>21</b>

---

### *Credits and Acknowledgements*

This report was prepared for the Hill Country Roundtable by the Texas Center for Policy Studies. The Texas Center for Policy Studies is grateful for the support of the Brown Foundation and the Shield-Ayres Foundation, which made research and preparation of this report possible. The views expressed herein, however, are solely those of the report's authors.

The most striking and perhaps most easily understood aspect of sustainable land use policy ... is the recognition that land is a finite resource. Will Rogers said it best: “They ain’t making any more of it.”

**Robert Pirani, Building Sustainable Communities Through Open Space Conservation**

Whether it is used for ranchland, wildlife habitat or recreation, open space is an important part of the quality of life and natural heritage of the Texas Hill Country. Early settlers were drawn to the region because of the abundance of wildlife, clear streams, and open land. They found hills and river-carved valleys that inspired hopes of growing crops, grazing cattle, and raising sheep. Today, residents take similar pride in the Hill Country’s open spaces. They cherish open space for its beauty, for its possibilities for outdoor recreation (such as birding, fishing, camping, hunting, and horseback riding), and for its role in replenishing and protecting the region’s groundwater supply. But the same qualities that make the Hill Country an attractive place to live - clear streams, open land, and a rural lifestyle - are also drawing new development to the area. As more people move out to the Hill Country, traditional sources of open space are rapidly disappearing. Preserving open space and outdoor recreational spaces has thus become an important factor in maintaining the high quality of life, economic vitality and rural character associated with the Hill Country.

The Texas Center for Policy Studies and the Hill Country Roundtable Steering Committee recognize the challenges and opportunities facing Central Texas and the Hill Country. Population growth and a strong economy have generated thousands of new jobs throughout the region. Most of the growth is occurring in ar-

---

**Open space plays a vital role in preserving the high quality of life and rural character of the Texas Hill Country.**

---

---

“In the future, the initiative and responsibility for conserving our natural resources and for providing outdoor recreation opportunities will be ever more shared by a broad base of stake holders, including owners and managers of private land, local governments, nongovernmental organizations, and outdoor users as well as state and federal agencies.”

(Governor’s Task Force 2000)

---

areas surrounding Austin and San Antonio. New jobs have strengthened and diversified the region’s economy. However, new subdivisions and other developments have put a strain on rangeland, wildlife habitat, and open space. Population growth is also overwhelming the amount of local parkland and outdoor recreational resources available in the Hill Country. For example, Hays County - with one of the fastest growing populations in the region - maintains and operates only 15 acres of parkland in the unincorporated area as of May, 2001. Comal County residents are struggling to find outdoor facilities for their children’s soccer teams. As a result, the tensions between land development and open space and parkland preservation have increased dramatically in recent years.

Many groups are now working to preserve parkland and open space in the Hill Country. These groups include the Texas Parks and Wildlife Department, the Austin-San Antonio Corridor Council, the Lower Colorado River Authority, the Trust for Public Land, the Nature Conservancy, several regional land trusts, local and county governments, and volunteer groups. Through a combination of conservation easements, land acquisitions, and partnerships with local communities and landowners, they are seeking to preserve open space, provide outdoor recreation opportunities and protect the rural heritage of the Hill Country.

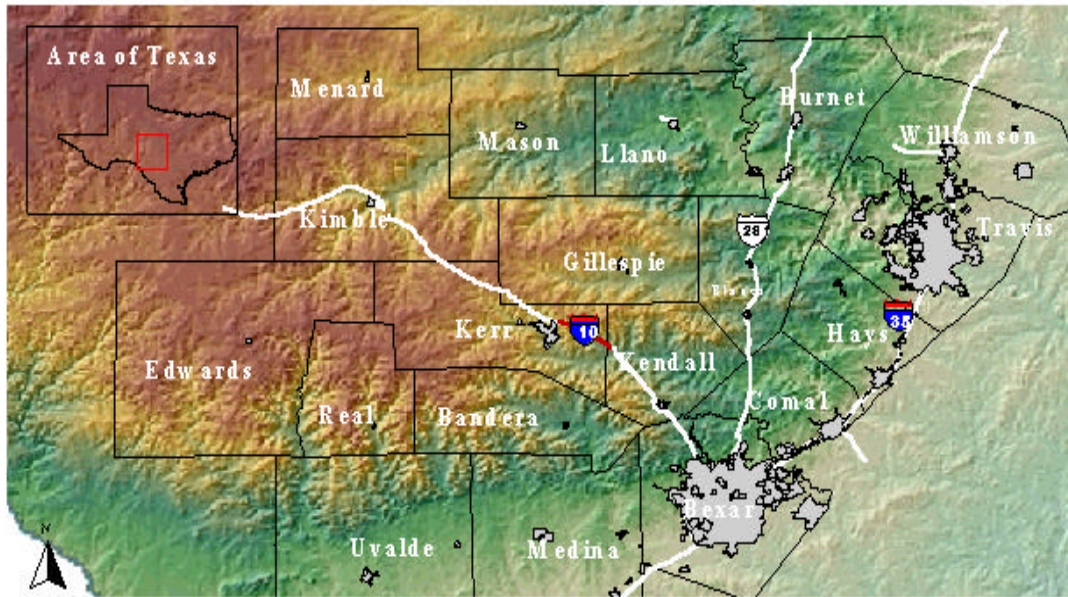
This report highlights some of the issues and facts concerning parkland and open space in the Hill Country, with the goal of framing the current discussion of these issues in a constructive manner. For the purposes of the report, we will consider family-owned farms and ranches, urban land, and parks - whether they are publicly or privately owned - to be open space. The Texas Center for Policy Studies and the Hill Country Roundtable Steering Committee believe open space preservation and parkland development are important elements in creating sustainable communities. Parkland and outdoor recreation facilities such as trails, bike paths, swimming pools help preserve the beauty and character of the Hill Country. Publicly and privately owned open space also helps preserve landscapes and wildlife habitat.

**TABLE 1: GEOGRAPHY OF THE TEXAS HILL COUNTRY**

Counties	=	18
Elevation	=	800 feet to 2,436 feet
Land Area	=	11,577,799 acres

Source: Dallas Morning News 1999.

**FIGURE 1: LAND ELEVATION OF THE TEXAS HILL COUNTRY**

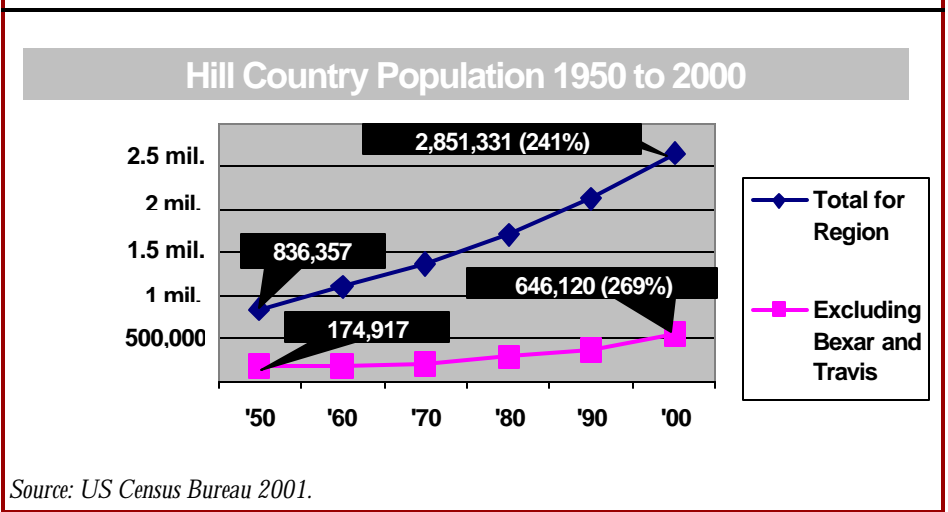


Source: Texas Natural Resource Information Service.

## THE TEXAS HILL COUNTRY

The Hill Country occupies nearly 12 million acres or 1,800 square miles of Central Texas at the edge of urban and suburban development. Eighteen counties form the heart of the Hill Country (see Table 1 and Figure 1). The majority of counties lie over the Edwards Plateau — a limestone outcrop that is actually the southernmost extension of Texas’ Great Plains. The Plateau is marked by a line of southward- and eastward-facing hills which descend steadily through the Hill Country. Starting at elevations over 2,400 feet in parts of Edwards, Kerr and Menard Counties, the Edwards Plateau drops down to 800 feet or less at its eastern borders, which end abruptly at a geologic fault known as the Balcones Escarpment (Mace et al. 2000).

**FIGURE 2: POPULATION OF THE TEXAS HILL COUNTRY**



On the outskirts of the Edwards Plateau lie two of the six major metropolitan areas in Texas — Austin and San Antonio. The population of these cities and their surrounding areas has skyrocketed in recent decades. Since the 1950s, the region’s population has grown by 241 percent, from 836,357 residents in 1950 to 2,851,331 residents in 2000 (See Figure 2).<sup>1</sup> Much of this population growth has occurred in the counties surrounding Austin and San Antonio. However, more rural counties, such as Kerr and Gillespie, have also grown rapidly.

The Hill Country is also home to a growing population of retirees. On average, rural Texas counties have a larger percentage of retirees than urban counties (Texas Comptroller 2001). In the Hill Country, Burnet, Blanco, Bandera, Gillespie, Kendall, Kerr, Llano and Real Counties are considered “Retirement Haven” counties because their population older than 60 years increased by more than 15 percent between 1980 and 1990 (Ibid). Retirees often look to reduced traffic, air pollution and crime; more parkland, recreational facilities and open space; and a lower cost of living when choosing to move to rural counties.

Population expansion in the region, however, has begun to threaten groundwater supply and continued growth could soon outstrip available groundwater resources. Two major aquifers, the Edwards and the Trinity, underlie the region. These aquifers are the primary sources of water for most of the counties in the Hill Country. Several smaller aquifers such as the Hickory, the Ellenburger-San

<sup>1</sup> Texas’ overall population has grown by 170 percent since the 1950s; from 7,711,194 in 1950 to 20,851,820 in 2000 (US Census Bureau 2000).

Saba, the Hensell and the Marble Falls also provide groundwater to municipalities, industries and landowners in the Hill Country. In fact, groundwater accounts for 69 percent of the total gross water use for 11 counties that lie over the Trinity Aquifer. Unprecedented demand for water and a draught caused several wells in the region to drop to historic lows in 2000 (Holley 2000). Rains have replenished Trinity Aquifer, but the recent draught illustrates the need to preserve existing open space and to protect the region's groundwater supply from pollution and overuse.

## THE NEEDS FOR PARKLAND AND OPEN SPACE

Protecting parkland and open space will be essential if Central Texans are to continue to enjoy the high quality of life they have today. As the region grows, there will be an even greater need for access to public parks, soccer facilities, softball fields and nature centers. Privately owned facilities provide some of the region's recreational resources. However, especially as the population grows, local communities will have to plan, design, and finance new parks and recreation facilities, while maintaining existing facilities. The region will also need open space to protect aquifer recharge, preserve wildlife habitat, and conserve environmentally sensitive land.

Studies show that as communities grow, there is a greater need for access to state and local parks. For instance, the National Recreation and Park Association recommends that communities provide between 21 to 30 acres of local parks per 1,000 people. The current state average is about 13.9 acres per 1,000 people. The average in the Hill Country is about 12.4 acres per 1,000 people, including parks managed by municipal and county authorities (See Table 2).

In addition to local parks, the National Association of State Park Directors recommends that state park systems maintain an average of 45 acres per 1,000 peo-

---

**Wildlife habitat can offer opportunities for outdoor education, as well as recreation.**

---



**TABLE 2 AMOUNT OF PARKS AND RECREATIONAL AREAS PER 1,000 PEOPLE\***

<b>CATAGORY</b>	<b>HILL COUNTRY (18 Counties)</b>	<b>TEXAS (254 Counties)</b>
Federal Lands	4.9 acres	137.9 acres
State Lands	20.7 acres	49.5 acres
Local Parks**	12.4 acres	13.9 acres
Total	48.0 acres	200.9 acres

\*See Table 6 for estimates of total parkland in Texas and the Hill Country.

\*\*Does not include privately owned lands.

Source: US Census Bureau 2001; and TPWD 1997.

ple. Texas currently has 49.5 acres of state parkland per 1,000 people (Texas Tech 2000).<sup>2</sup> The Hill Country has about 20.7 acres of state parkland per 1,000 persons. While national estimates of parkland per population are meant to be broad guidelines, not strict standards for local communities, they emphasize the need for communities to develop park facilities and preserve open spaces to match the pace of local population and economic growth.

Texas residents recognize the need for greater access to parks and open space. Opinion surveys reveal that 70 percent of Texans feel it is “important that natural areas exist in Texas for enjoying and experiencing nature” (Texas Tech 2000). Texas residents also support a variety of mechanisms to fund new acquisition of open space including the use of unclaimed motorboat fuel tax refunds, charging developers a fee to compensate for their negative impact on the environment, and devoting a larger portion of the revenue generated from the sales tax on sporting goods to the Texas Parks and Wildlife Department (Ibid).

**THE BENEFITS OF PARKLAND AND OPEN SPACE**

Open space, especially natural open space, provides a number of benefits to local communities. Parkland and open space encourage tourist spending, raise land values, decrease tax burdens, support wildlife habitat, prevent groundwater pollution, and ensure the long-term viability of agriculture. With its many forms and uses, open space will continue to play a vital role in sustaining the social, economic and ecological well being of the Hill Country.

<sup>2</sup>. The national average of all states (excluding Alaska) is 45.25 acres of state parkland per 1,000 population (Texas Tech 2000).



**TABLE 3 ECONOMIC BENEFITS OF STATE PARKS IN THE HILL COUNTRY**

<b>STATE PARK</b>	<b>INCOME TO RESIDENTS FROM VISITOR SPENDING</b>	<b>JOBS CREATED BY VISITOR SPENDING</b>
LBJ State Historic Park	\$11.3 million	968 jobs
Enchanted Rock	\$3.5 million	289 jobs
Garner	\$1.6 million	143 jobs
Total	\$16.4 million	1,400 jobs

*Source: Texas A & M 1998.*

The economic benefits of parkland and open space are well documented. For instance, spending on tourism in the Hill Country - excluding Travis and Bexar counties - topped \$ 712 million dollars in 1999 (TDED 2000). Visitors to state parks including LBJ Park, Garner State Park and Enchanted Rock spend over \$30 million each year, creating 1,400 jobs and resulting in \$ 16.4 million worth of income for local residents (See Table 3).

Dr. John L. Crompton of Texas A&M University, and others, contend that parks drive tourism. The large, unique, and attractive sites that parks encompass serve as strong attractions to visitors (Crompton 2000). Dr. Crompton has used this relationship to argue that parks are an investment, not a cost, for local communities, because they generate more in sales and property taxes than it costs to acquire and manage them. In some cases, parks and open space can raise the property value of nearby land by 5 to 20 percent. In Fort Worth, for example, a study of three local parks found that the average property values of nearby homes increased by 5 percent within 500 feet of park limits (Ibid). The increases in property values around a park can often be sufficient to pay for a park’s acquisition, development and maintenance.

Parks and open space also provide a net gain to local governments, schools and public service districts. According to a recent study of tax revenues in Hays County, conducted by the American Farmland Trust, agricultural lands and open space require only \$ 0.33 in services for every dollar they generate in revenue (American Farmland Trust 2000). Commercial lands need only \$ 0.30 for every dollar generated in taxes. However, residential lands require more in services

---

**The economic benefits of parkland and open space are well documented.**

---

than they generate in taxes — needing \$ 1.26 in services for every dollar paid in taxes (even though they contribute significantly to property tax collections). Compared to residential lands, agricultural land and open space are wise investments.

Open space provides many social and ecological benefits as well. For example, open space provides public access to natural areas including lakes, rivers, streams and meadows. It also provides opportunities for outdoor recreation such as hunting, fishing, hiking, boating, bird watching, or camping. These activities help people stay healthy, entertain the kids, and bring family and friends together.

Open space also provides flood control. Without open space, rainwater runs off impervious cover from buildings, parking lots, roads and ditches into creeks and gullies, which feed into the Llano, Blanco, Guadalupe or Pedernales Rivers. By holding water, slowing it down and storing it, open space allows water to sink into the numerous cracks, crevices, sinkholes and other natural features of the Hill Country, replenishing the region's aquifers. Rainfall over these areas eventually drains into creeks that seep directly into the Trinity and Edwards Aquifers, as well as other minor aquifers in the region.

---

**Agriculture accounts for over 90 percent of all land use in the Hill Country region.**

---

## **SOURCES OF PARKLAND AND OPEN SPACE**

Determining the amount of open space in the Hill Country is a difficult task. Most definitions of open space consider undeveloped land and water resources, whether they are privately or publicly owned, to be sources of open space (Texas Parks and Wildlife Department 1990). In the Hill Country, family-run farms and ranches constitute a majority of landholdings. In fact, agriculture accounts for over 90 percent of all land use in the region — rangeland accounts for 77 percent and cropland accounts for 13 percent of total land use (See Table 4). Agriculture is followed by a series of secondary land uses including urban land (7 percent), transportation land and water (lakes). For the purposes of this

**TABLE 4. EXISTING LAND USE BY COUNTY IN THE HILL COUNTRY**

COUNTY	LAND USE CLASSIFICATION (in thousand of acres)*						TOTAL ***
	AGRICUL- TURE	RANGE- LAND	URBAN**	TRANSPOR- TATION	MINOR LAND USE	WATER	
Bandera	17.4	459.6	23.0	3.9	2.0	4.6	510.5
Bexar	222.2	232.1	261.5	15.0	12.5	11.9	755.2
Blanco	16.3	428.2	3.5	3.5	2.5	2.5	456.5
Burnet	43.3	553.6	26.4	5.7	4.9	17.5	651.4
Comal	37.9	266.4	39.1	3.9	5.4	11.1	363.8
Edwards	—	1,346.1	1.9	7.2	0.5	1.2	1,356.9
Gillespie	89.0	550.8	27.4	5.1	4.7	1.9	678.9
Hays	90.0	286.5	43.6	3.8	7.7	3.5	435.1
Kerr	29.8	595.2	52.1	5.0	24.9	2.0	709.0
Kimble	12.7	777.8	—	4.8	3.0	2.4	800.7
Llano	18.2	533.5	22.7	4.0	18.9	21.1	618.4
Mason	43.1	535.0	3.7	2.8	10.6	1.4	596.7
Medina	204.9	601.5	19.9	12.4	6.8	8.6	854.1
Menard	37.1	536.1	—	1.9	1.4	1.0	577.5
Real	2.3	438.3	2.9	3.4	0.2	1.0	448.1
Travis	123.7	254.4	228.2	6.2	3.8	25.6	650.9
Uvalde	159.7	796.1	9.5	7.4	14.6	4.9	997.5
Williamson	383.2	215.7	64.1	17.5	21.5	12.0	714.0
TOTAL	1,530.8	9,406.9	829.5	113.5	145.9	134.2	12,175.2
Percentage	12.6%	77.3%	6.8%	1.0%	1.2%	1.1%	

\* Federal land area excluded

\*\*\* Area rounded may not match other estimates

\*\* Local parks, trails, floodways, and right-of-way easements included.

Source: U.S. Department of Agriculture 1997.

study, we will consider family-owned farms and ranches, parks and parts of urban land to be sources of open space.

Agricultural production is a major economic activity in the Hill Country. More than two-thirds of the counties in the region rely on agriculture as their primary economic base (Peña 1999). In 2000, agriculture generated more than \$494 million in farm and ranch cash receipts. Outdoor recreation on agricultural land is also a significant economic activity. Farm and ranchland in the Hill Country support numerous species of plants and animals including white-tailed deer, the Black-capped vireo, the Golden-cheeked warbler, the Llano pocket gopher, and the Mexican free-tailed bat (See Table 5). Hunting, fishing and other forms of

**TABLE 5. VEGETATION AND WILDLIFE OF THE HILL COUNTRY**

<b>COMMON VEGETATION</b>	<b>COMMON WILDLIFE</b>
Switchgrass	White-tailed deer
Bluestem grass	Rio Grande turkey
Grama grass	Raccoon
Indian grass	Javelina
Curly mesquite	Brazilian freetail bat
Juniper	Northern mockingbird
Mesquite	Guadalupe Bass
<b>RARE PLANTS AND HABITAT</b>	<b>RARE ANIMALS</b>
<u>Texas Snowbells</u>	<u>Black-capped vireo</u>
<u>Texas wild-rice</u>	<u>Golden-cheeked warbler</u>
<u>Tobusch fishhook cactus</u>	<u>Edwards Aquifer Species</u>
<u>Rock quillwort</u>	<u>San Marcos salamander,</u>
	<u>Texas Blind salamander</u>
<u>Basin bellflower</u>	<u>San Marcos gambusia (fish),</u>
	<u>Fountain darter (fish)</u>

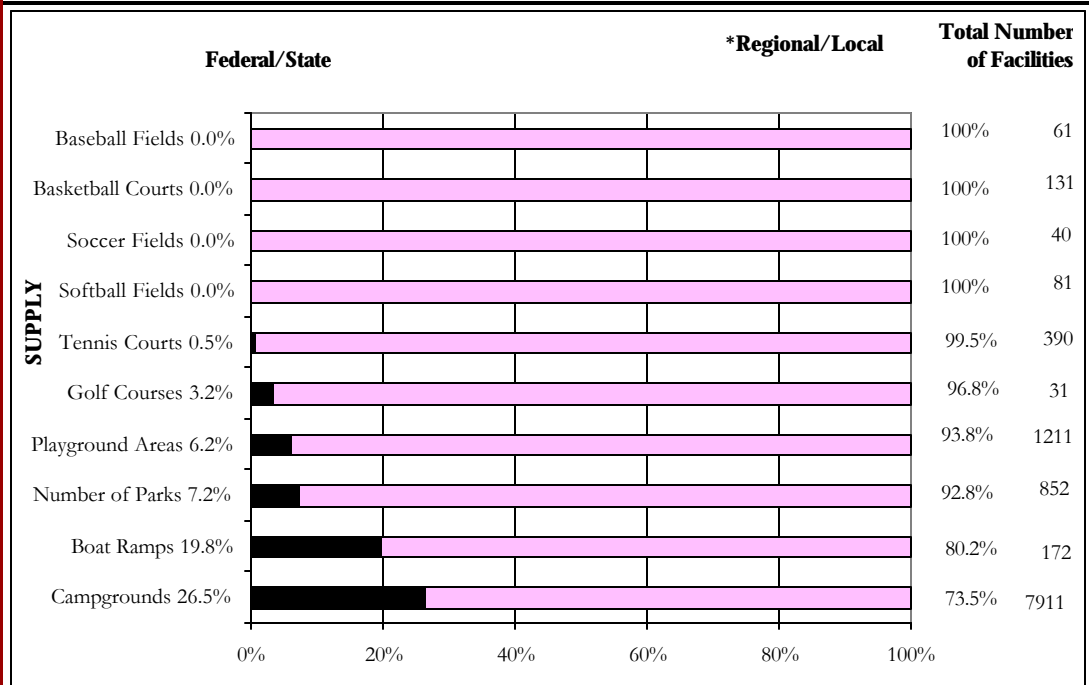
*Source: Davis and Schmidly 1994.*

outdoor recreation on agricultural land in the Hill Country generated more than \$97 million in 2000 and is expected to top \$100 million in 2001 (Texas A&M 2001).

Urban land is another possible source of open space. In many cases, urban settings provide local parks, green spaces, trails and other open space in addition to residential developments (single family and multi-family housing), industrial areas, and commercial developments. Parks and open space in urban settings can add value to a community. They may also act as focal points for economic development and neighborhood activity.

Parkland is a third possible source of open space. Together, there are approximately 852 parks and wildlife management areas in the Hill Country, divided among several federal, state, local and private agencies. State and federal agencies supply approximately 7.2 percent of this total. County, municipal governments and private firms supply the other 92.8 percent of parks and recreational facilities (See Figure 2). In terms of acreage, the Texas Parks and Wildlife Department

**FIGURE 2: RECREATION SUPPLY IN THE TEXAS HILL COUNTRY**



\* Region/Local recreation supply includes public and privately owned facilities.  
 Source: TPWD 1997.

(TPWD) is the primary provider of parkland and public open space in the region. TPWD manages several parks as well as wildlife management areas, state historical parks, and state natural areas. Federal agencies such as the U.S. Army Corps of Engineers, the National Park Service, and U.S. Fish and Wildlife Service also manage parks and natural areas in the Hill Country. However, municipal and county governments supply the majority of playground areas, baseball fields, basketball courts, soccer fields, softball fields, tennis courts and golf courses in the region. Despite all these facilities, parkland accounts for only 1.3 percent of total land use in the Hill Country (See Table 6).

---

**The State provides the majority of parkland and public open space in the Texas Hill Country.**

---

**PROTECTING PARKLAND AND OPEN SPACE**

Population and economic growth are likely to continue in the Hill Country. Meeting the challenges created by this growth will require forethought on the part of community leaders. Fortunately, many groups are now working to

**TABLE 6 TOTAL PARKLAND IN TEXAS AND THE HILL COUNTRY**

<b>CATEGORY</b>	<b>HILL COUNTRY (18 Counties)</b>	<b>TEXAS (254 Counties)</b>
Federal Lands	14,114 acres	2,875,734 acres
State Lands*	58,900 acres	1,031,500 acres
Local Parks	35,414 acres	279,633 acres
Privately Owned Lands**	28,550 acres	
Total Parkland	136,978 acres	4,189,987 acres
Total Land Area	11,577,799 acres	167,624,960 acres
Percent Parkland	1.3 percent	2.5 percent

\*Include Wildlife Management Areas, State Historical Parks, State Parks and State Natural Areas.  
 \*\* Include golf courses, campgrounds, marinas, ranches and resorts.  
 Source: TPWD 1997; and Dallas Morning News 1999.

provide recreational facilities and preserve open space in the Hill Country. This section provides Hill Country residents and officials with a snapshot of the different federal, state, local government agencies as well as private groups working in the region.

Texas currently receives about \$4.8 million dollars in federal funding from the Department of the Interior’s Land and Water Conservation Fund. Half of this amount is used for a local parks program and the other half is used for the state parks program. However, money from the Land and Water Conservation Fund represents only a portion of the total dollars the state receives from the federal government. In fact, the Texas Parks and Wildlife Department receives approximately \$20 million dollars each year from the federal government for programs such as fisheries development and restoration, wildlife restoration, endangered species protection and boating safety (TPWD 1999).

In 1998, at the urging of several conservation groups, Congress began to look for new and more stable ways of supporting conservation activities. During the 2000 session, Congress appropriated approximately twice as much spending for parks, outdoor recreation and historic sites than it had in recent years (Conservation

### **PRESERVING BAT HABITAT**

Every year, millions of free-tailed bats migrate from Mexico to Central Texas. The bats come to roost in numerous caves and other natural features of the Hill Country. The Devil's Sinkhole State Natural Area and the Eckert James River Bat Cave are just two examples of vital bat habitat in the region. The Devil's Sinkhole is a natural cavern in Edwards County, protected by the Texas Parks and Wildlife Department. It is home to millions of Mexican free-tailed bats. The Eckert James River Bat Cave is an eight acre preserve in Mason County maintained by the Nature Conservancy of Texas. These two preserves are good examples of how public and private entities can work together to preserve wildlife habitat and help ensure the long-term survival of an animal species.

*Sources: Texas Parks and Wildlife 2001; Nature Conservancy of Texas 2001.*

Fund 2000). This was primarily done through the Department of the Interior's Appropriation Bill for fiscal year 2001, which includes \$12 billion over the next 6 years for funding of land conservation initiatives. Known as the "light" version of the Conservation and Reinvestment Act (CARA), Congress's action leaves open the possibility of authorizing a portion of the \$4 billion dollars in annual lease fees that the U.S. Treasury receives from outer continental shelf oil and gas drilling to go to states, cities and tribal governments for conservation purposes. The State of Texas could receive approximately \$22-\$25 million in matching funds to support state and local park repair and acquisition if Congress passes the "full" version of the CARA bill.

The 2001 Texas Legislature voted to authorize a state bond proposal \$54 million for state park repairs. Fifteen million will be used to reconcile an older park bond initiative and \$39 million will be used for the repair of existing parks. In addition to the \$54 million, \$31.2 million in bonds were authorized to repair major historical monuments, including the Admiral Nimitz State Historical Park in Gillespie County. Both bond proposals must receive voter approval in November 2001. The Texas Parks and Wildlife Department also receives \$32 million dollars each year from a dedicated portion of the state's sporting goods sales tax.<sup>3</sup>

<sup>3</sup>. Though the state receives about \$80 million from the sporting goods tax, the Legislature has capped the amount for parks at \$32 million. Some of this revenue will be used to maintain, repair and develop parks in the Hill Country.



Local communities are also eligible for state and federal assistance. One source of aid is the National Park Service's Rivers, Trails and Conservation Assistance Program, which provides technical, organizational and planning assistance to local communities. The program is ideal for rural communities that do not have planning departments or full time staff. The program currently provides assistance to both Blanco and Kendall counties (National Parks Service 2000). The TPWD also uses \$1 million a year from the state's share of the Department of the Interior's Land and Water Conservation Fund to support a regional parks grant program for large jurisdictional areas, and about \$2 million per year to transfer small state parks to local governments.

Despite these resources, local communities are struggling to find funds for park maintenance and acquisition. Though the Hill Country's rural areas are experiencing tremendous population growth, most still have funding bases too low to support a bond program for acquisition and maintenance of parks and open space. Rising land values in the Hill Country have also deterred local park and open space acquisition.

The Texas Parks and Wildlife Department (TPWD) has a program to assist local governments with park site planning. Cities with populations of less than 17,500 and counties with populations of less than 28,000 are eligible for the program. The Texas Parks and Wildlife Department uses approximately \$12.9 million of the \$32 million it receives from the dedicated portion of the state's sporting goods sales tax for a small communities matching grant program for the acquisition and development of outdoor recreational facilities. Another \$3.3 million is available for a matching grant program for indoor recreational facilities for communities of any size.

The Texas Parks and Wildlife Department, with the assistance of local communities, is also developing a series of wildlife viewing trails modeled after the successful Great Texas Birding Trail. Four regional trails will be developed. One is

### CONSERVING ENVIRONMENTALLY SENSITIVE LAND

Two examples of local initiatives to preserve open space and protect aquifer recharge zones in the Hill Country region are the Government Canyon State Natural Area in San Antonio and the Barton Creek Habitat Preserve near Austin. Government Canyon was purchased by the Texas Parks and Wildlife Department in 1993, with help from the Edwards Underground Water District, the San Antonio Water System, the Trust for Public Land and the federal government. Government Canyon conserves approximately 6,642.65-acres in Bexar County, just outside San Antonio, protecting the Edwards Aquifer, the sole source of drinking water for the city of San Antonio, from development. Just outside of Austin, the Barton Creek Habitat Preserve protects water quality and wildlife habitat along 4,084 acres of the Barton Springs segment of the Edwards Aquifer. The Barton Creek Habitat Preserve was purchased by the Nature Conservancy in 1994, with help from the City of Austin. The Preserve helps protect the supply of groundwater for Barton Springs Pool in Austin's Zilker Park.

*Sources: Texas Parks and Wildlife 2001; The Nature Conservancy of Texas 2001.*

to be in the Hill Country and will be known as the Heart of Texas Trail (TPWD 2001). To make wildlife viewing easier for travelers, the driving trails will feature signs marking key sites for viewing birds and wildlife. According to the Texas Parks and Wildlife Department, "Nature based tourism is the fastest growing segment of the travel industry." Wildlife viewing contributed \$1.2 billion to the Texas economy in 1996. Nature-based travel can also be a tremendous economic boon to local communities.

The Land and Green Space Committee of the Greater Austin-San Antonio Corridor Council is working on a regional parks and green space plan that covers many of the Hill Country counties. The plan ties protection and conservation of land and open space for parks, preserves, agriculture and watershed protection to the region's transportation needs (Greater Austin-San Antonio Corridor Council 2001). In addition, the Corridor Council offers technical assistance, such as resource mapping, to Hill Country communities interested in developing green space and parkland plans.

### **Public-Private Efforts**

In addition to federal and state government programs, there are also several not-for-profit organizations working to preserve open space in Texas and the Hill Country, including the Nature Conservancy of Texas and the Trust for Public Land. The Nature Conservancy of Texas is working to protect significant natural areas and wildlife habitat in the Hill Country. The Nature Conservancy's holdings include the Eckert James River Bat Cave, the Barton Creek Habitat Preserve, Ezell's Cave Preserve, Love Creek Preserve, Annandale Ranch, the Elizabeth P. Hill Preserve and Wallace Ranch (Nature Conservancy 2001). The Trust for Public Land (TPL) helps communities acquire land for open space, parks, recreational areas, wildlife habitat, trails and greenways. Working in partnership with Travis County, TPL manages the 24,000 acre Balcones Canyonlands Preserve in western Travis County, which was set aside to protect the habitat of the endangered golden-cheeked warbler and the black-capped vireo. The Trust for Public Land was also instrumental in the development of the Government Canyon site in San Antonio (See Box: Conserving Environmentally Sensitive Land).

In addition, there are several land trusts working in the region to protect open space and wildlife habitat, including the Hill Country Conservancy, the Hill Country Land Trust, the Natural Area Preservation Association, and the American Farmland Trust, which has a specific interest in protecting agricultural lands.

Conservation easements are also being used more frequently to protect private open space. A conservation easement is "a restriction a landowner voluntarily places on specified uses of his property to protect natural, productive, or cultural features." The conservation easement is recorded as a legal instrument and held by non-profit organizations or land trusts (TPWD 1997B). In exchange for property restrictions, conservation easements provide land owners with exemptions from certain state and federal taxes. In 2000, there were a total of 109 sites in Texas totaling 156,226 acres with conservation easements held by a non-profit

### **PROTECTING HILL COUNTRY VIEWSHEDS**

Rural Texas is being inundated with cell phone towers and billboards. Beautiful view sheds and notable landscapes are suddenly being dotted with lighted cell phone towers, which are a necessity for various types of communication. Cities already have the power to regulate the height of towers, lighting, location and removal of towers. Effective use of these powers has protected neighboring residents and made towers less obtrusive on the landscape. County commissioner courts will need similar types of authority to protect the Hill Country's beautiful viewsheds.

*Source: Hill Country Broadside December 2000.*

land trust. The following Hill Country counties had a combined total of 10,496 acres covered by conservation easements: Bandera, Bexar, Blanco, Hays, Kendall and Travis.

Purchase of development rights (PDR) is a similar mechanism that can be used to financially compensate property owners who want to voluntarily restrict the future use of their land (American Farmland Trust 1998). Purchase of development rights programs are based on the concept that property owners have the right to use land, buy, lease, sell or conserve it. PDR programs allow landowners to separate and sell their right to develop land from other property rights. Texas does not currently have a purchase of development rights program.

### **RECOMMENDATIONS**

The incredible population growth of the last decade has left the Hill Country with a parkland and open space deficit. State and local governments need to develop area parkland and recreational facilities to match the pace of growth. There are many options for meeting this challenge. The Governor's Task Force on Conservation has already looked at several issues concerning the future of conservation and outdoor recreation in Texas and suggested that the State enact legislation to fully fund a purchase of development rights program, develop a comprehensive system to address conservation and outdoor recreation, and encour-

age development for outdoor recreation on private lands, including nature tourism (Governor's Task Force 2000). In addition to these suggestions, we recommend:

- **Providing state funding to rural communities for acquisition of parkland and special natural areas.**
- **Providing county governments the authority to protect green space for aquifer recharge and regional greenbelts.**
- **Lifting the \$32 million cap on the Sporting Goods Sales Tax used by the Texas Parks and Wildlife Department for park acquisition and maintenance.**
- **Providing funding and technical assistance to help local communities assess their historic and natural resources.**

## REFERENCES

- American Farmland Trust. 1998. Fact Sheet: Purchase of Agricultural Conservation Easements. Farmland Information Center, Northampton, Massachusetts.
- American Farmland Trust. 2000. Conserving Farms and Ranches Makes Tax Sense for Hays County Citizens. American Farmland Trust, San Marcos, Texas.
- Conservation Fund. 2000. Common Ground. Vol. 12, No. 1.
- Crompton, John L. 2000. The Impacts of Parks and Open Space on Property Values and the Property Tax Base. Department of Recreation, Park and Tourism Sciences, Texas A&M University, Bryan, Texas.
- Dallas Morning News. 1999. Texas Almanac 2000-2001. Dallas, Texas.
- Davis, William B. and David J. Schmidly. 1994. The Mammals of Texas. Texas Parks and Wildlife Department, Nongame and Urban Program, Austin, Texas.
- Governor's Task Force on Conservation. 2000. Taking Care of Texas. Office of the Governor, Austin, Texas.
- Greater Austin-San Antonio Corridor Council. 2001. Secrets of the Small Divide. San Marcos, Texas.
- Hamilton, Leonard W. 1997. The Benefits of Open Space. The Great Swamp Watershed Association, New Vernon, New Jersey.
- Hill Country Broadside. December, 2000. Texas Center for Policy Studies, Austin, Texas.
- Holley, Joe. 2000. Texas Hill Country: Loving it to Death. San Antonio Express-News. San Antonio, Texas. August 27 to September 24, 2000.
- Mace, Robert E. and Ali H. Chowdhury, Robert Anaya, Ted Way. 2000. Groundwater Availability of the Trinity Aquifer, Hill Country Area, Texas: Numerical Simulations through 2050. Texas Water Development Board, Austin, Texas.
- National Parks Service. 2000. List of 2000 Projects. Rivers, Trails and Conservation Assistance Program, Washington, D.C. See <http://www.nps.gov/rtca> or contact Steve Bonner at 210-387-8628
- Nature Conservancy of Texas. 2001. Preserve Profiles. Nature Conservancy, San Antonio, Texas.

Peña, Joe. 1999. Agricultural Production in the Southwest Texas Region. Texas A&M Agricultural Research & Extension Center, Uvalde, Texas.

Texas A&M University. 1998. Texas Outdoors: A Vision for the Future. Institute of Renewable Natural Resources, College Station, Texas.

Texas A&M University. 2001. Texas Agricultural Economy. Texas Agricultural Extension Service, College Station, Texas.

Texas Comptroller. 2001. Rural Texas In Transition. Comptroller of Public Accounts, Austin, Texas.

Texas Department of Economic Development. 2000. 1999 Economic Impact of Travel on Texas. TDED, Austin, Texas.

Texas Natural Resource Conservation Commission. 1994. State of Texas Water Quality Inventory, 12th Edition. TNRCC, Austin, Texas.

Texas Parks and Wildlife Department. 1990. Texas Outdoor Recreation Plan (TORP). Comprehensive Planning Branch, Parks Division. Austin, Texas.

Texas Parks and Wildlife Department. 1997A. Texas Outdoor Recreation Inventory. TPWD, Austin, Texas.

Texas Parks and Wildlife Department. 1997B. Conservation Easements: A Guide for Texas Landowners. TPWD, Austin, Texas.

Texas Parks and Wildlife Department. 1999. Self Evaluation Report. TPWD, Austin, Texas.

Texas Parks and Wildlife Department. 2001. Texas State Parks - Hill Country Region. TPWD, Austin, Texas.

Texas Tech University. 2000. Inventory of Conservation and Recreation Land in Texas - Draft. Texas Cooperative Fish and Wildlife Research Unit, Lubbock, Texas.

U.S. Census Bureau. 2001. American Fact Finder. Census Bureau, Washington, D.C.

U.S. Department of Agriculture. 1992. Land Cover/Use of Non-Federal Land and Small Water. National Resources Inventory, Soil Conservation Service, Temple, Texas.