

Texas Landowners' Attitudes toward Wildlife, Conservation and Outdoor Recreation

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At the turn of the 20th Century, Texas was a rural, sparsely populated state of three million people with an average population density of 11 people per square mile-no more. At the turn of this century, Texas' population had grown to 20 million people with an average population density of 74 people per square mile. Forecasts project that Texas' population will double to 40 million by the turn of the next century.

Texas' increasing population growth coupled with a historically small percentage of public land (four percent) make comprehensive planning critical to protect the state's natural and cultural resources and to maintain and enhance outdoor recreation opportunities.

In 2000, the Texas Parks and Wildlife Department (TPW) initiated a major planning project with Texas Tech University, Responsive Management and Loomis Austin, Inc. The overall purpose of the project was to develop a plan to meet the natural and cultural resources and outdoor recreation needs in Texas through the year 2030. Planning is being accomplished through an assessment of the state's natural, cultural and outdoor recreation needs as well as the needs of the Texas public and the Department's constituents and stakeholders. As part of the needs assessment of TPW stakeholders, a survey was conducted with Texas landowners who own more than 640 acres of land (large landowners). With 96 percent of Texas land within the hands of private landowners, perhaps no other single group of stakeholders is more important to the future of Texas' natural and cultural resources and outdoor recreation than private landowners. Large landowners are of particular importance in that they exert direct influence over vast stretches of habitat and potential and actual outdoor recreation opportunities in Texas.

Methods

The survey of Texas landowners was administered by telephone to randomly selected Texas landowners. The data was obtained from county property tax records and included both business and private Texas landowners. A total of 563 landowners were interviewed. The survey was conducted with landowners in each of seven travel and tourism planning regions for statewide representation. TPW selected sample counties that were considered representative of each region. In total, 33 counties were contacted and 22 agreed to supply sample (Table 1).

Table 1. Twenty-two counties selected for sampling large landowners in Texas representing the seven Travel and Tourism Planning Regions

The number of interviews completed in each region is as follows: Big Bend (n = 87), Gulf Coast (n = 113), Hill Country (n = 140), Panhandle Plains (n = 71), Piney Woods (n = 46), Prairies and Lakes (n = 35), and South Texas Plains (n = 71). In many ways, this survey was a comprehensive census rather than a sample survey in those counties that participated. However, it acts as a sample for each of the seven Texas travel and tourism planning regions.

The sampling error for this study is 4.1 percent, statewide. This error is estimated rather than calculated directly since the exact distribution of all possible landowners in the state of Texas who own 640 or more acres is not precisely known. The assumptions used in this calculation are as follows. There were 563 interviews performed on a total population of 20,044,141 people in the entire state of Texas (US Census Bureau, <http://www.census.gov/population/estimates/st-99-08.txt>, 2001). Texas has approximately 181,000 ranches/farms (Statistical Abstracts of the United States 1999:677). The US Census Bureau defines a ranch or farm as any place from which \$1,000 or more of agricultural products has been sold during the census year, including crops and livestock (Statistical Abstracts of the United States 1999:675). The average size of these farms is 725 acres (Statistical Abstracts of the United States 1999:677).

The assumption was made that this number of farms is a reasonable estimate of the number of all owners of land owning more than 640 acres. Taking the population of this group as the total population of all landowners in Texas as the basis for calculating error rate would mean that error would be calculated based on a sample of 563 taken from a population of 181,000. This method of adjusting data based on estimates is the method of choice when there is existing comparable data that may be used to make such adjustments (Tabachnick and Fidell 1996). The error rate for all of Texas, when calculated in this manner, is estimated at 4.1 percent. Making the assumption that the ratio of regional population to regional landowners with 640 or more acres will match the ratio of state population (20,044,141) to state estimated landowners (i.e., 110.74:1, meaning there are 110.74 people who own less than 640 acres for every one person who owns more than 640 acres), the same proportion was applied to each region. The estimated landowner population and estimated error for each region are contained in Table 2. These values indicate that 95 out of 100 times, the real values in the real population would fall within a spread of the survey values reported here, plus or minus the estimated error rates reported above.

The survey of large landowners focused on numerous topics, including the general importance of different types of land use; experience with outdoor recreation, use and access to their property; concerns about legal liability resulting from access; potential incentives for increasing public access; nuisance animals and wildlife damage; knowledge and views about the Texas Parks and Wildlife Department (TPW) operations in these areas and land conservation and options for increasing public stewardship of wildlife management and land conservation. The landowners interviewed were asked to answer the questions based on the particular tract of land that was identified in the tax records, since many Texans own multiple tracts of land.

Results

The survey data revealed large landowners were primarily males (70 percent) who had lived in Texas for more than 40 years (82 percent) with another nine percent living in Texas between 21 and 40 years. Their ages ranged mostly between 45 and over 65. Twenty-nine percent of large landowners were between the ages of 45 and 54, 31 percent between the ages of

55 and 64 and 29 percent who were 65 years old or older. A small percentage (seven percent) of large landowners were younger (between 35 and 44 years of age), with another two percent under 35 years of age. However, some refused to give their age.

Importance of Various Aspects of Land Use

The relative importance or unimportance of various land use activities were asked of large landowners in the areas of ranching, farming, hunting, fishing, wildlife viewing, nature study and providing habitats for fish and wildlife. Ranking highest in overall statewide importance to most large landowners for their land was ranching, with nearly three out of four (72 percent) of large landowners stating that ranching was a very important activity for their property. Other uses that a majority of landowners statewide rated very important included hunting (55 percent) and providing habitat for fish and wildlife (52 percent). Smaller percentages rated farming (30 percent), wildlife viewing and nature study (29 percent), and fishing (15 percent) as a very important land use on their tract of land. From the perspective of land uses rated very unimportant, fishing (54 percent), farming (39 percent) and wildlife viewing and nature study (25 percent) were the most frequent responses.

Wildlife Values

Landowners were asked to choose from one of four statements which best described their feelings about having wildlife on their land. The four statements were: "I enjoy seeing and having wildlife around; I enjoy some wildlife, but worry about problems they cause; I generally regard wildlife as a nuisance; or, I have no particular feelings about wildlife."

Among these options, the most frequently chosen statement, "I enjoy seeing and having wildlife around" was selected by 78 percent of landowners in the statewide sample. Much smaller percentages selected "I enjoy some wildlife, but worry about problems they cause" (14 percent), "I have no particular feelings about wildlife," (four percent) and only one percent chose "I generally regard wildlife as a nuisance."

Nuisance Animals and Animal Damage

Landowners were asked about any nuisance animal problems or animal damage. The majority of large landowners (53 percent), answered negatively when asked "Did you have problems, such as nuisance animals or animal damage, within the past two years on this land?" However, a sizable percentage (44 percent), answered yes. Across the regions, respondents from the Panhandle Plains had the lowest percent reporting problems (23 percent), compared to 56 percent reporting problems within the Hill Country region.

Of those indicating wild animal problems, the types of wild animals most frequently mentioned statewide included feral hogs (47 percent), coyote (42 percent), mountain lions/bobcats (14 percent), deer (10 percent) and raccoons (nine percent).

Awareness of and Attitudes toward the Texas Parks and Wildlife Department

Large landowners' awareness of and attitudes toward the TPW was measured through a series of questions. Statewide, landowners rated their knowledge about the activities of the TPW as either a great deal (24 percent) or a moderate amount (39 percent), while 28 percent indicated they knew a little and another seven percent responded they knew nothing about the TPW before the survey.

When asked "Overall, are you satisfied or dissatisfied with the Texas Parks and Wildlife Department as a government agency in Texas, or do you not know?" the vast majority statewide indicated they were either very satisfied (36 percent) or somewhat satisfied (35 percent). Only eight percent indicated they were dissatisfied with TPW while the rest did not know.

Personal contacts by landowners with the TPW, and impressions of the professionalism, courtesy and effectiveness of Game Warden efforts were obtained in the survey. Statewide, a majority of landowners (54 percent) had personal contact with a Texas Parks and Wildlife Game Warden within the past five years, while 45 percent did not have any contact. Of those who had contact with Game Wardens, landowners were asked the following two questions: "Would you agree or disagree that the Texas Parks and Wildlife Game Warden you came in contact with was professional and courteous?" Statewide, 97 percent agreed, with 90 percent strongly agreeing. Only two percent disagreed.

Landowners were then asked: "Would you agree or disagree that the efforts of Texas Parks and Wildlife Game Wardens are effective in controlling illegal activities on you land?" Statewide, 84 percent agreed that Game Wardens are effective in controlling illegal activities on their land. It is notable that the large majority strongly agreed (61 percent) with this statement. Only 11 percent disagreed that Game Wardens were effective in controlling illegal activities.

Attitudes toward Texas Parks and Wildlife Department Programs

Landowners were asked whether a number of programs and activities for landowners on which the Texas Parks and Wildlife Department spends its time and money are important or unimportant. Respondents were then prompted on degree (very important, somewhat important, very unimportant or somewhat unimportant). A summary of the percentage of landowners rating the following TPW programs and activities as very important is listed below in rank order:

- assisting landowners in protecting water quality and quantity (66 percent),
- teaching landowners how to manage wildlife through such practices as prescribed burning and rotational grazing (55 percent),
- addressing issues of liability for landowners as it relates to outdoor recreation on their property (54 percent),
- the Private Lands Advisory Board, which is composed of private landowners who consider regulations and private land issues affecting landowners (53 percent),
- assisting landowners in wildlife management (50 percent),
- providing landowners brochures, magazines and videos on fish and wildlife management (43 percent),
- the Lone Star Land Steward Awards Program, a program that recognizes private landowners who have demonstrated exemplary habitat conservation practices on their land (35 percent)
- assisting landowners in protecting their wetlands (35 percent),
- encouraging landowners to manage their lands for fish and wildlife conservation purposes (35 percent),
- wildlife management associations, also known as CO-OPS, which are a voluntary formation of landowner groups working to restore and conserve wildlife habitat and increase recreational opportunities on private lands (31 percent),
- assisting landowners in managing endangered species (31 percent),
- providing equipment for wildlife management (27 percent),

- encouraging landowners to open access to their lands for hunting (17 percent),
- encouraging landowners to open access to their waters for fishing (10 percent),
- encouraging landowners to open access to their lands for hiking, wildlife viewing and nature study (10 percent)
- encouraging landowners to open access to their lands for canoeing and general river access (8 percent) and
- encouraging landowners to open access to their lands for camping (6percent).

Interest in Natural Resource Management and Providing Outdoor Recreation

Interest among landowners in providing outdoor recreation and doing more for wildlife conservation and habitat protection on their land was explored through several questions. Given response choices of very interested, somewhat interested or not at all interested, landowners were asked about their interest in opening up their land for outdoor recreational opportunities for others and, in a separate question, how interested they were in doing more on their property for wildlife conservation and habitat protection. Doing more on their property for wildlife conservation and habitat protection was more important to more large landowners than opening up their land to provide more outdoor recreational opportunities for others. Thirty percent were very interested while another 30 percent were somewhat interested in doing more on their property for wildlife conservation compared to 11 percent of these landowners who were very interested and 22 percent who were somewhat interested in opening up their land to provide more outdoor recreational opportunities for others.

Next, landowner interest in generating revenue from their land from various activities was explored. In one questionnaire, landowners were asked if they were very interested, somewhat interested or not at all interested in generating revenue from their land through hunting, hiking, wildlife viewing or nature study. In another, they were asked the same regarding camping, and, in another, fishing. Finally, they were asked in regards to canoeing or river access. There was more interest in generating revenue from their land from hunting than from any other activity. Thirty-three percent of landowners were very interested in generating revenue from their land by providing hunting opportunities. Eleven percent were very interested in generating revenue from their land by providing hiking, wildlife viewing and nature study. Nine percent were very interested in generating revenue by providing fishing opportunities, while 8 percent were very interested in generating revenue by providing camping opportunities and 3 percent were very interested in generating revenue by providing canoe or river access.

Land Use and Access Fees

The majority of large landowners surveyed statewide (78 percent) currently allowed hunting on their land. Within the Hill Country region, 93 percent of the large landowners surveyed currently allowed hunting, followed by 89 percent of the large landowners in the South Texas Plains region who allowed hunting. In comparison, 62 percent of the large landowner respondents from the Panhandle Plains allowed hunting on their land.

Statewide, of those who did not currently allow hunting, nearly one third (30 percent) did allow hunting in the past. When landowners that formerly allowed hunting (n = 36) were asked why they stopped allowing hunting on their property, the most frequent responses included: stock quality/concern for wildlife (14 percent) and poor behavior of hunters (14 percent), damage to property (11 percent), damage to livestock, no lease/permit and loss of privacy (8 percent),

drought, legal liability, do not know, do not hunt and don't like to kill animals (each at 6 percent), and cows and location too close to city limits (3 percent).

Of those allowing hunting (n = 441), large landowners were asked "Who, including yourself, do you allow to hunt on this tract?" The statewide responses to who is allowed to hunt included: others by permission/person(s) leasing the land (51 percent), immediate family/spouse/children (48 percent), myself (31 percent), friends and acquaintances (25 percent), other relatives (18 percent) and anyone (two percent). Another two percent responded "do not know."

More than half (53 percent) of those permitting hunting during the past year charged a fee for any type of hunting on their land. The percentage charging a hunting fee varied widely across regions, with the highest percent in the Hill Country region (80 percent), and the lowest in the Piney Woods (29 percent) and Panhandle Plains (31 percent) regions.

Fishing is currently allowed by 37 percent of landowners, with another six percent of those who do not currently allow fishing having done so in the past. Among 36 percent of the landowners sampled, there was no opportunity to fish on their land. Only 13 percent of those allowing fishing charge a fee. Use of large landowner property for fishing is most frequent in the Prairies and Lakes region (66 percent), and is lowest in the Big Bend Country region (10 percent). Much of the variation is due to whether or not the land had opportunities to allow fishing.

Those who were allowed to fish on large landowner's property included immediate family (spouse, children) mentioned by 60 percent. Other people allowed to fish were friends and acquaintances (41 percent), myself (37 percent), other relatives (25 percent), others by permission/person(s) leasing the land (21 percent) and anyone (two percent).

Camping was allowed by 30 percent of large landowners statewide, and an additional 7 percent have permitted camping in the past. Camping fees were charged by only 18 percent of those permitting camping. Use of large landowner property for camping varied by region, with a range from 40 percent allowing camping in the Hill Country region and the Prairies and Lakes region, to only 21 percent in the South Texas Plains and 22 percent in Big Bend Country.

Among the landowners that currently allow camping on their land, 49 percent allowed others by permission or the person leasing the land to camp. Forty percent allowed immediate family to camp, 27 percent allowed friends and acquaintances and 26 percent camped themselves. Other relatives were allowed to camp by 15 percent of the landowners and five percent allowed anyone to camp.

Access to their land for hiking, wildlife viewing and nature study was allowed by 29 percent of large landowners surveyed in Texas. Among those who did not currently allow this activity, a small number (3 percent) had permitted these uses in the past but currently did not. Only 6 percent of those who allowed hiking, wildlife viewing or nature study charged fees for these activities. Use of land for hiking, wildlife viewing and nature study varied slightly by region.

Concerns Regarding Legal Liability

Landowners were asked several questions about liability. Overall, two out of three (67 percent) large landowners expressed major concern about allowing recreation on their land due to legal liability. These concerns held across each of the seven regions in the state. Specific concerns about legal liability were highest for hunting, with 66 percent of landowners statewide indicating they had a major concern when considering access to their land for hunting. Major

concern for liability with other uses included camping (43 percent) and access for hiking, viewing wildlife or studying nature (40 percent). Smaller percentages expressed major liability concerns regarding access for fishing (29 percent) and canoeing or river access (24 percent).

Responses to legal liability concerns for these various uses were, in general, consistent across each of the seven regions. Concern about hunting liability for large landowners was highest in the South Texas Plains, with 78 percent from this region expressing a major concern. The large landowners from the South Texas Plains also expressed the highest major concern for camping liability (48 percent), hiking, wildlife viewing and nature study liability (47 percent) and fishing liability (39 percent) when compared with other regions.

When asked "Are you aware that Texas provides liability protection for landowners that allow outdoor recreation use, such as hunting and fishing on their property?" only one out of five landowners (20 percent) responded yes, with a full 79 percent of the landowners surveyed indicating they were not aware of this liability protection offered by Texas. A higher percentage of respondents from the South Texas Plains (30 percent) were aware of this liability protection, while 11 percent from the Piney Woods and 13 percent from the Panhandle Plains regions knew about the state's liability protection.

Incentives to Open Up Land Use and Access

Large landowners were questioned about potential tax breaks and cash incentives to open up use, access and outdoor recreation opportunities for others on their land. Overall, one out three landowners agreed that, if they received incentives, they would be very likely to open up their land.

First, landowners were asked whether they agreed or disagreed with the following statement: "If I could receive significant cash benefits, such as tax breaks or cash payments, I would be very likely to open up my land for more wildlife and habitat conservation." Forty-six percent agreed. This support was evenly split among strong (22 percent) and moderate (24 percent) support. Conversely, 42 percent disagreed (12 percent moderately and 30 percent strongly), indicating tax breaks and cash were not incentives to open the land for these uses. Four percent neither agreed nor disagreed and eight percent responded they didn't know.

Landowners were then asked "If I could receive significant cash benefits such as tax breaks or cash payments, I would be very likely to open up my land for more outdoor recreation opportunities." Thirty-six percent agreed (17 percent strongly and 19 percent moderately) that these incentives would make them more likely to open up their land for outdoor recreation opportunities for others. However, a higher percentage disagreed with this proposal. Fifty-seven percent disagreed, with much of this strong disagreement (44 percent).

In a similar question, landowners were then asked whether they agreed or disagreed with the following statement: "If I did not have to worry about legal liability issues, I would be more likely to open up my land for more outdoor recreation opportunities." Thirty-nine percent agreed (19 percent strongly and 20 percent moderately) with this statement. However, an even larger percentage disagreed with this statement. Fifty-five percent disagreed with this statement and much of this was strong disagreement (43 percent). Additionally, 3 percent neither agreed nor disagreed and 4 percent responded do not know.

Awareness of and Interest in Other Texas Parks and Wildlife Programs

A series of questions about landowner awareness of and interest in several additional TPW programs was asked of all landowners surveyed. Statewide, a majority of landowners were aware of, or interested in, only one of these programs: publicly funded land conservation programs being used throughout the United States to purchase development rights on private land to provide long-term land protection and conservation of natural and cultural resources. Fifty-four percent of landowners reported being aware of this publicly funded land conservation program. However, when asked if they supported the idea of publicly funded land conservation programs to purchase development rights of private land, a higher percentage responded negatively (45 percent) than positively (39 percent) and 17 percent stated they did not know.

Large landowners were evenly split in their awareness that landowners who engage in wildlife management practices can qualify their land under wildlife management use for an agricultural appraisal. Forty-eight percent of landowners were aware of this program and an equal number (48 percent) were not aware of this program. Four percent did not know. When asked about their interest in qualifying their land for agricultural valuation with wildlife management as the primary use of their land, a majority responded negatively (58 percent), although 27 percent said they were interested. Sixteen percent did not know.

Fifty-six percent of landowners indicated they were not aware of conservation easement programs while 39 percent were aware of these programs. When asked if they were interested in donating development rights for their property if they could receive a significant tax break, 15 percent of landowners answered positively, while 69 percent responded negatively. Seventeen percent did not know.

Landowners were asked one additional question about a TPW program. This question was, "Would you say you are very interested, somewhat interested, or not at all interested in participating in a program called The Texas Youth Hunting Program on your property, which provides trained huntmasters to run and supervise youth hunts, train youth in firearms safety and educate participants on hunting, wildlife management, ethics, and private property rights?" Statewide, 10 percent were very interested, 16 percent were somewhat interested, 67 percent were not at all interested, and 7 percent did not know.

Conclusion

This survey is good news for the conservation of natural resources and expanded outdoor recreation in Texas. The often expressed landowner stewardship mantle is a genuine desire of private landowners in Texas. The data clearly show the opportunity to work cooperatively with large Texas landowners on habitat and wildlife issues is extremely high. The data corresponds to an increased interest from landowners for technical guidance and wildlife management planning, with over 2,700 landowners currently under active wildlife management plans on over 12.6 million acres. Working with these large landowners is critical to address challenges of scale on the ecological landscape.

Note that just under three out of four of those large landowners surveyed reported ranching as an important activity. This corresponds to two-thirds of Texas being identified as rangelands. The majority of large landowners also indicated hunting and providing habitat for fish and wildlife were important. Four in five enjoy seeing and having wildlife around even when compared to problem categories. Nuisance wildlife problems occurred, but did not detract from their desire to have wildlife on the properties. These data correlate to land sales in rural areas

during the last five years, in which land sold for recreation has surpassed land sold for agriculture.

The issues landowners expressed most support for as department programs were protecting water quantity and quality (two out of three), demonstrating or providing technical assistance on wildlife management, addressing liability issues and maintaining a Private Lands Advisory Board for landowner opinions. Questions where the terms "encouraging landowners to" was used seemed to drop support below one in three. Landowners can be shown and can request assistance, but do not wish to be coerced. Approximately one-third of large landowners was supportive of fish and wildlife conservation work and assistance, including wetlands, endangered species and wildlife cooperatives.

A major stumbling block to landowners and access for recreation remains the question of legal liability. Two-thirds of landowners expressed concern over liability. Hunting was the highest concern, but all recreation access was a concern to those who were allowing or contemplating that type of recreation. Information about recent changes in liability protection provided by the Texas law has not been effectively transmitted to this group. Only one in five were aware of the basic protection. Following this survey, some landowners suggested the existing legal protection was either not yet tested or was not sufficient to satisfy landowner concerns.

Landowners throughout the survey supported management and conservation of habitat two to one over opening up properties for recreation. This is great for enhancing wildlife populations. Almost 80 percent allow hunting, and just over half of these charge a fee. Nationally, the perception is that Texas is a fee hunting state. Indeed, that is the case. However, hunting access is still free or reasonable in the bulk of the state. Most encouraging from this report was that more landowners might open land for public hunting access if liability concerns are addressed and incentives or tax credits were provided. This can help balance the public hunting access disparity that is created by expanding fee hunting operations as we look toward the future of hunting in Texas. Texans make no apologies for fee hunting. Fee hunting has saved many habitats from destruction and has been responsible for restoration and enhancement of wildlife habitat by a utilitarian landowner segment. Balancing public wildlife and public hunting access needs with private property rights and economic returns will continue to be important, and the survey strongly indicates these opportunities exist.

The other good news is that one in three large landowners were interested in other forms of outdoor recreation than hunting, and 1 in 10 were "very interested" in opening their land. Extrapolated statewide, this represents 14 million acres that could be made available by "very interested" landowners. These other forms of nature tourism, such as fishing, camping, hiking and wildlife watching, also found one in three interested in providing access in exchange for tax breaks or other incentives. One in three also said they would provide access if they did not have to worry about legal liability. Note that more landowners strongly disagreed with both of these, but, in a predominantly private property state, the one-third response is a tremendous opportunity for innovative programming to provide recreational access without expanding parks. The agency will discuss with landowners what would be required to create associated franchise park experiences or cooperative trail and park settings. Combining the two ideas of liability protection and incentives could be a strong motivation towards creating additional recreational access.

Two out of three large landowners were very familiar with Texas Parks and Wildlife activities. Similarly, two out of three were satisfied with the agency while less than 1 in 12 were dissatisfied. The relationship with Game Wardens and their effectiveness was rated very high.

Relative to new programming by TPW, most landowners were aware of conservation easements and only one in eight were interested in donating easements. However, more than half were aware of the purchase of development rights, and 4 in 10 supported the idea of a publicly funded conservation program of this type. Few wished to participate in the Texas Youth Hunting Program that provides youth hunting opportunities, but working with 1 in 10 landowners that did respond as very interested would be a huge resource for these types of activities.

The survey has exposed that opportunities exist to enhance habitat for wildlife and provide access for additional outdoor recreation. The agency must communicate and partner more effectively with large private landowners to realize this potential.