Big Thicket National Preserve

WATER CORRIDORS MANAGEMENT ASSESSMENT

Technical Reports Volume 3

Characterization of Public Use of the Water Corridor Units of the Big Thicket National Preserve
July 1997

Characterization of Institutional Issues for the Water Corridor Units of the Big Thicket National Preserve
July 1995

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and
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Characterization of Public Use of the Water Corridor Units of the Big Thicket National Preserve

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Table of Contents

Page

1.0 Introduction 1
- 1.1 Management Objectives for the BTNP 3
- 1.2 Purpose of this Paper 4

2.0 Public Use Information Available at BTNP 5
- 2.1 Visitor Counts 5
- 2.2 Visitor Surveys 15
- 2.3 Texas Outdoor Recreation Plan 15
- 2.4 Conclusion: Available Public Use Information 18

3.0 Public Use Information at Other NPS Facilities 19
- 3.1 River Corridor Survey 19
- 3.2 Visitation and Use Survey 20

4.0 Public Use Information Needs of the BTNP 22
- 4.1 Visitor/Boat Counts 22
- 4.2 Surveys of the Public 23
- 4.3 Test Application of a BTNP Public Use Survey 24

5.0 Conclusion 32

References 33

Appendices 35
- Appendix A BTNP Visitation Data A-1
- Appendix B Test BTNP Public Use Survey B-1

List of Tables

Table		Page
1.	BTNP Facility Visitation by Month - 1996	6
2.	BTNP Facility Visitation by Year	7
3.	BTNP Yearly Visitation by Month	8
4.	Analysis of Park Users and Use Patterns	16
5.	Selected U.S. Census Data for Counties Around BTNP	17
6.	Distribution and Response Rates for Test Application of BTNP Public Use Survey	26
7.	Preferred Walking Access to BTNP Water Corridors	28
8.	Comparison of Responses to Questions About the Seriousness of Environmental Problems	30
9.	Comparison of General Environmental Orientations	31

List of Figures

Figure		Page
1.	BTNP Location Map	2
2.	BTNP Average Monthly Visitation, 1978-1994	9
3.	BTNP Average Monthly Visitation, 1978-1996	9
4.	Neches River, Average Monthly Visitation, 1978-1996	10
5.	Jack Gore Baygall Unit Hunting Map	12
6.	Neches Bottom Unit Hunting Map	13
7.	Beaumont Unit Hunting Map	14
8.	Districts and River Zones, Ozark National Scenic Riverways	21
9.	Map of BTNP with Boat Ramps	25

1.0 Introduction

The Big Thicket National Preserve (BTNP) was created in 1974 to "assure the preservation, conservation, and protection of the natural, scenic, and recreational values of a significant portion of the Big Thicket area in the State of Texas and to provide for the enhancement and public enjoyment thereof..." (88 Stat. 1254; P.L. 93-439) and placed under the management of the National Park Service (NPS). At the time this Water Corridors Management Assessment began, there were six water corridors within the twelve geographically separate units of the almost 86,000-acre Preserve. In 1993, two additional water corridors, Big Sandy Corridor and Village Creek Corridor, and one other unit, Canyonlands, were added to the Preserve, bringing its total acreage to 96,970 (see Figure 1). The eight units examined in this assessment are:

Menard Creek Corridor Unit (3,350 acres) in Polk, Hardin, and Liberty Counties;

Upper Neches River Corridor Unit (3,775 acres) in Jasper, Tyler, and Hardin Counties;

Neches Bottom and Jack Gore Baygall Unit (13,300 acres) in Hardin, Jasper, and Orange Counties;

Lower Neches River Corridor Unit (2,600 acres) in Hardin, Jasper and Orange Counties;

Beaumont Unit (6,218 acres) in Orange, Hardin, and Jefferson Counties;

Little Pine Island-Pine Island Bayou Corridor Unit (2,100 acres) in Hardin and Jefferson Counties;

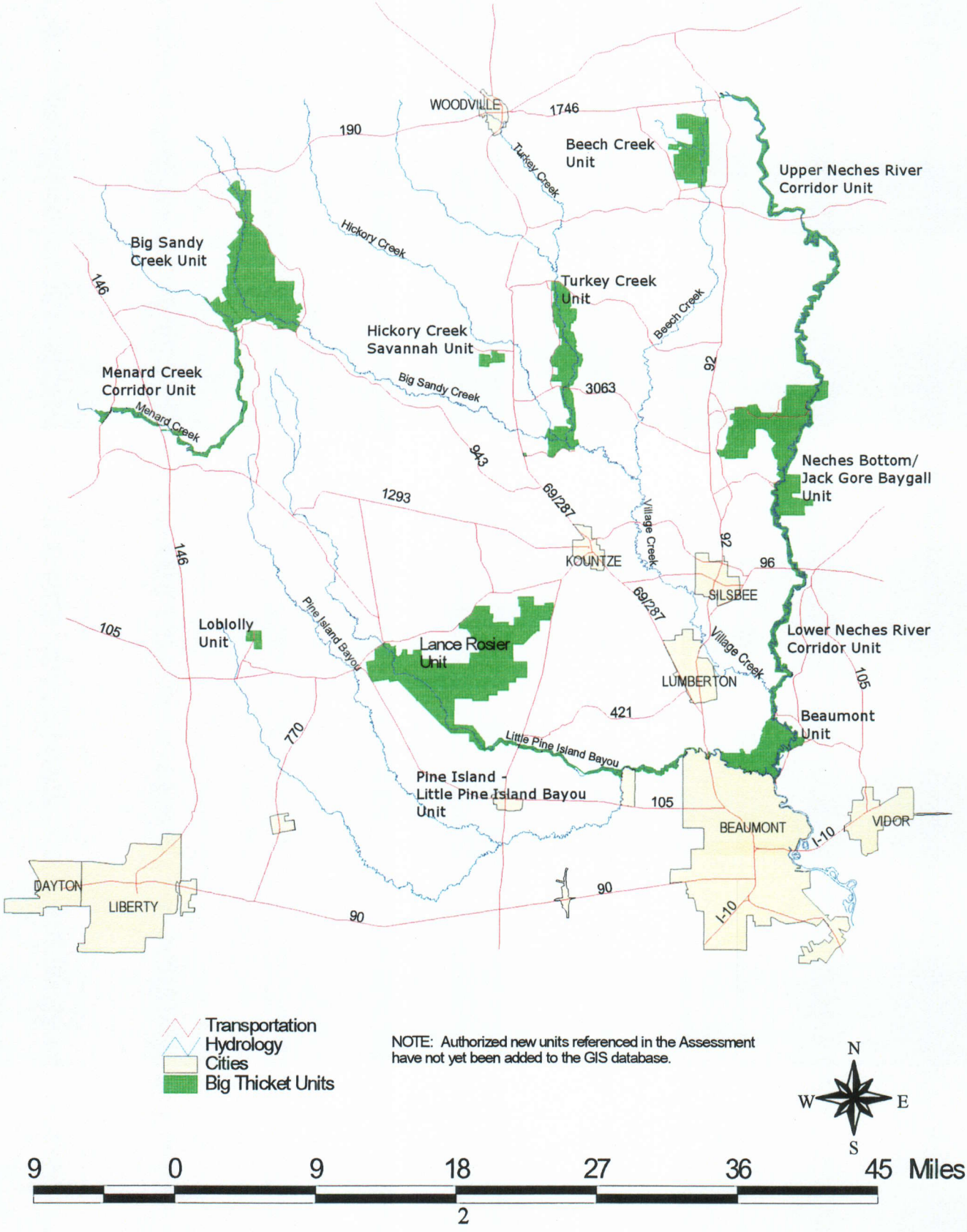
Big Sandy Corridor Unit (4,788 acres) in Hardin, Polk and Tyler Counties;

Village Creek Corridor Unit (4,109 acres) in Hardin County.

The Park Service is faced with the difficult task of balancing the need to protect the natural setting of the Preserve as representative of several presettlement ecosystems while at the same time providing for desirable public uses within these corridors. Although the NPS was granted the authority to restrict some uses of the Preserve to protect its natural resources, the legislation establishing the Preserve specifically provided for continuing historic uses such as hunting, fishing, and trapping, and the exploration and production of oil and gas. Compounding the

Figure 1.

Big Thicket National Preserve



complexity of this balancing problem is the extensive length of boundaries (a total of more than 400 miles before the 1993 additions, according to NPS reports) resulting from the existence of separate units, making BTNP particularly vulnerable to impacts from the use of neighboring properties.

1.1 Management Objectives for the BTNP

To guide its actions, the NPS established seven management objectives for the water corridors of the BTNP.

1. To manage water corridor use consistent with the purposes for which Big Thicket National Preserve was established and in accordance with the missions and policies of the National Park Service.

2. To manage the waterways to preserve the natural setting and restore as much as possible of the presettlement scene, preventing further degradation to visual resources, water quality, and ecological integrity of the water corridors.

3. To implement an economically efficient system of management that will provide fair and equitable opportunity to all persons who desire to use the water resources of the Preserve.

4. To maintain and enhance diverse opportunities for experiencing nature, solitude, and recreational pursuits.

5. To enhance the visitor's opportunity to learn about, understand, and participate in the protection of the natural and historic setting of the water resources of the Preserve.

6. To promote the acceptance of safety and health requirements by all water corridor users and those outside the Preserve that potentially impact the corridors.

7. To implement a scientific monitoring program on key aspects of the riparian and aquatic ecosystem and human use of, and impacts to, the water corridor. This will allow management to establish and recognize threshold levels of adverse impacts and implement appropriate management actions.

As a scan of the objectives shows, information about all of the public uses of the Preserve is essential to management decisions. This portion of the study of water corridors management has collected and assessed information about visitors to the Preserve that is currently available to meet those objectives. Also of importance, information on potential visitors to the Preserve is

examined. Recommendations about additional data collection will be made in the management assessment final report in those instances in which information is not available.

1.2 Purpose of This Paper

The principal purpose of this work paper is to compile what is known about the availability of information to characterize levels and types of public use of BTNP resources, focusing particularly on information needed to manage the water corridors. Based on a review of that information, previous studies at other NPS facilities, and a test application of a public use survey for the BTNP, a recommendation is made about the types of additional public use information that could be useful to water corridor management and that could be secured using survey research or other techniques.

2.0 Public Use Information Available at BTNP

Two observations about the BTNP should be made at the outset of this review. First, although 20 years have elapsed since the initial legislation creating the Preserve was passed, the BTNP is relatively young. Second, unlike many older, more well-known national parks, the BTNP is not generally faced with problems of overuse by the public. The combined result of these two facts is that information gathered directly from Preserve users exists in small quantity.

2.1 Visitor Counts

Monthly counts of visitors to BTNP units are made by Park Rangers and compiled by the Division of Interpretation. (Tables 1, 2 and 3, Figures 2, 3 and 4, and Appendix A are based on these data.) However, because of the geography of the Preserve, it is commonly believed by Preserve staff that many visitors are not included in these counts. This is particularly true for the water corridors.

The data on visitor counts are reported by facility and maintained in a computerized spreadsheet. Until 1993, visitors to water corridors were not distinguishable in these data except for those using the Neches River and those at Lakeview Beach (sandbar). In 1993, Little Pine Island Bayou/Pine Island Bayou and Menard Creek visitor counts were added. The entire length (87 miles) of the Neches River is treated as one facility in visitor count reports. The Jack Gore Baygall and Lance Rosier Unit counts may include water corridor users, but that cannot be confirmed by available information.

Figures 2 and 3 (based on the monthly visitation data in Table 3) illustrate the seasonality of BTNP visitation, which has shown a change in recent years. The October peak coincides with hunting season and from its creation until 1994, October was the month of greatest public usage at the Preserve. When the counts for 1995 and 1996 are added, visitor use in the summer months (July and August) exceed that for October. Some of this change may result from greater efforts to achieve more accurate counts of visitors to the Preserve, but it also is supported by anecdotal observations by Rangers. The summer peaks coincide with the heaviest use of the waterways.

Table 1. Big Thicket National Preserve Facility Visitation by Month - 1996

FACILITY / MONTH	JAN96	FEB96	MAR96	APR96	MAY96	JUN96	JUL96	AUG96	SEP96	OCT96	********* NOV96	DEC96	TOT96
Jack Gore Baygall	580	373	458	69	670	274	231	87	560	560	747	664	5273
Lance Rosier Unit	298	346	239	68	530	334	160	158	240	480	1212	881	4946
Beaumont (Lakeview Beach)	636	464	347	3880	4530	2364	3350	6840	1090	1100	2648	2107	29356
LPI/Pine Island Bayou	330	480	896	328	1191	1060	1340	1260	5900	2060	1610	1336	17791
Neches River	286	422	397	316	2597	4662	3578	3708	3109	1423	519	257	21274
O/N Stays (Backcountry)	28	160	355	249	476	340	496	74	59	34	14	43	2328
Information Station	407	898	1305	1421	926	828	630	833	469	772	787	483	9759
Big Sandy Creek	434	91	6	57	30	133	416	360	193	528	514	373	3135
Menard Creek	17	6	0	122	182	2829	2171	1001	564	89	27	4	7012
Beech Creek	25	6	2	43	2	5	12	21	15	70	45	19	265
Turkey Creek	40	35	40	180	114	302	234	197	110	96	37	42	1427
Hickory Creek	11	9	7	59	11	56	38	142	78	59	12	9	491
North Dist Other	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dist Other													
Headquarters													
Kirby Nature Trail													
Sundew Trail													
Beech Woods Trail													
Pitcher Plant Trail													
Turkey Creek Trail													
Woodlands Trail													
Big Sandy Horse Trail													
Total Trail Use	546	709	1328	1679	630	409	405	613	324	852	662	412	8569
TOTAL	3638	3999	5380	8471	11889	13596	13061	15294	12711	8123	8834	6630	111626

Table 2. Big Thicket National Preserve Facility Visitation by Year

FACILITY / YEAR	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Jack Gore Baygall	6565	2370	13298	6796	9808	8123	1496	16545	8063	5084	3892	3385	5853	4977	5273
Lance Rosier Unit	10957	3509	8515	8540	4443	4716	5865	23356	6250	6742	4246	2556	8896	7255	4946
Beaumont (Lakeview Beach)			14750	15575	3267	9385	1334	7361	13057	6747	11086	17675	52178	28513	29356
LPI/Pine Island Bayou												21255	25047	30443	17791
Neches River						42	314	1857	3446	2087	3748	5128	9767	13567	21274
O/N Stays (Backcountry)	290	289	593	540	392	471	726	759	1307	1565	1523	2073	2191	2092	2328
Information Station	7480	8853	8584	7269	9727	10908	2726	13414	10829	12735	13469	12159	11034	10166	9759
Big Sandy Creek												1208	924	2553	3135
Menard Creek												1469	1130	4238	7012
Beech Creek												114	52	224	265
Turkey Creek												459	792	1171	1427
Hickory Creek												75	73	205	491
North Dist Office (Other)]	2504	1995	2356	1699	1996	2151	632	8417	3254	2000	2188	226	72	0	0
South Dist Other	3551	3262	14088	19670	21573	11267	4927	15706	17158	14164	18541				
Headquarters	3816	2768	3744	4485	2507	1683	1241	889	807	974	1368				
Kirby Nature Tr	8005	7630	10965	6645	7496	7308	506	7383	7211	2683	2722				
Sundew Trail	1198	3425	3591	2508	3426	3585	1868	2559	3328	3422	3186				
Beech Woods Tr	711	1086	1668	1637	1076	1376	1674	1112	1056	762	918				
Pitcher Plant Tr				2447	2495	2746	946	2222	2202	2180	1646				
Turkey Creek Tr	4531	2618	3951	2358	2508	2830	1634	4165	3946	2452	1838				
Woodlands Trail		374	1518	1280	926	1392	2470	1514	1536	1300	1354				
Big Sandy Horse Tr									240	408	544				
Total Trail Use												15072	9304	10062	8569
TOTAL	49608	38179	87621	81449	71640	67983	28359	107259	83690	65305	72269	82854	127313	115466	111626

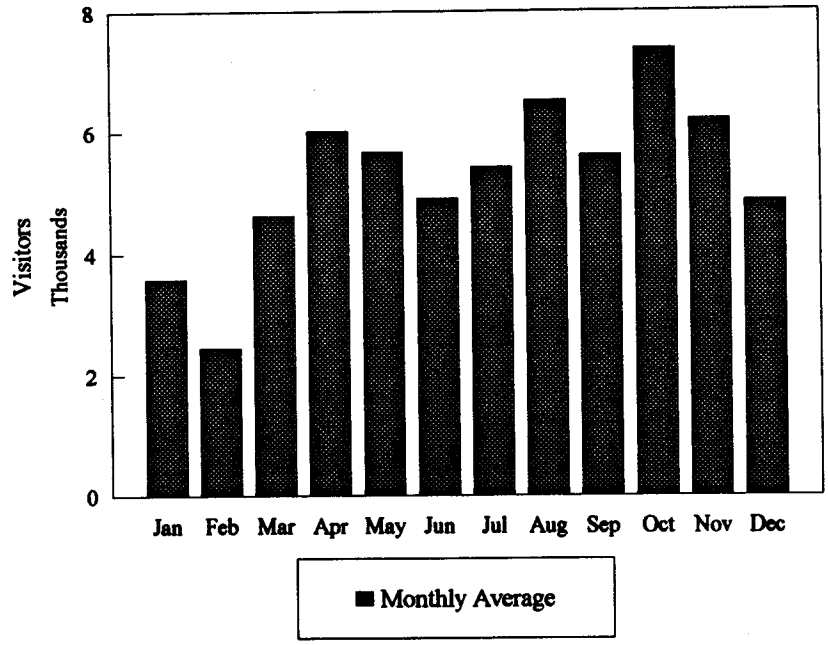
Table 3. Big Thicket National Preserve Yearly Visitation by Month

Year/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOT
1978											44	19	63
1979	27	27	74	95	199	258	200	193	341	554	623	341	2932
1980	342	545	1192	1698	977	702	622	1256	1411	1209	1549	654	12157
1981	575	616	1142	1306	1245	939	849	2590	4864	4698	2268	4992	26084
1982	3628	2246	2727	3088	2844	2513	3505	7485	3325	7721	5864	4304	49250
1983	2826	1754	2960	3894	2567	1408	1920	2948	1739	5451	4911	1549	33927
1984	2345	2474	6815	5420	7281	11019	8394	9708	6536	8150	10099	5758	83999
1985	4439	2597	5141	7023	8297	8683	7290	10326	6706	8019	5691	5617	79829
1986	5162	3636	5348	4666	10324	5660	3838	7438	5830	5578	6411	4197	68088
1987	4499	3093	4720	5950	8199	4020	5987	6225	3473	6081	6082	4928	63257
1988	3795	3055	6970	6356	7410	6296	9848	5549	4054	5400	7988	6013	72734
1989	4511	2431	6062	24612	4395	3640	4802	4020	8117	15160	17301	8896	103947
1990	5027	2580	6595	7754	8673	6816	6969	6827	6420	7056	7228	5985	77930
1991	4532	2209	5627	4614	4542	2459	7616	5308	6528	10107	6764	4999	65305
1992	6524	2088	4934	4259	7841	6296	7542	5648	5968	8601	6961	5607	72269
1993	4419	5335	7743	9010	5643	7150	6998	8391	7391	5811	4263	10700	82854
1994	4742	4559	5751	6386	10238	10437	10287	20354	16994	18278	11265	8022	127313
1995	3550	3934	5720	4063	10019	6956	30832	14883	8854	6786	11313	8556	115466
1996	3638	3999	5380	8471	11889	13596	13061	15294	12711	8123	8834	6630	111626
Avg. Monthly (1987-1996)	4524	3328	5950	8148	7885	6767	10394	9250	8051	9140	8800	7034	89270
Avg. Monthly (1980-1996)	3797	2774	4990	6386	6611	5799	7668	7897	6525	7778	7341	5730	73296
Avg. Monthly (1978-1996)	3588	2621	4717	6037	6255	5492	7253	7469	6181	7377	6603	5146	65738

*Reporting units (facility designations) changed in 1993.
SOURCE: BTNP Monthly Public Use Report, NPS Form 10-157.

Figure 2. Big Thicket National Preserve

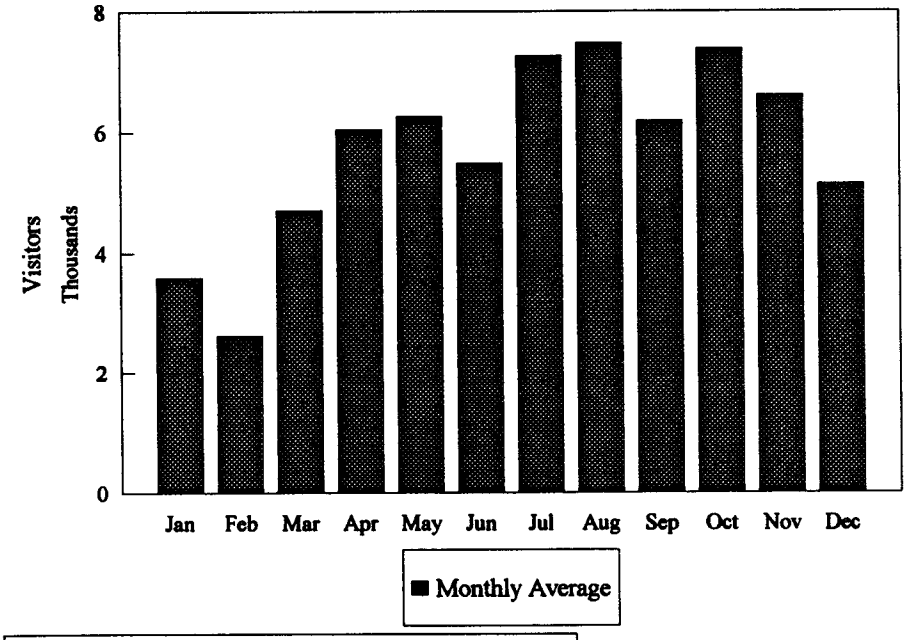
Average Monthly Visitation (1978-1994)



Source: BTNP Monthly Public Use Report, NPS Form 10-157

Figure 3. Big Thicket National Preserve

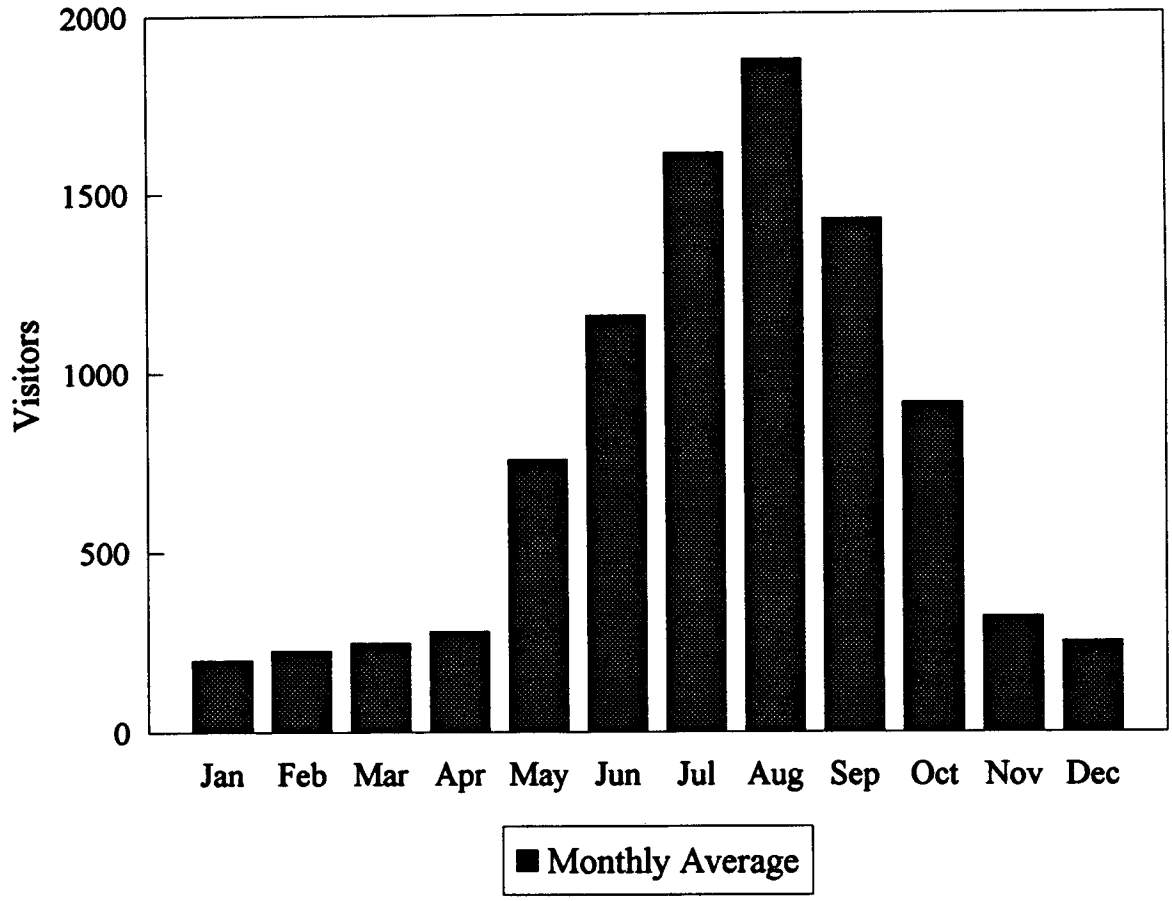
Average Monthly Visitation (1978-1996)



Source: BTNP Monthly Public Use Report, NPS Form 10-157

Figure 4. Neches River

Average Monthly Visitation (1978-1996)



Source: BTNP Monthly Public Use Report, NPS Form 10-157

Throughout the Preserve's history, February has consistently been the month with lowest visitation.

Figure 4 presents the same information for the Neches River for the period 1991-1996. The profile shows clearly that most visitation to the river occurs during the May-October period, peaking in July/August. As the visitor count data base is extended into the future, it will be possible to compare the Neches River visitation profiles with those for the tributary corridor units (Pine Island Bayou, Village Creek, Big Sandy, and Menard Creek), where public use of the smaller streams may be more affected by periods of low water in the summer.

Back country camping permits are issued and are a source of information for visitor counts for land units of the Preserve. However, this source of information is not available for the water corridors because camping on the river bank and sand bars is allowed without a permit.

A small amount of information on hunters and trappers is gathered during the annual permit process. Hunting and trapping is allowed in two of the corridor units, the Jack Gore Baygall and Neches Bottom Unit and the Beaumont Unit, although no hunting is allowed within 500 feet of any waterway. These units are along the Neches River. Figures 5, 6, and 7 show the areas in these units within which hunting was allowed in 1996. (Note that Jack Gore Baygall and Neches Bottom Unit has been shown on two maps to clearly communicate with the public, although legislatively it is one unit of the Preserve.) "Mail-back" cards are distributed at hunter sign-ups to request information on game harvests. (The return of these cards was virtually nil until the NPS made future permits conditioned on their return.) Address information included on permit applications can give an indication of the residence of hunters and trappers who use the Preserve.

Fishers, who probably represent the largest segment of users of the water corridors, are required to obtain a fishing license from the Texas Parks and Wildlife Department (TPWD). These licenses apply statewide and can be purchased at locations totally unrelated to the origin or destination of the fisher. As a result, fishing licenses offer very little direct information to the BTNP, limited mostly to the residence of licensees.

Figure 5. Jack Gore Baygall Unit Hunting Map

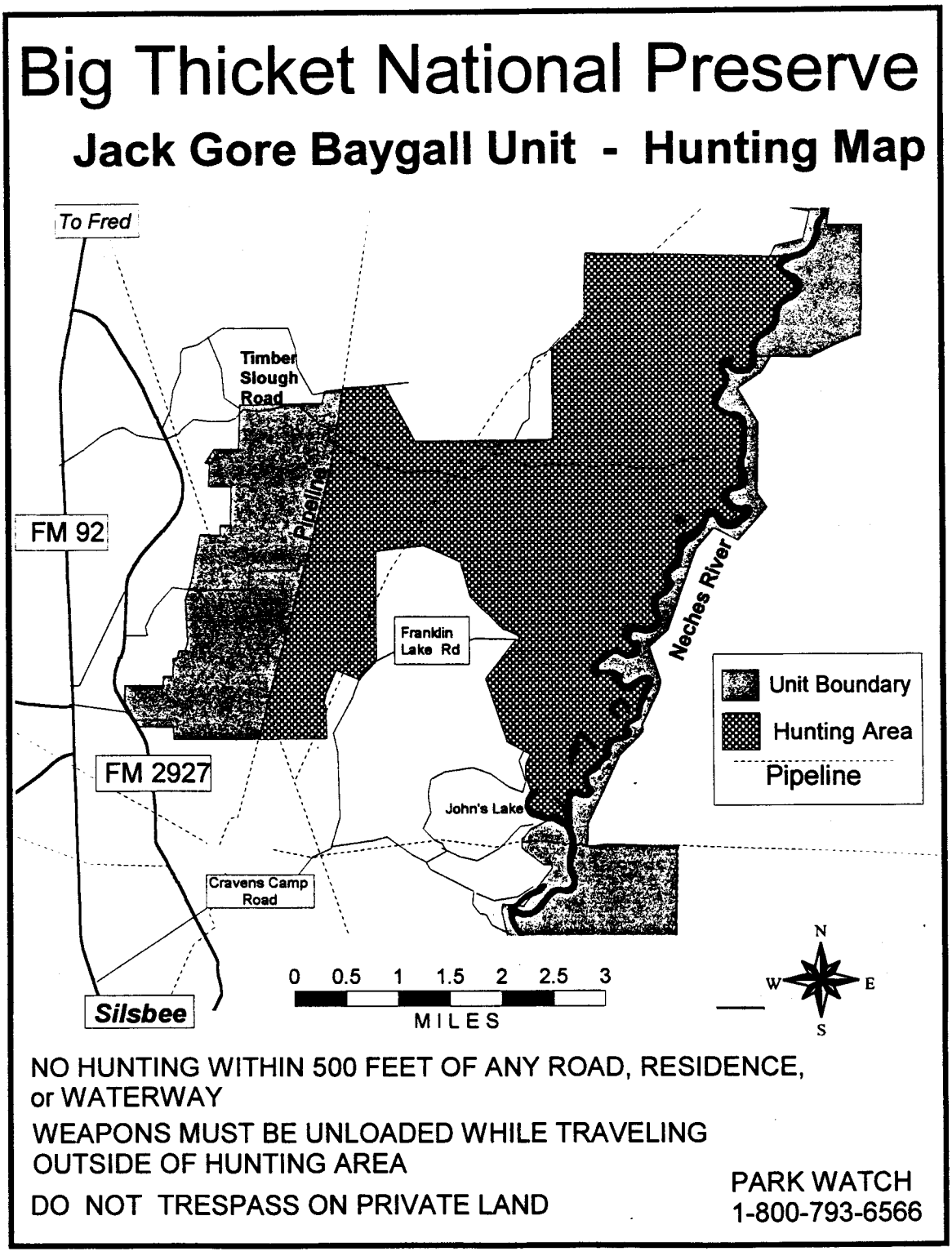


Figure 6. Neches Bottom Unit Hunting Map

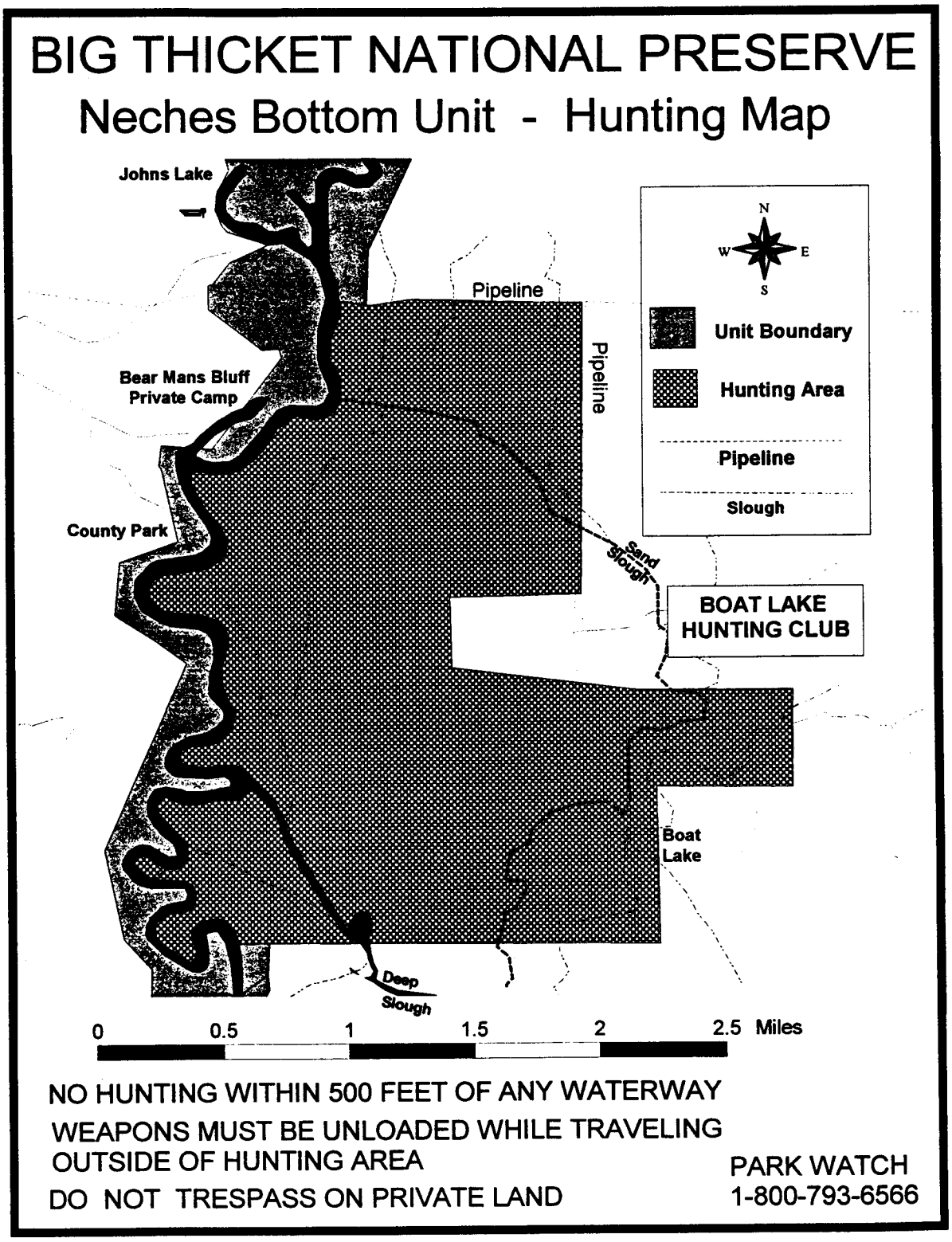
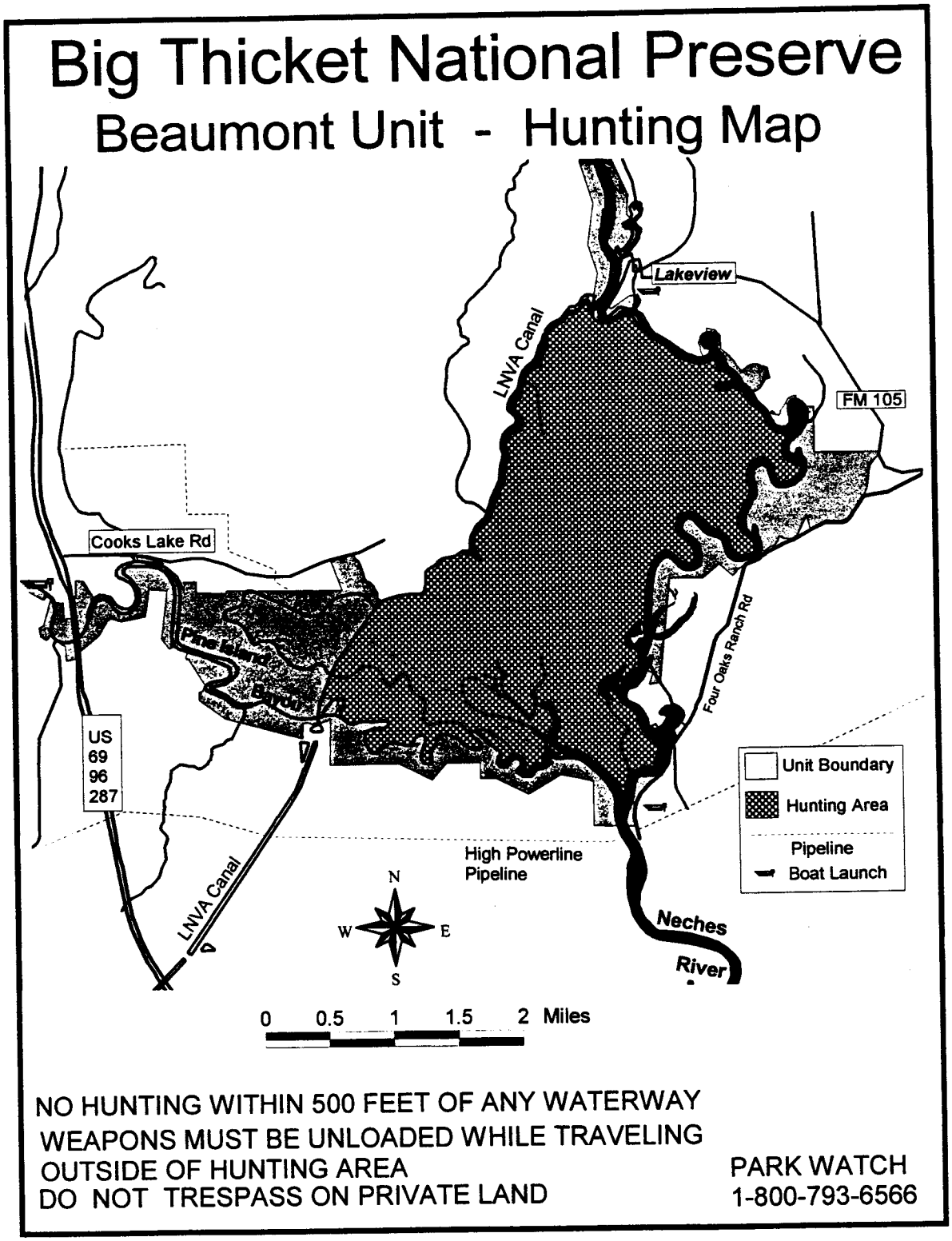


Figure 7. Beaumont Unit Hunting Map



TPWD also handles boat registrations within the state. Because of the large number of boating destinations within reach of the BTNP area, boat registrations can provide only a very gross indication of boater use in the region.

2.2 Visitor Surveys

During 1992, a 2% sampling was made was made by Park Rangers of visitors to the Turkey Creek Visitor Information Station. Data collected from that effort are shown in Table 4. The vast majority of visitors surveyed were from Texas, were Anglo, and were visiting the Preserve for the first time.

About one-third of the visitors came as family units, one-third were couples, and slightly less that one-third came in peer or tour groups. Only four percent of the people who visited the Information Station came alone. It is likely that a higher percentage of visitors to the backcountry areas, and perhaps to some of the water corridors, visit alone or in small groups. The isolation possible in these areas is part of their appeal.

2.3 Texas Outdoor Recreation Plan

TPWD carries out occasional surveys that can contribute information about hunting, fishing and general recreation in the region of the BTNP. Some of this information in available at a county level, but information specific to public use of the BTNP has not been found at TPWD. The 1990 Texas Outdoor Recreation Plan (TORP) is an excellent source of information on recreational use and facility needs for regions in the state. BTNP is located mainly in two of the State's planning regions, the 12-county Deep East Texas and 3-county Southeast Texas regions. The neighboring 13-county Gulf Coast region, which includes the Menard Creek Corridor in Liberty County, also provides information about the Houston area and the large urban population of potential Preserve visitors. For perspective, Table 5 provides some basic U.S. Census data for the three regions.

The TORP notes that the only region in Texas in which the proportion of the population who fish (53% freshwater, 6% saltwater projected for 1995) exceed the part who walk (51%) for

Table 4. Analysis of Park Users and Use Patterns
Source: BTNP 1993 Statement for Interpretation

Characteristics			Percent Responding
Point of Visitor Origin			
	Texas		85%
	Out of state		15%
Visitation Profile			
	First time		76%
	Repeat		24%
Group Affiliation			
	Alone		4%
	Young Couples (under 25)		8%
	Middle Couples (25-65)		22%
	Older Couples (over 65)		6%
	Peer Groups		16%
	Tour Groups		11%
	Families		33%
	Single Parent Family	2%	
	Extended Families	10%	
	More than One Family	2%	
	Nuclear Family	20%	
Population Membership			
	Anglo		96%
	Asian		1%
	Hispanic		3%

Visitation analysis by selected categories based on 2% sampling of visitors to the Turkey Creek Information Station during 1992.

recreation is Deep East Texas. Freshwater fishing attracts 39% of the residents in Southeast Texas and 31% of those in the Gulf Coast region. Freshwater boating is participated in by 34% of the population in Deep East Texas; 33% in Southeast Texas, and 26% in the Gulf Coast region. Deep East Texas also has the highest percent in the state (87%) of activity occasions occurring within the region of residence.

Table 5. Selected 1990 U. S. Census Data for Counties Around Big Thicket National Preserve

COUNTY	1990 TOTAL POPULATION	MALE	FEMALE	NUMBER OF HOUSE-HOLDS	1989 HOUSEHOLD INCOME MEDIAN	MEAN
SOUTH EAST TEXAS REGION						
Hardin	41,320	20,279	21,041	14,739	25,289	31,157
Jefferson	239,397	114,977	124,420	90,403	25,132	32,352
Orange	80,509	39,417	41,092	29,022	26,563	31,667
DEEP EAST TEXAS REGION						
Jasper	31,102	14,770	16,332	11,415	20,451	26,250
Polk	30,687	15,012	15,675	11,812	18,968	25,629
Tyler	16,646	8,080	8,566	6,412	20,647	25,127
HOUSTON-GALVESTON REGION*						
Chambers	20,088	10,205	9,883	6,915	31,671	35,334
Galveston	217,399	106,945	110,454	81,417	29,466	37,024
Harris	2,818,199	1,400,222	1,417,977	1,027,818	30,970	41,391
Liberty	52,726	26,410	26,316	18,491	22,637	28,105

COUNTY	RACE WHITE	BLACK	OTHER	ETHNICITY HISPANIC	NON-HISP
SOUTH EAST TEXAS REGION					
Hardin	37,399	3,492	(40,891)	661	40,659
Jefferson	154,176	74,434	(228,610)	12,342	227,055
Orange	72,340	6,756	(79,096)	1,960	78,549
DEEP EAST TEXAS REGION					
Jasper	24,754	5,884	(30,638)	515	30,587
Polk	25,189	3,875	(29,064)	1,471	29,216
Tyler	14,513	1,994	(16,507)	193	16,453
HOUSTON-GALVESTON REGION*					
Chambers	16,806	2,442	(19,248)	1,000	19,088
Galveston	164,212	38,090	(202,302)	30,407	186,992
Harris	1,826,341	540,404	(2,366,745)	634,648	2,183,551
Liberty	44,283	6,835	(51,118)	2,562	50,164

*In the Houston-Galveston Region, only Liberty County contains a portion of the Preserve.

SOURCE: U.S. Census 1990, PL94-171 and STF3A Files.

Based on population and demand estimates, TPWD projects recreational facility needs for the state's planning regions. Of note for the BTNP are the projected needs for additional freshwater boating ramp lanes. For the Deep East Texas region, there is a projected need for 10 additional lanes by 2000. For Southeast Texas, 24 additional lanes will be needed, and for the Gulf Coast region, 287 additional lanes will be needed.

2.4 Conclusion: Available Public Use Information

These are the basic information resources on public use available at the BTNP. The Division of Interpretation is currently working to secure additional visitor information through cooperative efforts with faculty and graduate students at area universities such as Lamar University and Stephen F. Austin University. This may result in added capacity for surveys of Preserve visitors.

3.0 Public Use Information at Other NPS Facilities

River use management plans from a number of other NPS facilities were reviewed to determine how public use information was gathered and used, and whether methods used could be duplicated or modified for BTNP purposes. Studies and plans were reviewed for the Rio Grande River in Big Bend National Park, Texas (Stewart et al 1993), Buffalo National River in Arkansas (NPS 1983), Chattahoochee River National Recreation Area in Georgia (Little 1982, NPS 1989b, NPS 1990), the Upper Delaware Scenic and Recreational River in New York and Pennsylvania (Dawson et al. 1981a, 1981b; NPS 1986) , Congaree Swamp National Monument in South Carolina (NPS 1988), and the Ozark National Scenic Riverways in Missouri (NPS 1989a). Transferable aspects of two of those studies are discussed below.

3.1 River Corridor Survey

A useful example from these prior NPS studies is a 1982 river corridor survey from the heavily used Chattahoochee River National Recreation Area (CRNRA) (Little 1982). This was a one-time mail survey targeted to three distinct groups: the general public, a special interest sample, and park visitors.

The general public sample was drawn from the Metropolitan Atlanta telephone book. The special interest sample was a group of attendees at a series of meetings hosted by the park planners. Questionnaires were mailed to attendees, who were principally representatives of homeowners' associations and environmental groups. The visitor sample was obtained by site contact, followed by a mail questionnaire. The response rates varied from 22% (218 of 1000 mailed returned) from the general public to 34% (135 out of 400) for visitors to 45% (45 out of 100) from the special interest group.

The 18-page, four-part survey instrument was broad in scope, covering responses in four areas: corridor issues, national recreation area planning issues, park visitation, and respondent background information. Although the length and complexity of the questionnaire probably contributed to the low response rates experienced, many of the topics covered by this

questionnaire would be of interest to managers of the BTNP. During the water corridors management assessment, a similar questionnaire was developed for the BTNP and a test application is described below in section 4.3.

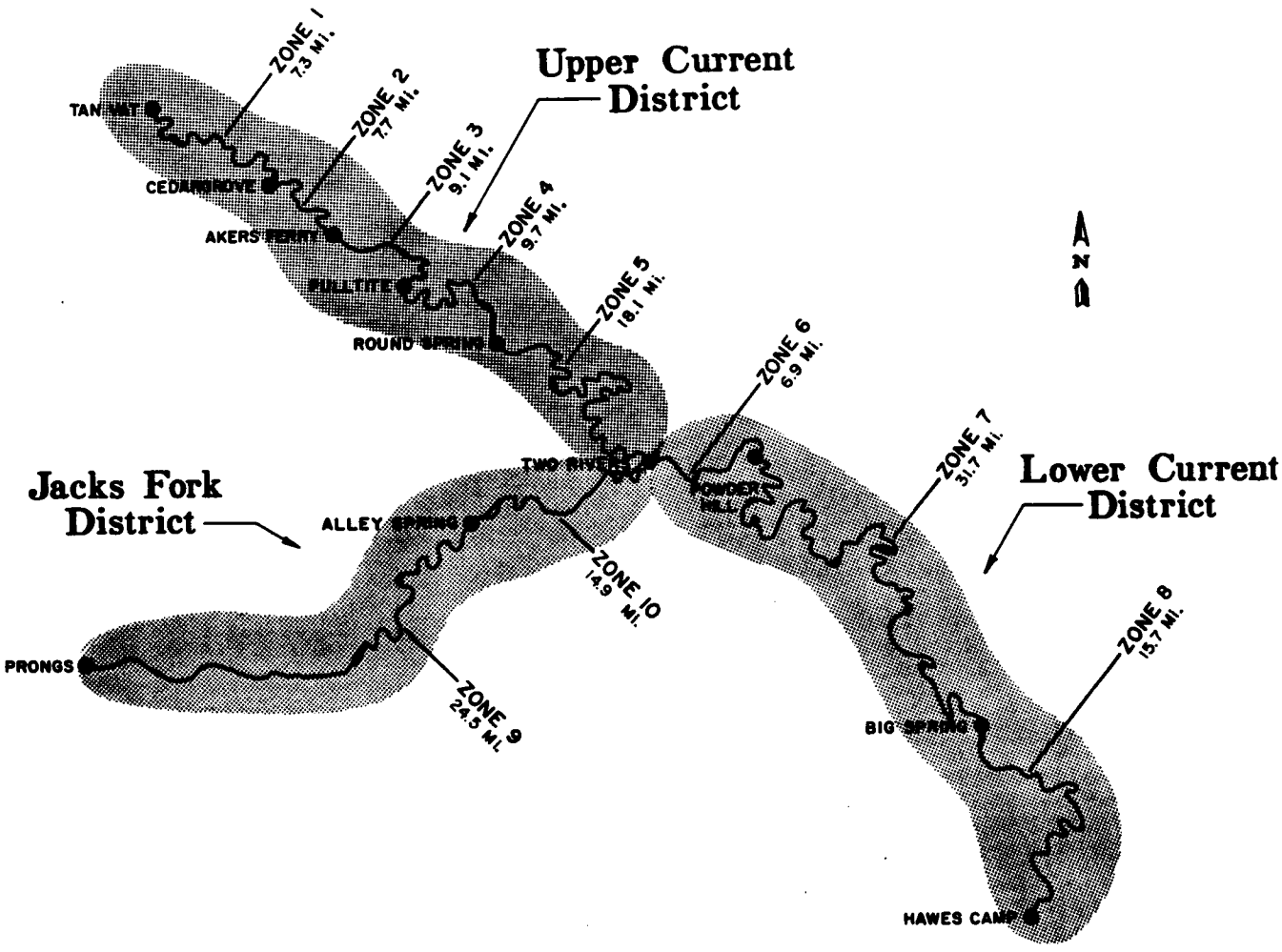
3.2 Visitation and Use Survey

Another NPS plan examined was the River Use Management Plan of the Ozark National Scenic Riverways (ONSR), prepared in 1989. The ONSR in 1972 initiated

> ... a field research program designed to systematically explore the complexities of the river use situation ... based on the knowledge that: (1) Riverways' ecosystems were complex; (2) the Riverways as a management unit was relatively new; and (3) individual managers and specialists transfer, thus a repository of information was needed for management continuity. The data derived from this program has proven invaluable in formulating management plans and in the decision-making process.

In addition to user counts and characteristics, this research program also covered topics such as perceptions of crowding on the riverways. Because data could be looked at spatially, in terms of river segments (see Figure 8), and longitudinally to examine trends and change over time, this was a rich resource to management in 1989 in determining impacts and policies. The concepts on which this research plan were based, particularly those relating to the spatial aspects of the river use data, seem to have high potential for transfer to the BTNP.

Figure 8. Districts and River Zones, Ozark National Scenic Riverways



4.0 Public Use Information Needs of the BTNP

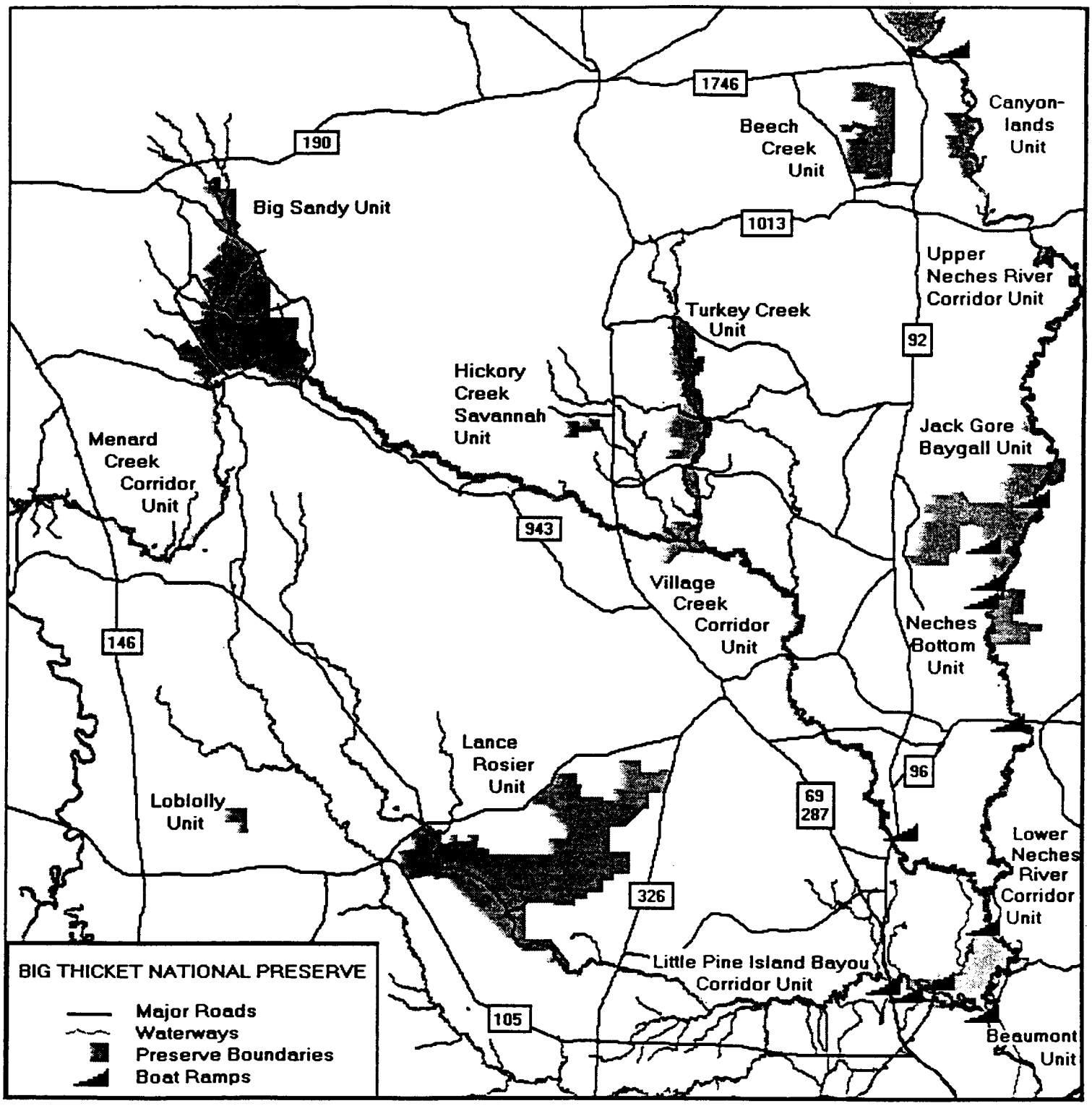
4.1 Visitor/Boat Counts

The Neches River, Pine Island Bayou/Little Pine Island Bayou and Village Creek all have boating use of some type. Better information on the level of boat traffic in these water corridors is needed and could be obtained by observing and recording the number of boats at specific locations within the Preserve at different times and seasons. This effort need not be unreasonably extensive; a half-dozen sites at highway crossings or boat ramps would provide baseline data on the areas most likely to be visited. Volunteers working in teams could be used to gather the data, and sufficient double coverage planned to provide quality assurance. Nevertheless, efforts to recruit volunteers or low cost workers for this task, mainly from area universities, have not yet been successful.

Another approach to gaining information on the level of boat traffic that might work for canoes is by periodically interviewing canoe liveries in the area. Several liveries were interviewed in 1996-1997 to determine if numbers of canoes rented could be used to estimate levels of use. Each of the firms contacted was cooperative, but they pointed out that the business is competitive and the information requested was supplied on a confidential basis only. Because of the small number of liveries active in the area (five), disclosure of proprietary information is a problem for any reporting of information on the liveries.

Nevertheless, interviews with the liveries provided information that would be helpful in designing a boat count effort. Village Creek Corridor is the corridor most used by canoers, particularly for those seeking shorter trips. Canoe trips use several distinct segments of the creek, usually defined in terms of highway crossings that are trip beginnings (put-ins) and endings (take-outs). The area most used by canoers generally ends at Village Creek State Park. Areas below the State Park are also used by jet skis and motor powered boats and are less attractive to canoers. These separate trip segments would need to be recognized when studying boat/visitor counts.

Figure 9. Map of Big Thicket National Preserve with Boat Ramps



Association. Table 6 provides information on distribution of the questionnaires and response rates for these organizations.

Table 6. Distribution and Response Rates for Test Application of BTNP Public Use Survey

Group	Number Distributed	Number Returned	Response Rate
Big Thicket Association	15	6	40%
Big Thicket Conservation Association	20	10	50%
Big Thicket Voyagers	15	4	27%
Golden Triangle Sierra Club	33	14	42%
Gulf Coast Rod, Reel & Gun Club	9	9	100%
Houston Canoe Club	38	12	32%
Jack Gore Baygall Association	25	4	16%
Total	155	59	38%

Overall, the respondents from these groups were older (average age was 54) and better educated (college graduates) than the general population in southeast Texas. Thirty-three (33) of the respondents are male and 26 are female. The average length of time in county of current residence was nearly 30 years, ranging from an average of just less than 20 years for the Houston Canoe Club respondents to an average of 42 years for Gulf Coast Rod, Reel and Gun Club respondents.

Sixty-three percent had visited a State or Federal wildlife refuge, national forest, or park within the past twelve months. Eighty percent of respondents described themselves as currently a member of a conservation or preservation group, such as the Audubon Society or the Sierra Club. Thirty-two percent were members of a water sports group, such as a canoe club. (Note that respondents were allowed to name more than one affiliation.)

For the groups surveyed, uses deemed to have some or great benefit to individual respondents were: enjoying natural area (95%), walking and hiking (85%), picnicking (81%), boating (80%)

and birdwatching (80%). Uses thought to have least individual benefit were sand dredging (92%), residential area (88%), trapping (85%), hunting (76%) and diluting treated sewage (75%). (Given the popularity of the hunting program for the BTNP, trapping and hunting uses obviously would be more favored if hunting clubs had been among the groups surveyed.) Two-thirds (66%) of the respondents preferred to keep the corridors completely natural, with no development.

Respondents were asked about a number of possible uses/activities that could occur in or near the Preserve. When asked "If you were using one of the streams, how would you feel if you could see or hear any of the following?", aside from the obvious irritants of litter and trash dumps, respondents were very bothered by seeing or hearing uses generally associated with developed areas (industrial noise, manufacturing plants, shops and restaurants, sand dredging, dams, gun shot noise, loud people, houses and yards, traffic, radio sounds, ball fields). In addition to canoes, respondents would like to see people picnicking, fishing or swimming in the water corridors.

Respondents were asked to indicate whether certain facilities or activities should occur at all sites in the Preserve, in some sites, in none of the sites, or only outside the Preserve. Very few facilities or activities were thought by a majority to be appropriate to *all* sites of the BTNP. "Areas for solitude" was favored for all sites by 71% of respondents. Preferred by 90% or more respondents for at least some sites (response was some sites or all sites) were nature viewing areas, walking trails along streams (100%); areas for solitude, backcountry camping sites, picnic areas, hiking paths, organized nature programs (98%); rest rooms, fishing, maps and informational materials (97%); swimming (95%); staffed information stations, and trash cans (93%). Those facilities and activities most frequently mentioned as being appropriate for none of the sites or which should occur only outside the Preserve were: food services, off-road vehicle areas, souvenir sales (78%); game trapping (71%); and waterskiing areas (68%). In a follow-up question, fast boats, off-road vehicles, jet skis and campsites were mentioned as items that should be allowed only outside the Preserve. Facilities or activities mentioned that NPS should provide at BTNP were: guided walks or organized hikes, a campfire program, a historical

marker at Lance Rosier Birthplace, canoe access with parking, hunting where there is an overabundance of animals, fishing and swimming (but undeveloped), and NPS guided canoe trips.

Responses to "How far are you willing to walk to have access to the water corridors?" varied considerably as shown in Table 7. Several respondents noted that the distance they were willing to walk depended on what type activity they were engaged in, principally whether or not they were carrying canoes. For boat launches, the ramps reported to be preferred are located at the Highway 69 bridge/Pine Island Bayou and at the Beaumont Country Club.

Table 7. Preferred Walking Access to BTNP Water Corridors

Response	Percent Responding
Should not have to walk at all	8
Up to 300 feet	22
About 1/8 mile	14
About 1/4 mile	25
About 1/2 mile	12
More than 1/2 mile	14
Don't know, no answer	5

Source: Test Application of BTNP Public Use Survey, 1996 (n=59).

Several questions were directed toward whether some areas or uses should be restricted. In general, respondents appeared reluctant to exclude uses. When asked about a series of features of the water corridors, respondents clearly preferred preservation (varying from 39 to 69%) but a substantial number preferred to accommodate both preservation and recreation (22 to 42%). The number of "don't know" responses increased on this question, ranging from 7 to 17%. Slightly more than half the respondents said that there are areas that should be designated for fishing and compatible uses only (e.g. no skiing, speed boating, etc.). Fourteen percent thought that skiing and speed boating should not be allowed in the Preserve at all; others thought those uses should be restricted to the lower Neches River or below the SH 96/69 bridge on Pine Island Bayou.

Respondents were asked to indicate their agreement or disagreement with a series of statements about development and operation of the preserve. Strong agreement was greatest for the statements "Some areas within the Preserve should be accessible by walking or by boat only" and "The greatest recreational benefits to the public can be realized by keeping the Preserve as natural as possible" (56%). Strong disagreement was noted for the statement: "I would not care what development occurs along the streams if it could not be seen from the stream" (54%).

Ninety-five percent of the respondents had visited the BTNP. The most visited units were: Village Creek Corridor Unit (85%), Information Station and Turkey Creek Unit (73%), Lower Neches River Corridor Unit (63%), Neches Bottom and Jack Gore Baygall Unit (58%). Canoeing (76%) and nature viewing/birdwatching (66%) were the main reasons for visiting the Preserve. These activities were followed by hiking (63%) and just relaxing (54%).

Four out of five respondents (81%) visit the Preserve at least several times a year. Most visited with a group of friends (39%) or with an organized group (24%), but 12% visited alone. Most trips to the Preserve last one day or less (69%) and are made during the weekend (83%). More than half (53%) of the respondents travelled one hour or less to get to the Preserve. One-fourth travelled one to two hours, and the remainder made longer trips.

Most visitors to the BTNP (63%) did not see or talk to a Park Ranger while in the Preserve. Facilities that had been most often used in or near the Preserve were: parking lots (64%), garbage cans (61%), hiking trails (56%), rest rooms (54%), picnic tables and areas (51%), and public boat ramps (44%). Facilities or services that respondents said should be more available included: environmental education programs (46%), garbage cans (41%), rest rooms (36%), hiking trails, shuttle service for canoers, and primitive camping areas (34%). Food and drink concessions drew the negative "should be none at all" answer by 29% of respondents. This series of questions about specific facilities and services drew the highest don't know/no answer responses of the questionnaire.

Two sets of questions about general environmental attitudes were asked. These questions provide comparisons to the Texas Environmental Survey (TES) that has been administered biannually since 1990 and the Houston Area Survey (HAS) dating to 1982. Both are random sample telephone surveys of about 1000 people. The surveys are designed and directed by Dr. Stephen Klineberg of the Sociology Department of Rice University. Tables 8 and 9 compare responses from the BTNP test survey with latest available responses from the other surveys.

Table 8. Comparison of Responses to Questions About the Seriousness of Environmental Problems: Percent Responding Very Serious

Question	BTNP Test Survey	Texas Environmental Survey
How serious a problem would you say is the "greenhouse effect," or the threat of global warming?	44	26
The world's population is growing rapidly. How serious a threat would you say this is?	61	43
How serious a problem is the loss of habitat for threatened and endangered species?	78	*
In terms of living in your area, how serious a problem is pollution?	31	19

* This question was not included in the final version of the 1996 Texas Environmental Survey. It was retained for the BTNP survey because it seemed to be particularly appropriate.

Sources: Test Application of BTNP Public Use Survey, 1996 (n=59); Stephen Klineberg, Rice University, Texas Environmental Survey 1990, 1992, 1994, 1996 -- The Complete Findings from the 1996 Survey (n=1001).

As can be seen in Table 8, the respondents to the BTNP survey, drawn principally from conservation and environmentally oriented groups, were much more likely to perceive environmental problems as serious than did the population of the state as a whole. Similarly, the responses shown in Table 9 show that the test application respondents are much more attuned to

Table 9. Comparison of General Environmental Orientations: Percent Agreeing with Statement

Statement	BTNP Test Survey	Other Survey
When humans change the natural environment, for example, by building dams or clearing forests, it often produces disastrous results.	86	(A)
Plants and animals exist primarily to be used by humans.	19	34 (T)
We humans are approaching the limits of the earth's room and resources.	71	55 (T)
We will be able to solve our environmental problems through better technologies alone, without having to change our lifestyle.	8	26 (H)
There's too much emphasis these days on conserving natural resources for the future, and not enough on using them for our current needs.	7	32 (T)

Legend: A = Atlanta
H = Houston
T = Texas

Sources: Test Application of BTNP Public Use Survey, 1996 (n=59); William S. Little, 1982, Atlanta University, River Use Corridor Survey for NPS Chattahoochee River National Recreation Area; Stephen Klineberg, 1996, Rice University, The Houston Area Survey, 1982-1996: Perspectives on a City in Transition (Summary Tables); Stephen Klineberg, 1997, Rice University, Texas Environmental Survey 1990, 1992, 1994, 1996 -- The Complete Findings from the 1996 Survey (n=1001).

an environmental message than is the state population or the residents of the nearby Houston metropolitan area. While this result is not surprising, given the groups participating in the test application, duplication of questions from an established survey can aid evaluation by putting in perspective information gained from future surveys implemented for the BTNP.

5.0 Conclusion

More plentiful information about public use of the Preserve, and particularly visitation data, can assist the NPS is providing for the use and enjoyment of the BTNP. However, the collection of data can be expensive and must be weighed against the specific benefits to be attained. Data collection over time by BTNP staff will probably be the most cost effective approach to compiling public use data. A survey administered periodically at river access points could develop better knowledge about users of the water corridors, about visitor satisfaction and about the importance of resource quality. Information regularly collected in day-to-day activities of the staff may be collected for a single purpose, such as the hunting program, but can be used to meet other data needs. Aside from collecting additional data, data bases that encourage regular analysis of collected data by making it accessible to Preserve staff would aid management. Areas that seem to warrant high-priority for the collection of additional public use information are those which would support research directed toward understanding the relationship between public uses and the natural resources of the Preserve.

Along with visitation of the BTNP, other public uses of the Preserve -- such as oil and gas production and pipelines -- and neighboring activities -- such as timbering or agriculture -- are important to managing the Preserve. Data on these activities and their interaction with Preserve visitors and natural resources should be collected and analyzed periodically.

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Appendices

Appendix A BTNP Visitation Data

Appendix B Test BTNP Public Use Survey

Table A-1. Big Thicket National Preserve Facility Visitation by Month - 1991

FACILITY / MONTH	JAN91	FEB91	MAR91	APR91	MAY91	JUN91	JUL91	AUG91	SEP91	OCT91	NOV91	DEC91	********* TOT91
Jack Gore Baygall	910	177	96	54	63	63	255	186	740	1010	740	790	5084
Lance Rosier Unit	1157	196	134	284	262	262	167	285	880	955	1130	1030	6742
Beaumont (Lakeview Beach)	205	0	21	84	400	400	2532	690	800	645	560	410	6747
LPI/Pine Island Bayou													
Neches River	25	54	60	41	63	40	396	275	312	425	195	201	2087
O/N Stays (Backcountry)	23	16	114	58	73	31	382	555	105	73	108	27	1565
Information Station	397	656	1792	1914	1774	646	977	882	730	1187	1426	354	12735
Big Sandy Creek													
Menard Creek													
Beech Creek													
Turkey Creek													
Hickory Creek													
North Dist Other	107	51	122	113	96	168	259	296	391	182	127	88	2000
South Dist Other	1106	18	1376	0	17	17	1685	1092	1660	4010	1665	1518	14164
Headquarters	50	85	74	56	68	116	34	125	74	145	95	52	974
Kirby Nature Trail	228	372	130	414	154	248	293	158	130	213	224	119	2683
Sundew Trail	100	124	538	676	588	156	232	210	202	264	242	90	3422
Beech Woods Trail	44	26	158	48	64	26	26	80	78	118	94	0	762
Pitcher Plant Trail	64	134	432	350	422	86	130	156	158	150	20	78	2180
Turkey Creek Trail	78	158	360	290	288	148	120	168	142	482	94	124	2452
Woodlands Trail	32	100	152	202	144	44	128	86	90	202	24	96	1300
Big Sandy Horse Trail	6	42	68	30	66	8	0	64	36	46	20	22	408
Total Trail Use													0
TOTAL	4532	2209	5627	4614	4542	2459	7616	5308	6528	10107	6764	4999	65305

Table A-2. Big Thicket National Preserve Facility Visitation by Month - 1992

FACILITY / MONTH	JAN92	FEB92	MAR92	APR92	MAY92	JUN92	JUL92	AUG92	SEP92	OCT92	NOV92	DEC92	********* TOT92
Jack Gore Baygall	665	172	150	68	103	294	290	170	430	760	130	660	3892
Lance Rosier Unit	970	244	65	65	23	95	155	24	112	663	1025	805	4246
Beaumont (Lakeview Beach)	594	0	0	18	1240	1984	2412	1905	854	854	670	555	11086
LPI/Pine Island Bayou													
Neches River	210	37	258	215	341	412	546	391	287	530	265	256	3748
O/N Stays (Backcountry)	21	46	76	46	377	252	193	113	118	79	140	62	1523
Information Station	361	595	1456	1716	2391	1043	819	962	991	1351	1308	476	13469
Big Sandy Creek													
Menard Creek													
Beech Creek													
Turkey Creek													
Hickory Creek													
North Dist Other	71	17	110	121	117	36	306	331	204	312	348	215	2188
South Dist Other	3019	89	1078	472	1271	1495	1665	1125	1710	2782	2190	1645	18541
Headquarters	68	97	126	74	102	105	323	99	102	107	91	74	1368
Kirby Nature Trail	53	93	397	378	406	104	237	168	284	197	220	185	2722
Sundew Trail	104	136	448	476	620	114	258	120	278	248	224	160	3186
Beech Woods Trail	30	78	176	76	74	24	56	46	112	110	82	54	918
Pitcher Plant Trail	34	78	204	310	128	138	136	32	142	240	72	132	1646
Turkey Creek Trail	226	86	62	84	514	84	60	58	174	196	114	180	1838
Woodlands Trail	72	144	304	120	102	116	86	70	82	152	62	44	1354
Big Sandy Horse Trail	26	176	24	20	32	0	0	34	88	20	20	104	544
Total Trail Use													0
TOTAL	6524	2088	4934	4259	7841	6296	7542	5648	5968	8601	6961	5607	72269

Table A-3. Big Thicket National Preserve Facility Visitation by Month - 1993

FACILITY / MONTH	JAN93	FEB93	MAR93	APR93	MAY93	JUN93	JUL93	AUG93	SEP93	OCT93	NOV93	DEC93	********* TOT93
Jack Gore Baygall	370	235	205	110	105	112	112	136	430	90	800	680	3385
Lance Rosier Unit	513	243	165	145	130	115	115	85	125	170	330	420	2556
Beaumont (Lakeview Beach)	715	610	655	480	1785	2650	3250	4405	1600	740	410	375	17675
LPI/Pine Island Bayou	980	1450	1600	1540	1580	920	950	449	2500	1176	550	7560	21255
Neches River	290	223	252	346	272	542	350	1079	839	629	67	239	5128
O/N Stays (Backcountry)	39	169	140	94	86	395	142	322	331	164	132	59	2073
Information Station	662	936	1982	1525	887	894	994	806	843	1046	956	628	12159
Big Sandy Creek	38	37	0	107	0	32	29	44	13	772	113	23	1208
Menard Creek	2	22	60	31	0	428	424	419	24	56	1	2	1469
Beech Creek	4	14	0	0	0	2	0	0	0	64	19	11	114
Turkey Creek	44	135	62	132	0	11	5	2	0	20	47	1	459
Hickory Creek	10	14	24	2	0	0	2	5	0	15	1	2	75
North Dist Other	25	21	31	25	5	33	30	17	0	20	10	9	226
South Dist Other													
Headquarters													
Kirby Nature Trail													
Sundew Trail													
Beech Woods Trail													
Pitcher Plant Trail													
Turkey Creek Trail													
Woodlands Trail													
Big Sandy Horse Trail													
Total Trail Use	727	1226	2567	4473	793	1016	595	622	686	849	827	691	15072
TOTAL	4419	5335	7743	9010	5643	7150	6998	8391	7391	5811	4263	10700	82854

Table A-4. Big Thicket National Preserve Facility Visitation by Month - 1994

FACILITY / MONTH	JAN94	FEB94	MAR94	APR94	MAY94	JUN94	JUL94	AUG94	SEP94	OCT94	NOV94	DEC94	********* TOT94
Jack Gore Baygall	690	608	608	230	284	220	220	415	382	815	745	636	5853
Lance Rosier Unit	312	299	299	305	179	468	468	1390	1165	1804	1205	1002	8896
Beaumont (Lakeview Beach)	726	750	750	1070	5140	5200	5200	10800	9020	5900	4224	3398	52178
LPI/Pine Island Bayou	1030	782	854	1000	1640	1280	1316	3600	3485	6650	1700	1710	25047
Neches River	206	229	235	605	725	838	838	2432	1253	1754	412	240	9767
O/N Stays (Backcountry)	188	53	142	255	211	237	425	242	154	203	43	38	2191
Information Station	701	826	1701	1448	950	1142	883	676	882	560	812	453	11034
Big Sandy Creek	31	21	11	0	49	14	14	30	9	27	693	25	924
Menard Creek	16	4	1	10	57	239	239	424	133	6	0	1	1130
Beech Creek	0	8	3	3	1	0	0	0	5	2	15	15	52
Turkey Creek	39	94	14	24	34	11	11	20	62	42	384	57	792
Hickory Creek	2	18	8	9	15	0	0	0	4	10	7	0	73
North Dist Other	5	4	2	2	10	23	23	2	1	0	0	0	72
South Dist Other													
Headquarters													
Kirby Nature Trail													
Sundew Trail													
Beech Woods Trail													
Pitcher Plant Trail													
Turkey Creek Trail													
Woodlands Trail													
Big Sandy Horse Trail													
Total Trail Use	796	863	1123	1425	943	765	650	323	439	505	1025	447	9304
TOTAL	4742	4559	5751	6386	10238	10437	10287	20354	16994	18278	11265	8022	127313

Table A-5. Big Thicket National Preserve Facility Visitation by Month - 1995

FACILITY / MONTH	JAN95	FEB95	MAR95	APR95	MAY95	JUN95	JUL95	AUG95	SEP95	OCT95	NOV95	DEC95	********* TOT95
Jack Gore Baygall	586	385	489	70	679	295	240	90	560	300	747	536	4977
Lance Rosier Unit	330	350	529	50	565	386	190	190	490	2020	1212	943	7255
Beaumont (Lakeview Beach)	726	470	420	120	4678	1910	3450	7400	1090	255	4811	3183	28513
LPI/Pine Island Bayou	397	595	1045	270	1340	1000	18800	1260	1100	1230	1830	1576	30443
Neches River	185	398	295	157	543	458	3944	3336	2743	720	469	319	13567
O/N Stays (Backcountry)	31	75	32	71	91	419	593	234	291	13	75	167	2092
Information Station	611	828	1185	1528	988	1130	881	573	683	842	720	197	10166
Big Sandy Creek	18	42	63	67	106	131	265	317	240	332	483	489	2553
Menard Creek	3	8	32	16	158	233	1943	873	840	29	49	54	4238
Beech Creek	7	0	4	14	27	23	14	5	10	30	35	55	224
Turkey Creek	108	48	231	125	175	127	83	42	17	48	77	90	1171
Hickory Creek	0	0	0	16	61	57	12	23	11	9	4	12	205
North Dist Other	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dist Other													
Headquarters													
Kirby Nature Trail													
Sundew Trail													
Beech Woods Trail													
Pitcher Plant Trail													
Turkey Creek Trail													
Woodlands Trail													
Big Sandy Horse Trail													
Total Trail Use	548	735	1395	1559	608	787	417	540	779	958	801	935	10062
TOTAL	3550	3934	5720	4063	10019	6956	30832	14883	8854	6786	11313	8556	115466

Table A-6. Big Thicket National Preserve Facility Visitation by Month - 1996

FACILITY / MONTH	JAN96	FEB96	MAR96	APR96	MAY96	JUN96	JUL96	AUG96	SEP96	OCT96	NOV96	DEC96	TOT96
Jack Gore Baygall	580	373	458	69	670	274	231	87	560	560	747	664	5273
Lance Rosier Unit	298	346	239	68	530	334	160	158	240	480	1212	881	4946
Beaumont (Lakeview Beach)	636	464	347	3880	4530	2364	3350	6840	1090	1100	2648	2107	29356
LPI/Pine Island Bayou	330	480	896	328	1191	1060	1340	1260	5900	2060	1610	1336	17791
Neches River	286	422	397	316	2597	4662	3578	3708	3109	1423	519	257	21274
O/N Stays (Backcountry)	28	160	355	249	476	340	496	74	59	34	14	43	2328
Information Station	407	898	1305	1421	926	828	630	833	469	772	787	483	9759
Big Sandy Creek	434	91	6	57	30	133	416	360	193	528	514	373	3135
Menard Creek	17	6	0	122	182	2829	2171	1001	564	89	27	4	7012
Beech Creek	25	6	2	43	2	5	12	21	15	70	45	19	265
Turkey Creek	40	35	40	180	114	302	234	197	110	96	37	42	1427
Hickory Creek	11	9	7	59	11	56	38	142	78	59	12	9	491
North Dist Other	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dist Other													
Headquarters													
Kirby Nature Trail													
Sundew Trail													
Beech Woods Trail													
Pitcher Plant Trail													
Turkey Creek Trail													
Woodlands Trail													
Big Sandy Horse Trail													
Total Trail Use	546	709	1328	1679	630	409	405	613	324	852	662	412	8569
TOTAL	3638	3999	5380	8471	11889	13596	13061	15294	12711	8123	8834	6630	111626

Table A-7. Big Thicket National Preserve Facility Visitation by Year

FACILITY / YEAR	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Jack Gore Baygall	6565	2370	13298	6796	9808	8123	1496	16545	8063	5084	3892	3385	5853	4977	5273
Lance Rosier Unit	10957	3509	8515	8540	4443	4716	5865	23356	6250	6742	4246	2556	8896	7255	4946
Beaumont (Lakeview Beach)			14750	15575	3267	9385	1334	7361	13057	6747	11086	17675	52178	28513	29356
LPI/Pine Island Bayou												21255	25047	30443	17791
Neches River						42	314	1857	3446	2087	3748	5128	9767	13567	21274
O/N Stays (Backcountry)	290	289	593	540	392	471	726	759	1307	1565	1523	2073	2191	2092	2328
Information Station	7480	8853	8584	7269	9727	10908	2726	13414	10829	12735	13469	12159	11034	10166	9759
Big Sandy Creek												1208	924	2553	3135
Menard Creek												1469	1130	4238	7012
Beech Creek												114	52	224	265
Turkey Creek												459	792	1171	1427
Hickory Creek												75	73	205	491
North Dist Office (Other)]	2504	1995	2356	1699	1996	2151	632	8417	3254	2000	2188	226	72	0	0
South Dist Other	3551	3262	14088	19670	21573	11267	4927	15706	17158	14164	18541				
Headquarters	3816	2768	3744	4485	2507	1683	1241	889	807	974	1368				
Kirby Nature Tr	8005	7630	10965	6645	7496	7308	506	7383	7211	2683	2722				
Sundew Trail	1198	3425	3591	2508	3426	3585	1868	2559	3328	3422	3186				
Beech Woods Tr	711	1086	1668	1637	1076	1376	1674	1112	1056	762	918				
Pitcher Plant Tr				2447	2495	2746	946	2222	2202	2180	1646				
Turkey Creek Tr	4531	2618	3951	2358	2508	2830	1634	4165	3946	2452	1838				
Woodlands Trail		374	1518	1280	926	1392	2470	1514	1536	1300	1354				
Big Sandy Horse Tr									240	408	544				
Total Trail Use												15072	9304	10062	8569
TOTAL	49608	38179	87621	81449	71640	67983	28359	107259	83690	65305	72269	82854	127313	115466	111626

APPENDIX B
TEST APPLICATION OF
WATER CORRIDOR SURVEY

The following items are laid out in the order and similar format to that used. The survey was printed on 8-1/2 x 14 inch paper as a booklet of 12 pages. Each questionnaire was accompanied by the map shown as Figure 9 in Section 4.3. One hundred fifty five (155) questionnaires were distributed and 59 were returned. The frequency of responses is reported below.

WATER CORRIDOR SURVEY

The Big Thicket National Preserve is made up of fifteen units, including three added in 1993. Eight of the units are river, creek and bayou corridors. (The enclosed map shows the location of these units.) Congress has directed the National Park Service to manage the Preserve to protect its biological values and to allow for public use and enjoyment. To assist Preserve staff, a project team from Rice University is studying the water corridors. We would appreciate your help in telling us what you think about some of the items mentioned below.

Part I - General Facilities/Activities

Some uses of the water corridors benefit some people more than others. Please indicate the extent to which you think you personally benefit from each of the uses listed below:

	Benefit Greatly	Some Benefit	Little Benefit	No Benefit	Don't Know
1. fishing	12	9	13	22	3
2. water supply	17	8	6	19	9
3. flood reduction	8	10	6	21	14
4. walking and hiking	32	17	4	4	2
5. picnicking	23	25	5	6	0
6. sand dredging	0	0	5	37	17
7. residential area	0	3	4	47	5
8. historic area	15	21	9	7	7
9. dilute treated sewage	5	6	4	30	14
10. enjoy natural area	51	5	2	0	1
11. swimming	19	19	6	12	3
12. hunting	8	5	1	41	4
13. boating	37	10	1	9	2
14. birdwatching	30	17	3	7	2
15. trapping	4	1	4	46	4

Which of the following alternatives would you prefer concerning development along the corridors? *(Please check one.)*

39 1. completely natural; no development
9 2. some development, as long as it is not visible from the stream
8 3. limited visible development (yards, homes, recreation areas)
0 4. any type of development
3 5. don't know

If you were using one of the streams, how would you feel if you could see or hear any of the following? *(Please check the appropriate response.)*

	Very Bothered	Somewhat Bothered	Not Bothered	Would Like To See	Don't Know
1. people swimming	1	5	40	12	1
2. docks or piers	17	19	17	5	1
3. people picnicking	0	5	38	16	0
4. houses and yards	30	19	7	0	3
5. people fishing	0	2	44	13	0
6. a dam	40	8	6	0	5
7. bridges across stream	14	21	18	2	4
8. power lines across stream	17	22	17	2	1
9. traffic next to stream	41	12	4	1	1
10. farms	17	15	25	1	1
11. houseboats	23	18	13	4	1
12. golf courses	35	13	7	1	3
13. ball fields	41	9	7	0	2
14. power boats	28	19	10	2	0
15. sand dredging	45	8	3	0	3
16. shops and restaurants	48	9	1	1	0
17. river bank erosion	31	13	13	0	2
18. litter on river banks	55	3	0	0	1
19. fallen trees in water	4	12	36	6	1
20. parking lots	37	17	4	1	0
21. radio sounds	43	12	2	2	0
22. traffic noise	46	9	3	0	1
23. industrial noise	53	4	1	0	1
24. boat ramps	7	22	20	10	0
25. pipeline crossing stream	25	21	12	0	1
26. people drinking beer	14	18	25	1	1
27. manufacturing plants	54	4	0	0	1
28. muddy water	11	20	27	0	1
29. gun shot noise	44	8	4	2	1
30. loud people	42	12	3	1	1
31. canoes	0	0	28	30	1
32. trash dump on bank	58	1	0	0	0
33. rip-rap on bank	30	15	5	0	9

Part II - Facility/Activity Planning

For each of the following facilities or activities please indicate if you think that it should be developed or allowed in every site in the Preserve, some of the sites, or not developed or allowed in any of the Preserve sites. *(Please check one response for each activity/facility.)*

	All Sites	Some Sites	None of the Sites	Should be out-side of Preserve	No Answer
1. backcountry camping sites	21	37	0	0	1
2. picnic areas	22	36	0	1	0
3. hiking paths	37	21	0	0	1
4. bicycle paths	7	41	4	5	2
5. bicycle rentals	1	25	15	17	1
6. rest rooms	23	34	1	1	0
7. food services	1	12	21	25	0
8. game trapping	5	10	23	19	2
9. canoe rentals	2	25	7	24	1
10. boat ramps	7	45	1	6	0
11. fishing piers	4	36	9	10	0
12. fish cleaning areas	3	28	14	13	1
13. historical displays	12	39	5	0	3
14. game hunting	6	23	16	13	1
15. parking lots	10	39	3	5	2
16. horse rental & trails	3	25	13	15	3
17. off-road vehicle areas	0	12	27	19	1
18. organized nature programs	17	41	0	0	1
19. areas for solitude	42	16	1	0	0
20. areas for swimming	12	44	3	0	0
21. fishing	26	31	1	1	0
22. nature viewing areas	37	22	0	0	0
23. staffed information stations	3	52	2	2	0
24. walking trails along streams	31	28	0	0	0
25. maps & informational materials	28	29	1	0	1
26. group picnic shelters	5	45	3	4	2
27. souvenir sales	1	10	22	24	2
28. canoe takeouts	17	34	3	3	2
29. waterskiing areas	1	17	26	14	1
30. trash cans	37	18	2	2	0

Are there any other facilities or activities that you would like or would particularly not like to see developed for the Preserve? Do these comments apply to all, some or none of the Preserve sites?

	All Sites	Some Sites	None of the Sites	Souuld be outside of Preserve
1. Fast boats		2-Limited		1
2. ORVs		1-Limited		2
3. Provide some campsites				2
4. Jet skis				2
5. Guided walks, NPS organized hikes		2		
6. Campfire program		1		
7. Historical marker at Lance Rosier Birthplace		1		
8. Canoe access with parking		1		
9. Hunting where there is overabundance of animals		1		
10. Allow fishing and swimming, but undeveloped		1		
11. Provide NPS canoe trips		1		

For each of the special events or programs listed below, please indicate if you would like to see them developed or allowed in the Preserve, would not like them, or if you don't care.

	Would Like	Don't Care	Would Not Like	Don't Know
1. nature programs (lectures)	43	13	1	2
2. nature courses	43	13	1	2
3. storytelling	30	26	1	2
4. fishing tournaments	9	18	30	2
5. pontoon boat trips	22	19	16	2
6. photography courses	30	24	3	2
7. history courses	36	20	1	2
8. birding lessons	40	16	1	2
9. group canoe trips	44	11	2	2

Are there any other programs or events you would or would not like to see in the Preserve?

	Would Like	Would Not Like
1. Campfires	1	
2 NPCA March for Parks	1	
3. Stargazing courses	1	
4. Guided walks	1	
5. Limited pontoon boat trips on the Neches River	1	
6. Horseback trailrides	1	
7. Fishing tournaments		1
8. Oil and gas development		1
9. Hunting		1
10. Gun shooting tournaments		1
11. BTNP overrun by tourists		1

How far are you willing to walk to have access to the water corridors?

1. 5 should not have to walk at all
2. 13 up to 300 feet
3. 8 about 1/8 mile
4. 15 about 1/4 mile
5. 7 about 1/2 mile
6. 8 more than 1/2 mile

If you were going boating on the Neches River or Little Pine Island Bayou, where do you think would be the best starting place? (See map for orientation.) *(Please check one.)*

1. 8 confluence of Village Creek and the Neches River
2. 6 Cockerhan Lake (Upper Neches)
3. 18 Pine Island Bayou and Highway 69 bridge
4. 7 Evadale bridge over Neches River
5. 13 Beaumont Country Club ramp

Some other location *(please specify)*.

6. 4 FM 1013
7. 4 Timberslough Road (Jack Gore Baygall Unit)
8. 1 Cooks Lake
9. 1 Below Dam B
10. 1 Village Creek at SH 418
11. 1 Pine Island Bayou at SH 105

Please indicate whether you believe that each of the following characteristics or features of the water corridors should be protected as natural areas, should be available for recreational use, or both.

	Protection	Recreation	Both	Don't Know
1. undeveloped flood plains and bottomlands	34	2	18	5
2. stream bank vegetation	37	2	14	6
3. bluffs and steep slopes	41	0	13	5
4. scenic areas visible from streams	23	5	25	5
5. unique botanical areas	36	4	15	4
6. unique wildlife habitats	38	3	14	4
7. previously developed areas	8	17	24	10

Are there areas in the water corridors that you think should be designated for fishing and compatible uses only (e.g. no skiing, speed boating, etc.)?

Yes 30 **No** 18 **Don't Know** 11

If yes, please describe these water segments (using road crossings, etc.):

1. Fishing -- all corridors.
2. Skiing, speed boating -- only below SH 96/69 (3); only on lower Neches River (3); not near bridges or boat ramps (1); not on Villages Creek or Pine Island Bayou (1); not in Cooks Lake area (1); not in Jack Gore Baygall or Neches Bottom Units (1); not in Preserve (8).

For each of the following statements about the Preserve water corridors, please tell us what you think by checking the appropriate response.

	Strongly Agree	Agree	Neutral/ Don't Know	Disagree	Strongly Disagree
1. Recreation areas should be limited to daytime use only.	12	13	9	16	9
2. The park service should be responsible for maintaining order and enforcing laws in the Preserve.	29	20	7	2	1
3. It is possible to have paved roads and parking areas near the streams to provide access and still maintain a natural appearance.	13	22	10	11	3
4. Fees should be charged only for special activities within the Preserve.	11	27	11	7	3
5. I would not care what development occurs along the streams if it could not be seen from the stream.	1	3	2	21	32
6. Picnic and parking areas should be developed in all Preserve units so that persons can have access to all parts of the corridors.	7	14	6	23	9
7. A more stringent set of development rules should apply to land within 500 feet of the Neches River than applies to the rest of the region.	19	16	14	9	1
8. Roads should be developed so that persons can have access to all Preserve areas by car.	3	7	5	25	19
9. Some areas within the Preserve should be accessible by walking or by boat only.	33	22	2	1	1
10. The park service should provide information about the Preserve at all water access points.	8	25	16	10	0

	Strongly Agree	Agree	Neutral/ Don't Know	Disagree	Strongly Disagree
11. The natural appearance of the Preserve could be maintained and still provide improved auto access to the streams.	4	30	5	13	7
12. The park service should restrict the number of persons or vehicles in specific areas to reduce crowding.	12	26	16	2	3
13. The greatest recreational benefits to the public can be realized by keeping the Preserve as natural as possible.	33	17	4	4	1
14. The park service should provide a trail (for hiking or bicycling) along the streams from one Preserve unit to another.	4	27	9	13	6
15. The park service should provide more organized recreational activities.	4	20	20	14	1
16. The park service should allow only a few access points to water corridors.	11	25	11	10	2
17. The Preserve should be oriented toward local users from this region.	3	15	8	26	7
18. The park service should provide some dedicated "single" use areas, such as for motorboating or for canoes only.	7	19	11	18	4
19. The park service should be more concerned with preserving its natural areas than providing recreation.	21	19	7	11	1

Part III - Visits to the Preserve

Have you ever been to any of the units in the Big Thicket National Preserve?

56 1. Yes

2 2. No *(If no, please go to Part IV)*

1 No answer

Which of the units have you visited? *(Please see enclosed map and check all that apply below.)*

43 1. Information Station and Turkey Creek
30 2. Big Sandy Creek
31 3. Pine Island Bayou Corridor

19 4. Little Pine Island Bayou Corridor
29 5. Upper Neches River Corridor
34 6. Neches Bottom and Jack Gore Baygall

37 7. Lower Neches River Corridor
15 8. Menard Creek Corridor
25 9. Beech Creek

21 10. Hickory Creek Savannah
24 11. Lance Rosier
15 12. Loblolly

29 13. Big Sandy Corridor (upper Village Creek)
50 14. Village Creek Corridor
22 15. Canyonlands

[Please note that the Beaumont Unit] [was not on the list; one respondent] [noted its absence.]

Why did you go to the Preserve? *(Please check the three activities most important to your visit.)*

		Main Activity	Second Activity	Third Activity
1.	nature viewing/birdwatching	13	8	18
2.	canoeing	21	10	14
3.	picnicking	0	6	11
4.	fishing	1	3	8
5.	swimming	0	2	9
6.	hiking	3	17	17
7.	boating	0	2	6
8.	just to relax	2	8	22
9.	to be with friends	0	3	15
10.	backcountry camping	1	2	11
11.	hunting	0	0	4
12.	other *(please specify)*			

Volunteer (2) Research
Photography Sandbar Camping
Ride roads Avoid people

How often do you visit the Preserve? *(Please check one.)*

2 1. nearly every day --- 4 or more times per week
3 2. at least once a week --- 1 to 3 times per week
4 3. a few times a month --- 2 or 3 times per month
7 4. at least once a month

32 5. a few times a year
7 6. no more than once a year
2 7. only went one time
2 No answer

On your most recent visit, did you go alone or with one of the following groups? *(Please check one.)*

7 1. went alone
9 2. went with spouse/girlfriend/boyfriend
3 3. went with relatives
23 4. went with group of friends
14 5. went with organized group (church, Scouts, civic, etc.)

1 6. other, please specify: Bird count
2 No answer

On your most recent visit to the Preserve, how many other persons went with you? *(Please check one.)*

7 1. went alone
11 2. went with one other person
2 3. went with two other persons

0 4. went with three other persons
17 5. went with 4 to 6 other persons
20 6. went with more than 6 other persons
2 No answer

How long did you stay in the Preserve? *(Please check one.)*

2 1. less than 1 hour
0 2. between 1 and 2 hours
7 3. between 2 and 3 hours

8 4. between 3 and 4 hours
9 5. between 4 and 5 hours
7 6. between 5 and 6 hours

8 7. one day (more than 6 hours)
16 8. more than 1 day
2 9. don't know

What time of the week was your last visit to the Preserve?

7 1. Weekday
1 2. Holiday on Weekday
47 3. Weekend
2 4. Holiday Weekend
2 5. Don't remember

About how long did it take you to drive to the Big Thicket National Preserve from your home, or from the airport destination if you travelled by air?

9 1. less than 1/2 hour
22 2. 1/2 to 1 hour

5 3. 1 to 1-1/2 hours
10 4. 1-1/2 to 2 hours

8 5. 2 to 4 hours
3 6. 4 to 8 hours

1 7. more than 8 hours
1 No answer

Did you either see or talk to a Park Ranger while you were in the Preserve?

22 Yes 37 No

Which facilities or services have you used in or near the Preserve, and which would you like to have more or less available? *(Please check as applicable.)*

	Have Used	Should be More Available	Should be Less Available	Should be None At All	Don't Know/ No Answer
1. picnic tables and areas	30	13	5	0	41
2. rest rooms	32	21	2	2	34
3. parking lots	38	15	3	1	40
4. canoe liveries	16	10	5	5	39
5. food/drink concessions	1	5	7	17	30
6. garbage cans	36	24	2	0	33
7. public boat ramps	26	12	8	1	38
8. riding trails	2	11	8	4	36
9. hiking trails	33	20	2	1	36
10. environmental education	16	27	2	1	29
11. shuttle services for canoers	16	20	1	1	37
12. fishing piers	1	13	7	7	32
13. primitive camping areas	14	20	1	0	38
14. other, please specify:				1	55
canoe access	1	1			
group shelter	1				
swimming		1			
Park rangers		1			

Part IV - Background Information

About how many times in the past 12 months have you visited any State or Federal wildlife refuges, national forests, or parks, such as Big Bend or the Grand Canyon? *(Please check one.)*

8 1. not at all
4 2. once
9 3. twice
37 4. three or more times
1 No answer

Do you currently belong to any of the following kinds of organizations? *(Please check all to which you belong.)*

	Currently a Member
1. conservation-preservation groups, such as Audubon Society or Sierra Club	47
2. wildlife sporting groups, such as Ducks Unlimited	6
3. fishermen's organizations, such as bass fishing clubs	3
4. O.R.V. groups, such as motorcycle or 4-wheel drive clubs	0
5. water sports groups, such as canoe clubs	19
6. civic groups, such as neighborhood associations	8

Please write the name of the organization in which you are most active.

Sierra Club	12
Houston Canoe Club	10
Big Thicket Conservation Assn.	7
Gulf Coast Rod, Reed & Gun Club	7
Big Thicket Voyagers	4
Jack Gore Baygall Association	4
Big Thicket Association	3
Camera Club	1
Texas Comm. on Natural Resources	1
Outdoor Nature Club-Houston	1

We would like to get your opinion on a wide range of environmental issues. For each of the statements below, please indicate how serious you think the problem is.

	Very Serious	Somewhat Serious	Not Very Serious	Don't Know	No Answer
1. How serious a problem would you say is the "greenhouse effect," or the threat of global warming?	26	18	9	4	2
2. The world's population is growing rapidly. How serious a threat would you say this is?	36	17	5	1	0
3. How serious a problem is the loss of habitat for threatened and endangered species?	46	10	1	2	0
4. In terms of living in your area, how serious a problem is pollution?	18	34	7	0	0

For each of the following statements, please indicate the extent to which you agree or disagree with the statement.

	Agree	Disagree	Don't Know	No Answer
1. When humans change the natural environment, for example by building dams or clearing forests, it often produces disastrous results.	51	3	4	1
2. Plants and animals exist primarily to be used by humans.	11	43	4	1
3. We humans are approaching the limits of the earth's room and resources	42	11	5	1
4. We will be able to solve our environmental problems through better technologies alone, without having to change our lifestyles.	5	48	5	1
5. There's too much emphasis these days on conserving natural resources for the future, and not enough on using them for our current needs.	4	53	1	1

How long have you lived in the county in which you now reside? 30 Years (Average)

Are you 33 male or 26 female? *(Please check to indicate.)*

What was your age at your last birthday? 54 Years (Average)

What is the highest year of formal schooling you have completed?

0 1. 0-8 years of school
0 2. 9-11 years completed
9 3. High school graduate

10 4. Some college or vocational training completed
14 5. 4-year college graduate
8 6. Some graduate work

18 7. Advanced college degree

What is your home ZIP code?

77705, 77706, 77707	19
77627, 77629, 77642, 77656, 77657, 77659, 77662	14
77519, 77551, 77573	5
77339, 77380, 77449	3
77000, 77006, ...77083	14
75218, 75229, 75979, 76201	4

Thank you for answering these questions. If there are any other comments you wish to make, please use the space below for this purpose or you may enclose another sheet. Your contribution to this study is greatly appreciated.

Characterization of Institutional Issues for the Water Corridor Units of the Big Thicket National Preserve

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Table of Contents

Page

1. **Introduction** 1

2. **Areawide/Institutional Issues** 4

   2.1 Air Quality/Fire Management 4
   2.2 Economic Development and Tourism 7
   2.3 Flood Control/Flow Management and Hydroelectric Power (The Operation of Town Bluff Dam) 9
   2.4 Negative Effects from Neighboring Land Uses 11
   2.5 Public Use of Private Lands/Trespassing 13
   2.6 River Awareness (BTNP Environmental Education) 15
   2.7 River Meander and Preserve Boundaries 17
   2.8 Saltwater Barriers on the Neches River 19
   2.9 State and Federal Law Enforcement Inconsistencies 22
   2.10 Stream Diversions (The Trans-Texas Program) 23
   2.11 Timber Harvest 26
   2.12 Unauthorized Commercial Use of Preserve 27

3. **Public Use Issues** 30

   3.1 Houseboats in the BTNP 30
   3.2 Illegal Collection of Plants 32
   3.3 Snag Removal 34
   3.4 Submerged Oil and Gas Wellheads 36

Appendix: Institutional Inventory for the Big Thicket National Preserve 38

List of Tables

Table		Page
1	Potential Issues for BTNP Water Corridors Management Assessment	2

1. Introduction

The purpose of this document is to briefly describe some of the issues faced in managing the water corridors of the Big Thicket National Preserve (BTNP or the Preserve). It contains a set of individual descriptions of issues which serve as background for the study team preparing a Water Corridors Management Assessment and also as an aid in developing strategies for addressing the issues. The issues presented here are mainly those involving other agencies and individuals in addition to the National Park Service, or involving members of the public using the Preserve. The issues are not necessarily contentious or negative situations; they include such positive interactions as environmental education outreach. Collectively they illustrate the number of fronts along which NPS personnel must work and the diversity of the issues to be addressed. The study team has identified a much longer list of potential issues (see Table 1) that must be addressed by a management plan, including resource, public use, and areawide/ institutional issues.

The format used to present the information in this document is the same for each issue:

ISSUE name
WHAT the background is
WHY this is an issue
WHERE the effects are manifested at BTNP
WHO is involved
WHEN provides the timing
SOURCES of information
INFORMATION NEEDS to deal with the issue
IMPACT ON WATER CORRIDORS known or anticipated
POSSIBLE MEANS OF SOLVING the issues.

The date of the last revision to each write-up of an issue is noted, since many issues are still in the process of unfolding and may have changed since that revision.

Section 2., Areawide/Institutional Issues, deals with topics that involve borders, neighbors and other institutions. Section 3., Public Use Issues, presents topics that are based within the Preserve and involve the varied users of Preserve resources.

Table 1. Potential Issues for BTNP Water Corridors Management Assessment
(List Drafted June 1994)

Areawide/Institutional Issues (Border/Neighbor Issues)

- Air Quality/Fire Management
- Economic Development and Tourism
- Flood Control/Flow Management and Hydropower Development
- Negative Effects from Neighboring Land Uses
  - Agricultural Runoff Effects on Water Quality
  - Forestry Impacts on Water Quality and Erosion
  - Industrial Impacts on Water Quality
  - Residential Impacts on Water Quality and Erosion
  - Septic Tank Leakage
  - Unpermitted and Other Discharges to Streams
- Public Use of Private Lands/Trespassing
- River Awareness (BTNP Environmental Education; Partnerships)
- River Meander
- Saltwater Barriers
- State and Federal Law Enforcement Inconsistencies
- Stream Diversions/Water Rights
- Unauthorized Commercial Use of Preserve
  - Timbering encroachment
  - Livestock

Public Use Issues (Within Preserve Issues)

- Boating Safety
  - Hazards in water
  - Speed limits
  - Firearms
  - Alcohol use
  - State-Federal regulations
- Boating Use Patterns
  - Conflicts
  - Crowding
- Boundary Markers
  - Maintenance/replacement
  - New uniform boundary markers
- Houseboats
  - Water quality
  - Aesthetics
- Hunting/Poaching
  - Harvest (game management)
  - Safety
  - Allocation mechanism
  - Law enforcement
  - State-Federal regulations
- Illegal Collection of Plants (law enforcement)
- Littering
- Solid waste disposal
  - Aesthetics
  - Water quality
- Mineral Extraction (oil, gas, shell and gravel)
  - Platforms/pipelines
  - Habitat fragmentation
  - Water quality
- River Access
  - Facility construction
  - Habitat fragmentation
- Snag Removal
  - Habitat
  - Boating Safety/liability
- Trash Dumping
  - Solid waste disposal
  - Law enforcement

Table 1. Potential Issues for BTNP Water Corridors Management Assessment (continued)

Public Use Issues (Within Preserve Issues) (continued)	
User Conflicts	Vandalism (law enforcement)
Hunters/hikers	Visitation
Fishers/boaters/swimmers	Waste Disposal (current and future)
Boaters/canoers	Siting
Jet skis	Capacity

Resource Issues	
Biodiversity (populations, migration)	Scenic Qualities
Endangered Species (habitat protection)	Siltation
Exotic Species	Southern Pine Beetle (SPB management plan)
Flood/Flow Characteristics	Streambank Erosion
Habitat Fragmentation (e.g. pipeline crossings)	Water Quality
Habitat Quality (aquatic, wetland, other)	Wetland Degradation

2. Areawide/Institutional Issues

2.1 Issue: Air Quality/Fire Management

What: A large part of the Big Thicket is located within an Air Quality Maintenance Area, a non-compliance area, subject to regulation under the federal Clean Air Act and its amendments (40 CFR Part 51). As a result, fire management techniques that traditionally have been available for forest and range resource management have been curtailed by restrictions on outdoor burning promulgated by the Texas Natural Resource Conservation Commission (30 TAC Secs. 111.101 et seq.).

Petrochemical, manufacturing and forest products industries in southeast Texas are major sources of emissions that influence air quality in the BTNP area. Studies by Egan and Gordy (1981) and Gordy (1986) of lichen in the BTNP found no negative effects on populations or distributions directly attributable to air quality. An air quality monitoring station was established by the NPS in the Turkey Creek Unit in 1985 to monitor sulfur dioxide and ozone concentrations and related climatological data, and has found that significant ozone events occur during the summer months. [This monitoring has since been discontinued.]

Why: Current air pollution control regulations incorporate a concept of limiting total emissions within an airshed. Under the State's "bubble policy" (30 TAC Sec. 101.23), a strategy is possible that restricts outdoor burning to offset additional emissions from other sources within the region. Controlled burning is an important resource management tool in BTNP that may be limited further under currently developing air pollution control regulations.

Where: The need for fire management affects forest and rangelands bordering the waterways within the corridors. The impact is not extensive within the water corridors because the vegetation types present there are not now under fire management (see BTNP Fire Management Plan).

Who: The Texas National Resource Conservation Commission (formerly the Texas Air Control Board) is the principal agency involved in air quality management in Texas. TNRCC staff contacts include: Beverly Hartsock (Deputy Director for Policy and Regulatory Development, --has been in charge of developing SIPs for AQMAs and is now in charge of the State's regulatory programs; her administrative assistant is Bertha Valadez); Vic Sair (at Beaumont Region 10 Office); and Charles Palmer, (National Ambient Air Quality Standards, Toxics & Permits Section, -- formerly of the Houston Regional Office, who is very knowledgeable about the regulations). The U.S. Environmental Protection Agency has jurisdiction in air quality matters, but in practice has deferred to State planning, regulation and enforcement.

Another important entity involved in air quality management is the South East Texas Regional Planning Commission, which is developing the regional air quality plan. Bob Dickinson is the principal contact at SETRPC. He handles air, transportation and 911 emergency programs (secretary is Anita). Other groups interested in air quality and fire management policies include several related to the agriculture and silviculture community: Soil and Water Conservation Board, Natural Resources Conservation Service, Texas Forest Service, Texas Forestry Association, and area farmers and ranchers. (Reportedly a private group, the "East Texas Right to Burn Coalition" has formed to seek a legislative solution to regulatory controls. However, no information on this group is currently available.)

Among the Big Thicket National Preserve staff, North District Ranger David McHugh, Acting Chief of Resource Management Paul Whitefield, and Resource Management Specialist Ricky Maxey are informed on this topic.

When: Restrictions on outdoor burning are in place in the form of rules adopted by the TNRCC (30 TAC Secs. 111.101 et seq.). Some elements of the State Implementation Plan (SIP) for Air Quality Maintenance Areas were submitted to EPA in 1993; other elements were due to EPA in November 1994 although this date has slipped. Under the federal Clean Air Act, the State is to demonstrate that its SIP can achieve 15% reduction in air emissions by 15 November 1996.

Sources: Federal Clean Air Act as amended (USC 1857-18571, as amended by PL 91-604); 40 CFR Parts 50-99; State Clean Air Act (VTCA Health and Safety Code Part 382); 30 TAC Secs. 101.1 et seq.; BITH-N-004 Air Quality and Effects on Resources; interviews with BTNP, SETRPC and TNRCC staff.

Information Needs:

1. Models applicable to controlled burns used by regulators in Texas have been criticized by BTNP staff. These models may not accurately reflect the impacts of controlled burns in the BTNP area.
2. Sound scientific data and better public information programs are needed to show the public that the impacts of controlled burns are acceptable.
3. In other geographic areas, aerial deposition of toxics to waters is a growing concern. Because of industries in the region, the relationship between air and water quality may in the future become a topic of needed research at BTNP. At present, water quality analyses at BTNP indicate the possible presence of toxics at very few sites and air deposition of toxics is not a major current concern.

Impacts on Water Corridors: Minimal.

Possible Means of Solving:

1. BTNP staff can participate in regional and state air quality planning efforts so that NPS views are known to regulators.
2. Cooperative efforts, such as seminars, with the timbering and agricultural communities to provide scientific information to the public and regulators could be pursued.
3. Continued/expanded air quality monitoring would contribute to the scientific data base available to resolve this issue.

(December 1994.)

2.2 Issue: Economic Development and Tourism in the BTNP Region

What: The South East Texas and Deep East Texas regions, within which BTNP is located, are actively seeking economic development. The development of recreational and tourism amenities such as the BTNP is an important component of this effort. The objective from the economic development point of view is to attract visitors in large numbers and to create jobs.

Why: The oil bust recession that hit Texas in the 1980s was particularly hard on the Beaumont-Port Arthur area. Government ownership of land and habitat preservation measures are sometimes viewed as obstacles to economic development efforts. Offsetting that view is a growing realization that substantial benefits can be gained from the tourism industry and that natural areas are of national significance as important tourist attractions. Pressure to expand recreational and tourist opportunities needs to be balanced with BTNP's mission to protect the Preserve's natural resources.

Where: All units of the Preserve.

Who: The Southeast Texas Partnership for Tourism, Recreation and Environmental Education has become an important regional group for both discussion and cooperative action. Former BTNP Supervisor Ron Switzer was instrumental in establishing the organization and BTNP staffer Susan Brown serves as Secretary. The list of members includes cities, counties, convention bureaus, chambers of commerce, schools, parks and agency personnel. This group works closely with the Texas Department of Commerce, Tourism Division.

As the regional planning organization, the South East Texas Regional Planning Commission has responsibilities in this area. Chief contacts at SETRPC are its director, Don Kelley and Mike Foster. Rusty Phillips at the Deep East Texas Council of Government and Economic Development District is also knowledgeable on economic development matters in the northern portion of the BTNP area.

When: This is a current and ongoing issue.

Sources: Personal interviews.

Anton, John et al. February 1993. Eco-Tourism in Tyrrell County (North Carolina): Opportunities, Constraints, and Ideas for Action. Institute for Economic Development, University of North Carolina, for The Conservation Fund, U.S. Fish and Wildlife Service, Tyrrell County, Town of Columbia, Tyrrell County Community Development Corporation.

Araujo, Maria I. et al. 1990. 1990 Texas Outdoor Recreation Plan -- Assessment and Policy Plan. Texas Parks and Wildlife Department, Parks Division.

Eubanks, Ted. L., Jr. Unpublished draft, 1993. Economics in the Environmental Age, A Case Study of Avitourism.

Information Needs:

Data on the economic importance of passive recreation as well as more traditional activities would help BTNP garner support for preservation efforts.

Impact on Water Corridors: The potential impact of economic development activities is extremely variable. The extent of impact depends principally on the level and type of recreational and tourist use of water corridors promoted and the management techniques instituted to prevent negative impacts on natural resources. BTNP participation in economic development efforts benefits the Preserve generally through greater community support and awareness of its mission.

Possible Means of Solving:

1. Continue active support of and participation with South East Texas Partnership for Tourism, Recreation and Environmental Education.
2. Participate in economic development planning in the surrounding counties and regions.
3. Continue and expand use of press releases and speaking opportunities to provide community education on the economic importance of BTNP to the region.

(December 1994.)

2.3 Issue: Flood Control/Flow Management and Hydroelectric Power Generation -- Operation of Town Bluff Dam (Dam B)

What: Town Bluff Dam (Dam B) on the Neches River on the northern border of the BTNP Upper Neches Unit created a reservoir called Lake B. A. Steinhagen. The purposes of the facility are electricity generation and recreation. Aquatic vegetation, including hydrilla, water hyacinth, and lotus, have become a nuisance in the lake. The U.S. Army Corps of Engineers (COE), who operates the dam, has lowered the water level in the lake to reduce growth of this vegetation.

The Sam Houston electric cooperative (a privately owned organization) agreed to a lowering of the lake level for a specific period of time, with lake level to be restored starting on 15 February. The COE discussed with the cooperative an extension on the time period so that an herbicide could be applied to a 10-acre area in an additional effort to control aquatic vegetation. The cooperative did not accede to the requested time extension; however, the COE was able to apply the herbicide.

The lake water level was lowered in January 1994 and remained lowered until approximately mid-February, when, over a period of about 10 days, the water level was restored. According to the COE, some flushing of dead vegetation occurred after the lake was refilled, but there were no odor problems reported. A complaint was received form the BTNP about the flushed vegetation.

Why: Manipulation of the lake water level to control the growth of aquatic vegetation may result in negative effects downstream. The flushing of dead vegetation after the lake is refilled may result in lower DO levels, odor problems and aesthetic nuisance downstream on the Neches River.

Where: Upper Neches River Corridor Unit

Who: The U.S. Army Corps of Engineers operates the Town Bluff Dam (Dam B). Chief

contacts are Ed Murtishaw, Project Manager; Chris Byrd and Raymond Hedges, Park Rangers. The Sam Houston Electric Cooperative operates the hydroelectric plant. Also actively involved in the area is the Texas Parks and Wildlife Department. Its Parks Division operates Martin Dies, Jr. State Park and its Fisheries Division has programs and personnel in the area.

BTNP staff who have been involved in this issue include: Acting Superintendent Rick Strahan, North District Ranger David McHugh, and Resource Management Specialist Rickey Maxey.

When: This is a recurring issue.

Sources: Interviews with BTNP resource management and ranger staff and with U.S. Corps of Engineers personnel.

Information Needs:

1. Water quality sampling data for Upper and Lower Neches River.
2. BTNP user reactions to aesthetic impact of any flushed vegetation or diminution of water quality.

Impact on Water Corridors: There are probably short-term impacts on water quality and nuisance to users. There is no known impact to important species.

Possible Means of Solving: BTNP might have some impact on timing of drawdowns and flushes if there are scientific reasons (e.g. species protection) or strong management reasons (e.g. particular periods of high visitation) for influencing the operation of the dam.

(December 1994.)

2.4 Issue: Negative Effects to BTNP From Neighboring Land Uses

What: Continued development of privately-owned lands abutting the water corridors of the BTNP holds the potential to adversely affect BTNP resources. The water corridors, in particular, are vulnerable to these impacts in those areas where the Preserve boundaries do not extend beyond the water line. Neighboring land uses may affect water quality and the condition of shorelines.

Why: The BTNP and particularly the water corridor units have very long "edges" where privately-owned lands abut the Preserve. A number of lands uses with potential negative effects exist or are expected in neighboring areas. Among them are:

- o residential development (primary and secondary);
- o timbering operations (commercial and private);
- o industrial development (oil and gas; forest products);
- o agriculture;
- o publicly-owned facilities (e.g. sewage treatment facilities).

Where: Lands bordering the waterways within the corridors.

Who: Private landowners and owners and operators of public facilities are potentially involved in this issue. BTNP staff particularly affected are the park superintendent's office, the Resource Management Division, and the GIS staff.

When: This is a current issue that is anticipated to increase in the future.

Sources: Land use and ownership maps for BTNP (in progress); field survey of Neches River.

Information Needs:

1. Documentation of any negative effects.

2. Complete GIS capability currently being developed to monitor uses and ownership of lands neighboring the Preserve.

Impact on Water Corridors: Potential impacts to:

(1) water quality;

(2) streambank erosion; and

(3) aesthetics.

Possible Means of Solving:

1. Education and partnership programs, including cooperating with recycling efforts for waste oil, plastics, etc. of neighboring communities.
2. Law enforcement activities.
3. Expanded Park Watch program with community volunteers.

(December 1994.)

2.5 Issue: Public Use of Private Lands/Trespassing

What: The BTNP has very long borders relative to the size of Preserve acreage. This configuration plus the backcountry nature of the Preserve makes it possible for visitors to BTNP to trespass on private lands neighboring the NPS lands. The water corridors, where in many cases lands abutting the waters are privately held, are particularly subject to this occurrence.

Why: Trespass on private property has the potential to create unhappy neighbors and unsafe situations for trespassers. However, excessive signage would be an intrusion to the backcountry experience for Preserve visitors.

Where: This is a potential problem affecting all border areas of the Preserve, but particularly the water corridors.

Who: The principal participants in this issue are visitors to the Preserve, neighboring land owners, and local law enforcement personnel. BTNP Rangers are most immediately involved.

When: This is not a severe problem at the present time. It will likely require management attention as park use increases.

Sources: Interviews with NPS staff; BTNP incident reports.

Information Needs: Regular monitoring and analysis of incident reports for trespass incidents would reveal any increasing trends and spotlight geographic areas of concern.

Impact on Water Corridors: There appears to be no current impact on water corridors.

Possible Means of Solving:

1. Increase and improve boundary markings.

2. Educate visitors about BTNP area.
3. Increase Ranger presence.
4. Expand Park Watch program.
5. Increase regular communication with neighboring landowners to build positive relationships that can overshadow particular incidents of trespass.

(December 1994.)

2.6 Issue: River Awareness (BTNP Environmental Education)

What: An outreach program in environmental education, particularly about the importance of the water corridors to the ecology of the Big Thicket area is a growing part of BTNP activities. Outreach extends to area school districts, community organizations, and special "partnership" programs.

Why: People who are aware of the importance of natural areas such as the water corridors of BTNP area expected to be more likely to support their maintenance and to be more respectful users of BTNP facilities.

Where: This educational effort now extends to at least those counties in which the BTNP is located.

Who: The principal participants in this outreach effort are the staff of the BTNP Interpretation Division. Target audiences include school districts, community organizations (civic association; garden clubs, etc.), environmental organizations (Sierra Club, Audubon Society, The Nature Conservancy of Texas, Big Thicket Conservation Association). The Southeast Texas Partnership for Tourism, Recreation and Environmental Education has also been active in promoting environmental awareness.

When: This is a current issue.

Sources: Personal interviews.

Information Needs:

1. Curricula for different target groups.
2. Attitude surveys taken before and after major educational efforts to determine if attitudes as well as knowledge are being affected.

Impact on Water Corridors: Could be important by affecting specific activities of individuals in the short run as they come to understand how their actions affect the water corridors (e.g. destroying plant life on river banks). In the long run, the impact is expected to be major as large numbers of individuals are informed about the BTNP.

Possible Means of Solving:

1. Continue general environmental educational efforts.
2. Identify specific management problems that could be solved by behavior changes, such as trash dumping on river banks, and incorporate in educational programming.

(December 1994.)

2.7 Issue: River Meander and Preserve Boundaries

What: The boundaries of the BTNP are set out in the legislation creating the Preserve. (The Preserve boundaries are described in Vol. 40, No. 52, of the Federal Register, March 17, 1975.) Although the Neches River corridor units of the Preserve are legally defined by bank-to-bank descriptions, over time the Neches River has naturally meandered from the course existing at the time properties were acquired for the water corridors.

Why: There is a concern that river meander may result in boundaries of the water corridors not conforming to the current course of the river, with ramifications for trespass and other management and law enforcement issues.

Where: Neches River; potentially other water corridors.

Who: The principal participants in this issue are the National Park Service BTNP and neighboring property owners

When: This is a current and future problem. Some meander already has occurred.

Sources: Field reconnaissance. Interviews with NPS staff.

Information Needs:

1. Maps over time.
2. Property ownership in areas in which meander is occurring
3. Identification of legal and managerial options for specific situations.

Impact on Water Corridors: Minimal at present. Could be substantial if ownership issues arise and meander results in fragmenting the corridor.

Possible Means of Solving:

1. Acquire additional lands on border of Neches River to allow for meander in future.
2. Define all water corridors in terms that accommodate bank-to-bank inclusion in the Preserve. [This could have negative consequences similar to those faced by the State of Texas in defining its tidal ownership to "mean higher high tide line" when erosion alters the shoreline. Property owners are not enthusiastic about ceding property to the State even when it is under water.]
3. Work with neighboring property owners in areas of active meander so they will understand the bank-to-bank definition of the Neches River corridor units.

(May 1995.)

2.8 Issue: Saltwater Barriers on Neches River

What: "The Lower Neches Valley Authority has submitted an application for a Department of the Army permit to install temporary steel sheet piling salt water barriers, when needed throughout a three year period, in the Neches River at an area located between stream mile 33.5 and stream mile 35.0 and in Pine Island Bayou at or near stream mile 3.0, near Beaumont in Jefferson County, Texas." (Notice of Public Hearing, CESWG-CO-RN, Permit Application 19611) These sites are within the BTNP.

The saltwater barriers are needed to protect fresh water diversion points of the Lower Neches Valley Authority (LNVA) when water levels are low in Sam Rayburn Reservoir, preventing releases of fresh water to combat upstream movement of saltwater. The barriers are intended to be removed when lake elevations increase.

The need to prevent saltwater encroachment upstream is a recurring situation and "temporary" barriers have been used for many years (reportedly 36 times since 1944 in Pine Island Bayou, staying up for 3 days to 11 months) generating a considerable amount of negative public sentiment and subsequent debate. A long-term solution to the saltwater intrusion problem that has been proposed is a permanent saltwater barrier lower on the Neches River, below the confluence with Pine Island Bayou, and outside the boundaries of the BTNP. LNVA estimates that the permanent barrier would cost 20 times the average annual cost of using temporary barriers. The U.S. Army Corps of Engineers has studied the need for a permanent barrier. In 1994, the feasibility of a saltwater barrier on the lower Neches River was added as an element of the Trans-Texas Water Program planning studies (see separate issue description).

Why: At public hearing in January 1993, Tommy Hebert of the LNVA summarized six issue areas that had been raised in public discussion:

1. Trapping fresh water fish downstream.
2. Steel cables anchored to trees on shore damaging trees.
3. Failed dams become eyesores when not removed.

4. Residences are being flooded by a backwater effect when dams are left in place.
5. Dams block boat traffic.
6. Warning signs and hazard lighting are needed.

In addition, the NPS has questioned the COE's adherence to National Environmental Policy Act (NEPA) procedures.

Where: Lower Neches River and lower Pine Island Bayou.

Who: The Lower Neches Valley Authority is the local sponsor (permit applicant) of the temporary barriers and of the proposed permanent saltwater barrier. General Manager Tommy Hebert and Dennis Becker are main contacts; Joe Trahan is working as a consultant on this project. The U.S. Army Corps of Engineers, Galveston District is responsible for Rivers and Harbors Act Section 10 permitting for the structures. Col. John Basilotto has been succeeded by Col. Robert Gatlin as District Engineer; Mellie Billingsley represents their legal staff. Because of cost implications, LNVA water users (industry, agriculture and residential--but not Beaumont) are affected parties.

NPS-BTNP, BTNP supporting organizations, and residents of affected localities have also been involved in public discussions of this issue.

When: LNVA has negotiated an agreement with NPS. BTNP has agreed that LNVA will get two temporary structures approved with mitigating modifications, principally the installation of boat ramps. COE has requested studies of boat use of the river to justify building boat ramps as a mitigation element. The permit will be issued for five-year period while a permanent saltwater barrier is being studied.

Sources: Permit application and Environmental Assessment and Statement of Findings, Corps of Engineers, March 1994; BTNP statement at public hearing; notes from public hearing; meetings with COE/LNVA, Trans-Texas Water Program staff and BTNP.

Information Needs: Study of boat use of the Neches River requested by COE.

Impact on Water Corridors: Barriers will prevent saltwater intrusion to fresh water habitat; barriers will hinder boating use of the Neches, including law enforcement activities, during periods of extended low flows.

Possible Means of Solving: Continue participating in the decision to build a permanent saltwater barrier outside the Preserve that does not interfere with boater and other use of the water corridors.

(May 1995.)

2.9 Issue: State and Federal Law Enforcement Inconsistencies

What: Inconsistencies between state and federal hunting, fishing and boating laws and regulations present difficulties to BTNP Rangers. Specific examples: (1) state allows commercial fishing in the Neches River; BTNP allows only recreational and consumptive fishing; (2) state allows loaded guns in boats; federal law prohibits loaded guns in boats.

Why: Inconsistencies create confusion and resentment of federal law among Preserve users. Rangers prefer the more restrictive federal laws about guns for personal safety reasons.

Where: Within the BTNP.

Who: The major affected parties are field personnel of the Texas Parks and Wildlife Department, U.S. Fish and Wildlife Service and the NPS-BTNP.

When: This is a current problem.

Sources: Interviews, Team Meetings.

Information Needs:

Impact on Water Corridors: Affects law enforcement and users of water corridors.

Possible Means of Solving:

1. Join with other federal facilities in state experiencing similar problems to negotiate with TPWD.
2. Seek federal legislative remedies.

(December 1994.)

2.10 Issue: Stream Diversions -- Trans-Texas Water Program

What: The state of Texas, represented by the Texas Water Development Board as lead agency, and several river authorities and cities looking for future surface water supplies, are exploring the possibility of meeting central and south Texas water needs by transporting water from basins with excess water. Neither the Neches nor the Trinity currently is being considered as a source of water for transfer, but routes for transfer of water from the Sabine River must cross both of these basins. Routes across the Neches will likely pass through the BTNP.

Why: Although avoiding impact on the BTNP has been one criterion for reviewing early routing alternatives, the possibility exists for disruptions to the water corridors from construction, fragmentation of habitat and/or alterations in water circulation. A permanent saltwater barrier on the lower Neches River is being evaluated to augment in-basin water availability (and possibly to make the project more politically acceptable to Neches basin residents). A permanent saltwater barrier has been viewed as a preferable alternative to the temporary barriers now being used by the Lower Neches Valley Authority (LNVA) to prevent saltwater intrusion on the Lower Neches and Little Pine Island Bayou.

Where: After Phase I studies, 16 routes are to be examined in later phases. Of these, transfers from the Sabine River to the Neches River are contemplated in the very northern reach into Lake B. A. Steinhagen, and at the southern end of the Neches River to make use of existing LNVA canals. The Neches River to Trinity River transfer options include taking water out of Lake Steinhagen and moving it into the Trinity River below Menard Creek and, in the south, crossing the Neches River at the LNVA canals and through Devers Canals and other canals to the Trinity River below Liberty.

Who: The Texas Water Development Board is the lead agency for the State, and is joined by the Texas Natural Resource Conservation Commission, Texas Parks and Wildlife Department and the Coastal Coordination Council. These agencies have been charged by the legislature with

participating in a consensus water planning process" to update the state's long term water supply plan. The Trans-Texas Program is looking at meeting the water needs of the entire southeast, central and south Texas areas through water or water rights transfers or through water development projects. The program is divided into Southeast, South-Central and West-Central and North-Central Areas for studies.

Regional sponsors in the Southeast Area include the Sabine River Authority, the San Jacinto River Authority, the City of Houston and the Brazos River Authority. In 1994, the Lower Neches Valley Authority joined as a program sponsor. The Sabine River Authority operates Toledo Bend Reservoir, the only major supply of water available to meet out-of-basin needs in the State of Texas. The San Jacinto River Authority meets water needs principally for the Montgomery County and North Harris County area and jointly developed Lake Houston with the City of Houston. These areas already import water from the Trinity basin. The Brazos basin will be affected by any routing that transfers water west of Houston. The Lower Neches Valley Authority reportedly became a part of the program to prevent Neches River supplies from being transferred westward.

The sponsors have established a Technical Advisory Committee (TAC) of more than 50 members to review and comment on work plans and products. Members include state and federal agencies, local and regional agencies, environmental and public interest groups, and private sector interests. Rick Strahan represents the National Park Service on the TAC.

When: The Trans-Texas program was initiated in May 1992, with a Phase I report for the Southeast Area issued in March 1994. Four additional phases are planned: II - Feasibility and Environmental Studies; III - Preliminary System Design/State and Federal Permitting; IV - Property Acquisition/Final Design; V - Construction, Start-up, and Operation. These phases will take from five to ten years to complete.

Sources: Interviews with sponsors and TAC participants.

Brown & Root, Inc. and Freese and Nichols, Inc. March 1994. Trans-Texas Water Program Southeast Area Phase I Report. Prepared for the Sabine River Authority et al.

Information Needs:

1. Location and design of proposed river crossings;
2. Impacts of proposed crossings.

Impact on Water Corridors: Unknown at this time.

Possible Means of Solving:

1. Participate actively on Trans-Texas Water Program TAC to ensure that avoidance of impacts to BTNP continues as a principal criterion for evaluating alternatives.
2. Review proposed crossings for impact on water corridors or other BTNP units.

(May 1995.)

2.11 Issue: Timber Harvest

What: The timber industry is a major factor in the economy of East Texas. In terms of potential impact on preserve resources, timbering is probably the most important land use in areas surrounding the BTNP. Of neighboring land uses, timbering accounts for more than 90% of the land area within one mile of a water corridor.

Why: The effects of timber cultivation and harvesting have been examined in a number of southeastern U.S. settings. Among the potential impacts of this land use are:

1) land clearing resulting in invasion of exotic species of vegetation, decreased food and cover for native animals, increased erosion, decreased shade for streams, and increased runoff pollution, including chemicals, sediment and debris,.

2) road and bridge construction and use resulting in erosion at stream crossings, increased runoff pollution to streams, changes to drainage patterns and stream circulation, and increased fragmentation of habitat.

Additional issues related to timbering include unauthorized use of public land (encroachment onto BTNP lands), safety concerns relative to hunting clubs on neighboring timber industry land, use by the public of private timber company roads to access BTNP facilities.

Where: All corridors appear to have at least some neighboring timbering activities.

Who: Timber companies -- Temple-Inland, Champion International, Kirby Forest Industries
Texas Forest Service
Texas Forestry Association
U.S. Forest Service
NPS-BTNP
State Soil and Water Conservation Board

When: This is an ongoing concern.

Sources: Interviews.

P.A. Harcombe et al. Characterization of the Biological Resources of the Water Corridor Units of the BTNP. Draft, 1994.

Rosine Hall and Kathy Bruce. Characterization of the Water Quality of the Water Corridor Units of the BTNP. Draft, 1994.

Chad Shaw. Timber Effects on Water Quality. 22 March 1995.

Information Needs:

1. Need to complete GIS coverage for land ownership. (Use GIS to determine relative potential impact from timbering for each unit, e.g. percent of land area within a defined distance from stream that is owned by timber companies and subject to timber cultivation or harvest.)
2. Need to calculate coverage for land clearing activities. (Use GIS to calculate percent of cleared forest area within a defined zone around the stream.)

Impact on Water Corridors: Could have substantial impact on water corridors if timbering activities continue close to stream banks.

Possible Solutions:

1. Studies have shown that buffer widths of at least 50 feet alongside streams can diminish negative impacts of timbering to water quality.
2. Increased ranger presence and improved boundary markers may prevent encroachment on BTNP lands.
3. Work with timber companies to develop appropriate operating plans for their activities bordering the BTNP, including the use of Best Management Practices adopted by the Texas State Soil and Water Conservation Board as part of the Nonpoint Source Management Program.

(May 1995.)

2.12 Issue: Unauthorized Commercial Use of Preserve

What: BTNP has extensive unfenced borders and is configured in fifteen separate units, eight of which are water corridors. The rural nature of the area in which BTNP is located, together with its grazing and timbering land uses, also contributes to the potential for encroachment on Preserve property. As harvesting of bottomland hardwood pulp increases, there is concern that boundaries along the Neches River corridor may be subject to encroachment.

Why: Unauthorized use of BTNP property may result in degradation of the natural habitat and the conversion of public resources to private gain.

Where: Potentially all areas of the BTNP. Encroachments from timbering and grazing activities have not been documented as a problem for the water corridors. These activities have encroached on other parts of the Preserve.

Who: Potentially affected parties are:
(1) neighboring landowners, including individual landholders and timber companies;
(2) NPS-BTNP.

When: This is a potential future problem for the water corridors.

Sources: Interviews. Field reconnaissance on Neches River.

Information Needs:

1. Current information on neighboring land uses.
2. Analysis of incident reports.

Impact on Water Corridors: None known at this time.

Possible Means of Solving:

1. Increased and improved boundary markers could help prevent this potential problem.
2. Fencing could be used in selected areas.
3. Examine the desirability and feasibility of closing some roads.

(December 1994.)

3. Public Use Issues

3.1 Issue: Houseboats in BTNP

What: Houseboats are permanently moored on the Neches River and its tributaries. BTNP field staff report that the number of houseboats has increased in recent years. No specific regulations or policies exist to limit or control houseboat activities in the Preserve.

Why: A number of potential negative impacts have been attributed to these houseboats (BTNP Draft Special Project Statement FY92):

1. discharge of sewage, litter and other pollutants into the waterways
2. destruction or damage to shore trees and other vegetation
3. safety hazard to other boating
4. hazard to occupants of unsafe boats not complying with state and federal boating regulations
5. source of noise pollution in back country areas
6. aesthetically displeasing to other Preserve visitors
7. limit or prevent other visitor access to areas
8. suspected use as a platform or vehicle for activities which may include poaching, illegal fishing, illegal drug use or other unlawful activity.

Where: Neches River. Need to confirm whether houseboats also are present in tributaries.

Who: Houseboat owners (BTNP staff have identified most houseboat owners as being from the local area.)

BTNP (Kim Coast and internal BTNP committee working on houseboat issue in 1994.)

Texas Natural Resource Conservation Commission (re water pollution impacts)

Texas Parks and Wildlife Department (re fishing and boating regulations)

State and Federal law enforcement agencies re possible drug activities.

When: This is a current issue. Any proposed regulations will be subject to NEPA procedures for analysis, review and comment.

Sources: BTNP Special Project Statement FY92 prepared by Patrick Parotta; Field Reconnaissance of Neches River by David McHugh, Rosine Hall, Glenda Callaway, 1993.

Information Needs: Documentation of negative impacts of houseboats (water quality samples; photos of damaged shoreline vegetation; law enforcement incident reports).

Impact on Water Corridors: Negative impacts on water quality, aesthetics and law enforcement of unknown magnitude.

Possible Means of Solving:

1. Consider State of Texas General Land Office experience with regulating and phasing out cabins on state owned coastal lands for possible guidance.
2. Propose regulations to control impacts or prohibit houseboats within the Preserve.

(May 1995.)

3.2 Issue: Illegal Collection of Plants

What: Nationwide, in 1990, 99 species of native plants were known to have been illegally collected in 37 NPS units; in 1991, 88 species were taken from 41 NPS units.

Ginseng was the species most reported (7 parks). In eastern U.S., species most frequent were: lady's slipper orchid, rhododendron, iris, and jack-in-the-pulpit. In the southwest, yuccas and cacti were reported most frequently.

Why: Although the presence of rare plants indicates that illegal collection could be a potential problem for the Preserve, this is not thought to be a serious problem in the Big Thicket water corridors. (BTNP staff note that cypress knees, driftwood and other resources have economic value and may also be gathered illegally.)

Where: No location in BTNP identified at present.

Who: National Park Service

When: Potential problem in future.

Sources: Brief report of result of NPS 1992 questionnaire to park units in Park Science, 1993, 13(2):27.

Information Needs:

(1) Preventive measures taken at other facilities;

(2) Evidence of any plant removal from BTNP.

Impact on Water Corridors: Minimal to date.

Potential Means of Solving:

(1) Monitor of plant resources.

(2) Expand Park Watch program.

(3) Increase Ranger presence in vulnerable areas.

(December 1994.)

3.3 Issue: Snag Removal

What: River bank erosion and natural tree growth cycles result in dead trees and branches falling to the watercourses. The fallen trees are sometimes submerged and present obstacles/hazards to boaters who would like to have the trees removed from the riverway. Law enforcement personnel also must contend with these obstacles in patrolling the waterways. Some residents neighboring the smaller water corridors contend that snags contribute to flooding and should be removed.

Why: Fallen trees are part of the natural habitat of aquatic species in BTNP. Removal of snags (or "desnagging") destroys that habitat. Removal of snags may allow water to flow more quickly and would then contribute to further streambank erosion.

Where: Neches River, Pine Island and Little Pine Island Bayou, Village Creek, with respect to boating safety. (These are water corridors with significant boat and canoe usage.) Pine Island Bayou with respect to concern about flooding.

Who: NPS-BTNP

U.S. Army Corps of Engineers (Sec. 10 Rivers and Harbors Act permits)

Texas Parks and Wildlife Department (endangered species; Paddlefish reintroduction program)

U.S. Fish and Wildlife Service (potentially, for endangered species habitat).

Residents along smaller water corridors, e.g., Pine Island Bayou

When: This is a current issue.

Sources: Interviews.

Adams, P.W., Beschta, R.L. and Froehlich, H.A., 1988. Mountain logging near streams: opportunities and challenges. In: Proc. Int. Mountain Logging and

Pacific Northwest Skyline Symp., Portland, 12-16 December 1988. OR. Oregon State Univ., College of Forestry, Corvallis, pp. 153-162.

Information Needs:

1. Analysis of incident reports concerning boating safety.
2. Research on importance of snags as habitat to species in water corridors.

Impact on Water Corridors: Has substantial impact on boating safety and natural habitat.

Possible Means of Solving:

1. Increased education for boaters and residential neighbors about presence of snags and their importance for habitat.
2. Identify some areas as boating zones within which snags will be removed for safety reasons.

(May 1995.)

3.4 Issue: Submerged Oil and Gas Wellheads

What: Oil and gas activities exist within the Preserve boundaries and are specifically allowed under the legislation creating BTNP. Over time, oil and gas wells have been abandoned. Because of river meander, some of the abandoned wellheads now lie between the banks of the Neches River.

Why: In some cases, the wellheads are exposed above the normal water line, where they are an unwanted visual instrusion to a backcountry experience. During period of high flows, these wellheads may lie below the water's surface and pose a safety threat to boating use of the Neches corridor units.

Where: Neches River.

Who: NPS-BTNP
Minerals Management Service
U.S. Army Corps of Engineers (Sec. 10 Rivers and Harbors Act permits)
Texas General Land Office (owns submerged lands in Texas)
Texas Railroad Commission (regulates oil and gas activities)
Oil and gas companies that own the wellheads

When: This is a current issue.

Sources: Interviews.

Field Reconnaissance of Neches River by David McHugh, Rosine Hall, Glenda Callaway, 1993.

Information Needs:

1. Specific locations and responsible parties for abandoned wellheads located in the Neches River.

2. Analysis of incident reports concerning boating safety.

Impact on Water Corridors: Has substantial impact on boating safety and aesthetic experience of Preserve visitors.

Possible Means of Solving:

1. In the short term, markings on the exposed wellheads and bouys or other markers for wellhead below the surface could increase boater safety.
2. Join with affected state and federal agencies to cooperatively seek the removal of portions of the well structure that are above the river bed.
3. Increase positive communications with responsible oil and gas operators to inform them of the reasons for requesting the removal action.

(May 1995.)

APPENDIX

Institutional Inventory for the

Big Thicket National Preserve

Introduction

The purpose of this document is to identify and briefly describe the many institutions with which the Big Thicket National Preserve interacts at some level. This information serves as background for determining which of the institutions are important to management of the water corridors of BTNP and how these institutions might contribute to the solutions to management issues. These profiles provide communications information and officials and contacts, when available, for the organizations described.

The institutions were identified through early research and project meetings. Descriptions of institutions for which information is currently in hand (September 1994) are incorporated in this report. The latest information available is included. The format used to present the information is similar for each institution:

Title of entity
Constitutional or statutory source of authority
Thumbnail sketch of functions and responsibilities
Governance/management information
Mailing address and telephone/facsimile numbers
Contact names and specialties

Table 1 is a list of the institutions included in this report.

Table 1: LIST OF INSTITUTIONS

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1. **Federal Agencies and Officials**
   - U.S. Senators from Texas
   - U.S. Representatives from BTNP Area
   - U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service
   - U.S. Department of Agriculture, Forest Service
   - U.S. Department of Agriculture, Soil Conservation Service

Table 1: LIST OF INSTITUTIONS *(continued)*

1. **Federal Agencies and Officials** *(continued)*
   - U.S. Army Corps of Engineers
   - U.S. Coast Guard
   - U.S. Department of Energy
   - U.S. Environmental Protection Agency
   - Federal Bureau of Investigation
   - Federal Emergency Management Agency
   - U.S. Department of the Interior
   - U.S. Department of Interior, Bureau of Indian Affairs
   - U.S. Department of Interior, Bureau of Reclamation
   - U.S. Department of Interior, Fish and Wildlife Service
   - U.S. Department of Interior, Geological Survey
   - U.S. Department of Interior, Minerals Management Service
   - U.S. Department of Interior, National Biological Survey
   - U.S. Department of Interior, National Park Service
   - U.S. Department of Justice, U.S. Attorney
   - U.S. Department of Justice, Drug Enforcement Administration

2. **Louisiana State Agencies**
   - Louisiana Department of Wildlife and Fisheries

3. **Texas State Agencies and Officials**
   - Texas State Senators from BTNP Area
   - Texas State House of Representatives from BTNP Area
   - Texas Department of Agriculture
   - Texas Alcoholic Beverage Commission
   - Texas Attorney General's Ofice
   - Texas Department of Commerce
   - Texas Forest Service
   - Texas General Land Office
   - Texas Department of Health
   - Texas Natural Resource Conservation Commission
   - Texas Parks and Wildlife Department
   - Texas Department of Public Safety
   - Texas Railroad Commission
   - Texas Department of Transportation
   - Texas Water Development Board

4. **Regional Agencies**
   - Regional Councils of Government
     - Deep East Texas Council of Governments

Table 1: LIST OF INSTITUTIONS *(continued)*

4. **Regional Agencies,** Councils of Government *(continued)*
   - Houston-Galveston Area Council
   - South East Texas Regional Planning Commission

   River Authorities
   - Angelina and Neches River Authority
   - Lower Neches Valley Authority
   - Sabine River Authority
   - Trinity River Authority of Texas
   - Upper Neches River Municipal Water Authority

5. **Counties**
   - Hardin County
   - Jasper County
   - Jefferson County
   - Liberty County
   - Orange County
   - Polk County
   - Tyler County

6. **Cities**

   Hardin County
   - Kountze
   - Lumberton
   - Rose Hill Acres
   - Silsbee
   - Sour Lake

   Jasper County
   - Browndell
   - Jasper
   - Kirbyville

   Jefferson County
   - Beaumont
   - Bevil Oaks
   - China
   - Griffing Park
   - Groves
   - Nederland
   - Nome
   - Port Arthur
   - Port Neches

Table 1: LIST OF INSTITUTIONS *(continued)*

6. Cities *(continued)*

Liberty County
- Ames
- Cleveland
- Daisetta
- Dayton
- Dayton Lakes
- Devers
- Hardin
- Kenefick
- Liberty
- North Cleveland
- Plum Grove

Orange County
- Bridge City
- Orange
- Pine Forest
- Pinehurst
- Rose City
- Vidor
- West Orange

Polk County
- Corrigan
- Goodrich
- Livingston
- Onalaska
- Seven Oaks

Tyler County
- Chester
- Colmesneil
- Woodville

7. Tribal Government

Alabama-Coushatta Reservation

8. Universities

Lamar University at Beaumont
Rice University
Sam Houston State University

Table 1: LIST OF INSTITUTIONS *(continued)*

8. **Universities** *(continued)*
   Stephen F. Austin State University
   Texas A & M University

9. **Non-Governmental Organizations**
   All American Bass Anglers
   Audubon Society (National and Houston)
   Beaumont Bass Anglers/Texas Bass
   Big Thicket Association
   Big Thicket Conservation Association
   Big Thicket Institute
   Big Thicket Magazine
   Clean Air and Water Inc.
   Coalition Advocating a Safe Environment
   Gulf Coast Rod, Reel & Gun Club
   League of Women Voters of Texas
   Lone Star Bowhunters Association, Inc.
   Mid-County Bass Anglers
   National Fish and Wildlife Foundation
   The Nature Conservancy of Texas
   Sabine-Neches Conservation Club
   Safari International of Texas, PineyWoods Chapter
   Sierra Club (Golden Triangle and Lone Star Chapters)
   Southeast Texas Partnership for Tourism, Recreation
   and Environmental Education
   Sportsmen Conservationists of Texas
   Texas Committee on Natural Resources
   Texas Trappers and Fur Hunters

10. **Business and Industry**
    Oil and Gas Operations
    Pipeline Companies
    Timber Companies
    Hunting Clubs affiliated with Timber Companies
    Vendors/Concessionaires
    ACCESS
    Eastex Big Thicket Canoe Trips
    SouthWest PaddleSports
    Timber Ridge Tours

1. Federal Agencies and Officials

1.1 U.S. SENATORS FROM TEXAS

Phil Gramm (College Station)
Assistant, Michael G. Gerber — 202-224-2934
370 Russell Building
Washington, D.C. 20510
Houston Office — 713-229-2766

Kay Bailey Hutchison (Dallas)
Assistant, Jeffrey W. Munk (Legislative Counsel) — 202-224-5922
703 Hart Senate Office Building
Washington, D.C. 20510
Houston Office — 713-653-3456

1.2 U.S. REPRESENTATIVES FROM BTNP AREA

District 2 (Hardin, Jasper, Liberty, Orange, Polk, Tyler)
Charles Wilson (Lufkin)
2256 Rayburn Building — 202-225-2401
Washington, D.C. 20510
Assistant, Larry Murphy (Legislative)
Assistant, Laura Miller (Water)
701 North 1st St, Room 201, Lufkin 75901 — 409-637-1770
Assistant, Peyton Walters

District 9 (Jefferson, Chambers, Galveston Counties)
Jack Brooks (Beaumont)
2249 Rayburn Building — 202-225-6565
Washington, D.C. 20510
Assistant, Elizabeth Phillips
201 Federal Building, Beaumont — 409-839-2508

1.3 U.S. DEPARTMENT OF AGRICULTURE, AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

The Agricultural Stabilization and Conservation Service (ASCS) administers commodity and related land use programs through a state committee appointed by the Secretary of Agriculture and elected county committees. The ASCS provides funding to agricultural interests under two programs that may affect wetlands preservation. The Agriculture Conservation Program assists

with up to 80% of the cost of measures to minimize nonpoint source pollution. The Water Bank Program provides annual payments for 10-year agreements to preserve wetlands important to migratory waterfowl and to preserve, restore, and improve inland fresh water (Hadden 1992).

Hardin County Committee
2051 S. Wheeler, Jasper 75951 409-384-3332

Jefferson County Committee
4345 Phelan, Beaumont 77707 409-839-2678

Liberty County Committee
2720 Beaumont Avenue, Liberty 77575 409-336-9145

1.4 U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE

[Division of Forestry established in Department of Agriculture, 1881]
(Steen 1976)

The Forest Service (USFS) states its mission as "Multiple use to obtain greatest benefit from all resources: recreation, fish and wildlife, soil and water, timber, range, minerals" (U.S. Forest Service, 1994). The Lufkin office is headquarters for most operations in Texas and manages 675,572 acres in 15 counties. The Law Enforcement Division, also located at Lufkin, reports directly to Washington, D.C. rather than to the Texas Forests Supervisor.

USFS, Supervisory Office, National Forests and Grasslands in Texas,
701 N. First Street, Lufkin, Texas 75901 409-639-8501
Alan G. Newman, Forests Supervisor 409-639-8505
Ron Bertsch, Deputy Forests Supervisor 409-639-8501
Dennis Robertson, Staff Officer for Land Management
Planning and Public Affairs 409-639-8501
Bill Bartush, Planning Team Leader 409-639-8501
Duane Strock 409-639-8501
Gay Appolito, Public Affairs 409-639-8501
Harry Switzer, Staff Officer for Recreation, Lands,
Heritage Program, Wilderness and Surveying 409-639-8501
Larry Bonner, Staff Officer for Fisheries, Wildlife,
Range, Sil, Water, Air and Plant Ecology 409-639-8501
Don Phillips, Staff Officer for Forest Protection
and Health 409-639-8501
Reuben Natera, Staff Officer for Engineering 409-639-8501
Phil Ingram, Administrative Officer 409-639-8501

Angelina National Forest, Lufkin
Glenn Donnahoe, District Ranger 409-639-8620

Davy Crockett National Forest
Sten Olsen, District Ranger

Neches Ranger District, Crockett 409-544-2046
Trinity Ranger District, Apple Springs 409-831-2246

Sabine National Forest
Milt Evans, District Ranger
Tenaha Ranger District, San Augustine 409-275-2632
Yellowpine Ranger District, Hemphill 409-787-3870

Sam Houston National Forest
Tim Bigler, District Ranger
San Jacinto Ranger District, Cleveland 713-592-6461
Raven Ranger District, New Waverly 409-344-6205

Lyndon B. Johnson and Caddo National Grasslands
Ben Harbour, District Ranger, Decatur 817-627-5475

USFS Law Enforcement Division, 701 N. First St., Lufkin 75901
Billy Ball 409-639-8501

USFS Southern Pine Beetle Program, 2500 Shreveport Highway,
Pineville, Louisiana 71360 318-473-7286

1.5 U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

[Soil Conservation Act of 1935, 16 USC 590 a-f]

The Soil Conservation Service (SCS) is responsible primarily for conservation programs and rural community development. It is the federal partner in the National Cooperative Soil Survey and carries out conservation planning under the Soil and Water Resources Conservation Act of 1977. SCS is the principal source of soil maps and data on soil characteristics. Emergency watershed protection activities (such as erosion control) are authorized by the Agriculture Credit Act (16 USC 2003) (Hadden 1992).

County Offices
Hardin County, 300 Highway 326, Kountze 77625 409-246-3404

Jasper County, 910 N. Wheeler, Jasper 75951 409-384-2301

Jefferson and Orange Counties (24 hours) 409-839-2675
Field Office, 150 Dowlen Road, Beaumont 77706 409-860-5081
Carl Hutcherson

Liberty County, 1905 Webster, Liberty 77575 409-336-5705
SE Texas Resource Conservation and

Development Project	409-336-6721
Polk County	409-327-4434
Tyler County (Tom Mackey)	409-283-2753

Soil Survey Offices

Beaumont, 2360 Calder, Beaumont 77702	409-838-3778
Kountze	409-246-4844

1.6 U.S. ARMY CORPS OF ENGINEERS

The U.S. Army Corps of Engineers (ACOE) is the nation's civil works agency, and regulates construction activities in the "navigable water of the U.S." under the Rivers and Harbors Act of 1899 (under Section 9 or Section 10 permits). Under the Clean Water Act and its amendments, the COE permits the discharge of dredged or fill materials into the "waters of the U.S.", which include almost all waters and related wetlands (Section 404 permits). Texas falls in the Southwestern Division, which has an office in Dallas, and two districts, Fort Worth (upland) and Galveston (coastal).

ACOE, Southwestern Division, Dallas, Texas

ACOE, Fort Worth District, Fort Worth Texas

District Engineer: Colonel Joseph G. Graf	
Sam Rayburn Dam	409-384-5716
Town Bluff Dam (Lake B. A. Steinhagen) Star Route 3, Box 890, Woodville 75979-9631 Ed Murtishaw Chris Byrd	409-429-3491

ACOE, Galveston District, P. O. Box 1229, Galveston 77553-1229

District Engineer: Colonel Robert B. Gatlin	409-766-3001
Construction-Operations Division, Regulatory Branch (projects not involving federal funds)	409-766-3930
Planning Division, Environmental Resources Branch	

(projects involving federal funds)
Rick Medina, Branch Chief 409-766-3044

Port Arthur Area Office 409-985-4383
Pleasure Pier Road
(contract administration, field survey)

1.7 U.S. COAST GUARD

The U.S. Coast Guard (USCG) operates as a branch of the U.S. Department of Transportation in time of peace, and as an arm of the U.S. Navy in time of war (Hadden 1992). Among its duties, the Coast Guard supervises boating safety in navigable waters and supervises emergency response to spill contamination within navigable waters subject to tidal influence (Masterson 1991). The lower reaches of Pine Island Bayou and the lower Neches are currently subject to periodic tidal influence. Of relevance to public use of the water corridors of the BTNP, the Coast Guard directs a national boating safety program (Hadden 1992). Marine Safety Offices are located at major ports, such as Beaumont/Port Arthur.

USCG, Marine Safety Office, Port Arthur 409-724-4330
2875 75th St., Port Arthur

USCG, Marine Safety Office 409-723-6500
Pollution Reporting (24 hour) 409-723-6500
Vessel Inspections 409-723-6517

USCG Sabine Pass Station 409-971-2196
SAR Coordination Center (Sabine Pass) 409-971-2194
Houston Rescue Duty Officer 713-481-0025
New Orleans Rescue Duty Officer 504-589-6225

National Response Center (spills in waterways) 800-424-8802

1.8 U.S. DEPARTMENT OF ENERGY

The Department of Energy (DOE) has jurisdiction over most matters relating to oil and gas supplies. Production, storage and transport of gas and petroleum products in or near the Preserve are activities that might impact BTNP.

DOE Environmental Hotline 202-586-4073
800-541-1625

1.9 U.S. ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency (EPA) is charged with administering federal laws to protect the nation's water and air resources. The agency is involved in research, monitoring, standard setting, permitting, planning, emergency response, assistance to states, review of environmental impact statements, and enforcement activities. The BTNP area is included within EPA Region 6 (Texas, Louisiana, Arkansas, Oklahoma and New Mexico). Region 6 operates through divisions for water management; hazardous waste management; environmental services; air, pesticides, and toxics; and several other support division. Each of the divisions has several branches. Water management is divided into branches for permits (such as National Pollutant Discharge Elimination System, NPDES, permits); enforcement; water quality management (most planning and technical assistance programs for surface water); municipal facilities; and water supply.

EPA Region 6, 1445 Ross Avenue, Dallas 75202-2733
214-665-2100, FAX 214-665-6648
Jane Saginaw, Regional Administrator
Joe D. Winkle, Deputy Regional Administrator

Myron O. Knudson, Director, Water Management Division	214-665-7100 FAX214-665-6490
Philip A. Crocker, Technical Section, Water Quality Management Branch (toxics, fish samples)	214-665-6680

Houston Branch (Lab), 10625 Fallstone Road, Houston 77099

Willie Lane (compliance monitoring)	713-983-2209

1.10 FEDERAL BUREAU OF INVESTIGATION

The Federal Bureau of Investigation (FBI) is the nation's principal law enforcement investigative service. The FBI investigates environmental crimes for the Environmental Protection Agency. BTNP has an MOU with the Beaumont office of the FBI.

Beaumont	409-833-8571
Houston	713-868-2266

1.11 FEDERAL EMERGENCY MANAGEMENT AGENCY

The Federal Emergency Management Agency (FEMA) is responsible for all federal emergency

perparedness, mitigation, and response activities. FEMA also administers the federal flood insurance program.

FEMA, Insurance and Mitigation Division, Region VI
800 N. Loop 288, Denton 76201 817-898-9134

1.12 U.S. DEPARTMENT OF INTERIOR

The Department of Interior is responsible for conserving most of the nationally-owned public lands and natural and cultural resources. Interior oversees the development of energy and mineral resources. It also has major responsibility for American Indian reservations and U.S. Island Territories.

1.13 U.S. DEPARTMENT OF INTERIOR, BUREAU OF INDIAN AFFAIRS

The Bureau of Indian Affairs is of interest to the BTNP through its relationship with the Alabama-Coushatta Indian Reservation, a neighbor of the Preserve.

1.14 U.S. DEPARTMENT OF INTERIOR, BUREAU OF RECLAMATION

The Denver Office of the Bureau of Reclamation (BUREC) administers a dam safety program for all major dams in the U.S. A planning office is maintained in Austin.

BUREC, Area Planning Office
300 E. 8th St., Room 801, Austin 78701-3225
Fred Ore 512-482-5641
FAX512-482-5662

1.15 U.S. DEPARTMENT OF INTERIOR, FISH AND WILDLIFE SERVICE

The Fish and Wildlife Service (FWS) traces its origin to the U.S. Fish Commission established in 1871 to study declines in food fish. Today its principal activities are related to the conservation of fish and wildlife and their habitat. Toward that end FWS performs ecological studies (although some of this capability has now been transferred to the National Biological Survey) and environmental assessments of major federal actions, and reviews and comments on environmental impact statements. FWS operates the National Wildlife Refuge System, administers the Endangered Species Act and the North American Waterfowl Management Plan. The 1986 Emergency Wetlands Resources Act directed the FWS to prepare a National Wetlands Priority Conservation Plan. The Region 2 (Arizona, New Mexico, Oklahoma and Texas) plan

was completed in 1989.

FWS Region 2, P. O. Box 1306, Albuquerque, New Mexico 87103, FAX 505-766-2289

FWS, Law Enforcement Division
Beaumont, 6950 College Street, Beaumont 77707 409-839-2568
Jerry Monroe
Houston 713-229-2559

FWS, Clear Lake Ecological Services Field Office
17629 El Camino Real, Suite 211 713-286-8282
Houston, Texas 77058 FAX713-488-4882
Field Supervisor, David Hankla
Brian Cain (oil and gas, contaminants, hazardous waste)
Mary Jo Stegman (endangered species, red cockaded woodpecker)
Fred Werner (wetlands inventory)
Steve Arey (wetlands delineations)
Will Roach (partnerships program, bays and estuaries)

Anahuac National Wildlife Refuge 409-267-3337
P. O. Box 278, Anahuac 77514
Manager, Dominick Ciccone 409-839-2680
Jim Krakowski 409-971-2909
Jon Storey 409-267-3337

McFaddin National Wildlife Refuge 409-971-2909
P. O. Box 609, Sabine Pass 77655

Texas Point National Wildlife Refuge 409-971-2909
P. O. Box 609, Sabine Pass 77655

1.16 U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY

The U.S. Geological Survey (USGS) is charged with identifying the land, water, energy, and mineral resources of the nation. USGS classifies federally-owned lands for their energy, mineral and water-power potential and conducts the National Mapping Program (Hadden 1992). The Water Resources Division conducts research and prepares trend analyses. A major long-term (20 years) study of the Trinity River (to which Menard Creek is a tributary) was begun in the early 1990s. Most of the BTNP falls within the Houston Subdistrict, but part of the upper Neches (roughly above Jasper) lies within the Fort Worth Subdistrict.

USGS, Director, Gordon Eaton

USGS, Water Resources Division, Texas District
801 Cameron Road, Building 1, Austin 78754-3898
District Chief, Rich Hawkinson 512-873-3000

USGS, Water Resources Division, Houston Subdistrict 713-750-1655
2320 LaBranch, Room 1112, Houston 77004 FAX
713-750-1661
Subdistrict Chief, Joe Broadus 713-750-1655
Asst. Subd. Chief, Fred Liscum 713-750-1662
Hydrologist, Dana L. Barbie 713-750-1670
Hydraulic Engineer, Jeff East 713-750-1655

USGS, Water Resources Division, Fort Worth Subdistrict
Fort Worth Federal Center, Building 3, 501 West Felix
(P. O. Box 6976), Fort Worth 76115
Subdistrict Chief, Harry McWreath 817-334-5551

1.17 U.S. DEPARTMENT OF INTERIOR, MINERALS MANAGEMENT SERVICE

The Minerals Management Service is of interest to the BTNP because of its importance to the oil and gas operations in the Preserve.

1.18 U.S. DEPARTMENT OF INTERIOR, NATIONAL BIOLOGICAL SURVEY
[NBS created by internal reorganization, 1993]

The National Biological Survey (NBS) was created by reorganization within the Department of the Interior on 11 November 1993 (Park Science, 14-2:22). Portions of eight bureaus were transferred to NBS, with the bulk of funds and staff drawn from the Fish and Wildlife Service and the National Park Service. The NBS mission includes three major areas of activity: (1) biological and ecological research to support resource management; (2) inventory, monitoring and reporting on the nation's biological resources; and (3) transferring information to resource managers and others (Dept of Interior, 1993a). A memorandum of understanding (MOU) has been prepared by the NBS and the NPS to govern working relations between the two bureaus over the next few years.

NBS, Director, H. Ronald Pulliam
Deputy Director, Eugene Hester

1.19 U.S. DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE

NPS, P. O. Box 37127, Washington, D.C. 20013-7127

Roger Kennedy, Director	
Destry Jarvis, Special Assistant	202-208-6781
NPS, Denver Service Center	
Ken Hornback, Socio-Economic Studies Division (survey assistance)	303-969-6977
NPS, Southwest Region	
P. O. Box 728, 1220 S. St. Francis Dr.	505-988-6375
Santa Fe, NM 87504-0728	FAX 505-988-6876
John Cook, Regional Director	
Sam Kunkle, Regional Chief Scientist (Room 210)	505-988-6870
Bob Krumenaker	505-988-6713
Bob Howard	505-988-6867
Alan Ragins, Branch Chief, Rivers, Trails & Conservation Assistance Program	505-988-6723

1.20 U.S. DEPARTMENT OF JUSTICE, U.S. ATTORNEY

Beaumont (Bob Wortham)	409-839-2538
After Hours Pager for on-duty Attorney (emergencies)	713-786-8567

1.21 U.S. DEPARTMENT OF JUSTICE, DRUG ENFORCEMENT ADMINISTRATION

Austin (Frederick R. Smith, Resident Agent-in-Charge)	512-482-5631
Beaumont	409-839-2538
Houston (24-hour service)	713-681-1771

2. Louisiana State Agencies

2.1 LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES

DWF, 2000 Quail Dirve, P. O. Box 98000
Baton Rouge, LA 70898-9000

Environmental Section — 504-765-2385
FAX 504-765-2818

Natural & Scenic Streams Coordinator,
Dr. James C. Thompson

Boat Registrations — 504-925-4081

3. Texas State Agencies and Officials

3.1 TEXAS STATE SENATORS FROM BTNP AREA

District 3 (Hardin, Jasper, Polk and Tyler Counties)

Bill Haley (Center)	409-598-2974
Assistant, Robert Culley (Austin)	512-463-0103

District 4 (Jefferson, Liberty and Orange Counties)

Carl A. Parker (Port Arthur)	409-985-8814
	409-832-9998
	409-985-2591
Assistant, Caryn Cosper (Austin)	512-463-0104

3.2 TEXAS STATE REPRESENTATIVES FROM BTNP AREA

District 9 (Hardin and Jasper Counties)

Jerry Johnson (Nacogdoches, financial services)	
(Austin)	

District 18 (Polk and Tyler Counties)

Allen R. Hightower, Jr. (Huntsville, transit manager)	409-291-3565
(Austin)	512-463-0570

District 19 (Orange and Jefferson Counties)

Ronald E. Lewis (Mauriceville, insurance/real estate)	409-745-3644
(Austin)	512-463-0612

District 20 (Liberty and Hardin Counties)

Zeb D. Zbranek (Winnie, attorney)	(Liberty)
	409-336-6454
(Austin)	FAX512-463-0488

District 21 (Jefferson County)

Mark W. Stiles (Beaumont, businessman)	409-835-7390
(Austin)	512-463-0706

District 22 (Jefferson County)

Albert J. Price (Beaumont, retired pilot)	409-838-0129
(Austin)	512-463-0662

3.3 TEXAS DEPARTMENT OF AGRICULTURE
[Tex. Agric. Code Section 11.001]

The Texas Department of Agriculture (TDA) administers all laws that relate to agriculture, including promoting the industry and regulating its operation. TDA regulates chemicals used in agriculture, such as pesticides and herbicides, including both their application and their disposal as waste.

TDA is directed by a Commissioner of Agriculture, with practical experience in agriculture, who is elected by statewide vote to a four-year term.

TDA, P. O. Box 12847, Austin, TX 78711-2847
512-463-7476, FAX 512-564-1104, Helpline 800-TELL-TDA

Commissioner, Rick Perry	512-463-7435
Deputy Commissioner, Barry McBee	512-463-7567
Asst. Comm. for Legal Affairs & General Counsel	512-463-1656
Asst. Comm. for Regulatory	512-463-7698
District 12 (Beaumont) Supervisor, James O. Whitmire	409-832-3471

3.4 TEXAS ALCOHOLIC BEVERAGE COMMISSION
[Section 5.01, Texas Alcoholic Beverage Code]

The Texas Alcoholic Beverage Commission (TACB) regulates all facets of the alcoholic beverage industry, including manufacture, advertising, labeling, import/export, transport, storage, distribution, possession and sale. TABC issues permits and licenses businesses in the industry, maintains an inspection and enforcement program. Enforcement division agents are commissioned police officers with statewide jurisdiction and investigate beverage code violations as well as prostitution, gambling, narcotics trafficking, illegal weapons trafficking and organized criminal activity (LBJ School 1994).

A three-member commission appointed by the Governor for six-year, overlapping terms oversees the TABC. The commission hires an administrator to manage the department.

TABC, P. O. Box 13127, Austin TX 78711
512-458-2500, FAX 512-206-3350

Commissioners:
Steven R. Baker (Houston, term expires 11/95)
Roy Orr (DeSoto, term expires 11/97)
Martha S. Dickie (Austin, term expires 11/99)

Administrator, Doyne Bailey

3.5 ATTORNEY GENERAL'S OFFICE

[Constitution, Art. IV, Sec. 1, 22; chap. 402, Government Code]

The Attorney General (AG) functions as the state's lawyer. Legal advice, in the form of opinions, is provided to state officials and agencies, and the AG represents the state in civil and criminal litigation. Legislation has given the AG other specific duties. For example, the AG sits with the heads of several state resource agencies as a member of the Coastal Coordination Council. The AG's Environmental Crimes Division investigates and prosecutes criminal violations of environmental protection laws, while the Environmental Protection Division represents state agencies and assists local governments in civil and criminal environmental enforcement (LBJ School 1994).

The Attorney General is elected by statewide vote to four-year terms.

AG, P. O. Box 12548, Austin TX 78711-2548, 512-463-2100

Attorney General, Dan Morales (term expires 1/95)	512-463-2191
Energy Division	
Larry Laurent	512-463-2003
Enforcement Division	
Scott McConn	512-463-2003
Environmental Protection Division	
Asst. Div. Chief, Ken Cross	512-463-2012

3.6 TEXAS DEPARTMENT OF COMMERCE

[Sec. 481.143(b), Government Code]

The Department of Commerce (TDC) is the principal economic development agency for the state. TDC works through several divisions: Business Development; Tourism; Work Force Development; Public Information; Administration; and Human Resources. The Tourism Division works with the travel industry, prepares and distributes information about tourism in Texas, and develops information through its Research and Planning Department.

The department has an advisory policy board of nine members. Its executive director is appointed to a two-year term by the governor with the advice and consent of the senate.

TDC, 816 Congress Avenue, 12th Floor, (P.O. Box 12728, 78711)
Austin, TX 78701, 512-472-5059; FAX 512-320-9461
Deborah Kastrin, Executive Director

Policy Board members from BTNP area:
Kenneth Q. Carlile, chair (Marshall, term expires 2/95)
Vernon E. Faulconer (Tyler, term expires 2/95)
Murphy George (Lufkin, term expires 2/97)

Tourism Division
Katherine Wood 512-329-9587

3.7 TEXAS FOREST SERVICE

[Art. 2613, Sec. 10 (1915)]

The Texas Forest Service (TFS) is charged with maintaining and increasing forest resources on private lands of Texas for the welfare of Texas citizens. The service operates as an affiliate of Texas A&M University. TFS conducts research and training to protect forest lands from wildfires, insects, diseases and pests and to encourage sound forestry.

The Director of the TFS is appointed by the Board of Regents of the Texas A&M University System. TFS maintains a number of field offices.

TFS, Texas A&M University, College Station, Texas

Director: Bruce R. Miles

Jasper District Office, Jasper Co. Airport 409-384-9427

Woodville Area Office, P. O. Box 339, Woodville 75979 409-283-3785
Gary Lacox

Fire Emergency. Dispatched after hours through the Tyler County Sheriff's Office for fire emergencies: Sheriff's Office (Woodville) 409-283-2172

Location	Contact	Telephone
Woodville	Tommy Helton (Dispatcher)	409-283-8333
	Gary Lacox	409-283-5051
	Steve Benthall	409-283-5319
	Kevin Darland	409-283-3180
Livingston	Charles (Boo) Walker	409-967-4938
Kirbyville	Ron Dosser	409-423-4386
	P. A. Walters	409-423-4023
Buna	John L. Bean	409-994-3241

Silsbee/Kountze	Charles Richards	409-385-5366
Liberty/Saratoga	Bobby Dixon	409-385-5351
Liberty	Cliff Cherry	713-592-3030

3.8 TEXAS GENERAL LAND OFFICE

[Constitution, Art. IV, Secs. 1, 23; Tex. Nat. Res. Code Ann. Sec. 33, 40, 52, 53, 63 (Vernon 1978 & Supp. 1993); 30 Tex. Admin. Code Ch. 9, 31 Tex. Admin. Code Ch. 15]

The General Land Office (GLO) manages publically owned lands in Texas, including submerged lands (coastal and river bottoms), and supervises all mineral leasing activities and may grant easements for those lands. GLO is responsible for administering regulations concerning geophysical or geochemical exploration in tidewater areas, coastal wetlands, dune protection and oil spills in coastal areas. Because land grants in Texas occurred under several governmental systems (Spain, Mexico, Republic of Texas) with different grant practices regarding river bottom and mineral estates, GLO maintains basic grants maps and can assist in determining, on a case-by-case request basis, the public or private ownership of submerged lands (river beds).

GLO is directed by a Land Commissioner, who is elected to four-year terms.

GLO, Stephen F. Austin Bldg., Room 835, Austin, TX 78701, 512-463-5055

Commissioner, Garry Mauro (term expires 1/95)		512-563-5256
Assistant, Richard Raymond		512-463-5288
Legal Services, General Counsel, Martha McCabe		512-463-5235
Resource & Asset Management		
Dep. Comm., Spencer Reid		512-463-5236
Assoc. Dep. Comm., Sally Davenport		512-463-5059
LaNell Aston		512-463-5213
(land grant maps, submerged lands ownership)	FAX	512-463-5098

GLO, 855 E. Florida Avenue, Beaumont, TX 77705 409-835-2965

3.9 TEXAS DEPARTMENT OF HEALTH

[Constitution, Art. XVI, Sec. 32; Art. 4414a (1879); Tex. Health & Safety Code Ann. Sec. 11, 401, 502 (Vernon 1992)]

The Texas Department of Health (TDH) is charged with protecting and promoting the health of the people of Texas. TDH oversees food handling and preparation regulations, including the

shellfish sanitation program, and issues health alerts such as those related to dioxin found in fish when conditions require. TDH administers the Texas Hazard Communication Act, chemical information dissemination programs under the federal Emergency Planning and Community Right-to-Know Act of 1986, and is the designated Radiation Control Agency under the federal Atomic Energy Act of 1954. In 1993, two environmental regulatory functions previously carried out by TDH, municipal solid waste management and public drinking water regulation, were transferred to the Texas Natural Resource Conservation Commission.

An 18-member Board of Health oversees TDH. Members are appointed by the Governor for six-year terms, with six members appointed in each odd-numbered year. Specific qualifications are stated for board composition. The Board appoints a Commissioner of Health who directs TDH.

TDH, 1100 W. 49th, Austin, TX 78756, 512-458-7111

Board of Health member from BTNP area
William A. Scott (Houston, term expires 2/97)

Commissioner of Health, Dr. David R. Smith (Austin)	512-458-7375
General Counsel	512-458-7236
Bureau of Emergency Management	512-458-7550
Bureau of Environmental Health	512-834-6640
Shellfish Sanitation Control Division (issues health alerts for fish as well as shellfish)	
Director, Richard Thompson	512-458-7510
Kirk Wiles	512-458-7510
Gary Heideman	512-458-7510
Lisa Williams (toxicologist)	512-719-0200

3.10 TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

[Tex. Water Code Ann. Sec. 5 (Vernon Supp. 1993); Tex. Health & Safety Code Ann. Sec. 382 (Vernon 1992)]

In 1991, the state legislature created the Texas Natural Resource Conservation Commission (TNRCC) and transferred to it the responsibilities of the Texas Water Commission. In September 1993, the Texas Air Control Board in its entirety and the municipal solid waste management and public drinking water regulatory functions of the Texas Department of Health were merged with TNRCC. TNRCC is the lead agency for protecting the state's air, land and water resources. TNRCC is responsible for administering the state's water rights, water quality, waste management, and part of the injection well program, supervising water districts, providing oil and hazardous material spill response, certifying wastewater treatment operations, and regulating water wells and drilled/mined shafts.

In a companion program to the U.S. EPA's National Pollutant Discharge Elimination System (NPDES) permit system, TNRCC regulates by permit the discharge of wastes into the waters of the state. TNRCC administers the state's Clean Rivers Program to assess water quality of watersheds and also sets and updates on a triennial basis stream water quality standards.

Three full-time commissioners appointed by the governor (with senate confirmation) oversee TNRCC. The Commissioners appoint an executive director, chief hearings examiner, general counsel, chief clerk, ombudsman, public interest advocate and small business advocate. With a staff of nearly 3,000, TNRCC is divided into five divisions and has 15 field offices, each with a regional manager. The Big Thicket National Preserve is located in TNRCC Region 10, which has an office in Beaumont.

TNRCC, P. O. Box 13087, Austin, TX 78711-3087
General Information: 512-908-1000

TNRCC, 3870 Eastex Freeway, Suite 110, Beaumont, TX 77703-1830
409-898-3838, FAX 409-892-2119

Commissioners	
Chairman, John Hall (Houston, term expires 8/97)	512-463-7901
Pam Reed (Austin, term expires 8/95)	512-463-7909
Peggy Garner (McCamey, Term expires 8/99)	512-463-7910
General Counsel, Celina Romero	512-475-1740
Executive Director, Anthony C. (Tony) Grigsby	512-463-7791
(Has resigned effective 31 August 1994)	
Assistant Executive Director, William R. Campbell	512-908-1100
(Will be Acting Director 1 September 1994)	
Office of Air Quality	
Deputy Exec. Dir., Beverly Hartsock	512-908-1108
Mgr., Permitting & Enforcement, Manuel Aguirre	512-908-1233
Mgr., Monitoring Operations, Doyle Pendleton	512-908-1117
Office of Water Resource Management	
Deputy Exec. Dir., Laura Koesters	512-463-8246
Mgr., Standards and Assessments, Chris Macomb	512-475-1129
Office of Waste Management	
Deputy Exec. Dir., Barry Williams	512-908-2104
Mgr., Industrial & Hazardous Waste, Susan Ferguson	512-908-2334
Mgr., Pollution Cleanup, Jack Kramer	512-908-2454
Office of Legal and Regulatory Services	
Deputy Exec. Dir., Kenneth Ramirez	512-463-0491
Mgr., Environmental Training, Carol Batterton	512-908-6300
Mgr., Field Operations, Ann McGinley	512-463-7749

Beaumont Office Regional Manager, Vic Sair 409-898-3838
3870 Eastex Freeway, Suite 110, Beaumont 77703-1830
Houston Office Regional Manager, Alan Parker 713-625-7982
4150 Westheimer, Houston 77027, 713-625-7900
Houston Lab Manager, Jim Busceme 713-457-5229

3.11 TEXAS PARKS AND WILDLIFE DEPARTMENT

[Tex. Parks and Wild. Code Ann. Sec. 11-13 (Vernon 1988, 1991 and Supp. 1993); 30 Tex. Admin. Code Ch. 55, 65, 67]

The Texas Parks and Wildlife Department (TPWD) is responsible for managing recreational and historic state parks, administering laws relating to game, fish, oysters and marine life, and preserving the state's natural resources. TPWD issues hunting and fishing licences and conservation passports, and handles boat registrations. It is responsible for preparing and updating the Texas Outdoor Recreation Plan, including the State Wetlands Plan.

TPWD is directed by a nine-member commission appointed by the governor (with senate confirmation) and and executive director hired by the commission. TPWD operates through four main divisions with field offices, research sites and facilities around the state. In the BTNP area, the fisheries division has an office on Pleasure Island at Port Arthur and a research office in Jasper. Village Creek State Park is adjacent to the preserve, and Martin Dies, Jr., State Park is near B. A. Steinhagen Lake.

TPWD, 4200 Smith School Road, Austin TX 78744, 512-389-4800

Commissioners
Chairman, Ygnacio D. Garza, Brownsville (term exp. 2/97) 210-546-1655
Lee M. Bass, Fort Worth (term expires 2/95)
George C. (Tim) Hixon, San Antonio (Term expires 2/95)
John W. Kelsey, Houston (term expires 2/95)
Terese T. Hershey, Houston (term expires 2/97)
T. Walter Umphrey, Beaumont (term expires 2/97)
Mickey Ruth Burleson, Temple (term expires 2/99)
John R. Clymer, Jr., Wichita Falls (term expires 2/99)
William P. Hobby, Houston (term expires 2/99)

Executive Director, Andrew S. (Andy) Sansom 512-389-4802
Director, Fisheries and Wildlife, Rudy Rosen 512-389-4857
Glenn Boydston
Vikki Fite (hunting, trapping, deer census data
Director, Law Enforcement, Chester L. Burdett 512-389-4845
Director, Public Lands, Ron Holliday 512-389-4866
Head, Park Special Studies Branch, Karen Leslie 512-389-4868

Program Coordinator, Public Lands, Lisa Kessler	512-389-4905
Director, Resource Protection, Larry McKinney	512-389-4864
Bob Spain	
Rollin (Rollie) McCrae (wetlands information)	
Albert W. (Al) Green, Chief, Aquatic Studies Branch	512-448-4313
3000 S. IH-35, Suite 320, Austin 78704	
Beaumont/Port Arthur office	409-892-8666
5550 Eastex Freeway, Beaumont 77708	
Port Arthur Coastal Fisheries Lab, 601 Channelview 77640	409-983-1104
Jasper	
Aquatic Habitat Enhancement, FM-2799	409-384-9965
Fisheries Lab, FM-2799	409-384-9572
Paul Seidensticker (fish census data)	
Fish Hatchery, Bevelport	409-384-2221
Wildlife Research, 1342 S. Wheeler	409-384-6894
Tammy Ellis (hunting, trapping, census data)	
Dan Boone (bald eagle census)	
LaPorte (24 hour service)	713-471-3202
Operation Game Thief	800-792-4263
Information on Regulations	800-792-1112
Boat Registration Information	800-262-8755
Boater and Hunter Information	800-252-4536
TPWD Hotline	512-389-4848
Martin Dies, Jr. State Park, Rt. 4, Box 274, Woodville 75979	
Information	409-384-5231
Business Office (Steinhagen Lake)	409-384-9971
Emergency After Hours	409-384-5232 or 409-384-9972
Chris Lena	
Bill Smart	
John Yarbrough	
J. D. Murphree Wildlife Management Area	409-736-2551
2710 Highway 73, Port Arthur 77640	409-736-2540
Sabine Pass Battleground State Park, Sabine Pass	409-971-2451
Sea Rim State Park, Sabine Pass	409-971-2559
Craig Van Baarle	

Village Creek State Park — 409-755-7322
P. O. Box 8575, Lumberton 77711
John Parker, Superintendent
Murty Sullivan, Ranger

Seabrook Office
Andy Sipocz, Office Manager — 713-292-9914
Frances Mann (wetlands mitigation) — 713-474-2811

Texas Heritage Program
David Diamond, Director
Dorenda Sullivan
Shannon Breslin
Jackie Poole (botonist)

3.12 TEXAS DEPARTMENT OF PUBLIC SAFETY
[Art. 4413(1) (1935)]

The Texas Department of Public Safety (DPS) has broad authority and responsibility for law enforcement and public safety and incorporates both the Texas Highway Patrol and the Texas Ranger Service. It enforces laws relating to motor vehicles, criminal laws in cooperation with other agencies, maintains a police communications system and police records, supervises and licenses commercial driver training schools and instructors, and directs and coordinates civil defense and disaster activities across the state.

A three-member Public Safety Commission is appointed by the governor (with senate concurrence) to overlapping six-year terms. The commission appoints a director. The DPS is headquartered in Austin and operates through regional offices.

DPS, P. O. Box 4087, Austin 78773-0001, 512-465-2000

Commissioners
Albert Alkek (Bandera, term expires 12/93)
Robert B. Holt (Midland, term expires 12/95)
Ronald D. Krist (Houston, term expires 12/97)

Director, James R. Wilson — 512-465-2000

Region 2 (Houston) Commander, Major W. F. Maley — 713-681-1761

Division of Emergency Management (Beaumont) — 409-898-0770
Ron Lamoureaux

Woodville* — 409-283-2771

Jasper*	409-384-5712
Liberty*	409-336-7521

*After hours, contact through local sheriff's office.

3.13 TEXAS RAILROAD COMMISSION

[Constitution, Art. XVI, Sec. 30; Art. 6447 (1891); Tex. Nat. Res. Code Ann. Sec. 81, 91, 131 (Vernon 1993); Tex. Water Code Ann. Sec. 26 (Vernon 1988 & Supp. 1993)]

Authorized by the state Constitution and originally established to regulate rates and tariffs of railroads, the Railroad Commission (RRC) is now known more for its oil and gas regulatory functions than for its transportation activities. The RRC is charged with preventing water pollution resulting from oil and gas exploration and production, and other mining and energy-related activities. Enforcement authority for protecting state waters from pollution from oil and gas activities is specifically given to the RRC, rather than the Texas Natural Resource Conservation Commission which enforces other anti-pollution laws.

Three commissioners elected by statewide vote oversee the RRC. Commissioners serve overlapping six-year terms. The commission operates through four main divisions: Oil and Gas, Transportation/Gas Utilities, Surface Mining and Reclamation, and Liquified Petroleum Gas.

RRC, 1701 N. Congress, P.O. Box 12967, Austin 78711-2967, 512-463-7288

Commissioners (general information)	512-463-7158
James E. (Jim) Nugent (Kerrville, term expires 12/95)	512-463-7140
Mary Scott Neighbors (Austin, term expires 12/97)	512-463-7140
Barry Williamson (term expires 12/99)	512-463-7140
Office of Special Counsel	512-463-7155
Executive Director, C. Tom Clow, Jr.	
Legal Division (general information)	512-463-6921
Gas Utilities/Transportation, Director, Jerry Martin	512-463-7124
Liquified Petroleum Gas Division	512-463-6931
Director, Thomas Petru	512-463-6949
Oil and Gas Division	512-463-6887
Director, David Garlick	512-463-6893
Surface Mining & Reclamation Division, Director, Melvin Hodgkiss	512-463-6901
Environmental Services	512-463-6790
Director, Lori Wrotenbery	512-463-6810
Disposal/Injection Well Program	512-463-6791
Rule 8 (Pit/Landfarming) Program	512-463-6789

Oil & Gas Waste Hauler Permits	512-463-6818
Brine Mining Program	512-463-6795
Discharge (NPDES) Program	512-463-6789
Regulator Enforcement (Field Operations)	512-463-6831
District 3 Reg. Enforcement	512-463-6832
RRC Accident (Spills) Hotline	512-463-6788
Oil Field Cleanup	512-463-6831
Special Response	512-463-6765
District 3, Guy Grossman	713-460-0631

3.14 TEXAS DEPARTMENT OF TRANSPORTATION
[Art. 6663 (1917)]

The Texas Department of Transportation (TxDOT) constructs and maintains the state and federal highway system in Texas and administers the state Highway Fund. TxDOT supervises the registration of motor vehicles and issues certificates of title through county tax assessor-collectors. The department publishes the official Texas Highway Travel Map, operates Travel Information Centers, and promotes recreational travel in the state. TxDOT also administers boating safety legislation and serves as the state sponsor for the Gulf Intracoastal Waterway.

The Texas Transportation Commission has three members appointed by the governor to overlapping six-year terms. The commission hires an executive director.

TxDOT, 11th and Brazos, Austin 78701-2483, 512-463-8585

Commissioners
- Chair, David Bernsen (Beaumont, term expires 2/97)
- Henry R. Munoz (San Antonio, term expires 2/95)
- Anne Shelmire Wynne (Austin, term expires 2/99)

Executive Director, Arnold W. Oliver

Motor Vehicle Division (10-28's)	512-465-7611
District 11 (Lufkin), J. L. Beaird	409-634-4433
District 20 (Beaumont), Richard Cardwell	409-892-7311
Travel Information Center	409-883-9416
P. O. Box 136, Orange 77630-0126	FAX 409-886-1915
Pam Crew	

3.15 TEXAS WATER DEVELOPMENT BOARD

[Tex. Const. Art. III, Sec. 49-c (1957)]

The Texas Water Development Board (TWDB) provides financial assistance from the Texas Water Development Fund to cities and substate agencies in developing and protecting water supplies. TWDB is charged with preparing and updating a comprehensive state water plan. The "consensus planning" approach now being used by TWDB in cooperation with the Texas Natural Resource Conservation Commission and the Texas Parks and Wildlife Department aims to identify and ameliorate environmental concerns during the planning process. These three agencies are now participating in the Trans Texas Water Program studies of the feasibility of moving water from the Sabine River basin to Houston and central Texas.

The board is composed of six members appointed by the governor (with senate confirmation) for overlapping six-year terms. Members are required to have ten years business or professional experience and meet other occupational and geographical requirements.

TWDB, P. O. Box 13231, Austin 78711, 512-463-8176, FAX 512-475-2053

Chair, Charles W. (Chuck) Jenness	512-463-8176
(Houston, term expires 12/97)	Houston 713-896-9999
Othon Medina, Jr. (El Paso, term expires 12/93)	
Wesley Edwin Pittman (Midland, term expires 12/93)	
Noe Fernandez (McAllen, term expires 12/95)	
William B. Madden (Dallas, term expires 12/95)	
Diane Elaine Umstead (Houston, term expires 12/97)	
Executive Director, Craig D. Pederson	512-463-7847
Director, Planning, Tommy Knowles	512-463-8407
	FAX 512-463-9893
Chief, Environmental Systems, Gary Powell	512-445-1463
	FAX 512-445-1417

4. Regional Agencies

4.1 REGIONAL COUNCILS OF GOVERNMENT
[Art. 1011m, Tex. Rev. Civ. Stat. Ann.]

Regional councils of government (COGs), or regional planning commissions, are associations of local elected officials representing multi-county areas. Their principal function is to coordinate the actions of local government through review and comment on proposed actions and through regional planning. The councils have developed as respositories of government information, particularly data resulting from federally funded planning and information collection efforts such as decennial census data. COGs work with the Texas Office of State-Federal Relations to provide required comments on federal actions in Texas.

The Big Thicket National Preserve lies in three regional COG jurisdictions.

4.1.1 DEEP EAST TEXAS COUNCIL OF GOVERNMENTS
(Jasper, Polk and Tyler Counties plus nine other counties)

DETCOG, 274 East Lamar St., Jasper 75951, 800-256-6848, FAX 409-384-5390

Executive Director Lewis Johnson
Rusty Phillips, Director, Regional Services 409-384-5704

4.1.2 HOUSTON-GALVESTON AREA COUNCIL
(Liberty County plus twelve other counties)

HGAC, P. O. Box 22777, Houston 77227-2777, 713-627-3200

Executive Director, Jack Steele
Carl Masterson (community and environmental planning) 713-993-4561
FAX 713-621-8129

4.1.3 SOUTH EAST TEXAS REGIONAL PLANNING COMMISSION
(Hardin, Jefferson and Orange Counties)

SETRPC, P. O. Drawer 1387, Nederland 77627, 409-727-2384, FAX 409-727-4078

Executive Director, Don Kelley
Michael Foster (water quality) 409-727-2384
Bob Dickinson (air quality) 409-724-1911

4.2 RIVER AUTHORITIES

[Authorized: Tex. Const. art. XVI, sec. 59]

River Authorities are created by the legislature under an enabling section of the Texas Constitution that authorizes "conservation and reclamation districts". The three basic functions of river authorities in Texas are water supply, flood control and water quality control. They also are authorized to develop navigation and hydroelectric power, and provide other services. River authorities may issue revenue bonds to finance their activities, generally without a public vote. Some authorities, depending on the statute creating them, may also levy ad valorem taxes and issue tax bonds with voter approval. (TACIR 1980)

The governing boards of most of the authorities are appointed by the governor with senate confirmation. The boards of the Lower Neches Valley Authority and the San Jacinto River Authority are appointed by the Texas Water Development Board (TACIR 1980).

The water corridors of the BTNP are principally in the jurisdiction of the Lower Neches Valley Authority (LNVA); however, Menard Creek lies in the jurisdiction of the Trinity River Authority (TRA).

The Sabine River Authority, whose jurisdiction is just to the east of the Preserve, also may be of interest to BTNP because of its sponsorship of the Trans Texas Water Program in Southeast Texas. The Angelina and Neches River Authority has jurisdiction over the upper Neches River above Lake B. A. Steinhagen, and the Upper Neches River Municipal Water Authority operates Lake Palestine.

4.2.1 ANGELINA AND NECHES RIVER AUTHORITY

[Art. 8280-108 Tex. Rev. Civ. Stat. Ann.]
Nine-member board, six year terms.

ANRA, 210 Lufkin Ave., P. O. Box 387, Lufkin 75902-0387, 409-632-7795,
FAX 409-632-2564

General Manager, Gary L. Neighbors	409-632-7795
John Porterfield (watershed assessment)	409-632-7795

4.2.2 LOWER NECHES VALLEY AUTHORITY

[Art. 8280-103 Tex. Rev. Civ. Stat. Ann.]

LNVA, 7850 Eastex Freeway (at Plant Road), P. O. Box 3464, Beaumont 77704, 409-892-4011,
FAX 409-898-2468

Nine member board, six-year terms.

Clyde L. Cole (Silsbee, term expires 7/93)
Dan Hallmark (Beaumont, term expires 7/93)
Thomas A. Thomas (Port Arthur, term expires 7/93)
R. C. Aldrich (Nome, term expires 7/95)
Thad Heartfield (Beaumont, term expires 7/95)
W. S. Nichols, Jr. (Woodville, term expires 7/95)
F. M. Archer (Woodville, term expires 7/97)
Paul Georgas, Jr. (Silsbee, term expires 7/97)
Von E. McReynolds (term expires 7/97)

General Manager, A. T. (Tommy) Hebert, Jr. 409-892-4011
Dennis Becker (watershed assessment) 409-892-4011

4.2.3 SABINE RIVER AUTHORITY

[Art. 8280-133 Tex. Rev. Civ. Stat. Ann.]

SRA, P. O. Box 579, Orange 77630, 409-746-2192, FAX 409-746-3780

Nine-member board, six-year terms.
Luther Earl Davis (Hemphill, term expires 7/93)
Horace F. McQueen (Whitehouse, term expires 7/93)
William Y. Rice (Longview, terms expires 7/93)
James E. Campbell (Center, term expires 7/95)
Jerry G. Forbes (Quinlan, term expires 7/95)
Thomas C. Merritt (Longview, term expires 7/95)
Nolton L. Brown (Bridge City, term expires 7/97)
O. H. (Bo) Lewis (Pineland, term expires 7/97)
Geraldine J. Nichols (Quitman, term expires 7/97)

Exec. Vice President and General Manager, Sam Collins 409-746-2192
Development Mgr., Albert J. Gray (Trans-Texas Program) 409-746-2192

4.2.4 TRINITY RIVER AUTHORITY OF TEXAS

[Art. 8280-188 Tex. Rev. Civ. Stat. Ann.]

TRA, 5300 South Collins, P. O. Box 60, Arlington 76004, 817-467-4343, FAX 817-465-0970

Board of directors has 24 members from specified districts, six-year terms.
Directors closest to BTNP area:
David Jenkins (Stowell, term expires 3/97) 409-296-2160
Constance C. Slocomb (Livingston, term expires 3/97)

Maurice Lee Locke (Liberty, term expires 3/95)

General Manager, Danny F. Vance 817-467-4343
Exec. Services Manager, Sam Scott 817-467-4343

TRA Southern Region, 1117 10th St., Hunstville 77340
Regional Manager, C. Grady Manis, Jr. 409-295-5485

4.2.5 UPPER NECHES RIVER MUNICIPAL WATER AUTHORITY

[Art. 8280-157 Tex. REv. Civ. Stat. Ann.]

UNRWAA, P. O. Drawer 1965, Palestine 75802, 214-876-2237

Three-member board, six-year terms.

Ben L. Swinney (Palestine, term expires 2/95)
Edward McCoy, Jr. (Palestine, term expires 2/97)
Cathy Ann Stark (Palestine, term expires 2/99)

General Manager, Roy Douglas 214-876-2237

5. Counties

[Tex. Loc. Gov't Code Ann. Ch. 71 (Vernon 1988)]

Texas counties are political subdivision of the state and perform both state administrative duties and local government functions. Unlike municipalities, they have not been given general ordinance-making authority. The legislature has on occasion given specific ordinance-making powers, such as septic tank regulation, to counties.

County judges are primarily the chief administrative officers, but retain some judicial functions, particularly in rural areas. Counties operate through a precinct and commissioner system with a number of constitutionally defined offices such as sheriff and tax assessor-collector.

BTNP facilities lie in seven counties. BTNP may interact with county official on topics such as payments in lieu of taxes, economic development acitivities, emergency services, and law enforcement.

5.1 HARDIN COUNTY

County Seat, Kountze

County Judge, Thomas (Tom) Mayfield	409-246-5120
Home:	409-246-2962
Criminal and District Attorney, R. F. (Bo) Horka	409-246-5160
County Attorney, Bevil Wright	409-246-5165
County Clerk, Dee Hatton	
County Sheriff, Mike Holzapfel (Kountze)	409-246-3441
	409-246-5100
County Tax Assessor-Collector, Billy Caraway	
County Treasurer, Eddie Doggett	
County Commissioners	
Precinct 1, Bob Burgess (Silsbee)	409-385-5501
Precinct 2, John Golden (Kountze)	409-246-3972
Precinct 3, W. P. (Bill) Fregia (Saratoga)	409-274-5411
Precinct 4, J. D. Brown (Lumberton)	409-755-4584
Justices of the Peace	
Precinct 1, Robert Ward (Silsbee)	409-385-3740
Precinct 2, Bennie Como (Silsbee)	409-385-7195
Precinct 3, Cecil Overstreet (Kountze)	409-246-5115

Precinct 4, Gerald Loper (Sour Lake)	409-287-3211
Precinct 5, Sid Johnson (Lumberton)	409-755-2862
Precinct 6, Kenneth Enloe (Batson)	409-262-8271

Constables

Precinct 1, Howard Grantham (Silsbee)	409-285-2746
Precinct 2, Dale Billiford (Kountze)	409-246-2565
Precinct 3, W. A. (Bill) Langston (Wildwood)	409-834-2855
Precinct 4, Bob Keer (Sour Lake)	409-753-2844
Precinct 5, Don Merrill (Lumberton)	409-755-2051
Precinct 6, Thomas Anderson (Saratoga)	409-274-5752

5.2 JASPER COUNTY

County Seat, Jasper

County Judge, Corbit Whitehead	409-384-2612
Criminal and District Attorney, Guy J. Gray	409-384-4362
County Attorney, Guy J. Gray	409-384-4362
County Clerk, Evelyn Stott	
County Sheriff, Joe Folk (Jasper)	409-384-5418 409-384-5417
County Tax Assessor-Collector, Robert C. Pace, Jr.	
County Treasurer, Mary Jane Hancock	

County Commissioners

Precinct 1, Edgar W. Lewis (Jasper)	409-384-8112
Precinct 2, Cecil Ellis (Jasper)	409-384-5343
Precinct 3, James E. Smith (Kirbyville)	409-423-4791
Precinct 4, Mack Rose (Buna)	409-994-3711

Justices of the Peace *

Precinct 1, Clifford A. Woods (Jasper)	409-384-4103
Precinct 2, Rod Barger (Jasper)	409-384-4534
Precinct 3, Evelyn WEaver (Kirbyville)	409-423-2281
Precinct 4, Judy Richbourg (Buna)	409-994-2595
Precinct 5, Clark Gimpel (Browndell)	409-698-2363
Precinct 6, Jimmy Jones (Evadale)	Home:

Constables *

Precinct 1, T. J. Pennington (Jasper)	409-384-8672
Precinct 2, Andrew B. King, Jr. (Jasper)	409-384-9787
Precinct 3, R. P. (Bud) Jones (Kirbyville)	409-423-2326
Precinct 4, McKinley Willis (Buna)	409-384-3261
Precinct 5, Herbert Perry (Brookeland)	409-698-2363
Precinct 6, Fred Peters (Evadale)	409-276-1440

*For all Justices of the Peace and Constables: In case of an emergency, contact Jasper County Sheriff's Office.

5.3 JEFFERSON COUNTY

County Seat, Beaumont

County Judge, Richard P. LeBlanc, Jr. (Beaumont)	409-835-8466
Criminal and District Attorney, Tom Maness	409-835-8550
County Attorney, Tom Maness	409-835-8550
County Clerk, Lolita Ramos	
County Sheriff, Carl R. Griffith, Jr. (Beaumont)	409-835-8411
Jefferson County Jail	409-835-8422
NOTE: Contact prior to arrival at jail.	
County Tax Assessor-Collector, Nicholas V. Lampson	
County Treasurer, Linda P. Robinson	
County Commissioners	
Precinct 1, Jimmie P. Cokinos (Beaumont)	409-835-8442
Precinct 2, Mark Domingue (Nederland)	409-727-2173
Precinct 3, Dave Smith, Jr. (Port Arthur)	409-983-8300
Precinct 4, Edward C. Moore (Beaumont)	409-835-8443
Justices of the Peace	
Precinct 1, Harold Engstrom (Beaumont)	409-835-8522
Precinct 1, Vi McGinnis (Beaumont)	409-835-8457
Precinct 2, Barbara Dorman (Port Arthur)	409-983-8330
Precinct 2, John W. Knowles, Jr. (Port Arthur)	409-983-8325
Precinct 3, A. E. Halter (Sabine Pass)	409-971-2331
Precinct 4, Jack Cravy (Hamshire)	409-243-2195
Precinct 5, Ronald C. Benoit	409-752-5150
Precinct 7, John A. Borne (Nederland)	409-722-0451

Constables

Precinct 1, Charles H. Conn (Beaumont)	409-835-8450
Precinct 2, Tony Ippolito (Port Arthur)	409-983-8335
Precinct 3, Joseph Peliter, Jr. (Sabine Pass)	409-971-2321
Precinct 4, R. B. Christ (Hamshire)	409-243-2337
Precinct 5, Melvin Jannise	409-752-2091
Precinct 6, G. W. Woods (Nederland)	409-722-1033

5.4 LIBERTY COUNTY

County Seat, Liberty (77575)

County Judge, Dempsie Henley	409-336-4600
P. O. Box 369, Liberty, TX 77575	FAX 409-336-4640
	Home:
District Attorney, Michael R. Little (Liberty)	409-336-4600
County Attorney, A. J. (Jack) Hartell III	409-336-4600
County Clerk, Wanda Barker	
County Sheriff, O. J. Stewart (Liberty)	409-336-4500
County Tax Assessor-Collector, Mark McClelland	
County Treasurer, Winn Skidmore	

County Commissioners

Precinct 1, Bobby D. Blake (Liberty)	409-336-4600
Precinct 2, Lee Groce (Liberty)	409-298-2790
Precinct 3, Melvin Hunt (Cleveland)	409-592-1653
Precinct 4, Bobby Payne (Liberty)	409-258-5202

Justices of the Peace

Precinct 1, Bill (Sonny) Loftin (Liberty)	409-336-4558
Precinct 2, Ronnie Davis (Raywood)	409-587-4010
Precinct 3, Phil Fitzgerald (Liberty)	409-298-9407
Precinct 4, Glenn Prater (Dayton)	409-258-2461
Precinct 5, Marvin E. Powell (Cleveland)	409-592-9229
Precinct 6, C. L. (Charlie) Morgan (Cleveland)	409-593-8400

Constables

Precinct 1, C. J. Raggio (Liberty)	409-336-7930
Precinct 2, Jimmy A. David (Raywood)	409-587-4477

Precinct 3, Paul Longnion (Liberty)	409-298-2304
Precinct 4, Lester Lewis (Dayton)	409-258-3353
Precinct 5, Frank Taylor (Cleveland)	409-592-6969
Precinct 6, Ivan Gene Pearce (Cleveland)	409-593-8400

5.5 ORANGE COUNTY

County Seat, Orange (77630)

County Judge, John C. McDonald, Jr.	409-882-7072
	FAX 409-883-6573
County Attorney, Stephen C. Howard	409-883-7740
County Clerk, Molly Theriot	
County Sheriff, Huel Fontenot (Orange)	Direct409-883-0078
	FAX 409-883-7545
(Orange)	409-883-2612
(Vidor)	409-769-6391
County Tax Assessor-Collector, Rosemary Slaton	
County Treasurer, Vergie Moreland	
County Commissioners	
Precinct 1, Joe Ware (Orange)	409-746-2038
Precinct 2, Marcelle Adams (Orange)	409-883-7740
Precinct 3, J. R. Burns (Bridge City)	409-883-7740
Precinct 4, Kell M. Bradford, Sr.	409-769-6724
Justices of the Peace	
Precinct 1, Claude E. Wimberley (Orange)	409-883-7740
Precinct 2, Marlin Shelton (Orange)	409-883-5425
Precinct 3, Flo Edgerly (Bridge City)	409-735-8133
Precinct 4, Sherry Brown (Vidor Sub-Courthouse)	409-769-2081
Constables *	
Precinct 1, Jack W. Thompson (Orange)	409-883-7740
Precinct 2, Donald Hubbard (Orange)	409-883-7740
Precinct 3, John A. Ford (Bridge City)	409-735-3071
Precinct 4, Clyde Jordan (Vidor)	409-769-2264

*NOTE: In case of emergencies, contact Orange County Sheriff's Office.

5.6 POLK COUNTY

County Seat, Livingston (77351)

County Judge, John P. Thompson	409-327-8113 FAX 409-327-2568
Criminal District Attorney, Terry Brown	409-327-4513
County Clerk, Martha Johnson	
County Sheriff, Darrell G. Longino (Livingston)	409-327-4710 409-327-4719
County Tax Assessor-Collector, Robert C. Willis	
County Treasurer, Cheryl Henry	
County Commissioners	
Precinct 1, Clarence Ellis	409-365-2222
Precinct 2, Bobby Smith (Livingston)	409-646-5927
Precinct 3, James J. (Buddy) Purvis (Corrigan)	409-398-4171
Precinct 4, Dick Hubbard (Livingston)	409-327-7454
Justices of the Peace	
Precinct 1, Mary Placker (Livingston)	409-327-3141
Precinct 2, Richard Gerard (Onalaska)	409-646-3674
Precinct 3, Harvey Stamper (Corrigan)	409-398-4114
Precinct 4, Howard Lilley (Livingston)	409-327-4265
Constables	
Precinct 1, John Holt (Livingston)	409-327-4430
Precinct 2, Sammy Cobb (Livingston)	409-646-3414
Precinct 3, Jerry L. Ivy (Corrigan)	409-398-4229
Precinct 4, Jessie Neuman (Livingston)	409-327-8571

5.7 TYLER COUNTY

County Seat, Woodville

County Judge, Jerome P. Owens	409-283-2141

Criminal District Attorney, James Clark	409-283-8136
County Attorney, Donece Gregory	
County Sheriff, Gary Hennigan (Woodville)	409-283-2172
County Tax Assessor-Collector, Sandra Harrison	
County Treasurer, Jean Phillips	

County Commissioners

Precinct 1, Maxie Riley (Woodville)	409-283-7296 Home:
Precinct 2, Arthur M. (Pete) Barnes	409-283-7296 Home: Barn: 409-969-2645
Precinct 3, Jerry Mahan (Colmesneil)	Home: Barn: 409-837-5237
Precinct 4, Henry E. Sawyer (Spurger)	Home: Barn: 409-429-3919

Justices of the Peace *

Precinct 1, Wanda Brasher (Woodville)	409-283-3631
Precinct 2, Thomas Parker (Woodville)	409-283-7354 409-283-5380
Precinct 3, John Ed Hanks (Woodville)	409-283-2770
Precinct 4, Roy Drake (Spurger)	409-429-3958 409-429-3674

Constables *

Precinct 1, W. B. Bailey (Warren)	409-283-2043
Precinct 2, David Davis (Chester)	409-283-3519
Precinct 3, James H. Crews (Colmesneil)	409-837-5155
Precinct 4, Arthur Gilchrist (Spurger)	409-429-3358

*NOTE: In case of an emergency, Justices of the Peace and Constables can be contacted through the Tyler County Sheriff's Office.

6.0 Cities

Cities in Texas incorporate in one of three ways: (1) under state special law, (2) under state general law, or (3) under home-rule charter. Special law cities were incorporated under specific state charter prior to 1912 and have continued to operate under those provisions. Any town, village, or city in Texas with population between 200 and 20,000 may incorporate under provisions of general state law (Title 28 of Vernon's Texas Civil Statutes). Cities with a population of more than 5,000 may choose to adopt their own city charter (home-rule). City charters must be consistent with the constitution and state general law, but otherwise are relatively free of constraints. In practice, most cities operate in a similar fashion.

Unincorporated communities rely on counties for their limited general purpose government and on special districts, such as municipal utility districts or fresh water supply districts, for other services.

6.1 Population of Incorporated Cities in BTNP Area

(1970 Population from U.S. Census as reported in Handbook of Governments in Texas, March 1973. Census data for 1980 and 1990 were provided by the regional councils of government when available.)

	Population		
County/City	1970	1980	1990
(* denotes home rule cities)			
Hardin County			
Kountze	1,703	2,716	2,056
Lumberton	2,156	2,472	6,640
Rose Hill Acres	431	460	468
Silsbee *	7,271	7,684	6,368
Sour Lake	1,694	1,807	1,547
Jasper County			
Browndell	200		
Jasper *	6,251		6,959
Kirbyville	1,869		
Jefferson County			
Beaumont *	115,919	118,102	114,323
Bevil Oaks	663	1,306	1,350
China	540	1,351	1,140
Griffing Park	2,075		
Groves *	18,067	17,090	16,745

6.1 Population of Incorporated Cities in BTNP Area *(continued)*

County/City (* denotes home rule cities)	Population 1970	1980	1990
Jefferson County (continued)			
Nederland *	16,810	16,855	16,192
Nome	450	550	448
Port Arthur *	57,371	63,053	58,551
Port Neches *	10,894	13,944	12,974
Liberty County			
Ames	200	1,155	989
Cleveland	5,627	5,977	7,124
Daisetta	1,084	1,177	969
Dayton *	3,804	4,908	5,151
Dayton Lakes			191
Devers	249	507	318
Hardin	200	779	563
Kenefick	200	763	435
Liberty *	5,591	7,945	7,733
North Cleveland	404	259	176
Plum Grove	200	455	480
Orange County			
Bridge City *	8,164	7,667	8,034
Orange *	24,457	23,628	19,381
Pine Forest	512	639	709
Pinehurst	2,198	3,055	2,682
Rose City	600	663	572
Vidor *	9,738	12,117	10,935
West Orange *	4,787	4,610	4,187
Polk County			
Corrigan	1,304		
Goodrich	400		
Livingston	3,925		
Onalaska	200		
Seven Oaks	200		
Tyler County			
Chester	260		
Colmesneil	650		
Woodville	2,662		2,636

6.2 City Governments in BTNP Area

Ames, P. O. Box 8094, Liberty 77575 Mayor John White	409-336-7278
Beaumont, P. O. Box 3827, Beaumont 77704 Mayor David Moore	409-880-3716
Bevil Oaks, 7390 Sweetgum Drive, Beaumont 77713 Mayor Randy Gallier	409-753-1475
Bridge City, P. O. Box 846, Bridge City 77611 Mayor Don Peters	409-735-6801
Browndell, P. O. Box 430, Browndell 75931	409-698-2993
Chester, P. O. Box 77, Chester 75936	409-969-2360
China, P. O. Box 248, China 77613 Mayor Marquita (Kita) Foster	409-752-5403
Cleveland, 203 East Boothe St., Cleveland 77327 Mayor Lloyd Meadows	713-443-6334 713-592-2668
Colmesneil, P. O. Box 144, Colmesneil 75938	409-837-5211
Corrigan, 101 W. Ben Franklin, Corrigan 75939	409-398-4126
Daisetta, East Pine at Main, P.O. Box 549, Daisetta 77533 Mayor Marvin Murray	409-536-6761
Dayton, 111 North Church St., Dayton 77535 Mayor Larry Harris	409-258-2642
Dayton Lakes, P. O. Box 1476, Dayton 77535 Mayor Pro Tem Talmadge Powell	409-258-2080
Devers, P. O. Box 338, Devers 77538 Mayor R. B. (Bobby) Evans	409-549-7474

6.2 City Governments in BTNP Area *(continued)*

Goodrich, P. O. Drawer 277, Goodrich 77335	409-365-2228
Groves, P. O. Box 846, Groves 77619 Mayor Sylvester Moore	409-962-4471
Hardin, Drawer 324, Hardin 77561 Mayor Arley John Finley	409-298-2117
Jasper, 465 S. Main, Jasper 75951	409-384-4651
Kenefick, Rt. 5, Box 525-A, Dayton 77535 Mayor Jerry L. Gore, Sr.	409-258-2130 409-258-8623
Kirbyville, P. O. Drawer K, Kirbyville 75956	409-423-6191
Kountze, P. O. Box 188, Kountze 77625 Mayor Charles Bilal	409-246-3463
Liberty, 1829 Sam Houston, Liberty 77575 Mayor Paul Henry	409-336-3682
Livingston, 200 West Church, Livingston 77351	409-327-4311
Lumberton, P. O. Box 8545, Lumberton 77711 Mayor Jerry Williamson	409-755-1491
Nederland, P. O. Box 967, Nederland 77627 Mayor Carl LeBlanc	409-723-1502
Nome, P. O. Box 198, Nome 77629 Mayor Hugh Ferguson	409-253-2391
North Cleveland, P. O. Box 1191, Cleveland 77327 Mayor Woodrow Squier	713-592-7656
Onalaska, P.O. Box 880, Onalaska 77360	409-646-5376

6.2 City Governments in BTNP Area *(continued)*

Orange, P. O. Box 520, Orange 77630 Mayor Dan Cochran	409-886-3611
Pine Forest, 155 Lee-Ann, Vidor 77662 Mayor Billy Elliott	409-786-2889
Pinehurst, 3640 West Mockingbird, Orange 77630 Mayor L. E. (Renny) Buker	409-886-3873
Plum Grove, Rt. 5, Box 322-G, Cleveland 77327 Mayor Noble Enloe	713-399-9471 713-399-8209
Port Arthur, P. O. Box 1089, Port Arthur 77641 Mayor Mary Ellen Summerlin	409-983-8100
Port Neches, P. O. Box 758, Port Neches 77651 Mayor Gary Graham	409-727-2182
Rose City, 370 Rose City Drive, Vidor 77662 Mayor Ruth Dubuisson	409-769-6809
Rose Hill Acres, 650 Jordan Drive, Lumberton 77656 Mayor Rayedene Graves	409-755-6762
Seven Oaks, Rt. 1, Box 833, Livingston 77351	
Silsbee, 270 Highway 96 South, Silsbee 77656 Mayor Wes Latham	409-385-2863
Sour Lake, P. O. Drawer 2009, Sour Lake 77659 Mayor Jack Bennett	409-753-2466 409-287-3573
Vidor, 170 N. Main, Vidor 77662 Mayor Dru Stephenson	409-769-5473
West Orange, 2700 Austin Ave., Orange 77630 Mayor Carl Thibodeaux	409-883-3468
Woodville, P. O. Box 517, Woodville 75979	409-283-2234

7. Tribal Government

7.1 ALABAMA-COUSHATTA INDIAN RESERVATION

The Alabama-Coushatta Indian Reservation is located between Livingston and Woodville near the Big Thicket National Preserve. The tribal government has actively developed tourist and recreational opportunities. Campsites, a restaurant and gift shop, tours, demonstrations, dance exhibitions, and lake fishing are available at the reservation.

Alabama-Coushatta Reservation
U.S. Highway 190, Route 3, Box 640, Livingston, Texas 77351

Information and reservations	800-444-3507
Roland Poncho	409-563-4391

8. Universities

State and private universities are a research and educational resource for BTNP. Cooperative relationships have been established with faculty at most of the research institutions in the southeast Texas area.

8.1 LAMAR UNIVERSITY AT BEAUMONT

Part of the Lamar University System, Lamar University at Beaumont has approximately 9,000 students. University faculty and students have carried out research in the BTNP.

Lamar University at Beaumont
P. O. Box 10001, Beaumont 77710 409-880-7011
Rex Cottle, President

Dr. Richard Harrel (water quality studies,
fish, clam tissue data) 409-880-7011
Home: 750 Wade Street, Beaumont 77706 409-892-4964

Lamar University System
P. O. Box 11900, Lamar Station, Beaumont 77710 409-880-7011
James A. Norton, Chancellor

8.2 RICE UNIVERSITY

Rice University is a small private institution whose faculty and students actively engage in research related to the BTNP. The Energy and Environmental Systems Institute (EESI) fosters multi-disciplinary research applications.

Rice University
P. O. Box 1892, Houston 77251 713-527-8101
Delivery address: 6100 S. Main, Houston 77005

Department of Ecology and Evolutionary Biology 713-527-4919
135 Anderson Biology Lab FAX 713-285-5232
Dr. Paul A. Harcombe, Chairman 713-527-4924
Dr. Rosine W. Hall, Post-doctoral Fellow 713-527-8101, X-2661

Department of Environmental Science 713-527-4951
Dr. Phil Bedient (groundwater) 713-527-4953
Dr. Hanadi Rifai (GIS, groundwater) 713-285-5305

Department of Sociology
Dr. Stephen L. Klineberg (surveys) 713-527-4831
FAX 713-285-5161

8.3 SAM HOUSTON STATE UNIVERSITY

SHSU is part of the Texas State University System, administered from Austin. It was historically devoted to the education of teachers, but recently has expanded its research mission.

Sam Houston S.U., Huntsville 77341 409-294-1111
Martin Anisman, President

8.4 STEPHEN F. AUSTIN STATE UNIVERSITY

SFA is located in the East Texas Pineywoods and is independent of any of the Texas university systems. Faculty and students from SFA have discussed with the Interpretive Division the possibility of cooperative research efforts with BTNP.

Stephen F. Austin State University
P. O. Box 6078, SFA Station, Nacogdoches 75962 409-568-2011
Dan Angel, President

8.5 TEXAS A&M UNIVERSITY

Texas A&M is the state's land grant university and, with an enrollment of almost 40,000, is the flagship campus of the Texas A&M University System.

Texas A&M University
College Station 77843 409-845-3211
E. Dean Gage, Interim President

Department of Recreation, Park and Tourism Sciences
Dr. Carson Watt 409-845-7324
FAX 409-845-0446
Dr. William P. Stewart (Rio Grande user study) 409-845-5330
Dr. Peter Whitt 409-845-7324

9. Non-Governmental Organizations

9.1 ALL AMERICAN BASS ANGLERS

All American BASS Anglers, Rt. 8, Box 273, Livingston 77351
Weldon Donley
(SCOT affiliate)

9.2 AUDUBON SOCIETY

NATIONAL AUDUBON SOCIETY
2525 Wallingwood, Suite 1505, Austin, Texas 78746
Dr. Dede Armentrout 512-327-1943
FAX 512-327-1264

HOUSTON AUDUBON SOCIETY
440 Wilchester, Houston 77079 713-932-1392
Gary Woods, President 713-932-1639
Jim Stewart (rep to Trans-Texas) 713-363-8002

9.3 BEAUMONT BASS ANGLERS/TEXAS BASS

Beaumont BASS Anglers/Texas BASS
Rodney Collier, 370 W. Boliver, Vidor 77662 409-769-7419
(SCOT affiliate)

9.4 BIG THICKET ASSOCIATION

Big Thicket Association, P. O. Box 198, Saratoga 77585 409-967-4195
Jim Bell

9.5 BIG THICKET CONSERVATION ASSOCIATION

Big Thicket Conservation Association
David Berkshire, 9713 Mariposa, Houston 77025-4516 713-667-7809

9.6 BIG THICKET INSTITUTE

This Big Thicket Institute is a newly created nonprofit organization to foster public education and commitment to preservation of Big Thicket resources. The BTNP has a cooperative agreement with the Institute, and Superintendent Ron Switzer and Interpretive Division Chief Bob Valen of the NPS are on the board of directors of the organization.

Initial registered address: 4801 Woodway Drive, Suite 300E, Houston
Dr. Jimmy Smith, Chain-O-Lakes Resort.

9.7 BIG THICKET MAGAZINE

Big Thicket Magazine, P. O. Drawer 240, Votaw 77376
Joan Morse

9.8 CLEAN AIR AND WATER INC.

Dr. Richard C. Harrel, 750 Wade St., Beaumont 77706 409-892-4964

9.9 COALITION ADVOCATING A SAFE ENVIRONMENT

Wayne Stupka, D.V.M., P. O. Box 8057, Lumberton 77711

9.10 GULF COAST ROD, REEL & GUN CLUB

Gulf Coast Rod, Reel & Gun Club
Wayne Stupka, DVM, P. O. Box 8057, 2040 Hwy 96 South, Lumberton 77711
(SCOT affiliate)

9.11 LEAGUE OF WOMEN VOTERS OF TEXAS

Jan Ruppel, Natural Resource Chair
855 Belvedere Dr., Beaumont 77706 409-898-7041

Catherine Perrine, Water Committee Chair
7616 Royal Place, Dallas 75230 214-368-7889

9.12 LONE STAR BOWHUNTERS ASSOCIATION, INC.

Lone Star Bowhunters Association, Inc.
P. O. Box 2610, Lufkin 75902
Brenda Flowers, Editor
(SCOT affiliate)

9.13 MID-COUNTY BASS ANGLERS

Mid-County BASS Anglers
Keith Goates, President, 3425 Taft Avenue, Groves 77619
(SCOT affiliate)

9.14 NATIONAL FISH AND WILDLIFE FOUNDATION

"The National Fish and Wildlife Foundation is a private, nonprofit organization established by Congress to help the Fish and Wildlife Service carry out its conservation mission. Contributions to the Foundation are tax deductible and are eligible to be matched by Federal funds." (Undated brochure.)

National Fish and Wildlife Foundation
18th & C Street, N.W., Room 2556, Washington, D.C. 20240 202-208-4051

9.15 THE NATURE CONSERVANCY

The Nature Conservancy is a private nonprofit organization that assists in preserving endangered habitats and wild areas principally by acquisition of lands. The Conservancy operates the Roy E. Larsen Sandylands Sanctuary and participates with BTNP and Village Creek State Park (Texas Parks and Wildlife Department) in the Village Creek Coalition and a regional fire management team.

Texas State Office, The Nature Conservancy of Texas
P. O. Box 1440, San Antonio 78295-1440 210-224-8774
Director, Robert Potts FAX 210-228-9805

Houston Development Office, The Nature Conservancy of Texas
P. O. Box 3864, Houston 77253-3864
Mary Beth Mattison 713-853-5634

Pineywoods Region, The Nature Conservancy of Texas
P. O. Box 909, Silsbee 77656-0909

Roy E. Larsen Sandylands Sanctuary 409-385-0445
Ike McWhorter
Chris Robinson, Preserves Manager (outreach, volunteers)

9.16 SABINE-NECHES CONSERVATION CLUB

Sabine-Neches Conservation Club
Weldon Denbo, 2203 6th Street, Port Arthur 77640
(SCOT affiliate)

9.17 SAFARI CLUB INTERNATIONAL OF TEXAS, PINEYWOODS CHAPTER

Safari Club International of Texas, PineyWoods Chapter
Matthew Jones, Treasurer, Rt. 7, Box 1300, Nacogdoches 75961
(SCOT affiliate)

9.18 SIERRA CLUB

SIERRA CLUB, GOLDEN TRIANGLE CHAPTER
Saul Aronow, 5590 Frost, Beaumont 77706 409-892-9141

SIERRA CLUB, LONE STAR CHAPTER
P. O. Box 3021, Houston 77253-3021
Mary Van Kerrebrook, Conservation Chair 713-895-9309

9.19 SOUTHEAST TEXAS PARTNERSHIP FOR TOURISM, RECREATION AND ENVIRONMENTAL EDUCATION

SETPTREE functions as a networking organization for a number of agencies and local organizations. In addition to its communication function the partnership has initiated cooperative projects such as developing a joint exhibit for display at travel and tourism shows. BTNP has been a principal force in its creation and continued operations.

SETPTREE, 3785 Milam St., Beaumont 77701
Dorothy Griffin, Chair 409-755-0554
Lumberton Chamber of Commerce
P. O. Box 8801, Lumberton 77711
Susan Brown (Big Thicket National Preserve), Secretary 409-839-2691

9.20 SPORTSMEN CONSERVATIONISTS OF TEXAS
(aka Sportsmen's Clubs of Texas)

SCOT is described by its staff (Alan Allen) as basically a lobbying group for hunters and fishers who put wildlife first and want to make sure there are sufficient populations of game to make continued hunting and fishing possible. The statewide organization has 96 affiliated clubs, of which about 1/2 are fishing clubs, 1/4 hunting clubs, and 1/4 hunting-fishing-social clubs. In the BTNP area, local affiliates include the Sabine-Neches Conservation Club (Port Arthur) and the Gulf Coast Rod and Reel Club (Beaumont).

Sportsmen Conservationists of Texas
807 Brazos, 311 Vaughn Building, Austin 78701 512-472-2267
Alan Allen, Executive Director

9.21 TEXAS COMMITTEE ON NATURAL RESOURCES

Janice Bezanson, 601 Westlake Drive, Austin 78746 512-327-4119

9.22 TEXAS TRAPPERS AND FUR HUNTERS

Texas Trappers and Fur Hunters
William A. Jones, M.D., Rt. 7, Box 1300, Nacogdoches 75961
(SCOT affiliate)

10. Business and Industry

10.1 OIL AND GAS OPERATIONS

10.1.1 ARCO

(The Silsbee office has indicated that Arco does not have any producing wells in the BTNP.)

Virginia Darsey		903-759-2785
Phillip Gobe, Environmental Safety Training Director		318-264-4000
Silsbee		409-385-2018

10.1.2 ARISTA NOVELTY (formerly Tend Oil Company)

Neil Leibman, President	Day	713-783-0303
	Night	713-882-2224
Jean Brown, Site Operator		409-287-2124

10.1.2 BOCK & BACON (formerly Goldking)

Paul A. Boscarino		Office	713-522-9727
Buddy Simmons, Petroleum Well Service		Office	409-287-3516
	After hours emergencies only	Home	
Jim Hicks	After hours emergencies only	Home	
Arnold Pelt	After hours emergencies only	Home	

10.1.3 BUFORD CURTIS (formerly Kilroy/ARCO)

Buford Curtis	24 Hours	409-385-2937

10.1.4 CASKIDS OPERATING COMPANY (formerly TABLO)

A. W. Dugin	
Mike Casewell	713-552-1967
Kathy Swimson	713-485-7654
Gene Brown, Operator	409-287-2124

10.1.5 CLAMONT ENERGY CORPORATION (formerly United Texas Corporation)

(In bankruptcy)

Attorney of Record: Mr. Searcy 903-757-3399

10.1.6 DSTJ CORPORATION (formerly Glickenhaus Energy Corporation)

Village Mills Field Office		409-834-2263
Johnny Ambrose	Home	
	Night	409-834-2528
Bill Collins	Night	409-834-2347
Beaumont Consulting Engineer, Alan Kane		409-866-4963
	Mobile	409-781-1790
The Woodlands, Texas Office		
Donald P. Harlan	24 Hours	713-363-4305
Jo Ann Harlan		

10.1.7 JOE W. ELSBURY

Joe W. Elsbury	Office	318-233-9375
After hours emergencies only	Home	
George Kronke	Home	

10.1.8 MURPHY OIL, USA, INC.

Sidney W. Campbell, Sr. Operations Coordinator	Office	409-385-0072
Steve Harris, Foreman	Office	409-385-0072
Randy Sanders, Pumper (Principal Contact)	Office	409-385-0072
	Home	
	Home	
Greg Hobbs, Pumper	Home	
Mike Jenkins (24 Hours Service)		409-755-5400

10.1.9 NGR PRODUCTIONS

Stephen A. Graham, Operations Manager	713-621-5533

10.1.10 NORTH CENTRAL OIL CORPORATION
(formerly Christopher Oil and Gas Company)

R. B. "Bob" Evans, R. T. Evans and Associates	409-336-7357

10.1.11 PETRONOMICS, INC.

W. R. Schlaudt, President	Office	713-475-5128
Louis Schlaudt	Home	
Clyde Hicks, Jr., Pumper	Home	

10.1.12 REID PRODUCTIONS (LITCHFIELD)

Campbell Well #4		
Dr. Jamar Reid	Office	409-283-2293
Ms. Bandsma	Home	
Campbell Well #3		
Bruce Litchfield (Emergencies only)		
Devaine Thompson		409-834-2449
Tom Fox		409-769-1119

10.1.13 RIO BRAVO OIL

Tim Weddle, Executive Vice-President	Office	713-781-6055
Burt Gamble	Office	713-781-6055
J. B. Willman, Geologist and Engineer	Office	713-781-6055
Curby D. Boone, Field Superintendent	Office	409-385-2665
John Burnaman, Field Foreman	Office	409-385-2665
Answering Service (24 hours)		713-781-6055

10.1.14 SUE-ANN OIL AND GAS CORPORATION

Doug Gayle, President	713-774-9044

10.2 PIPELINE COMPANIES

10.2.1 ARCO

Houston Distict Office	713-987-0056
Randy Rogers (24 hours)	713-477-8656

10.2.2 BLACK LAKE

(See ARCO)	409-385-2018

10.2.3 CHEVRON

(includes Gulf Refining Company and West Texas Gulf)

Comptroller	713-226-2086

10.2.4 CITIES SERVICE

Larry Windberry	409-287-3594
	409-287-3852

10.2.5 ELSBURY PRODUCTION (formerly OXY PRODUCTION)
Joe Elsbury 409-385-3204

10.2.6 HOUSTON PIPELINE
Ed Peck 713-853-6994

10.2.7 LION OIL COMPANY
Wallace M. Moody 501-864-1303

10.2.8 MATADOR PIPELINES
Dick Haynes 316-832-5500
409-385-2068

10.2.9 MOBIL GAS LINE
F. L. Johns 214-658-2369
409-722-8432

10.2.10 QUAIL CREEK OIL (formerly Mosbacher)
Thomas Bierry 713-984-9900
Oklahoma City 405-755-7419

10.2.11 S & Y PRODUCTION
Mary Cain 409-336-7069

10.2.12 SUN PIPELINE (formerly Texoma)
O. F. Cannon 409-287-3528

10.2.13 TENNESSEE GAS PIPELINE (formerly Channel)
Bob Bently 409-389-2255
409-389-2321

10.2.14 TEXAS EASTERN
Earl Hargis 713-424-5511

10.2.15 TRANSCONTINENTAL

Gas Control Center	24 Hours	713-439-2550

10.2.16 TRUNKLINE GAS

Randy Dean		713-627-5621
		409-246-3452

10.2.17 UNOCAL PIPELINES (formerly PURE TRANSPORTATION)

Tim Davis	Hotline	903-963-8698
	24 Hours	800-285-8744

10.2.18 UTTCO

Renee Jagot		713-963-3500
		713-963-3320
		713-963-3338
Gas Control Office	Emergency No.	713-729-9710

10.3 TIMBER COMPANIES

10.3.1 CHAMPION INTERNATIONAL

MAIN NUMBER (Huntsville)	409-291-3381

10.3.2 ST. REGIS (SOUTHLAND)

FOREST LAND MANAGER (call as last resort)		
John Wylie		409-291-3326
TRINITY AREA		
District Land Manager: Arthur Phillips	Home	
Area Forester: Edward Welch	Home	
CLEVELAND AREA		
District Land Manager: David Shannon		
Area Forester: Phyllis McDonald	Home	
Area Forester: John Cooper	Home	
LIVINGSTON AREA		
District Land Manager: Bob Sprott	Home	
Area Forester: Oscar Clayton	Home	
LUFKIN AREA		
District Land Manager: Aubrey Bratton	Home	
Area Forester: Ernest Rowe	Home	
WOODVILLE AREA		

District Land Manager: Denny Gowan	Home	
Area Forester: Gary Clos		409-384-7427

10.3.3 LOUISIANA-PACIFIC CORPORATION

JASPER		409-384-3444
SILSBEE		409-385-5201
WOODVILLE		

10.3.4 TEMPLE-INLAND FOREST PRODUCTS CORPORATION

JASPER		409-384-3434
SILSBEE (Contact for Hunting Clubs)		
Turner Evans	Office	409-385-5296
Wayne Russell	Office	409-385-5296

10.4 HUNTING CLUBS (AFFILIATED WITH TIMBER COMPANIES)

A number of hunting clubs are operated on timber company lands adjacent to the BTNP. For emergencies concerning hunting clubs, contact the appropriate timber company.

10.4.1 BIG CREEK COMMUNITY SPORTSMAN ASSOCIATION (adjoins the Upper Neches River Corridor Unit north of FM 1013 on the east, Jasper County, side)

R. O. Cooper, President	Home	

10.4.2 BLACK BRANCH CLUB (adjoins the Upper Neches River Corridor Unit on the Jasper County side, south of FM 1013)

Billy Nowlin, President	Office	409-276-3318
	Home	
Dick Barrow, Warden	Home	

10.4.3 BOAT LAKE CLUB (adjoins the Neches Bottom Unit and Lower Neches River Corridor Unit on the Jasper County side of U.S. 96)

Larry Davenport, President	Office	409-276-3525
	Home	

10.4.4 FISH LAKE CLUB (adjoins the Lower Neches River Corridor Unit, east of Silsbee)

Jimmy Sturrock, President	409-769-0545
David Kerr	409-899-1434

10.4.5 MASSEY LAKE CLUB (adjoins the Lower Neches River Corridor Unit, east of Silsbee)

Harris Puntes, President	Home

10.4.6 NECHES WILDLIFE ASSOCIATION (adjoins the Jack Gore Baygall Unit on the western boundary)

R. D. Rashall, President	409-385-9321
Ricky Harrison	409-385-9337
Ray Curtis	409-385-4758

10.5 VENDORS/CONCESSIONAIRES

10.5.1 ACCESS (ALVIN COMMUNITY COLLEGE EDUCATION AND SENIOR SERVICES)

ACCESS offers a course, including a field trip, on the Big Thicket for senior citizens (55 years or older) for a nominal fee.

ACCESS, 3110 Mustang Road, Alvin	409-388-4685
	409-388-4682

10.5.2 EASTEX BIG THICKET CANOE TRIPS

Eastex Big Thicket Canoe Trips are offered principally between March and October. The owners indicate that most trips are on Village Creek, but they will provide service on the Neches River if requested.

Silsbee, Texas	409-892-3600
Robin and Perry Humphrey, Owners	409-385-4700

10.5.3 SOUTHWEST PADDLESPORTS

SouthWest PaddleSports offers equipments rental, instructions, and guided canoe trips. The owners in 1994 announced that they will be running trips on Village Creek in the BTNP.

SouthWest PaddleSports, Forest Cove Marina
1078 Marina Drive, Kingwood 77339-4068
Patti Carothers, James Graham, Owners 713-359-3474

10.5.4 TIMBER RIDGE TOURS

Timber Ridge Tours offers tour boat rides, canoeing trips, van tours, catered camping and cottages and campsites. Canoe trips originate from Kountze or from one of eight Village Creek launch sites or five Neches River launch sites. Timber Ridge operates a 24-foot pontoon boat on the Neches, launching at the public boat ramp at Highway 96 near Silsbee. Timber Ridge Tours participates in the Southeast Texas Partnership for Tourism, Recreation and Environmental Education.

Timber Ridge Tours, P. O. Box 115, Kountze 77625 409-246-3107
James and Nelda Overstreet, Owners

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