

VIII. ECONOMIC DEVELOPMENT

HISTORIC DEVELOPMENT AND GENERAL CHARACTERISTICS

DEVELOPMENT OF THE ECONOMY

Like many Texas cities, Smithville's economic history and growth are closely tied to the land and the railroad. In 1876, Murray Burleson bought most of the land on which Smithville lies and added a depot to the railroad. By 1890, when the town was the terminus of the Taylor, Bastrop, and Houston Railroad, a steam cotton gin and a gristmill were established. By 1903, the population of Smithville had soared to 2,577 from just 300 in 1890. As a division point on the railroad, Smithville was a center of commerce with railroad shops, gins, and cottonseed oil mills. By 1940, population reached 3,100 largely due to businesses and jobs created to support the railroad, agriculture and gas exploration. In 1957 Smithville's economy was changed forever, the Missouri, Kansas & Texas railroad or "the Katy", underwent serious cut-backs. As a result, passenger routes were changed almost over-night and on November 23, 1957 regular passenger train service was discontinued in Smithville. In 1967, the Katy depot burned to the ground. Soon after, the railroad demolished the roundhouse and the turntable was cut up for scrap.

PHYSICAL GROWTH OF THE COMMUNITY

Smithville has developed according to its original layout along both sides of the railroad right-of-way. Recent development has occurred along State Highway 71 and east of the original town site. Until recently, little growth had occurred outside the city limits. Annexation of the right-of-way of SH 71 between the intersections of Loop 230 and large agricultural tracts east of the current city limits recognize potential growth in those areas. Topography allows all areas of the city to be sewered at one or the other of the City's wastewater facilities and, therefore, to develop at urban intensities. Current land use is shown in Map II-1; future land use is shown in Map IV-1. Map II-4 shows current and projected population density.

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RELATIONSHIP OF SMITHVILLE TO THE REGION

The Smithville Independent School District (SISD), University of Texas Cancer Research Center, railroads, and health services are the largest employers for citizens of Smithville (Table VIII-1). The major employers' effect on jobs in the area is reflected in the number of employees located in the 1990 Census information, however areas like administrative support and service positions are better-represented in the Census (Table VIII-2). Although job base is strong and stable, there are not enough jobs in the local area to meet the demands of Smithville residents. As a result, a number of Smithville residents commute to other cities within the Austin metropolitan area for employment. Smithville is dependent on the larger region for much of its livelihood. As the following sections compare conditions in Smithville to conditions in the larger region, they elucidate the city's relationship with the county and state.

TABLE VIII-1
MAJOR EMPLOYERS
City of Smithville Comprehensive Plan

Company	Product	Employees	Union
Smithville ISD	Education	220	No
Univ. of TX Science Center	Cancer Research	200	No
Union Pacific Railroad	Transportation	170	Yes
Smithville Regional Hosp.	Health Care	136	No
Bastrop County	Government	120	No
Towers Nursing Home	Health Care	81	No
Centex Marine Fabricators	Steel Fabrication	50	No
City of Smithville	Government	50	No
LCRA	Utility	24	No
Todd Webb Press	Commercial Print	14	No
PECO, Inc.	Glass	5	No

Source: LCRA Community Profiles

TABLE VIII-2
EMPLOYMENT IN SMITHVILLE
City of Smithville Comprehensive Plan

Industry	# of People (Age 16+)	% of Total
Agriculture, forestry, and fishing	63	5.3%
Precision production, craft, repair (Includes mechanics, repair, construction)	152	12.7%
Administrative support, clerical	156	13.0%
Sales Occupations	116	9.7%
Technologists, technicians	12	1.0%
Professional specialty occupations (Includes teachers, health assessment)	136	11.4%
Executive, Administrative, Managerial	102	8.5%
Service Occupations (Includes police, fire, food services, cleaning)	242	20.1%
Machine operators, except precision	41	3.3%
Fabricators, assemblers	33	2.7%
Transportation	104	8.6%
Handlers, equipment cleaners, laborers	39	3.7%
TOTAL	1,196	100%

Source: 1990 US Census, Social and Economic Characteristics

ECONOMIC BASE

By definition, the local economic base is comprised of industries that produce a commodity exported for sale outside the locality. Railroad-related commerce, the airport, steel fabrication, health care, and research activities are basic to Smithville's economy (see Table XI-1). In addition to these activities, the following inventory defines the local economic base.

INVENTORY OF BUSINESSES AND INDUSTRIES

Facilities

According to the State Comptroller's Office, there are 278 active businesses in Smithville. The November 1996 report indicates that of the 278 businesses, 162 are located within the city

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limits. The remaining 116 are located outside the city limits but have mailing addresses in Smithville. Although retail and service-related businesses are not the largest employers in the City, these types of businesses are the most prevalent and employ approximately 20% of the residents. See Table VIII-1 and VIII-2 for an approximate breakdown of business types.

Financial Institutions

The city of Smithville has two banks that had assets of \$66,664,546 as of October 1996. Smithville also has one savings and loan association that had combined assets of \$30,034,000 as of October 1996. First State Bank and Lost Pines National Bank are motivated lenders in the Smithville area. Other banks in Bastrop also serve Smithville.

UTILITIES

Electricity

The Lower Colorado River Authority (LCRA) is the wholesaler of electricity to Bluebonnet Electric Cooperative which in turn provides electricity to the City of Smithville. The City is the ultimate provider of electricity to residents. The City of Smithville has extended its service to a limited number of rural areas of Bastrop County that the LCRA does not serve. Residential and commercial service are provided at rates based on usage (Table VIII-3). Electricity for City-owned street lights, which are high pressure sodium vapor security lights, costs \$4.75 a month per light. Maintenance is included in the monthly fee.

Water/Wastewater

The City of Smithville obtains its water from community owned wells. Water is stored in both elevated tanks (2 tanks @ 200,000 gallons) and ground tanks (850,000 gallons). Water service begins at \$7.85 for the first 2,000 gallons plus \$1.34 for each additional 1,000 gallons (Table VIII-4). Additional information about the City's water system, including a system-wide map, can be found in Chapter IX, Water System Element.

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TABLE VIII-3
ELECTRIC RATES
City of Smithville Comprehensive Plan

User	Rate (KWH)
Residential Base KWH	4.2230
Additional KWH	0.0481
Small Commercial Base	6.3345
Additional KWH	0.0589
Large Commercial KWH	6.8598
Customer Charge	10.300
Additional KWH	0.0351

Source: City of Smithville

TABLE VIII-4
WATER RATES
City of Smithville Comprehensive Plan

Inside City Limits	First 2,000 Gal.
Base	\$7.85
Base 1-inch	\$11.33
Base 1 ½ inch	\$20.30
Base 2-inch	\$30.79
Base 2 ½ inch	\$56.18
Base 3-inch	\$81.59
Each Add'l 1,000 gallons	\$1.34

Source: City of Smithville 1996-97

The City of Smithville owns and operates the wastewater collection and treatment facilities. The wastewater treatment plant is designed for a maximum flow of 0.44 MGD (million-gallon-per-day) and has a continuous flow capacity of 0.22 MGD. Currently, the City averages approximately 70,000 gallons per day. Wastewater service costs to customers in Smithville are \$4.76 per 2,000 gallons and \$1.68 per 1,000 gallons above the 2,000 gallon base. Additional information about the City's wastewater system, including a system-wide map, can be found in Chapter X, Wastewater System Element.

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Natural Gas

Natural gas is the most common form of house heating fuel within the Smithville city limits. According to the 1990 U.S. Census, 82.6% of city residents use gas to heat their homes, 2.7% use liquid propane, and 12.7% use electricity. ENTEX Natural Gas Service directly serves customers in Smithville. The Valero Transmission Company sells natural gas to ENTEX. The minimum monthly bill for residents purchasing less than 150,000 cubic feet is \$13.03. For those residents in single-family dwellings, with a single meter, the minimum monthly bill is \$12.53. Above the minimum monthly amount, rates vary depending on usage (see Table VIII-5). A small percentage of Smithville residents rely on the Sharp Butane company for propane delivery.

**TABLE VIII-5
NATURAL GAS RATES:
SINGLE FAMILY HOMES**
City of Smithville Comprehensive Plan

Net Monthly Rate	Cost
First 400 cubic feet or less	\$12.52 + \$.4279 per 100 cubic feet
Next 2,600 cubic feet	0.5391 per 100 cubic feet
Next 7,000 cubic feet	0.5091 per 100 cubic feet
Over 10,000 cubic feet	0.4891 per 100 cubic feet

Source: ENTEX

Solid Waste Disposal

Residents living within the Smithville's city limits pay a monthly garbage fee of \$10.72 for pick-up two times a week. Business rates vary depending on size of container and frequency of pickup. Bin pickup rates range from approximately \$48 for two cubic yards collected once a week to \$287 for six cubic yards, collected four times a week. Commercial and industrial hand pick-up twice a week is \$17.14 per month for a maximum of 120 gallons per pickup, and \$24.07 per month for a maximum of 240 gallons per pickup. Service outside the city limits may be arranged on an individual basis for additional fees. Rates are current as of November 1996.

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Telephone

Southwestern Bell Telephone (SWBT) provides telephone service in Smithville. Toll calls within the Local Access Toll Area (LATA), which includes Bastrop, Austin, Elgin, Lampasas, Liberty Hill, Lockhart, Taylor, Rockdale and Adamsville are also carried by SWBT. For a flat fee of \$30 for residential service or \$80 per month for businesses unlimited calls from Smithville to Austin and Bastrop can be made without long-distance tolls. Long distance service outside the LATA is offered by all major long distance companies such as AT&T, Sprint, and MCI.

As of November 1996, monthly costs for touch tone business service are \$26.80 for a single line and up to \$29.30 per line for multiple lines. The monthly single line fee to add Austin and Bastrop to the local calling area is \$85.90 for both outgoing and incoming calls. PBX lines are available, rates vary with options. Toll-free (1-800 and 1-888) service is available from SWBT and other long distance companies. Call waiting costs \$3.25/month, call return \$4.00, call forward \$3.50, and caller i.d. \$9.00. Other features like call notes (a message system), auto-redial, and voice dial services are also available from SWBT.

The rate for a single basic residential telephone line with unlimited calling is \$12.85 per month. Touch tone dialing costs \$0.18 per line per month. The monthly per-line fee to include Austin and Bastrop in the immediate calling area is \$30.10 both ways. All features mentioned for the business customers are also available to residential customers at slightly lower prices.

All aerial lines within the city are copper wire. SWBT is currently laying fiber optics cable to allow high speed and high volume data transmission in and out of Smithville. This portion of the "information superhighway" will be completed in or about January 1997.

Television, Radio, and Other Communications Services

Smithville is served by all major Austin television and radio stations. Cable television service is available in Smithville for a monthly fee. Satellite television service is also available for a monthly fee. Satellite programming is offered by many national companies; satellite equipment is offered by several national companies as well as area retailers. The Austin newspaper is available in Smithville as well as the weekly publication of the *Smithville Times*. Internet and other online

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access is available for a range of hourly and monthly fees. Several companies offer Internet access; and national carriers, such as America Online, offer service through local telephone numbers.

TRANSPORTATION

Smithville lies at the intersection of SH 71 and SH 95 between Bastrop and La Grange. Two other state roads (FM 153 and FM 535) intersect in Smithville. IH-35, also known as the NAFTA Highway because of its termination in Nuevo Laredo, Mexico, is just 40 miles from Smithville. IH-10 is located 24 miles south of Smithville. This excellent highway service allows quick and easy access to major metropolitan areas like Austin, a forty-five minute drive from Smithville on SH 71.

The Kerrville Bus Company, Greyhound, and Trailways provide commercial bus service from downtown Smithville. Several inter-state and intra-state motor freight carriers serve Smithville. Although there are no motor freight terminals in the City, four motor freight carriers operate in Smithville.

Smithville Municipal Airport has a lighted 3,200-foot asphalt runway. The city of Smithville received a grant from the Federal Aeronautics Administration (FAA) and TXDOT to expand the runway to 4,000 feet by 75 feet. Completion of the runway is expected in 1998. A full host of commercial airline services are offered at the Robert Mueller Airport in Austin. When the new Austin-Bergstrom International Airport opens on US 183 near Del Valle, Smithville residents will be approximately eight miles and 15 to 20 minutes closer to commercial service.

The Union Pacific Railroad serves Smithville. The Lower Colorado River Authority (LCRA) regularly receives shipments of coal from Wyoming at their facility in the Smithville railroad yard. Smithville is an interchange point and also has a piggyback ramp for increased freight transport capacity. Passenger rail service is provided by Amtrak out of Austin. The nearest deep water port is approximately 120 miles to the east in Houston and has a channel depth of 40 feet.

RESOURCES

The Smithville area is rich in agricultural resources. Livestock, sorghum, hay, peanuts, cotton and pecans are all exported from the area. Lignite was once mined from the area for use by

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the LCRA. Currently, gravel, oil, and gas are mined in the area. The Austin Chalk Trend lies under Smithville. With the introduction of horizontal drilling there has been an increase in production and economic viability of wells. There are currently about 4,000 horizontal wells drilled in this limestone formation that stretches from southwestern Texas into western Louisiana.

LABOR SUPPLY

Unemployment Rates

At the time of the 1990 Census, there were 1,289 employed persons in Smithville (731 male, 558 female) and the unemployment rate was 7.2%. In 1993, Texas Department of Commerce reported an unemployment rate of 3.9% in Smithville. July 1995 statistics report a 3.2% unemployment rate in Bastrop County reflecting decreasing unemployment rates in the region. The decrease in unemployment rates in Smithville reflects increased economic activity in the entire Austin metropolitan region as well as more robust national and state economies rather than a substantial increase in employment opportunities in the city.

INDUSTRIAL SITES AND BUILDINGS

There is an abundance of vacant land in and around Smithville that could be used for industrial purposes. The Smithville Industrial Development Foundation (SIDF) owns a three-acre site on the south side of the railroad tracks adjacent to the LCRA rail car maintenance facility. In addition, the City owns a site with two 23,000 sf buildings between 1st and 2nd streets across from the railroad tracks. These sites, as well as other vacant properties, have sufficient utility connections and transportation for industrial development. The Future Land Use Map targets appropriate locations in Smithville (see Map IV-1).

BARRIER ANALYSIS

The elements inventoried above drive economic development potential. The following "barrier analysis" addresses Smithville's cost factors and operating condition factors. Comparisons with regional, state, and national standards reveal Smithville's competitive advantages. Not all

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factors are important for all industries. Some data are not published for entities as small as the city of Smithville. Where information is not available, relevant county data are substituted.

COST FACTORS

Wage Levels

Smithville's wage levels are competitive in the region. Average incomes are lower in Smithville than in surrounding areas. In 1990, both per capita income and median income were lower than all regional averages. Table VIII-6 compares income levels.

Utility and Construction Costs

Most of the region's electricity is supplied by LCRA, which sets the same rate structure for its entire service area; Bluebonnet Electric Cooperative, which services Smithville, set their rates independently (see Table VIII-3). Local telephone rates are regulated by the Texas Public Utilities Commission. Long distance rates are competitive among the many providers. Natural gas is available in Smithville as is propane delivery. Solid waste collection and disposal are handled by the City.

Building costs are comparable throughout the region. Land/site costs are lower in Smithville than in other areas that may be closer to Austin. Taxes on land and buildings are also lower (see the following sections).

Water and wastewater costs do fluctuate between cities in the immediate region. The City of Smithville sets its own rates for these services. Smithville's rates are comparable to those in Bastrop County, and Bastrop County's rates reflect general Central Texas conditions.

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TABLE VIII-6
AVERAGE INCOME
City of Smithville Comprehensive Plan

Area	Median Household Income	Per Capita Income
City of Smithville	\$16,671	\$9,413
Bastrop County	23,967	10,300
State of Texas	27,016	12,904

Source: 1990 US Census (shown in 1989 dollars)

Taxes and Financing

The City's rate of 2.4617 is comparable to other cities in the area (Tables VIII-7 and VIII-8).

TABLE VIII-7
1995 CITY PROPERTY TAX RATES
City of Smithville Comprehensive Plan

City	Population	Rate per \$100 of assessed value
Smithville	3,196	.258
Bastrop	4,044	.230
Giddings	4,093	.413
Luling	4,661	.392
Pflugerville	8,600	.479
Taylor	11,472	.474

Source: Texas Municipal League, March 1996.

TABLE VIII-8
1995 AD VALOREM PROPERTY TAX RATES
City of Smithville Comprehensive Plan

Property Tax	Smithville	Giddings	Bastrop
City	.2575	.4127	.2298
County	.4628	.2664	.3508
School	1.6	1.4350	1.544
Road	.1414	.13	.1481
Total	2.4617	2.2441	2.2727

Source: LCRA Community Profiles

OPERATING CONDITION FACTORS

Labor

Compared to the state and Bastrop County, Smithville has a larger percentage of jobs in “operators and laborers”, “precision production”, and “service occupations”. The large share of operators is primarily due to the Union Pacific Railroad’s activity in Smithville (see Table VIII-1). Precision production is well represented because of CenTex Marine Fabrication. Executive and administrative positions are under represented which would also explain the under representation of administrative support positions in Smithville as compared to the Bastrop County and the state (Table VIII-9). Most other occupations in Smithville reflect similar trends in the county and state.

As of the 1990 Census, two-thirds (67%) of all Smithville residents age 25 years and over achieved a high school diploma or equivalent and approximately 11% hold a bachelor’s degree. Statewide, 72.1% completed high school, and 20.3% completed college. And for places of 2,500 to 9,999 people statewide, 61.5% completed high school, and 12.7% completed college.

Utilities

Electric power is provided by the City of Smithville through the Bluebonnet Electric Cooperative and the LCRA. There are ample electric supply and capacity in the area. Of the City’s

TABLE VIII-9
EMPLOYMENT BY OCCUPATION IN 1990
City of Smithville Comprehensive Plan

Occupation	Smithville	Bastrop Co.	Texas
Executive, Administrative	8.47%	10.53%	12.34%
Professional specialty	11.30%	9.75%	13.83%
Health technologist	n/a	0.96%	1.16%
Technologist	1.00%	1.91%	2.77%
Sales occupations	9.65%	9.40%	12.55%
Administrative support	12.96%	17.98%	16.21%
Private household	0.42%	0.60%	0.66%
Protective Services	0.50%	1.83%	1.72%
Service occupation	20.12%	12.02%	11.16%
Farming/forestry/fishing	5.24%	5.14%	2.59%
Mechanics and Repair	1.58%	4.70%	3.77%
Construction	4.40%	6.78%	4.24%
Operators, Laborers	18.04%	14.53%	13.62%
<u>Precision Production</u>	<u>6.32%</u>	<u>3.87%</u>	<u>3.38%</u>
TOTAL	100.00%	100.00%	100.00%

Source: 1990 US Census

three wells, two wells lie in the Queen City Aquifer, and the other is in the Carrizo/Wilcox. Water storage is ample: the cities two recently constructed above ground tanks hold 400,000 gallons combined, ground storage facilities hold 850,000 gallons. Wastewater capacity is ample: current usage is about 60% of continuous flow capacity. Private companies deliver propane locally. Natural gas is readily available through ENTEX. Smithville's copper telephone wire has been augmented with a digital switch providing a full range of calling options.

Transportation

Smithville enjoys excellent state highways and easy interstate highway access. Transportation throughout Bastrop County is convenient. Public transit to Austin is available through the Capital Area Rural Transportation System (CARTS). Common motor carriers serve Smithville and surrounding cities. Railroad freight services is a strength for Smithville. Passenger rail is available from Amtrak in Austin. Commercial air service is also available in Austin: the relocation of the

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Robert Mueller airport to the Bergstrom Air Force Base will decrease the travel burden associated with air travel in Smithville.

Education

School facilities in Smithville are equal or better than facilities in similar communities. Smithville SISD maintains an elementary school, a junior high school and a high school. During the 1994-95 school year, the student/teacher ratio was 14.1 which compares favorably to 15.9 statewide. Elementary classes average 17 students in Smithville and 20.2 statewide. All secondary class size averages were lower than state averages. Smithville's spending per pupil was \$3,739 compared to average State spending of \$4,898 per pupil.

According to the Texas Educational Assessment of Minimal Skills from 1988-89, Smithville rated competitively with other districts in the area (Table VIII-10). Other areas that should be noted are SAT scores: Smithville averaged 827, Giddings 881 and Bastrop 884. Smithville is lagging behind area schools in library resources, according to the LCRA community profiles Smithville has less volumes per student than Giddings or Bastrop.

TABLE VIII-10
MINIMUM SKILLS TESTING RESULTS
City of Smithville Comprehensive Plan

School District	Percent Passing All Tests (Math, Language)
Smithville	80.2%
Lockhart	76.2%
Luling	80.8%
Bastrop	70.2%
Austin	70.6%

Source: 1989 Texas Education Agency

Smithville SISD offers a wide range of vocational education programs. Involvement in the programs is prevalent, 350 of Smithville's 460 high school students are involved in vocational

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education with participation ranging from one class to up to 30 college credits. Classes are held in home economics, agriculture, marketing, law enforcement, auto mechanics, and health occupations. College credit can be arranged with a full host of junior and four-year colleges like Austin Community College, Weatherford, Southwest Texas, Victoria College, and Hill College. Navarro College provides scholarships to qualified vocational education students through cooperative arrangements with John Deere and Taco Bell.

Medical Services

Smithville has one privately funded hospital which serves Bastrop County and the surrounding towns. The hospital contains 30 beds and is staffed by 4 doctors. There are two clinics in the area and one dentist. There is one nursing home in Smithville with 90 beds. Smithville's medical services ample, if not more than ample to serve the city.

Physical Features

Agricultural land, rolling hills, and open space characterize the rural setting of Smithville and Bastrop County. Gently sloping vacant sites with access to services and transportation are available throughout the area. Topography does not pose constraints to development in Smithville except for flood-prone areas along the Colorado River. Flood hazards are minimal in the area due to an expansive system of dams on the Colorado River. Chapter II discusses Smithville's development potential in detail.

Crime

The Texas Department of Public Safety's crime reports indicates Smithville's low crime-rates relative to other areas in the county (Table VIII-11). The department notes that not all occurrences are reported. For statistical purposes, the definition of major crime includes murder, rape, assault, burglary, robbery, theft, and auto-theft.

TABLE VIII-11
MAJOR CRIME COMMITTED
City of Smithville Comprehensive Plan

City	# of Crimes 1994	1995
Smithville PD	126	132
Elgin PD	296	260
Bastrop PD	277	382
Bastrop Co. SO	790	753

Source: Texas DPS

Debt

In March 1996, the Texas Municipal League reported that the City of Smithville had no general obligation bond indebtedness and no revenue bond indebtedness.

Barrier Analysis Summary

Smithville has a diverse employment base for a city its size. It encompasses manufacturing, transportation, health care, printing, and services, as well as retail, local government, research, and utilities. Still more residents would like to stay in town instead of commuting to work. The presence of Union Pacific Railroad may be decreasing; but the rail itself is an asset for industries that can utilize it. Smithville should build on the diversity that it already has by seeking more of the same kinds of industries as well as those that complement existing industries but are not yet represented locally.

In sum, Smithville has few, if any, barriers to economic development. Smithville has the infrastructure as well as a community that is devoted to civic improvement. With the new wastewater treatment plant on the north side of SH 71, that barrier has been breached. Even though SH 71 bypasses the central business district, the City has embraced it as an opportunity for new industrial and other development. The recently constructed regional hospital is a prime example. The airport is also well served by SH 71. The following sections propose ways to capitalize on these amenities and to maximize the City's potential.

ECONOMIC DEVELOPMENT STRATEGIES

No single strategy is the answer for all of Smithville's economic development needs. A coordinated effort that draws from many resources will be the best plan for the city.

STATE OF TEXAS

Several State agencies have developed goals and strategies for local economic development. The Department of Commerce, the Office of the Comptroller, the Employment Commission, and the Education Agency all provide important insight into critical issues. The Public Utilities Commission and Texas Information Infrastructure Fund (TIIF) may also provide support and funding under the provisions of recent state telecommunications legislation (House Bill 2128, 74th Texas Legislature).

Strategic Plan for Diversifying and Developing the Texas Economy

The Texas Department of Commerce (TDOC) has developed the *Strategic Plan, Fiscal Years 1990-2000* to diversify and develop the Texas economy. The state has identified strengths and opportunities for sustainable economic growth. Basically, the Texas economy is growing and should continue to do so in the near future. At the same time, the economy remains in transition, decreasing its traditional reliance on natural resources and becoming more like the national economy. Whether the growth continues as expected may depend on how Texas addresses a number of critical issues in the next few years. These issues include (1) *the global economy*, (2) *the Texas labor force*, and (3) *the role of technology*. All three of these issues are influencing the economic development climate in Texas *now*, and they will continue to do so in the future.

The City of Smithville can be most effective in its economic development efforts by piggybacking the State's strategies as well as the region's. The City needs to pay attention to local factors that ultimately determine what kinds of businesses and industries are suited for Smithville, and it should also pursue those industries that are being wooed by the State generally. The objectives and strategies of the Strategic Economic Policy Commission (SEPC) and the TDOC objectives listed below describe the state's policies toward economic development and industrial expansion.

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OBJECTIVE MARKET TEXAS AGGRESSIVELY

Strategy 1 Aggressively promote expansion and location of companies in Texas which contribute to fulfillment of the state's strategic objectives.

TDOC Objective: *Maximize retention, diversification, expansion, and recruitment of business for Texas.*

Strategy 2 Increase export assistance and international trade development.

TDOC Objective: *Significantly increase both international market awareness of Texas products and services, and Texas business knowledge of export and joint venture opportunities and the services available to help them compete internationally.*

Strategy 3 Aggressively market Texas as a place to visit and to retire.

TDOC Objective: *Increase visitor expenditures in Texas.*

OBJECTIVE ENCOURAGE INNOVATION AND ENTREPRENEURISM

Strategy 1 Aggressively pursue the research, development, transfer and commercialization of innovative processes and new technologies.

TDOC Objective: *Increase Texans' ability to bring new products and processes to the marketplace.*

Strategy 2 Increase capital availability.

TDOC Objective: *Increase capital available to viable projects ranging from small start-ups to large-scale expansions.*

Strategy 3 Support management assistance programs to assist entrepreneurs and small businesses.

TDOC Objective: *Increase the success rate of small and disadvantaged businesses.*

OBJECTIVE PROVIDE A SKILLED, FLEXIBLE, INTERNATIONALLY COMPETITIVE WORK FORCE

Strategy 1 Improve and expand educational services that ensure fundamental basic skills--including literacy--for all Texans.

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TDOC Objective: *Promote the development of a work force with sound fundamental skills and literacy levels which strengthen the competitiveness of Texas business.*

Strategy 2 Develop a responsive, integrated system for technical and vocational training and retraining.

TDOC Objective: *Respond to employer demands for skilled workers through aggressive participation in the development of an integrated training delivery system.*

Strategy 3 Pursue programs which encourage the positive contributions of all citizens.

TDOC Objective: *Promote and, where appropriate, take the lead in developing a human investment system through a coordinated public/private sector approach aimed at enhancing the economic contributions and quality of life of all citizens.*

OBJECTIVE DEVELOP A COMPETITIVE BUSINESS CLIMATE THROUGH A BALANCED SET OF FISCAL, LEGAL AND REGULATORY POLICIES, INCLUDING INVESTMENTS IN INFRASTRUCTURE

Strategy 1 Reduce regulatory and legal impediments to economic development.

TDOC Objective: *Influence the reduction and simplification of regulatory and legal impediments to economic development at the international, national, state, and local levels.*

Strategy 2 Continue timely investments in the state's infrastructure.

TDOC Objective: *Promote the continued development of urban and rural infrastructure to encourage the state's economic competitiveness.*

Regional Key Industry and Target Occupations

The Texas Education Agency publishes lists of key industries for each of the Quality Workforce Planning areas in Texas. These lists of occupations complement the Plan outlined above. "Each of the 24 regional Quality Workforce Planning committees uses a detailed economic model to identify key regional industries and then select targeted jobs within those industries." The lists

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for the Capital Quality Work Force Planning Region and Rural Capital Local Workforce Development Areas follow (Table VIII-12).

TABLE VIII-12
KEY INDUSTRIES FOR THE
CAPITAL PLANNING REGION
City of Smithville Comprehensive Plan

SIC Code	Industry
73	Business Services
80	Health Services
83	Social Services
87	Engineering, Accounting, Research, Management
17	Construction-Special Trade Contractors
50	Wholesale Trade-Durable Goods
15	Building Construction-General Contractors
07	Agricultural Services
55	Automotive Dealers, Gasoline Service Stations
36	Electronic and other Electrical Equipment
93	Local Government
59	Miscellaneous Retail

Source: Texas Education Agency, January 1996.
SIC=Standard Industrial Classification.

The 1995 Priority Occupations for the State of Texas were adopted on January 13, 1995 (Table VIII-13). "The State Board of Education selected the following high-demand, high-skill, and high-wage occupations as 1995 Priority Occupations. The board defines Priority Occupations as those occupations projected to have more than 1,000 job openings in Texas each year through the year 2000, occupational growth rather than decline, training times greater than six months, and average prevailing wage rates greater than \$9.25 per hour (i.e. greater than 130 percent of the 1994 federal poverty wage level for a four-person family)."¹

¹Texas Education Agency

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TABLE VIII-13
PRIORITY OCCUPATIONS
City of Smithville Comprehensive Plan

Occupational Category	Prevailing Hourly Wage Estimate	Projected Yearly Openings in Texas
Accountant and Auditor	\$14.42	2,355
Auto Mechanic	\$12.79	2,115
Carpenter	\$11.88	1,280
Computer Programmer	\$16.51	1,860
Computer Systems Analyst	\$19.10	1,485
Drafter	\$13.15	1,105
Education Administrator	\$15.39	1,285
Electric Engineering Technician	\$13.93	1,310
Electrical Engineer	\$20.64	1,345
Electrician	\$13.51	1,355
Financial Manager	\$15.95	1,335
Food Service Manager	\$10.45	1,560
Insurance Sales Agent	\$11.36	1,005
Lawyer	\$30.45	1,745
Machinist	\$12.39	1,130
Maintenance Repairer, General	\$10.33	3,120
Manager, General Function	\$15.23	6,570
Manager, NEC	\$10.33	3,480
Marketing Manager	\$17.43	1,195
Painter/Paperhanger	\$10.43	1,010
Physician/Surgeon	\$25.18	1,035
Plumber/Pipefitter	\$14.13	1,115
Police Patrol Officer	\$13.93	1,170
Registered Nurse	\$13.42	4,870
Sales Representative, Scientific	\$15.40	1,365
Sales Representative, Wholesale	\$13.93	3,810
Sales Supervisor	\$10.33	3,045
Secretary, NEC	\$9.81	8,045
Service Supervisor, NEC	\$9.32	1,555
Supervisor, Construction Trades	\$12.39	1,415
Supervisor, Mechanics	\$15.98	1,475
Supervisor, Production Workers	\$14.96	1,165
Supervisor/Manager, Clerical	\$11.36	3,230
Teacher, College/University	\$21.50	2,680
Teacher, Elementary	\$11.61	3,820
Teacher, NEC	\$10.07	1,145

Source: Texas Education Agency, January 1995

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Smithville should pay attention to statewide trends. Priority Occupations are listed for the State in general. The City should also seek to develop regionally important occupations. In addition to the statewide occupations, QWFP has targeted several specifically for the Capital Quality Work Force Planning Region and Rural Capital Local Workforce Development Areas (Table VIII-14).

Although the occupations listed in these tables have been targeted for the State and the Capital Quality Work Force Planning Region and Rural Capital Local Workforce Development Areas, some may not necessarily be appropriate for Smithville or Bastrop County. Further, some occupations that are appropriate may not have been targeted. These lists should be used as guidelines for economic development not as predictions of the future.

LOCAL GOALS AND ACTION ITEMS

The Smithville Economic Development Committee of the Chamber of Commerce set goals and assigned responsibility for their implementation on April 17, 1996. Those goals and action items are as follows:

A. Existing Businesses

1. *Goal:* Business Promotion
 - a. *Committee:* Renee Blaschke and Elaine Seidel
 - b. *Action:* Reactivate Smithville Dollars program for "Saturday Night in Old Smithville."
2. *Goal:* Education for existing or new businesses
 - a. *Committee:* Virginia Guyton and Tom McClure
 - b. *Action:* Sponsor CenTex to come to Smithville to do business consultations, training, etc., for businesses at no charge.

B. Leadership

1. *Goal:* "Leadership Bastrop County" program Fall 1996
 - a. *Committee:* Renee Blaschke, Jim Cowan, and Keri Brown
 - b. *Action:* Work in progress

TABLE VIII-14
TARGETED OCCUPATIONS
FOR CAPITAL AREA REGION
City of Smithville Comprehensive Plan

OCCUPATIONS

Auto Mechanic	Plumber/Pipefitter
Bank Tellers	Profess/Technical Worker
Bookkeeping/Accounting Clerk	Registered Nurse
Bus Driver, School	Sales Supervisor
Business Services Agent	Secretary, NEC
Carpenter	Social Service Technician
Computer Engineer	Social Service Worker, Except Med/Psych
Computer Programmer	Social Worker, Med/Psych
Computer Systems Analyst	Supervisor, Constr. Trades
Correction Officer	Teacher, Elementary
Data Processing Equip. Repair	Teacher, Secondary
Diesel/Bus/Truck Mechanic	Teacher, Special Education
Electronic Assembler, Bench	Teacher, Vocational Education
Food Service Manager	Truck Driver, Heavy
Health Professions, NEC	Writer/Editor
Health Service Worker, NEC	Computer-Aided Drafting (CAD) Technician
Heating/AC Mechanic	Computer-Aided Manufacturing (CAM) Tech.
Legal Secretary	Computer Integrated Manufacturing (CIM) Tech.
Licensed Practical Nurse	Information Technology Support Specialist
Maintenance Repairer, General	Instrumentation and Electrical Specialist
Management Support Worker	Laboratory Analyst / Environmental
Manager, General Function	Manufacturing / Automated Systems Technician
Manager, NEC	Network Systems Technician
Paralegal Personnel	Telecommunications Technician
Personnel Specialist	

Source: Texas Education Agency, January 1996, NEC=Not Elsewhere Classified

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C. Affordable Housing

1. *Goal:* Make the idea of apartment complex more appealing to Smithville citizens
 - a. *Committee:* Brad Hurta
 - b. *Action:* To be researched

D. Health/Education-emphasis on technology

1. *Goal:* Education of public on fiber optics (e.g., definition, uses, etc.)
2. *Goal:* Education of attending physicians on what fiber optics can make available for them
 - a. *Committee:* Jim Cowan, Jim Langford, Dr. Steve Tom, and Graham Baker
 - b. *Action:*
 - i. Research SW Bell grants for education.
 - ii. Meet with SW Bell to move up date for fiber optics capability in Smithville.
 - iii. Use local media to help educate the public.

All of the action items listed above have been initiated and are ongoing.

PROSPECTING

The City is working with the Chamber of Commerce and the Smithville Industrial Development Foundation to attract new industries to Smithville. Specific companies within the recommended list of target industries should be identified and contacted directly by letter and a follow-up telephone call. Once there is an expressed interest in considering Smithville for the location of a new plant, the mayor, city manager, Chamber of Commerce president, and Industrial Development Foundation chairperson should visit the president of the company at the home office. That visit should be followed by flying the company president to Smithville to see the community and available land for industrial sites.

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The City should be prepared to set up meetings with area home builders to show the ability to meet the housing needs of the employees of the industrial prospect. Annexation to the City for water and sewer hook-ups should be negotiated as well. City codes and ordinances should be kept consistent with other cities in the region; the preparation of a subdivision ordinance and revisions to the zoning ordinance are part of this comprehensive planning effort.

The important part of industrial prospecting is follow up and follow through. Time and money must be devoted to this effort. The Economic Development Corporation should support this activity financially. Once it has more experience with economic development, the City itself should also consider implementing a one half-cent sales tax dedicated for its own economic development programs.

PROMOTING BUSINESS DOWNTOWN

The Chamber of Commerce is committed to retaining and promoting existing businesses. Continued improvement of the aesthetic quality of downtown Smithville with attractive landscaping, coordinated signage, sidewalks, and other physical improvements will make a good impression on visitors who will spread the word to others. The improvements that have occurred downtown and in the neighborhoods over the past ten years have had just that kind of effect. Physical improvements to the central business district are discussed in detail in the next element of this plan.

IMPROVING TELECOMMUNICATION INFRASTRUCTURE

The Smithville Chamber of Commerce has already made the use of technology, particularly the Internet, a major priority with several action items. "A country that works smarter enjoys efficient, less-costly government guided by a well-informed citizenry; produces high quality jobs and educated citizens to fill them; paves a road away from poverty; promotes life-long learning, public life and the cultural life of our communities--this is the promise of the National Information Infrastructure."²

²The Center for Civic Networking, quoted by the White House in The National Information Infrastructure Agenda for Action, September 1993.

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Smithville can, and should, be part of the information superhighway. The benefits of improved telecommunications services are clear. Local government should take an active role in developing an information infrastructure plan.

A hundred years ago, lack of a railroad stop condemned many towns to a lingering death. Thirty years ago, interstate interchanges helped many communities to prosper, while those on back roads stagnated. Now the information superhighway is coming. Will your town be ready?

For communities that prepare, the information superhighway, or National Information Infrastructure, will help streamline internal operations of municipal government, improve delivery of town services to citizens and businesses, reduce traffic congestion and air pollution, bring new educational opportunities to local schools, and help local businesses prosper in a global marketplace.³

Infrastructure facilitates communication for learning, business, and government. The City's municipal offices and library should work with the Smithville Independent School District to expand telecommunication infrastructure. The City, the school district, LCRA, and Southwestern Bell Telephone Company should work together to develop the community's information services. This team can receive funding and support from state and federal sources including the Texas Information Infrastructure Fund, the Texas Public Utilities Commission, the US Department of Agriculture, and the US Department of Commerce.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The City of Smithville has many opportunities to attract business and industry and to continue to improve its quality of life. Luckily, it enjoys many opportunities and resources to help it thrive and prosper. Economic development is a cooperative process, and interested and affected parties should continue to work together to develop a set of coordinated strategies to help attract

³Fidelman, Miles R. "Life in the Fast Lane: A Municipal Roadmap for the Information Superhighway," *Municipal Advocate*, Fall 1994.

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development. Cooperation is vital for a strong local, regional and statewide economy. Table VIII-15 summarizes the economic development recommendations and suggests funding sources.

TABLE VIII-15
ECONOMIC DEVELOPMENT PROJECTS
City of Smithville Comprehensive Plan

Projects	Funding Sources
Conduct a target industry study to generate a list of businesses and industries to contact for location in Smithville.	Economic Development Administration; SW Bell
Improve "Welcome to Smithville" gateways on Loop 210 with landscaping, lighting, and signage.	Private business; donations; fund raising; TXDOT; hotel/motel tax
Implement the recommendations in the Central Business District Element of this Comprehensive Plan	Private business; donations; fund raising; hotel/motel tax; economic development sales tax (see financial analysis in the Capital Improvements Element)
Complete telecommunications infrastructure improvements.	SW Bell; cable companies
Establish network connections and provide Internet access for City, schools, library, and businesses.	THF; SISD; SW Bell; hospital; other private sources; City general fund
Identify and contact prospective businesses and industries.	SIDF; Chamber EDC; City

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IX. WATER SYSTEM

WATER SYSTEM INVENTORY

REVIEW OF PRIOR STUDIES

1988 Comprehensive Plan

Hankamer Consulting (operating as Community Land Resources) conducted a Water System Study as part of Smithville's 1988 Master Plan. The plan recommended upgrading the water distribution system. In addition, the plan brought attention to the fire hydrants located on lines less than 6-inches in diameter and a need to loop the existing water system. The City has been working toward a fully compliant water system.

CDBG Applications

Bill Langford and Associates prepared a grant application for the Texas Community Development Program (TCDP) for Community Development Block Grant (CDBG) funds for major water line improvements. Southwest Engineers provided the engineering basis for the recommended improvements. The application calls for the following improvements:

1. 1,200 linear feet (l.f.) of 12-inch PVC water line
2. 5,500 l.f. of 10-inch PVC water line extending 5,500 feet along North 2nd Street
3. 3,600 l.f. of 6-inch PVC water line
4. 24 fire hydrants
5. 26 various sized tie-ins
6. 8 gate valves
7. 176 service reconnections
8. 27 plug existing lines
9. 1,432 l.f. of pavement repair
10. 60 l.f. of 16-inch bored steel casting

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Southwest Engineers has worked with the City on several projects. Recent projects include two water tanks installed in 1993 and 1996 and water system improvements completed in 1992 in the southern portion of Smithville. Southwest Engineers regularly works with City staff to address ongoing water system concerns. This ongoing work, however, does not include a comprehensive study or plan.

CURRENT INVENTORY

Hankamer Consulting conducted an inventory of existing water system facilities (Map IX-1). Existing lines, valves, and hydrants are shown in addition to wells and storage facilities. The City owns and operates three wells. One well is located in the Carrizo-Wilcox aquifer and produces at the rate of 1550 gallons per minute (gpm). The remaining two wells, located on the Queen City aquifer, produce at 400 and 600 gpm.

Water treatment, which includes aeration and chlorination, occurs at the City's water treatment plant which is located at the head of the 1550 gpm well. The capacity of the water treatment plant is 2.5 million gallons per day. The City's aerator was rebuilt in 1997. The City maintains several storage facilities: two elevated tanks, each with a capacity of 200,000 gallons, and three ground tanks totaling 850,000 gallons. The interior of the largest ground tank, holding 600,000 gallons, was refinished in 1997. The City owns and maintains four service pumps rated at 500 gpm and one service pump at 750 gpm. Two of the 500- gpm pumps and the 750-gpm pump were replaced in 1996. The other two pumps were installed in 1984.

STANDARDS AND CRITERIA

The Texas Department of Insurance has set these fire protection criteria to establish Key

Rates:

- Minimum main size of 6 inches in diameter, with 8-inch diameter minimum in mercantile areas
- Fire hydrant spacing generally 300 feet in mercantile areas and 600 feet in residential areas

MAP IX-1: EXISTING WATER SYSTEM

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- Minimum flow capacity at 20 pounds per square inch (psi) residential pressure; minimum fire flow in light mercantile area (CBD) of 1,500 gpm
- Water supply at 130 gallons per day per capita
- Elevated storage of 54 gallons per capita; ground storage of 130 gallons per capita
- Duplicate service pumps with total capacity of 1,000 gpm and capable of discharge pressure of 150 feet

The Texas Natural Resources Conservation Commission (TNRCC) is the primary regulatory authority over the water system. It conducts annual inspections on the condition of the water system and has the authority to approve all additional improvements to the system. In order to be classified as a superior water system, the City must meet the following requirements¹:

- A well capacity of 0.6 gpm per connection
- A total storage capacity of 200 gallons per connection (gpc)
- For systems which provide an elevated storage capacity of 200 gpc, two service pumps with a minimum combined capacity of 0.6 gpm/connection are required at each pump station or pressure plane
- An elevated storage capacity of 100 gpc

WATER SYSTEM ANALYSIS

WATER SUPPLY AND QUALITY

The city of Smithville's water is supplied by the Queen City and Carrizo Aquifers. The Carrizo is composed mainly of the fresh to slightly saline (less than 3,000 mg/l total dissolved solids) water-bearing sands of the Carrizo Sand. The Carrizo consists primarily of fine to coarse, loose, cross-bedded sand and some thin beds of sand-stone and clay and has a maximum thickness of about 375 feet. The Carrizo Sand overlies the Wilcox Group and crops out in a belt two to four miles wide

¹Texas Natural Resources Conservation Commission. 1995. *Rules and Regulations for Public Water Systems*. Report RG-195, p. 43.

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extending across the central part of Bastrop County. The Lost Pines area sits on top of the Carrizo Sand.²

The Queen City Aquifer is composed of massive to thin-bedded, light-gray, fine to medium sand, clay and some lenses of iron-bearing conglomerate. The aquifer yields small to moderate quantities, 100 to 325 gpm, of fresh to slightly saline water to wells in and near its outcrop.³

All groundwater contains minerals carried in solution, the type and concentration of which depend upon the surface and subsurface environment, rate of groundwater movement, and source of the groundwater. Precipitation is relatively free of mineral until it comes in contact with the various constituents which make up the soils and rocks of and adjacent to the aquifer. As a result of the water's solvent power, minerals are dissolved and carried into solution as the water moves through the aquifer. The concentration depends upon the solubility of the minerals present, the length of time water is in contact with the rocks, and the amount of dissolved carbon dioxide the water contains. In addition, concentrations of dissolved mineral in groundwater generally increase with depth where circulation has been restricted due to the various geologic conditions. Smithville's water quality falls well within the standards set by the TNRCC (Table IX-1).

STORAGE AND PUMPING CAPACITIES

The water and pumping capacities exceed the Texas Department of Insurance and the TNRCC rating criteria. Existing capacities will meet demand until approximately 2008, when elevated storage capacity will need to be increased.

² Texas Water Development Board. 1981. *Ground-Water Resources of Bastrop County, Texas*. Report 109, p. 20.

³ Texas Water Development Board, p. 20.

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AVAILABILITY OF WATER

The Carrizo Aquifer is the principal aquifer used for drinking water in Smithville and has the potential to furnish more than 90% of the groundwater in Bastrop County⁴. There is less water available in the Queen City Aquifer than in the Carrizo because of the physical structure of the aquifer. Despite the drought conditions seen in 1996, water levels in both the Carrizo and Queen City Aquifers have remained adequate.

TABLE IX-1
WATER QUALITY
City of Smithville Comprehensive Plan

CONSTITUENT	Smithville (1997)	TNRCC MAXIMUM
Sulfate	13	300.000
Chloride	18	300.000
Fluoride	0.9	4.000
Nitrate	.03	10.000
Arsenic	.002	0.050
Barium	.014	1.000
Cadmium	.0002	0.010
Chromium	.010	0.050
Iron	.02	0.300
Lead	.0011	0.050
Manganese	.008	0.050
Mercury	.00027	0.002
Selenium	.002	0.010
Silver	.01	0.050
Total Dissolved Solids	183	1,000.000
pH	8.4	> 7.0

⁴ Texas Water Development Board, p. 35.

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TABLE IX-2
WATER SYSTEM STANDARDS COMPARISON WITH
EXISTING & PROJECTED DEMANDS
City of Smithville Comprehensive Plan

Facilities	TNRCC Rating Criteria	1996 Population 3900 1749 Connections		2010 Population 4577 2052 Connections		2020 Population 5027 2254 Connections	
		Demand	Existing (1996)	Demand	Existing (1996)	Demand	Existing (1996)
Wells	0.6 gpm/conn.*	1,049	2,550	1,231	2,550	1,352	2,550
Elevated Storage	200** gal./ conn.	349,800	400,000	410,400	400,000	450,800	400,000
Ground Storage***	130 gpm/ capita	507,000	850,000	595,010	850,000	653,510	850,000
Total Storage	200 gal./conn.	349,800	1,250,000	410,400	1,250,000	450,800	1,250,000
Service Pumps	0.6**** gpm/conn.	1,049	2,750	1,231	2,750	1,352	2,750

* For the purposes of this analysis, connections and customers are used inter-changeably. Customers include apartment units, single-family homes, commercial and municipal facilities.

**The minimum of 100 gpc requires 2.0 gpm/conn. pumping capacity which would outpump Smithville's wells.

*** Texas Department of Insurance rating criteria.

**** With systems that provide 200 gpc of elevated storage, service pumps are required to supply 0.6 gpm/conn.; service pump capacity is dependant on the amount elevated storage.

WATER PRESSURE

Smithville's capacious elevated storage provides sufficient pressure to most sections of the city. However, in areas where 3/4-inch to 1 1/4-inch water lines are present, primarily in the northern part of town between Royston and Byrne Streets, water pressure does not meet the TNRCC's minimum requirement of 35 psi.⁵ The City has applied for CDBG funds to loop existing water lines

⁵ *Rules and Regulations for Public Water Systems*. 1995. Water Utilities Division, Texas Natural Resources Conservation Commission, p. 32.

City of Smithville Comprehensive Plan '97

with a proposed 10-inch line to be located in North 2nd Street. The 10-inch line and other proposed upgrades would increase water pressure for better fire flow and general services.

DISTRIBUTION LINES AND FIRE PROTECTION

All in-city residents are served by municipal water. Although the extent of the water system is adequate, many of the distribution lines are undersized especially in the older areas lying between Royston and Byrne Streets. The minimum sized line that will serve a fire hydrant is six inches in diameter. Areas that do not have adequate fire protection because of undersized lines are located primarily in the Pecan Shores and Tobin Addition subdivisions, and the area surrounding North Street. Although fire hydrants are present in Pecan Shores and Tobin Addition, they function as flush valves because they are not connected to six-inch lines. Once lines are upgraded, fire hydrants are needed in the areas around North Street and North 1st Street between Turney and Wilkes. In addition to the 24 hydrants proposed in the CDBG grant, approximately two fire hydrants will be needed once lines are upgraded. Continually upgrading lines is an important priority for the City.

WATER COSTS TO CITY

The City does not purchase water from any outside sources. All of its water comes from city-owned wells lying in the Carrizo-Wilcox and Queen City Sand Aquifers. In 1996, the City's total water system operating expenditures were \$168,181. With general administration and depreciation added, the 1996 water system expenditures exceeded \$300,000. Therefore the City's cost of supplying water to customers is over \$1.25/1,000 gallons.

WATER COSTS TO CUSTOMERS

The City's base rate for water customers is \$7.85 for the first 2,000 gallons on a standard 5/8-inch line. Each 1,000 gallons exceeding the 2,000 gallon base rate cost \$1.34. Base rates increases as the size of the water line increases (Table IX-3).

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TABLE IX-3
WATER RATES
City of Smithville Comprehensive Plan

Inside City Limits	96-97 Rates
Base	\$7.85
Base 1-inch	\$11.33
Base 1 ½ inch	\$20.30
Base 2-inch	\$30.79
Base 2 ½ inch	\$56.18
Base 3-inch	\$81.59
Per 1,000 gallons	\$1.34

Source: City of Smithville

OPERATION PROCEDURES

The City owns, operates, and maintains the water system. Currently the city employs two licensed operators. It is the City's policy to require annexation before it will serve new areas.

LISTING AND RANKING OF PROBLEMS

Smithville has a good water system with excellent treatment and storage capacity to meet demands well into the next century. The system currently suffers from a distribution system replete with small and deteriorating lines. These problems are ranked in order of priority as follows:

1. Lines smaller than six inches that interfere with fire protection
2. Deteriorating lines
3. Lack of fire hydrants
4. Lack of ongoing record-keeping for water line alterations and valve locations.
5. Lack of elevated storage

WATER SYSTEM PLAN

GOALS, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

GOAL W1

TO PROVIDE A WATER SYSTEM THAT MEETS THE STANDARDS FOR FIRE PROTECTION, DISTRIBUTION, AND WATER QUANTITY/QUALITY AS THE CITY EXPANDS AND POPULATION INCREASES

Objective W1.1

To upgrade the water system for adequate fire protection

Implementation Strategy W1.1-1

Upgrade all one, two, and four-inch water lines to six-inch or larger water lines.

Implementation Strategy W1.1-2

Install fire hydrants where necessary in order to meet Texas Department of Insurance criteria.

Implementation Strategy W1.1-3

Upgrade older water lines to meet minimum requirements for pressure and capacity.

Objective W1.2

To document the locations and capacities of lines, valves, and hydrants

Implementation Strategy W1.2-1

Utilize a geographic information system (GIS) to maintain a water system database.

Implementation Strategy W1.2-2

Utilize a global positioning system (GPS) to document the location of valves, lines, and hydrants as part of ongoing maintenance and upgrading procedures.

Objective W1.3

To augment the existing water system in a timely manner in order to meet present and future demands

City of Smithville Comprehensive Plan '97

Implementation Strategy W1.3-1

The City should formulate utility extension policies based on the Future Land Use Plan and utility service plans to ensure that the facilities continue to have capacity for growth.

Implementation Strategy W1.3-2

The City should continue to apply for Community Development Block Grant funding through the Texas Community Development Program for additional water improvements.

RECOMMENDATIONS

1. ***Increase Water Line Capacity.*** Given the high cost of water line replacement, the following recommendations are made in the order of priority (Table IX-4):
 - a. ***Replace one, two, and four inch lines with six inch lines where fire protection is inadequate.*** Fire hydrants require a six-inch line or larger to be operable. Pecan Shores and Tobin Addition subdivisions and the North Street area are severely lacking in fire protection because of undersized lines (Map IX-2).
 - b. ***Upgrade one-inch water lines.*** Existing one-inch lines are part of the original water system installed during the 1930s and 40s. These lines do not meet the TNRCC minimum standards requiring water lines to be at least two-inches in diameter and maintain pressure at 35 psi.
 - c. ***Increase water line capacity where undersized lines create circulation problems.*** The City should upgrade water lines where lower capacity lines feed into higher capacity lines, for example, where a four-inch line feeds a six-inch line (see Map IX-2).
2. ***Install fire hydrants.*** In order to meet the Texas Department of Insurance criteria, fire hydrants must no farther than 600 feet apart in residential areas. Additional fire hydrants are needed in the North Street area and on the corner of Hickory and 2nd Avenue.

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MAP IX-2: WATER SYSTEM IMPROVEMENTS
(COLOR)

City of Smithville Comprehensive Plan '97

TABLE IX-4
WATER SYSTEM IMPROVEMENT PHASES
City of Smithville Comprehensive Plan

Year	Project	Action	Cost	Funding Sources
				CDBG, Utility Fund
1	Fawcett (N. 2nd to N. 5th)	12 inch PVC		
	2nd (Fawcett to Marburger)	10 inch PVC		
	5th (Fawcett to Royston)	6 inch PVC		
	Ramona (N. 2nd to N. 3rd)	6 inch PVC		
	Alley (Olive/Gresham from 3d to 4th)	6 inch PVC		
	4th (alley Olive/Gresham to Gresham)	6 inch PVC		
	Burleson (4th to 5th)	6 inch PVC		
	Hudgins (2nd to 3d)	6 inch PVC		
	Hudgins (4th to 5th)	6 inch PVC		
	Mills(2nd to 3d)	6 inch PVC		
	Mills (4th to 5th)	6 inch PVC		
	Garwood (2nd to 3d)	6 inch PVC		
	Bishop (2nd to 3d)	6 inch PVC		
	Turney (2nd to 3d)	6 inch PVC		
	Byrne (2nd to 3d)	6 inch PVC		
	Wilkes (2nd to 3d)	6 inch PVC		
	* Source: Based on 1996 CDBG grant submitted by Southwest Engineers,			\$262,500*
	the total includes 24 fire hydrants.			
	Hudgins (3rd to 4th, 5th to 9th)	6 inch PVC @ \$33.00/l.f.	\$65,670	CDBG, Utility Fund
	Burleson (3d to 4th, 5th to 7th)		\$43,560	
	Mills (3d to 4th, 5th to 7th)		\$43,560	
	YEAR ONE TOTAL		\$415,290	
2	Main Street (5th to 6th)	8 inch PVC @ \$33.00/l.f.	\$12,540	CDBG, Utility Fund
	Olive (3d to 5th)	6 inch PVC	\$20,295	
	North (Hwy 95 to Center St.)	6 inch PVC	\$25,740	
	South 2nd (Marburger to Taylor)	8 inch PVC	\$108,240	
	Fire Hydrants	2 @ \$1,500 each	\$3,000	
	YEAR TWO TOTAL		\$171,315	
3	Pecan Shores/Shade/Reed/FM2571	6 inch PVC	\$181,500	CDBG, Utility Fund
	YEAR THREE TOTAL		\$181,500	

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TABLE IX-4
(Continued)

4	Turney (3d to 6th)	6 inch PVC	\$33,000	CDBG, Utility Fund
	Byrne (3d to 6th)	6 inch PVC	\$33,000	
	YEAR FOUR TOTAL		\$66,000	
5	Garwood (1st to 2nd)	6 inch PVC	\$9,405	CDBG, Utility Fund
	Hickory (4th to 5th Ave.)	6 inch PVC	\$11,055	
	Olive (6th to 7th)	6 inch PVC	\$14,850	
	YEAR FIVE TOTAL		\$35,310	

Source: Hankamer Consulting

Note: Costs are reasonable estimates based on current costs for planning purposes only and should not be used for letting contracts for construction.

3. ***Utilize a GPS along with GIS to maintain accurate records.*** The City should use a GPS to keep records of upgrades, improvements and maintenance operations. The GPS should be used in conjunction with the existing water system data in a GIS format.
4. ***Increase elevated storage capacity.*** The City will need approximately 200,000 gallons of additional elevated storage capacity by the year 2008.

X. WASTEWATER SYSTEM

WASTEWATER SYSTEM INVENTORY

REVIEW OF PRIOR STUDIES

1988 Comprehensive Plan

Hankamer Consulting (operating as Community Land Resources) conducted a wastewater system study as part of Smithville's 1988 Master Plan. The plan recommended a new wastewater treatment plant to decrease the need for lift stations as development spreads to SH 71 and the eastern side of Smithville. Continuing to install lift stations without a treatment facility would have become prohibitively expensive for the City. A new wastewater treatment plant on Willow Creek is in the final engineering phases. A grant from the Economic Development Administration (EDA) is financing and the Lower Colorado River Authority (LCRA) is facilitating the construction of the plant.

Willow Creek Wastewater Treatment Plant

Southwest Engineers designed the Willow Creek Wastewater Treatment Plant expected to go on line in May 1998. Approximately 150 residential connections and the new hospital will be diverted from the existing plant to the new plant. The entire project includes the treatment facility, designed for a maximum daily flow of 300,000 gallons per day (gpd), and the following lines and lift stations:

1. 8,200 feet of 8-inch sewer line
2. 7,400 feet of 10-inch sewer line
3. 2,800 feet of 12-inch sewer line
4. One 500-gallon-per-minute (gpm) lift station
5. 5,400 feet of 8-inch force main

City of Smithville Comprehensive Plan '97

Southwest Engineers regularly works with City staff to address ongoing wastewater system concerns. This ongoing work, however, does not include a comprehensive study or plan.

EXISTING SYSTEM

The City of Smithville owns and operates the wastewater collection and treatment facilities (Map X-1). The system includes the existing wastewater treatment facility, which provides secondary treatment, and a second plant to go on line in May 1998. The existing plant is designed for a maximum flow of 500,000 gpd. There are nine lift stations located within the city with a total capacity of 4,610 gpm.

STANDARDS AND CRITERIA

Discharge permits for the City's wastewater facilities, including the new plant, allow no more than 10 mg/l biological oxygen demand (BOD₅), 15 mg/l total suspended solids (TSS), and 2 mg/l of ammonium nitrate (NH₃-N).

According to Section 14 of Smithville's subdivision ordinance, connection to the sanitary sewer lines is mandatory. The developer and/or owner is required to bear the cost of necessary extensions and lift stations.

WASTEWATER SYSTEM ANALYSIS

WASTEWATER TREATMENT

The plans associated with the new plant are consistent with the recommendations of the 1988 Master Plan to update wastewater treatment facilities and to provide better or new service on the north and east sides of town. Regular modifications and maintenance are ongoing. In 1996, Smithville's effluent exceeded ammonium nitrate maximum levels in March and April, but no ongoing problem exists. All other parameters were in compliance with the permitted levels (Table X-1).

City of Smithville Comprehensive Plan '97

MAP X-1: EXISTING WASTEWATER SYSTEM
City of Smithville Comprehensive Plan

City of Smithville Comprehensive Plan '97

City of Smithville Comprehensive Plan '97

TABLE X-1
EFFLUENT QUALITY
City of Smithville Comprehensive Plan

Month	1996 Daily Averages			Avg. flow mgd	Max. flow mgd
	BOD ₅ mg/l (Max.=10.00)	TSS mg/l (Max.=15.00)	NH ₃ -N mg/l (Max.=2.00)		
January	4.000	7.900	0.390	0.299	0.349
February	3.170	6.100	0.590	0.296	0.352
March	3.870	11.450	2.890	0.288	0.334
April	3.800	8.700	4.960	0.257	0.327
May	3.880	1.260	0.280	0.309	0.381
June	3.400	4.430	0.330	0.321	0.419
July	1.420	4.040	0.260	0.309	0.381
August	1.100	4.100	1.650	0.314	0.400
September	1.500	2.700	0.950	0.311	0.402
October	3.300	7.340	1.080	0.294	0.353
November	1.130	5.430	0.210	0.302	0.483
December	3.730	8.500	1.980	0.294	0.336

WASTEWATER FLOW

The average flow to the existing wastewater treatment plant was 299,500 gallons per day (gpd) in 1996, which is 60% of the design capacity of the plant. With 1,679 connections, the average daily flow translates into 178 gpd/connection. The peak daily flow, occurring in November of 1996, was 483,000 gallons or 287.7 gpd/connection. The current wastewater system's capacity is sufficient to meet demands for the next three years. The new Willow Creek Wastewater Plant will create the additional capacity necessary to meet demands well into the next century (Table X-2).

City of Smithville Comprehensive Plan '97

TABLE X-2
WASTEWATER SYSTEM STANDARDS COMPARISON WITH
EXISTING & PROJECTED DEMANDS
City of Smithville Comprehensive Plan

		1996 Population 3900 1679 Connections		2010 4577 Population 1970 Connections		2020 5027 Population 2164 Connections	
Flow	Amount	Demand	Existing (1996)	Demand	Existing (1996)	Demand	Existing (1996)
Peak Daily Flow	288 gpd/conn.	483,200	500,000	567,360	800,000*	623,232	800,000*

* Includes the Willow Creek Wastewater Treatment Plant @ 300,000 gpd

COLLECTION LINES

The original wastewater system was built in the 1890s, and some of the original lines are still in operation. The majority of the lines were installed in the 1930s and '40s. All lines installed before the early 1980s are made of vitrified clay. Lines installed after the early 1980s consist of polyvinyl chloride (PVC). City estimates indicate that approximately 92 to 95 percent of all wastewater lines are made of vitrified clay.¹ Many of the clay wastewater lines need continual repair.

CITY COSTS

In 1995-1996 fiscal year, the City's total wastewater expenditures were \$119,764. Expenditures include personnel, services, supplies and materials, and other miscellaneous items.

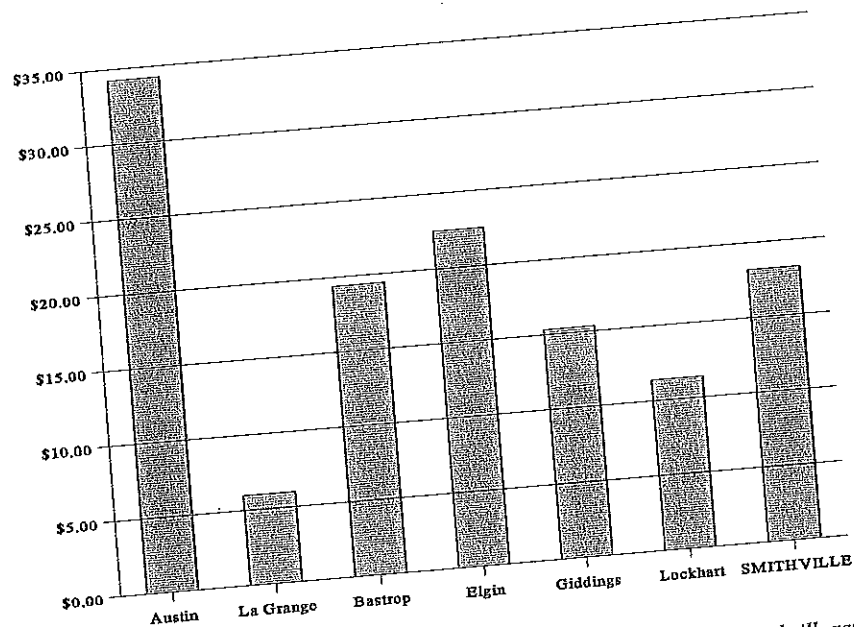
¹ Early, Steve. 1997. Phone Interview. Director of Utilities, City of Smithville.

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CUSTOMER COSTS

In 1997, wastewater service costs to customers in Smithville are \$4.76 per 2,000 gallons and \$1.68 per 1,000 gallons above the 2,000 gallon base. Smithville's wastewater rates are competitive within the region and are not expected to rise significantly (Table X-3).

TABLE X-3
WASTEWATER RATE COMPARISON
City of Smithville Comprehensive Plan



Source: Texas Municipal League 1993 Utility Rate Survey and 1996-97 Smithville rates.

INFLOW AND INFILTRATION

Heavy rains occurring in the spring and early summer of 1997 created significant inflow and infiltration problems in localized areas of the city. No inflow and infiltration studies have been conducted, however.

City of Smithville Comprehensive Plan '97

INDUSTRIAL WASTE AND SPECIAL TREATMENT FACILITIES

The use of water is not significant to the processes of any of the industries or businesses in Smithville, and no industrial waste is being introduced into the City's wastewater system. Therefore, no special treatment facilities are needed. Restaurants in town have grease traps to keep high amounts of grease out of the system.

OPERATIONAL PROCEDURES

The City owns, operates, and maintains the wastewater system. Currently the City employs three licensed operators. Routine operational procedures consist of wastewater plant operation and maintenance and repairing collection line breaks and blockages. Treated effluent is tested weekly to ensure that the City's facilities are in compliance with TNRCC standards.

TERRAIN CHARACTERISTICS

Smithville is located on the banks of the Colorado River in the Lost Pines region of Central Texas. The elevation of the area ranges from 290 feet along the river to approximately 450 feet in western parts of the city where the topography becomes more pronounced with rolling hills. Because of the nearly flat topography within the city limits, lift stations are a necessity (see Map X-1). The Willow Creek Wastewater Treatment Plant will not eliminate any lift stations within the city. Wastewater lines stemming from the lift stations at Faulkner Rd., Webb St., and Quail Run will be redirected toward the new plant, thereby decreasing the distance in which waste is pumped.

UNSERVED AREAS AND SOIL CHARACTERISTICS FOR SEPTIC SYSTEMS

There are approximately 26 residences not served by the wastewater collection system. All of these residences are located in Pecan Shores and Tobin Addition subdivisions. In general, septic systems tend to function poorly in the area in and around Smithville due to the low permeability of the deep clay soils. The soils within the Pecan Shores and Tobin Addition subdivisions are moderately suited for septic, meaning that obstacles presented by the soil can be overcome with

City of Smithville Comprehensive Plan '97

special planning and design. The most northern reaches of Pecan Shores Drive, which include vacant lots within the 100-year flood plain of the Colorado River, are not suitable for septic systems due to poor percolation rates and frequent flooding.

It would be difficult to sewer Pecan Shores and Tobin Subdivisions without great expense to the City due to topography and low housing density. The subdivisions were platted before the City required sewered subdivisions. Detailed information about Smithville's soils can be found in Chapter II, Table II-5.

LISTING AND RANKING OF PROBLEMS

Overall, Smithville has a good wastewater system that meets the TNRCC's minimum standards. The problems with the City's wastewater system include:

1. Inflow and infiltration (I&I) stemming from poor drainage and deteriorating lines
2. Deteriorating lines
3. Lack of wastewater service at the Smithville Municipal Airport
4. Unserved residential areas

WASTEWATER SYSTEM PLAN

GOALS, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

GOAL WW1

PROVIDE A WASTEWATER SYSTEM THAT MEETS TNRCC MINIMUM REQUIREMENTS AND ADEQUATELY SERVES ALL RESIDENTS LIVING WITHIN SMITHVILLE.

Objective WW1.1

To systematically maintain the City's wastewater system

Implementation Strategy WW1.1-1

The City should conduct a comprehensive I & I study.

City of Smithville Comprehensive Plan '97

Implementation Strategy WW1.1-2

The City should replace clay lines requiring frequent repair with PVC lines.

Implementation Strategy WW1.1-3

The City should maintain a database of all maintenance activity utilizing a geographic information system (GIS).

Implementation Strategy WW1.1-4

The City should upgrade wastewater lines in conjunction with future street and drainage projects.

Objective WW1.2

To update City subdivision ordinances to include specific requirements

Implementation Strategy WW1.2-1

Language in Smithville's subdivision ordinance should include the following:

Wastewater collection lines shall be sized to serve the proposed development and to meet currently acceptable engineering standards but in no case shall be less than six (6) inches in diameter with manholes spaced no farther than every 500 feet.

Objective WW1.3

To adequately serve all areas within the city limits

Implementation Strategy WW1.3-1

The City should extend wastewater service to the Smithville Municipal Airport

Implementation Strategy WW1.3-2

The City should extend wastewater service to Tobin Addition subdivision

Implementation Strategy WW1.3-3

The City should extend wastewater service to Pecan Shores

City of Smithville Comprehensive Plan '97

RECOMMENDATIONS

1. ***Conduct a comprehensive I & I study.*** Heavy rains in the spring of 1997 lead to serious I & I problems in the city. Although the City is conducting smoke tests, a comprehensive study would be necessary to adequately address the I & I problems (Table X-4).
2. ***Replace high maintenance lines.*** The sewer lines between Short and Mills from N. 9th Street to N. 4th Street and between Short and Hudgins from N. 9th Street to N. 6th Street are in need of repair on a monthly basis. The lines frequently clog due to the nature of the waste stream originating at the nursing home located at N. 9th and Short St. and sagging joints. Replacing the current 6-inch line with an 8-inch or 10-inch line (depending on an engineer's recommendation) and extending the line to the existing 10-inch line at N. 2nd St. would accommodate the nursing home and resolve the need for continued maintenance (Map X-2).
3. ***Extend service to unserved areas.*** Areas within the city that are not served by wastewater include the Smithville Municipal Airport and Tobin Addition and Pecan Shores subdivisions (see Map X-2). Wastewater service should be extended to the industrial site located at the airport because it would promote industrial development around the airport, the City's top economic development priority.

Tobin Addition and Pecan Shores subdivisions lie within the 100-year flood plain and have soils that are only moderately suited for septic systems. Supplying the area with sewer service would provide public health benefits and increase water quality in Gazley Creek and the Colorado River.

City of Smithville Comprehensive Plan '97

TABLE X-4
WASTEWATER SYSTEM IMPROVEMENT PLAN
City of Smithville Comprehensive Plan

Year	Action	Estimated Cost*	Yearly Cost	Funding Source
1	Comprehensive I & I study	\$5,280	\$5,280	Utility Fund
2	Replace high maintenance lines			Utility Fund, CDBG
	a. Alley between Short and Mill (N. 9th to N. 4th)	\$60,320		
	b. Alley between Short and Hudgins (N. 6th to N. 9th)	\$24,778	\$85,098	
3	Extend service to the Municipal Airport	\$278,000***	\$278,000	Utility Fund, CDBG, Econ. Dev. Agency
4	Extend service to Tobin Addition	\$141,500***	\$141,500	Utility Fund, CDBG
5	Extend service to Pecan Shores	\$155,800***	\$155,800	Utility Fund, CDBG

Source: Hankamer Consulting

*Cost extending service lines is based on an estimate of \$26.00 per linear foot (l.f.). The cost includes boring and installation, valve fittings, and engineering. Costs are reasonable estimates based on current costs for planning purposes only and should not be used for letting contracts for construction.

** Cost estimate based on 20 days work for 2 Smithville employees, misc. supplies (spraypaint, polaroid film/camera), and 6 cases of smoke cartridges @ \$125.00 each.

***Cost includes a lift station @\$70,000

City of Smithville Comprehensive Plan '97

MAP X-2
WASTEWATER SYSTEM PLAN
City of Smithville Comprehensive Plan

City of Smithville Comprehensive Plan '97

XI. STORM DRAINAGE SYSTEM

STORM DRAINAGE INVENTORY

REVIEW OF PRIOR STUDIES

1988 Comprehensive Plan

Hankamer Consulting (operating as Community Land Resources) conducted a Streets and Drainage Study as part of Smithville's 1988 Master Plan. The plan recommended initiating a program to clean ditches, culverts, creeks, and other drainage ways on a regular basis. The plan also brought attention to roads south of the railroad tracks that were in need of paving or reconstruction due to repeated flood damage.

Student Master Planning Projects

During the fall of 1996 and spring of 1997, Texas A&M University civil engineering students conducted drainage and non-point source pollution abatement studies in Smithville. The studies resulted in three master plans.¹ The Lower Colorado River Authority (LCRA) compiled the Texas A&M findings on behalf of the City of Smithville and supplied engineering recommendations for this comprehensive plan. The primary contributions from these student plans included in this comprehensive plan are the mapping of drainage sub-basins and the identification of problems by drainage sub-basin.

Subdivision Ordinance

Section 13 of the Smithville Subdivision Ordinance, provides rules for storm water management in new subdivisions. The ordinance requires drainage ditches enclosed in a concrete

¹B. Dry, Inc., *City of Smithville Master Drainage and Non-Point Source Pollution Abatement Plan*, Texas A&M University, April 30, 1997; Dwayne White Engineering Solutions, *City of Smithville Master Drainage and Non-Point Source Pollution Abatement Plan*, Texas A&M University, April 30, 1997; and Mark E. Waters Consultants, *City of Smithville Master Drainage and Non-Point Source Pollution Abatement Plan*, Texas A&M University, April 30, 1997.

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or corrugated metal structure, storm sewers and curb inlets to properly drain all streets and intersections, and curb inlets spacing which limits the maximum length of water flow to 500 feet.

EXISTING CONDITIONS

Topography, Annual Rainfall, Flood Areas, and Drainage Sub-Basins

Smithville sits on relatively flat land in southern Bastrop County. Average annual rainfall in Smithville is 37.1 inches. Ponding of stormwater and localized flooding are ongoing problems. Most of these problem area appear to be outside the 100-year flood plain established by the Federal Emergency Management Agency (FEMA) in 1991 (Map XI-1). Civil engineering students at Texas A&M University have divided Smithville into 36 sub-basins to facilitate the analysis of problems identified (Map XI-2). One group further divided Sub-basin 12 into two parts; and Hankamer Consulting has included the areas west of Gazley Creek in the analysis.

Existing Drainage System

The city has only two major underground storm drainage systems: one running from the south side of the high school and junior high school campus to the Colorado River and the other running from the north end and on both sides of Main Street to North 2nd Street and into Gazley Creek (see Map XI-1). A pump has been placed temporarily at the intersection of Faulkner Road and Oak Meadow Lane to pump water through a four-inch pipe over a ridge and into an open field. The major drainage way on the south side of town is the "LCRA ditch", which drains into a 42" culvert under Loop 230 from the north side of South 2nd Street. Another grass-lined drainage channel runs through mostly agricultural land on the south side and outside the city limits and connects Willow Creek with Gazley Creek. Along Main Street, the curbs and gutters channel runoff into the storm drainage system; but most streets lack curbs and gutters (see Map V-3 in the "Street and Thoroughfare System Element").

City of Smithville Comprehensive Plan '97

MAP XI-1: EXISTING STORM DRAINAGE SYSTEM

City of Smithville Comprehensive Plan '97

City of Smithville Comprehensive Plan '97

MAP XI-2: DRAINAGE SUB-BASINS

City of Smithville Comprehensive Plan '97

STORM DRAINAGE ANALYSIS

PROBLEM IDENTIFICATION

Flooding and standing water is problematic in Smithville due to its relatively flat topography. Drainage improvements along Main Street have alleviated many problems in the Central Business District. However, other problems persist. The area around the high school is still prone to flooding although stormwater drains are present. Standing water is a persistent problem at the baseball park and surrounding areas, particularly the intersection of Valley View Drive and MLK. Finally, the southern side of North 1st Street between Taylor and McSweeney often retains water long after a storm event. Texas A&M University civil engineering students further identified drainage problems by sub-basin (Table XI-1).

LISTING AND RANKING OF PROBLEMS

In review of the Texas A&M student projects and Hankamer Consulting's field survey, drainage problems are summarily listed and ranked as follows:

1. Existing drainage structures are either inadequate or inadequately maintained to carry existing runoff.
2. The center of the city is topographically lower than bluffs above the Colorado River and Gazley Creek and the railroad tracks, thus creating a bowl effect.
3. Many paved streets do not have curb and gutter or adequate bar ditches.
4. Channels and drainage structures become overgrown with vegetation and blocked by debris.
5. Maintenance on the drainage system occurs on an "as-needed" basis rather than a regular maintenance schedule.

City of Smithville Comprehensive Plan '97

TABLE XI-1
DRAINAGE BASIN PROBLEM ANALYSIS
City of Smithville Comprehensive Plan

BASIN	ANALYSIS RESULTS
1-6,8-9,18, 23, 30-36	There are no drainage problems within these sub-basins. ² Mount Pleasant area west of Gazley Creek also has no apparent drainage problems. ⁵
7	No drainage problems within this sub-basin, but it drains into Sub-basin 12b, a problem area. ³
10	LCRA project in Gazley Creek behind Brookshire Brothers addressing localized flooding. ²
11	It is relatively flat, standing water is a persistent problem. Drainage problems associated with 12a. ²
12a	This is a flat area with poor drainage, similar to and associated with Sub-basin 11. ⁴
12b	The existing storm drainage pipes do not have enough capacity to drain the area adequately, and the condition is getting worse due to increased impervious cover from new development in the area. ⁴
13	No current problem, but Recreation Center construction must compensate for its impervious cover. ²
14	No current problem, but Recycling Center construction must compensate for its impervious cover. ²
15	Significant ponding near intersection of N. 2nd and Burleson Street due to sedimentation of culvert. ²
16	Significant drainage problem at the intersection of Faulkner Road and Oak Meadow Lane. Temporary solution has been to pump water over ridge into open field. ³
17,19	LCRA ditch in need of maintenance; not adequate if needed to drain entire south side. ⁴
18	No imminent drainage problems. ²
20,22,24,26, 27,29	Drainage problems related to relative flatness. No means to redirect runoff. ²
21	Ponding at the end of Bluebonnet Circle. ⁵
25	Severe drainage problems where Marburger intersects with N. 1st and 2nd Streets. ⁴
28	Severe ponding at MLK Park saturates baseball fields to a point where they cannot be used. ⁴
PecanShores	Virtually all of Pecan Shores lies within the 100-year flood plain. ⁵
Tobin Addn	Mostly out of the 100-year flood plain but subject to ponding and localized flooding. ⁵

²Dwayne White Engineering Solutions and Mark E. Waters Consultants, *op. cit.*

³Dwayne White Engineering Solutions, *op. cit.*

⁴B. Dry, Inc., Dwayne White Engineering Solutions, and Mark E. Waters Consultants, *op. cit.*

⁵Hankamer Consulting.

STORM DRAINAGE PLAN

GOALS, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

GOAL D1

TO PROTECT ALL CITIZENS OF SMITHVILLE FROM FLOODING AND HEALTH PROBLEMS CAUSED BY POOR DRAINAGE

Objective D1.1

To improve the drainage system

Implementation Strategy D1.1-1:

The City should construct a comprehensive storm drainage system comprised of underground storm drains, bar ditches, properly sized culverts, and detention ponds, as needed.

Implementation Strategy D1.1-2:

The construction of new storm drainage facilities should be coordinated with street construction, especially the reconstruction of streets as major collectors (see Streets and Thoroughfares Element).

Implementation Strategy D1.1-3:

Bank stabilization along the Colorado River and the creeks should be coordinated with parks and greenbelt projects (see Recreation and Open Space Element).

Implementation Strategy D1.1-4:

The City could generate \$45-50,000 per year by creating a drainage utility and charging as little as \$2.00 per residential customer and \$3.00 per commercial customer per month.

Objective D1.2

To provide adequate maintenance of drainage facilities to assure that they function properly

Implementation Strategy D1.2-1:

Construct bar ditches at a 4:1 slope so that they can be mowed by individual property owners.

Implementation Strategy D1.2-2:

The City should remove debris and mow the LCRA ditch routinely.

RECOMMENDATIONS

Throughout the first five years of implementation, existing drainage facilities should be maintained. Curbs should be added where they will most efficiently channel storm water runoff to the natural drainage channel. Other drainage projects are related to street system improvements listed in the previous chapter. Table XI-2 delineates specific improvement projects through the next five years. Map XI-3 shows drainage improvements.

City of Smithville Comprehensive Plan '97

MAP XI-3: DRAINAGE IMPROVEMENTS

City of Smithville Comprehensive Plan '97

TABLE XI-2
STORM DRAINAGE CAPITAL IMPROVEMENTS
RECOMMENDATIONS
City of Smithville Comprehensive Plan

Year	Action	Cost	Possible Funding Sources
1	Storm drain in Short (5th to river) Expand storm drain from HS	\$200,000 \$70,000	City Drainage Utility; Bonds
2	Reconstruct LCRA ditch with 4:1 slopes	\$50,000	City Drainage Utility; Bonds
3	Colorado River bank stabilization with trail connection from Main St park to Gazley Creek	\$600,000	U. S. Army Corps of Engineers (65%); City (35%)
4	Drainage ditch on N. 1st from Marburger east to city limits Drainage ditch on Miller from ball fields south to city limits	\$10,000	City Drainage Utility; Bonds
5	Drainage ditch in Faulkner and in Loop 230 from Faulkner 1,200 ft.	\$5,000	TXDOT; City
5-YEAR TOTAL		\$935,000	

XII. CAPITAL IMPROVEMENTS

FINANCIAL ANALYSIS

REVENUES

Revenues to local governments are received either from internal operations (own source revenue) or as transfers from other levels of government (external source). The City of Smithville, like other cities, obtains its own source revenues from *taxes*, which go into the general fund, and *user charges (user fees)*, which go into both the general fund and the proprietary funds. In Smithville's case, the proprietary funds are the utilities funds for electric service, water service, and wastewater collection and treatment service (Table XII-1).

The general fund represents 23.3% of Smithville's own source operating revenues (Figure XII-1). Taxes comprised 49.1% of general fund operating revenues in FY 1996 (Figure XII-2). Almost 41% of general fund revenues come from charges for services and fees for administration of the electric utility. The remaining revenues come from fines, licenses and permits, the hotel/motel tax, and other miscellaneous revenue. There were no sales of cocktails in Smithville in FY 96 to generate mixed beverage taxes.

The proprietary (utility) fund is a much greater source of revenue than the general fund in Smithville (see Figure XII-1). Its operating costs are high as well (see "Operating Costs and Net Revenue" below). Within the proprietary fund, electric service generated 70.3% of the net revenues in FY 1996 (Figure XII-3).

The distinction between own source revenues generated by taxes and those generated by user charges for utilities is important to the determination of a community's bonding capacity. In Smithville, 76.7% of own source revenues are generated by utility services, 11.4% come from taxes, and 11.8% come from fees and miscellaneous revenues (Figure XII-4).

General obligation bonds are backed by the tax potential of the assessed valuation of the real property in the community. *Revenue bonds* are supported by revenues (user charges) from utilities, which are run as self-supporting enterprises. *Certificates of obligation (COs)* can be backed by

City of Smithville Comprehensive Plan '97

**TABLE XII-1
SUMMARY OF OPERATING REVENUES¹
1994-1996**

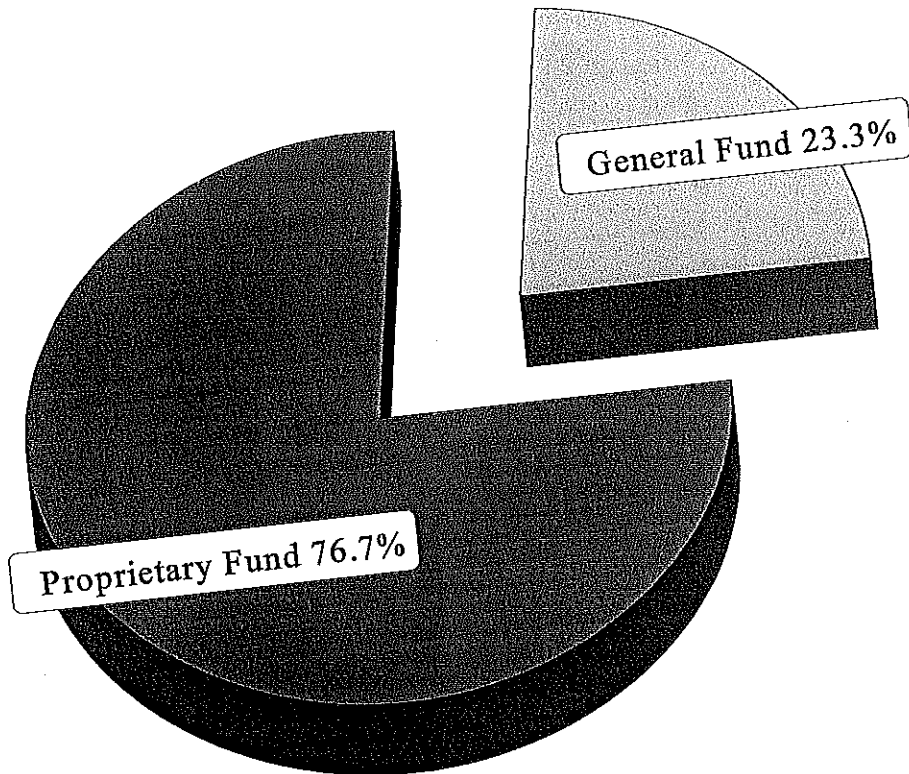
City of Smithville Comprehensive Plan

SOURCE	FY 1994 ACTUAL	FY 1995 ACTUAL	FY 1996 ACTUAL
GENERAL FUND			
Property Taxes ²	\$ 172,813	\$ 173,248	\$ 187,183
Sales Taxes	\$ 235,280	\$ 256,492	\$ 263,464
Franchise Taxes	\$ 49,173	\$ 56,882	\$ 57,159
Hotel/Motel Tax	\$ 1,184	\$ 886	\$ 500
Mixed Beverage Tax	\$ 859	\$ 304	\$ 0
TOTAL TAXES	\$ 459,309	\$ 487,812	\$ 508,306
Licenses & Permits	\$ 10,172	\$ 6,922	\$ 7,764
Charges for Services	\$ 261,633	\$ 284,068	\$ 302,464
Municipal Court	\$ 19,968	\$ 23,846	\$ 31,272
Other Revenues	\$ 55,388	\$ 65,657	\$ 64,940
Administrative Fees	\$ 120,000	\$ 120,000	\$ 120,000
TOTAL FEES & MISC.	\$ 467,161	\$ 500,493	\$ 526,440
TOTAL GENERAL FUND	\$ 926,470	\$ 988,305	\$ 1,034,746
PROPRIETARY FUND			
Electric Service	\$ 2,119,265	\$ 2,272,930	\$ 2,599,378
Water Service	\$ 286,179	\$ 303,775	\$ 387,241
Sewer Service	\$ 235,447	\$ 253,375	\$ 287,261
Penalties	\$ 41,020	\$ 43,540	\$ 47,155
Miscellaneous	\$ 2,403	\$ 36,648	\$ 87,973
TOTAL PROPRIETARY FUND	\$ 2,684,314	\$ 2,910,268	\$ 3,409,008
TOTAL OWN SOURCE REVENUE	\$ 3,610,784	\$ 3,898,573	\$ 4,443,754

¹As reported in independent Annual Financial Reports for the City of Smithville, Texas.

²Includes penalty and interest from delinquent taxes: \$5,173, \$4,614, and \$5,050, respectively

**FIGURE XII-1
OWN SOURCE REVENUES BY FUND
FY 1996**
City of Smithville Comprehensive Plan



**FIGURE XII-2
GENERAL FUND REVENUES
FY 1996**
City of Smithville Comprehensive Plan

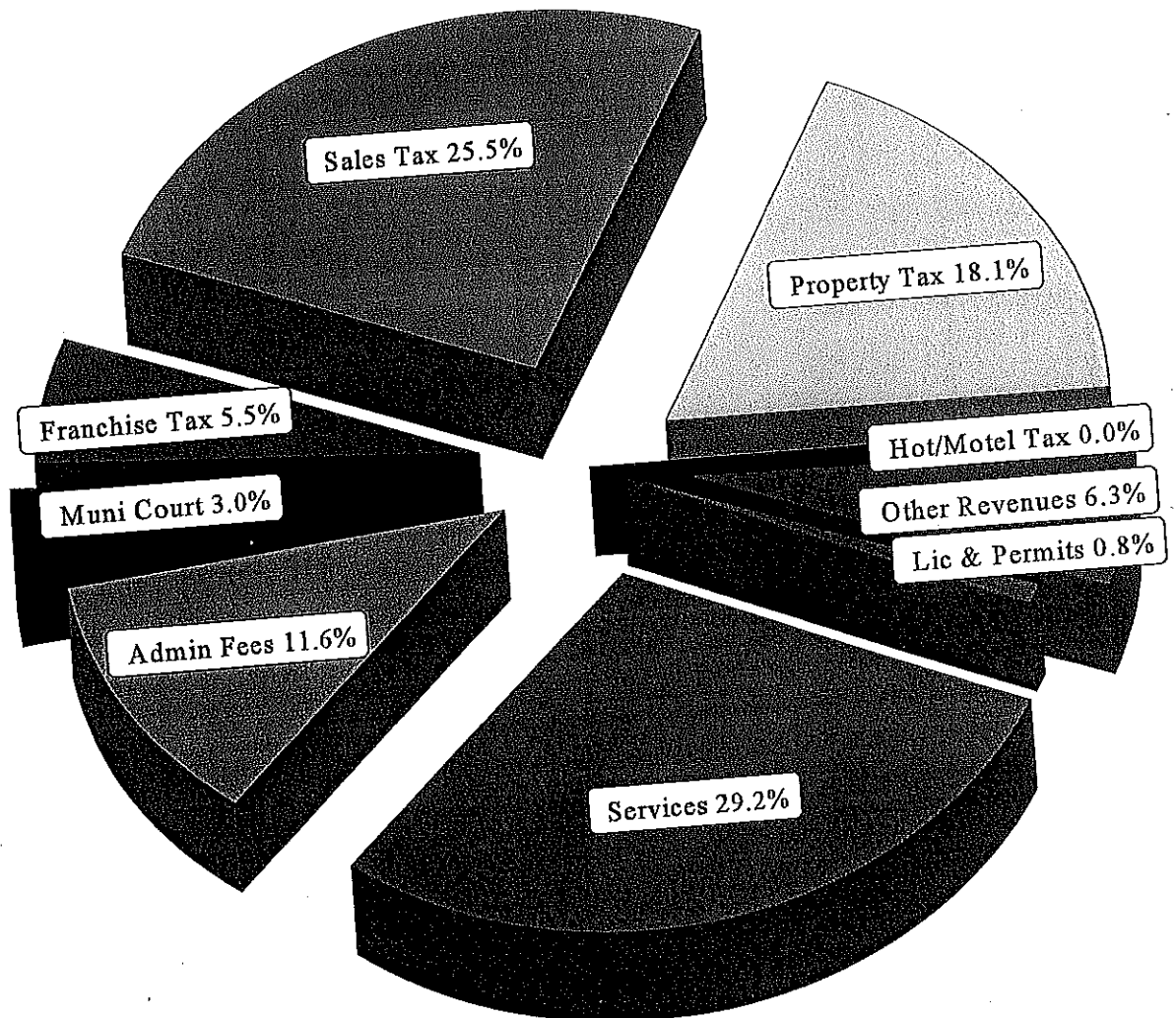
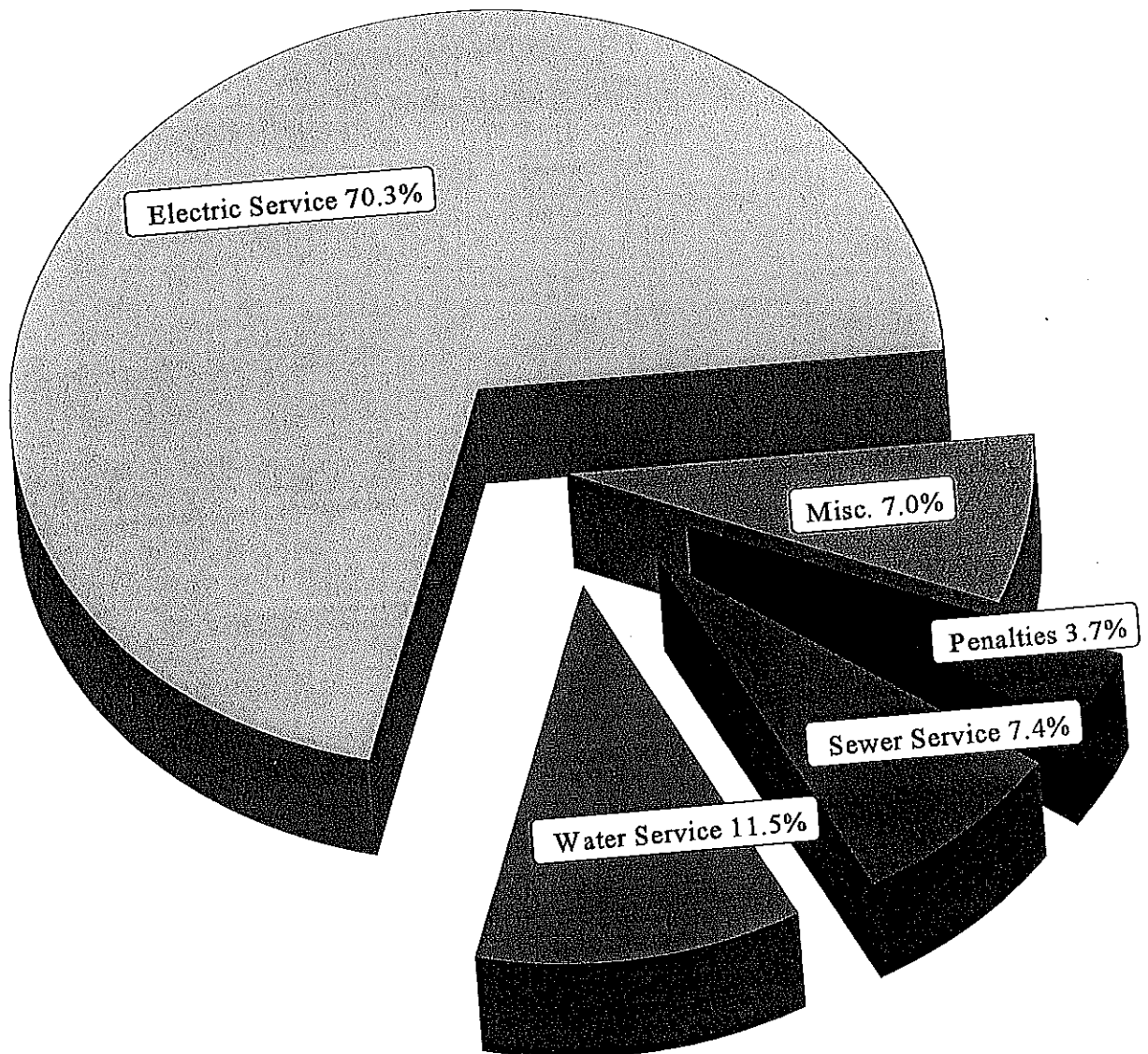
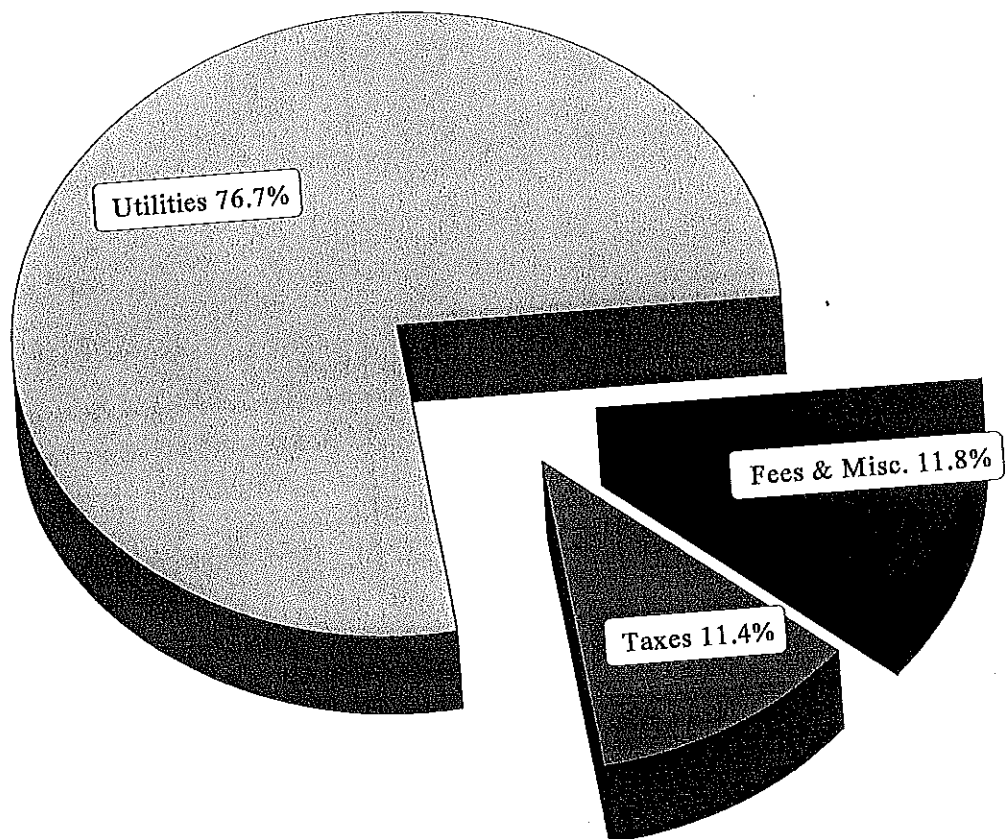


FIGURE XII-3
PROPRIETARY FUND NET REVENUES¹
FY 1996
City of Smithville Comprehensive Plan



¹General Administration expenditures are divided equally among the three utilities.

FIGURE XII-4
OWN SOURCE REVENUES BY TYPE
FY 1996
City of Smithville Comprehensive Plan



City of Smithville Comprehensive Plan '97

either property taxes or user charges or both. Bonds and bonding capacity are discussed further in the "Capital Improvements Program" section at the end of this plan element.

Tax revenues have increased in the three major taxing areas from 1994 to 1996 (Figure XII-5). The hotel/motel tax has declined over the past three years, and the mixed beverage tax has gone to zero. Sales taxes have accounted for the bulk of tax revenue for the past three years with 51.8% in FY 96 (Figure XII-6). Property taxes accounted for 36.8% of tax revenues that year. Franchise taxes accounted for 11.2% of tax revenue, and the hotel/motel tax comprised 0.1%.

OPERATING COSTS AND NET REVENUES

Although the City's total revenues have generally risen over the past three years, expenditures have increased as well (Table XII-2). Nevertheless, net revenue is positive and increasing (Table XII-3). Net revenue is own source operating revenues minus operating expenditures, not including depreciation or capital outlays. The net revenue from the electric utility allows the City to keep property taxes low and to make up for general fund deficits with proprietary fund surpluses.

ANNUAL BUDGETS

As indicated above, the City of Smithville transfers funds largely generated by the electric utility in the proprietary fund to the general fund to balance the general fund budget. This is a standard practice that helps keep property taxes low. The practice is consistent with the "pay-as-you-go" philosophy held by the Smithville City Council. A survey of factors that most influence industrial location decisions found that a favorable local tax climate ranks higher than the cost of energy.¹ Therefore, keeping taxes low may have beneficial ramifications beyond the property tax relief given to residents with fixed incomes, even if utility rates are set to compensate for deficits in the general fund. In addition to running a revenue producing electric utility, the City of Smithville also covers costs in its water and wastewater utilities.

¹"Draft Report of the Diversification Strategy for the Fort Hood Area," The Pathfinders, Dallas, Texas, 1991.

**FIGURE XII-5
TAX REVENUES
FY 1994-1996**
City of Smithville Comprehensive Plan

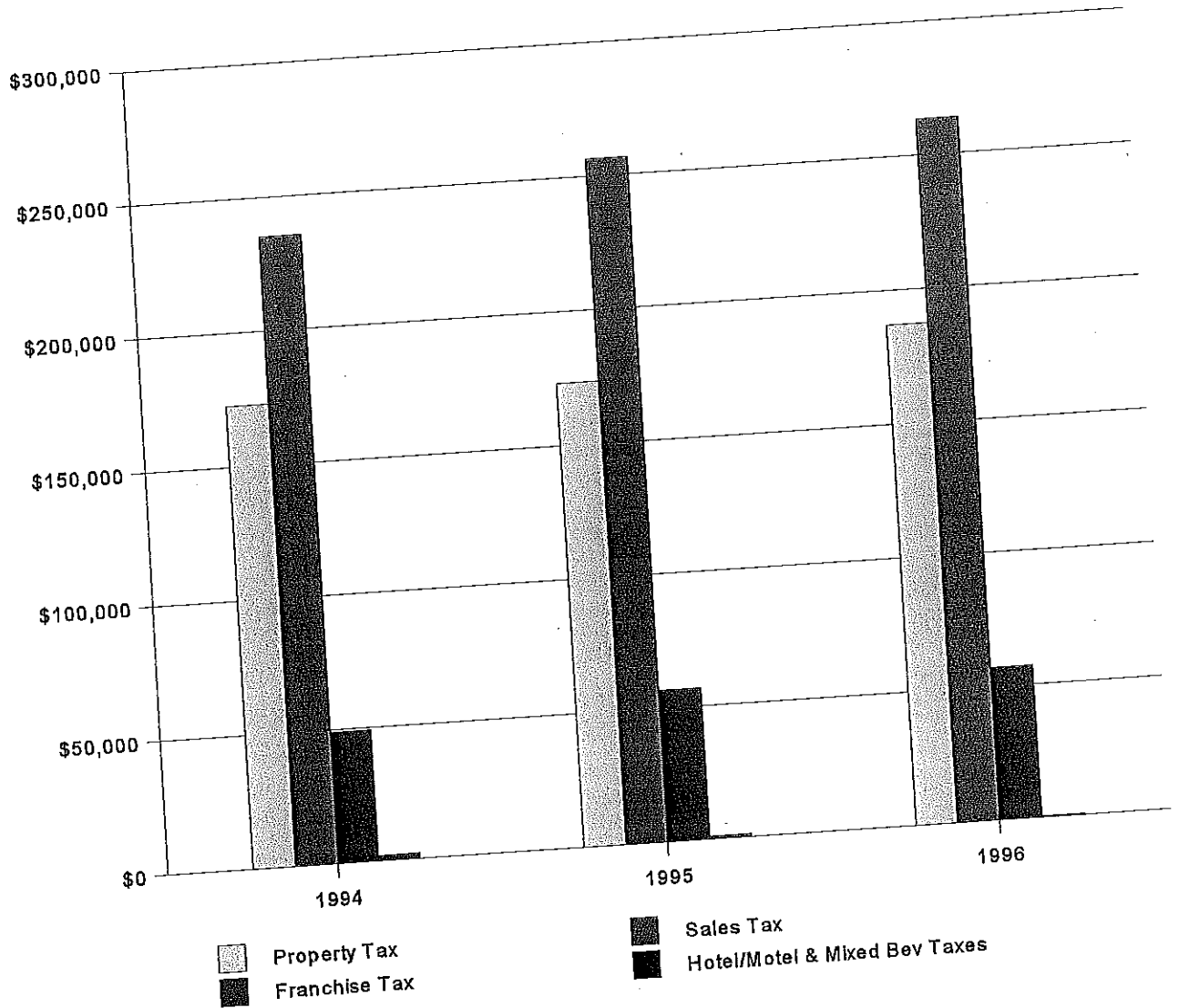
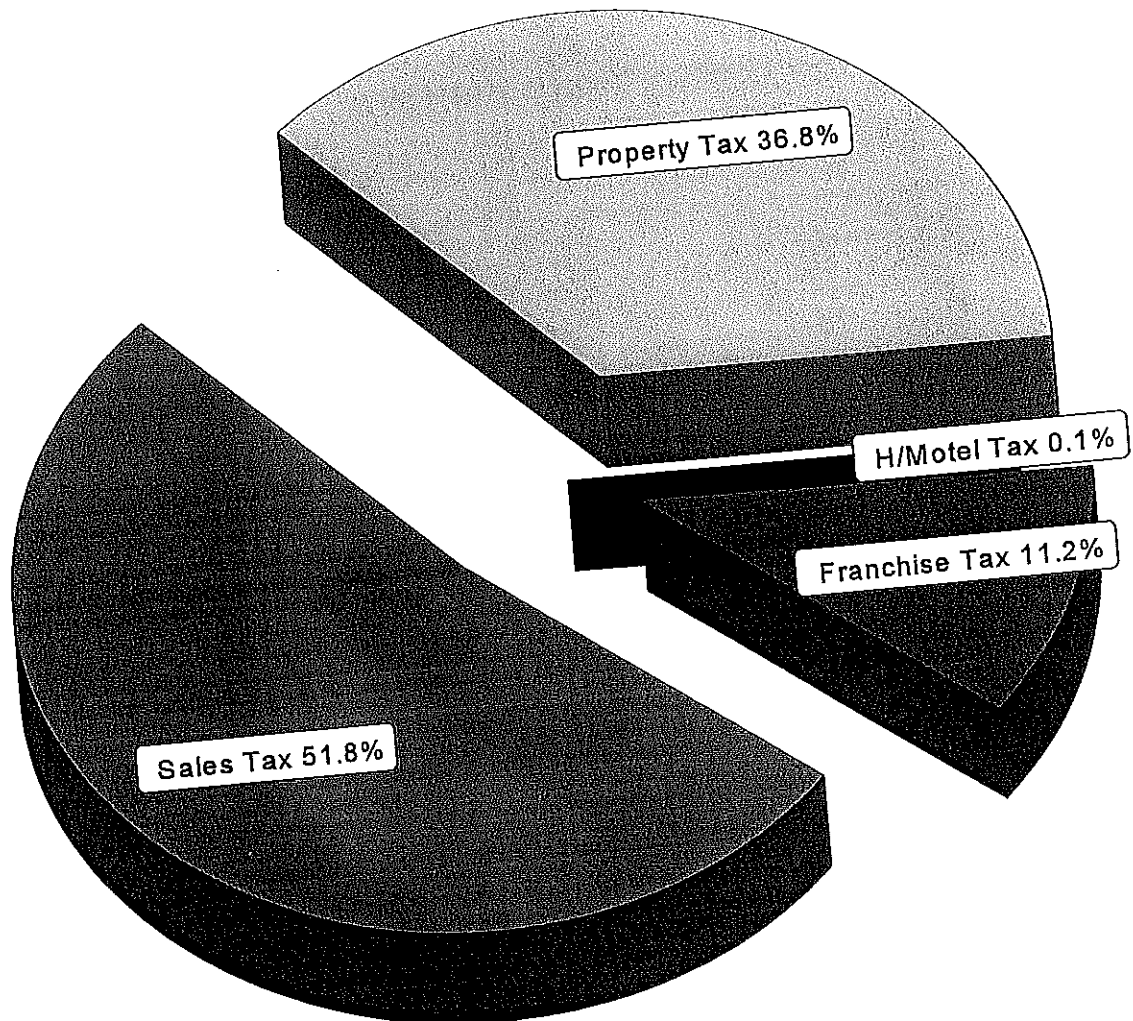


FIGURE XII-6
TAX REVENUE PERCENTAGES: FY 1996
City of Smithville Comprehensive Plan



City of Smithville Comprehensive Plan '97

TABLE XII-2
OPERATION EXPENDITURES 1994-1996
City of Smithville Comprehensive Plan

SOURCE	FY 1994 ACTUAL	FY 1995 ACTUAL	FY 1996 ACTUAL
GENERAL FUND ²	\$1,676,746	\$1,750,396	\$1,871,302
PROPRIETARY FUND ³	<u>\$1,858,307</u>	<u>\$1,947,698</u>	<u>\$2,150,982</u>
TOTAL OWN SOURCE EXPENDITURES	\$3,535,053	\$3,698,094	\$4,022,284

TABLE XII-3
NET REVENUE 1994-1996
City of Smithville Comprehensive Plan

SOURCE	FY 1993 ACTUAL	FY 1994 ACTUAL	FY 1995 ACTUAL
GENERAL FUND			
General Fund Revenues	\$926,470	\$988,305	\$1,034,746
General Fund Expenditures	<u>\$1,676,746</u>	<u>\$1,750,396</u>	<u>\$1,871,302</u>
GENERAL FUND NET REVENUE	(\$750,276)	(\$762,091)	(\$836,556)
 PROPRIETARY FUND			
Proprietary Fund Revenues	\$2,684,314	\$2,910,268	\$3,409,008
Proprietary Fund Expenditures	<u>\$1,858,307</u>	<u>\$1,947,698</u>	<u>\$2,150,982</u>
PROPRIETARY NET REVENUE	\$826,007	\$962,570	\$1,258,026
TOTAL NET REVENUE	\$75,731	\$200,479	\$421,470

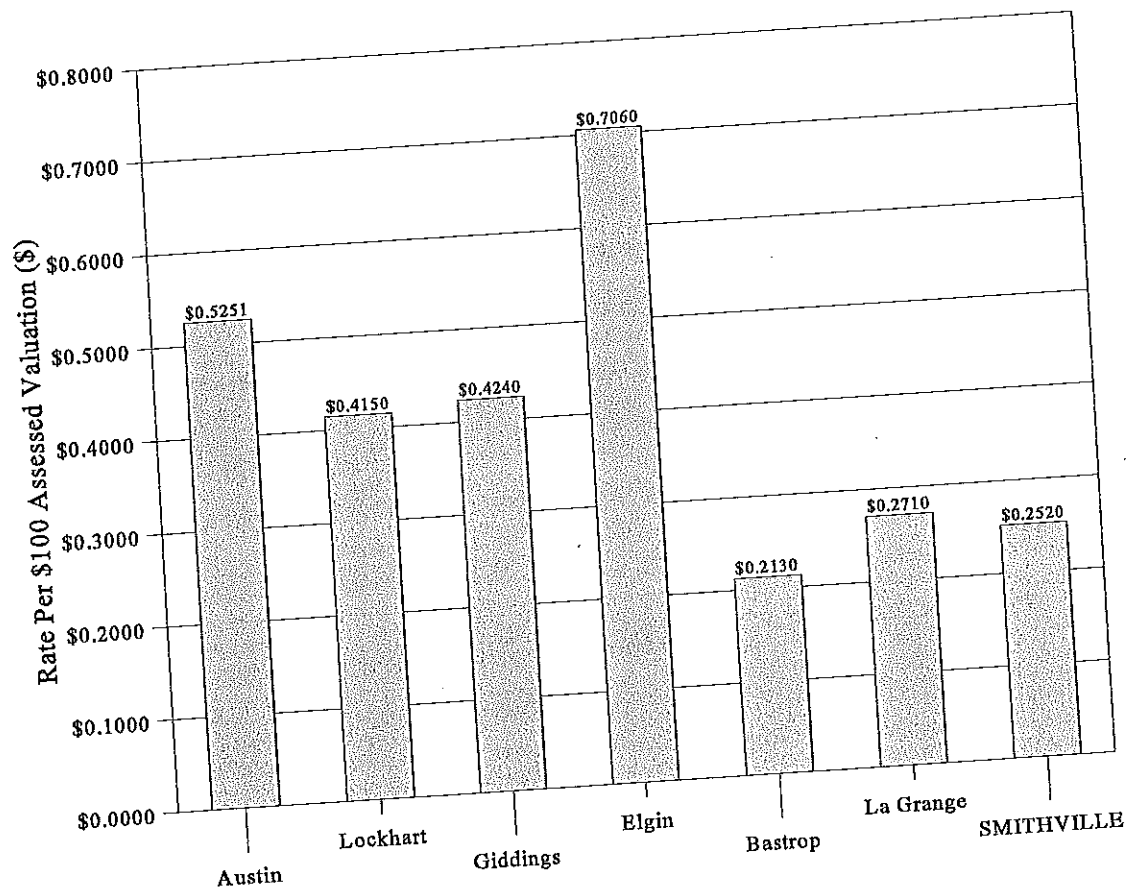
²Does not include grants or other capital outlays.

³Does not include depreciation, transfers, debt service payments or expenditures identified as capital.

City of Smithville Comprehensive Plan '97

Smithville's tax rate of 25.18¢ per \$100 of assessed valuation set for FY 97 represents a continuing trend in tax rate reduction as assessed valuations have increased. A survey of area tax rates for the 1997 tax year indicates that Smithville's tax rate is significantly lower than those of neighboring and similarly sized cities (Figure XII-7).

FIGURE XII-7
FY 1997 PROPERTY TAX RATE COMPARISONS
City of Smithville Comprehensive Plan



City of Smithville Comprehensive Plan '97

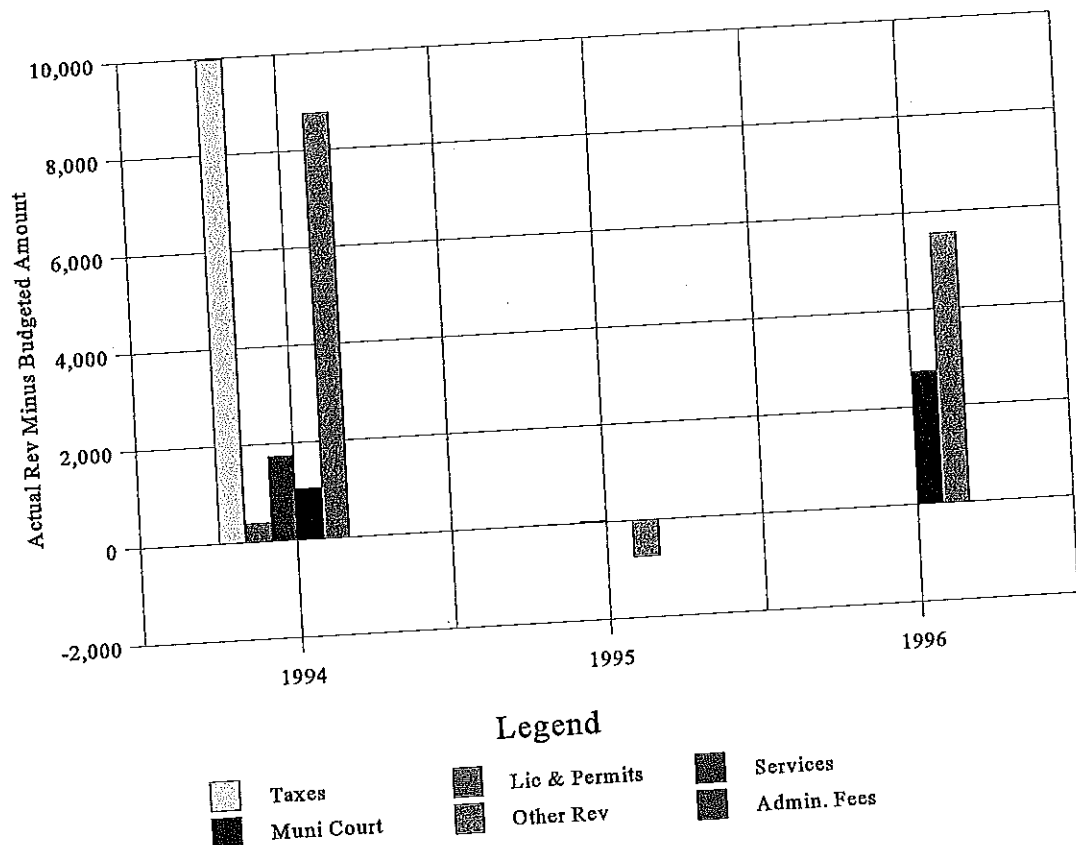
For the three years reviewed, the City has had good results in estimating actual revenues and expenditures. As a rule, revenues should be underestimated and expenditures overestimated. Smithville duly underestimated revenues for most general fund categories in each of the three previous years (Table XII-4 and Figure XII-8). In each of the past two years, the City has gotten better in its estimating. Underestimation of revenues is good only to a point: having a huge surplus at the end of the year means that some projects that did not get funded could have been.

TABLE XII-4
GENERAL FUND REVENUE VARIANCES FROM
AMOUNT BUDGETED: 1994-1996
City of Smithville Comprehensive Plan

SOURCE	VARIANCE OF ACTUAL FROM BUDGETED ⁴		
	FY 1994	FY 1995	FY 1996
Taxes	\$ 9,973	\$ 4	\$ 1
Licenses & Permits	\$ 387	\$ 0	\$ 1
Charges for Services	\$ 1,742	\$ 28	\$ 1
Municipal Court	\$ 1,049	\$ 0	\$ 2,736
Other Revenues	\$ 8,762	\$ (745)	\$ 5,557
Administrative Fees	\$ 0	\$ 0	\$ 0
TOTAL GENERAL FUND REVENUES	\$ 21,913	\$ (713)	\$ 8,296

⁴Favorable/(Unfavorable)

FIGURE XII-8
BUDGET VARIANCES FOR GENERAL FUND
REVENUE: 1994-1996
City of Smithville Comprehensive Plan



General fund operating expenditures have been generally overestimated as is recommended practice (Table XII-5 and Figure XII-9). As with revenue estimates, the City did a better job of estimating expenditures in each of the last two years. The anomalies in FY 1995 for Parks and Recreation and Community Services expenditures, however, appear to be related and due to the first year of the newly created Parks and Recreation category.

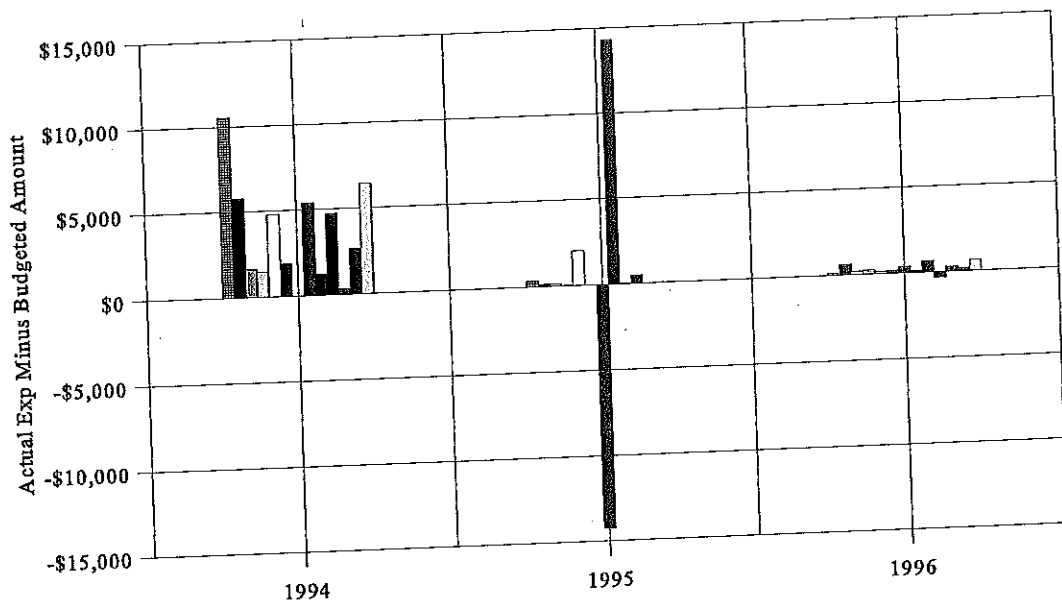
City of Smithville Comprehensive Plan '97

**TABLE XII-5
GENERAL FUND EXPENDITURE VARIANCES FROM
AMOUNT BUDGETED: 1994-1996**
City of Smithville Comprehensive Plan

SOURCE	VARIANCE OF ACTUAL FROM BUDGET ⁵		
	FY 1994	FY 1995	FY 1996
General Administration	\$ 10,557	\$ 338	\$ 120
Police	\$ 5,797	\$ 140	\$ 606
Animal Control	\$ 1,650	\$ 126	\$ 210
Municipal Court	\$ 1,453	\$ 36	\$ 249
Volunteer Fire Department	\$ 4,781	\$ 2,014	\$ 131
Library	\$ 1,907	\$ 13	\$ 180
Parks and Recreation	na	\$ (14,262)	\$ 366
Community Services	\$ 5,394	\$ 14,316	\$ 116
Streets and Alleys	\$ 1,233	\$ 37	\$ 637
Solid Waste	\$ 4,734	\$ 473	\$ (317)
Cemetery	\$ 336	\$ 0	\$ 289
Airport	\$ 2,650	\$ 39	\$ 189
Maintenance	\$ 6,442	\$ 19	\$ 640
TOTAL GF EXPENDITURES	\$ 46,934	\$ 3,289	\$ 3,416

⁵Favorable/(Unfavorable)

FIGURE XII-9
BUDGET VARIANCES FOR GENERAL FUND
EXPENDITURES: 1994-1996
City of Smithville Comprehensive Plan



Legend

	Gen Admin		Police		Animal Con		Muni Ct
	Vol FD		Library		Parks & Rec		Comm Serv
	Streets		Solid Waste		Cem		Airport
	Maint						

CAPITAL IMPROVEMENTS PROGRAM

CAPITAL NEEDS LIST

The total cost for all capital improvements is \$4,881,188 (Table XII-6 and Map XII-1). The cost for those improvements that have been classified as "Mandatory" and "Necessary" in the capital needs list in Table XII-6 is \$3,692,623. Of the "Mandatory" and "Necessary" amount, none will come from general obligation bonds or tax supported certificates of obligation; \$935,400 will come from revenue bonds or revenue certificates of obligation; \$1,600,000 in grants will be contingent on receiving those various grants; and the remaining \$1,157,223 will come from general or enterprise funds, some of which would be matching funds contingent upon receiving the grants mentioned. Grants may be obtained for specific projects but are not assumed in this analysis due to the highly competitive nature of the grant process. Projects ranked as "Desirable" can be completed as funding becomes available. Prior to the construction of most of these projects, more detailed engineering studies will be needed, including an inflow and infiltration study of the wastewater system.

FUNDING CAPITAL IMPROVEMENTS PROJECTS

The annual debt requirement on \$2,092,623, which represents the City's share of the "Mandatory" and "Necessary" capital improvements projects proposed in Table XII-6, is \$197,529 at 7% interest financed for 20 years. Below are three possible alternatives that the City can pursue in order to cover these annual debt service payments:

1. Funded Completely By Increases In Property Taxes

Property tax revenue depends on both the tax rate and the assessed value of real property. The City is proposing an 8% increase in property tax revenue for FY 98. Because the total assessed valuation of real property in Smithville has increased substantially, the City has proposed a rate decrease to 15.70¢ per \$100 valuation to limit the revenue increase to 8%. That 8% represents an increase in revenue of only about \$15,000, however. With property taxes in Smithville representing a little over

City of Smithville Comprehensive Plan '97

MAP XII-1: CAPITAL IMPROVEMENTS PROGRAM

City of Smithville Comprehensive Plan '97

City of Smithville Comprehensive Plan '97

**TABLE XII-6
CAPITAL NEEDS LIST AND FIVE-YEAR
CAPITAL IMPROVEMENTS PROGRAM**
City of Smithville Comprehensive Plan

YEAR ONE		CAPITAL NEEDS	G.O. BONDS	REV. BONDS ⁶	GRANT/ OTHER	CITY FUNDS
PROJECT						
DRAINAGE SYSTEM				\$200,000		
Storm drain in Short St and east of HS		Mandatory				
WATER SYSTEM					\$250,000	\$12,500
12-inch PVC line in Fawcett (N. 2nd to N. 5th); 10-inch PVC line in N. 2nd (Fawcett to Marburger); 6-inch PVC lines in 5th (Fawcett to Royston), Ramona (N. 2nd to N. 3rd), Alley (Olive/Gresham from 3rd to 4th), 4th (alley Olive/Gresham to Gresham), Burleson (4th to 5th), Hudgins (2nd to 3rd), Hudgins (4th to 5th), Mills (2nd to 3rd), Mills (4th to 5th), Garwood (2nd to 3rd), Bishop (2nd to 3rd), Turney (2nd to 3rd), Byrne (2nd to 3rd), & Wilkes (2nd to 3rd)		Mandatory				
STREET SYSTEM				\$163,800		\$150,000
Pave Short at collector width after drainage project		Necessary				
Pave/seal coat ~22,000 LF of local streets		Mandatory				\$2,045
CENTRAL BUSINESS DISTRICT						
Install signage, banners, mural improvements, and directory/information kiosks.		Desirable				
YEAR 1 TOTAL				\$363,800	\$250,000	\$317,335
<i>Year 1 Mandatory/Necessary Total</i>				\$363,800	\$250,000	\$162,500

⁶Sources of funding annual payments include utility user charges and assessments of utility customers.

City of Smithville Comprehensive Plan '97

**TABLE XII-6
CAPITAL NEEDS LIST AND FIVE-YEAR
CAPITAL IMPROVEMENTS PROGRAM
(CONTINUED)**

City of Smithville Comprehensive Plan

YEAR TWO					
PROJECT	CAPITAL NEEDS	G.O. BONDS	REV. BONDS	GRANT/ OTHER	CITY FUNDS
DRAINAGE SYSTEM					
Reconstruct LCRA Ditch with 4:1 slopes	Mandatory		\$40,000		
WATER SYSTEM					
6-inch PVC lines w/fire hydrants in Hudgins (3rd to 4th, 5th to 9th), Burleson (3rd to 4th, 5th to 7th), & Mills (3rd to 4th, 5th to 7th), Main St (5th to 6th), Olive (3rd-5th), North (SH 95 to Center St.), and S. 2nd (Marburger to Taylor)	Mandatory			\$250,000	\$37,220
STREET SYSTEM					
Pave Colorado River Rd at collector width from Short to SH 71	Necessary		\$157,500		
Pave/seal coat ~22,000 LF of local streets	Mandatory				\$150,000
WASTEWATER SYSTEM					
Alley of Short & Mill (N. 9th to 4th); Alley of Short & Hudgins (N. 9th to 6th)	Necessary				\$85,098
CENTRAL BUSINESS DISTRICT					
Landscape/streetscape improvements	Desirable				\$4,730
PARKS					
Swimming Pool	Desirable			\$500,000	\$500,000
YEAR 2 TOTAL			\$197,500	\$750,000	\$777,048
Year 2 Mandatory/Necessary Total			\$197,500	\$250,000	\$272,318

City of Smithville Comprehensive Plan '97

**TABLE XII-6
CAPITAL NEEDS LIST AND FIVE-YEAR
CAPITAL IMPROVEMENTS PROGRAM
(CONTINUED)**

City of Smithville Comprehensive Plan

YEAR THREE					
PROJECT	CAPITAL NEEDS	G.O. BONDS	REV. BONDS	GRANT/ OTHER	CITY FUNDS
DRAINAGE/PARKS					
Colorado River bank stabilization with trail connection from Main Street Park to Gazley Creek	Necessary		\$210,000	\$390,000	
WATER SYSTEM					
6-inch PVC lines w/fire hydrants in Pecan Shores/Shade/Reed/FM 2571, Turney (3rd to 6th), Byrne (3rd to 6th), Garwood (1st to 2nd), Hickory (4th to 5th Ave., and Olive (6th to 7th)	Mandatory			\$212,000	\$10,600
STREET SYSTEM					
Pave E. 9th St. at collector width from Charleston to Garwood with new r-o-w @ Garwood	Necessary		\$114,100		
Pave/seal coat ~22,000 LF of local streets	Mandatory				\$150,000
CENTRAL BUSINESS DISTRICT					
Sidewalk improvements	Desirable				\$29,000
YEAR 3 TOTAL			\$324,100	\$602,000	\$189,600
Year 3 Mandatory/Necessary Total			\$324,100	\$602,000	\$160,600

City of Smithville Comprehensive Plan '97

**TABLE XII-6
CAPITAL NEEDS LIST AND FIVE-YEAR
CAPITAL IMPROVEMENTS PROGRAM
(CONTINUED)**

City of Smithville Comprehensive Plan

YEAR FOUR					
PROJECT	CAPITAL NEEDS	G.O. BONDS	REV. BONDS	GRANT/ OTHER	CITY FUNDS
DRAINAGE			\$35,000		
Drainage ditch on N. 1st from Marburger east to city limits and drainage ditch on Miller from ball fields south to city limits	Mandatory				
STREET SYSTEM					\$150,000
Pave/seal coat ~22,000 LF of local streets	Mandatory				
WASTEWATER SYSTEM				\$278,000	
Extend service to the airport	Necessary				
PARKS				\$45,000	\$45,000
Construct kitchen at River Bend Park	Necessary				
CENTRAL BUSINESS DISTRICT					\$41,805
Handicap ramp and crosswalk pavers	Necessary				
YEAR 4 TOTAL			\$35,000	\$323,000	\$236,805
<i>Year 4 Mandatory/Necessary Total</i>			\$35,000	\$323,000	\$236,805

City of Smithville Comprehensive Plan '97

**TABLE XII-6
CAPITAL NEEDS LIST AND FIVE-YEAR
CAPITAL IMPROVEMENTS PROGRAM
(CONTINUED)**

City of Smithville Comprehensive Plan

YEAR FIVE					
PROJECT	CAPITAL NEEDS	G.O. BONDS	REV. BONDS	GRANT/ OTHER	CITY FUNDS
DRAINAGE					
Drainage ditch in Faulkner and in Loop 230 from Faulkner 1,200 feet east	Mandatory		\$15,000		
STREET SYSTEM					\$150,000
Pave/seal coat ~22,000 LF of local streets	Mandatory				
PARKS					
New neighborhood park with ball field on 9th St	Necessary			\$175,000	\$175,000
YEAR 5 TOTAL			\$15,000	\$175,000	\$325,000
<i>Year 5 Mandatory/Necessary Total</i>			\$15,000	\$175,000	\$325,000
FIVE-YEAR TOTAL			\$935,400	\$2,100,000	\$1,845,788
5-YEAR MANDATORY/NECESSARY TOTAL			\$935,400	\$1,600,000	\$1,157,223

City of Smithville Comprehensive Plan '97

4% of total revenues other than grants and other outside sources, they do not represent a major source of funding for capital improvements.

2. Drainage Utility

The City could generate \$45-50,000 per year by creating a drainage utility and charging as little as \$2.00 per residential customer and \$3.00 per commercial customer per month.

3. Street Paving Assessment

The City could generate another \$45-50,000 per year by assessing a street paving fee of \$2.00 per residential customer and \$3.00 per commercial customer per month. This amount is for reconstruction of streets and is needed in addition to the \$150,000 budgeted annually for street maintenance.

4. Net Revenues

Net operating revenues in FY 1996 were \$421,470. These monies have been used to fund capital improvements projects currently and without debt. The availability of these funds for the projects recommended herein depends on other capital improvements commitments outside the scope of this comprehensive plan.

5. Revenue Bonds

Since the net revenues identified above represent net revenues from proprietary funds after transfers to the general fund, that money could be used to make principal and interest payments on revenue bonds for projects that have a long durable life, such as utilities. Street and drainage assessments collected from utility customers could be added to the payment stream to reduce or eliminate the need for rate increases.

Direct and Overlapping General Obligation Debt

The City has no direct general obligation debt. Bastrop County debt that overlapped the City of Smithville was \$222.20 per capita as of September 30, 1995. The overlapping debt of Smithville

City of Smithville Comprehensive Plan '97

Independent School District was \$843.75 per capita as of August 31, 1995. Thus, the combined direct and overlapping debt at the end of FY 1995 was \$1,065.95 per capita.⁷

Outstanding Revenue Bonds

The City of Smithville has no outstanding revenue debt.

Bonding Capacity

General Obligation Debt

One recommended limit on general obligation debt for small cities is 5% of the total assessed valuation of the real property within the city limits. Another is \$500 to \$1,000 per capita. Based on the 1997 assessed valuation of \$83,829,878, the "5% rule" puts the limit at \$4,191,494, which is close to the \$1,000 per capita limit. At 7% interest on 20-year bonds, the annual debt service on that amount is \$395,647, or about twice the current property tax revenues. Given the City's desire to keep property taxes low, the City has declined to take on any general obligation debt. Therefore, no general obligation debt is proposed in Table XII-6.

Revenue Supported Debt

Bonding capacity for revenue bonds is computed differently from general obligation debt capacity. Bond companies generally require that net revenues from utilities and other enterprise funds, including assessments, exceed annual debt requirements for revenue bonds by 50%. If net revenues do not cover 1.5 times the annual debt requirements, a utility rate increase is required. In FY 1996, net revenues after transfers from the proprietary fund to the general fund were \$421,470. The proposed \$935,400 revenue bond for "Mandatory" and "Necessary" projects would require annual payments of \$88,295 amortized over 20 years at 7% interest. The coverage ratio based on last year's net revenues would be 4.77 to 1, far exceeding the minimum requirements. In fact, if the

⁷"Texas Municipal Reports," Municipal Advisory Council of Texas, January 1997 for Bastrop County and February 1996 for Smithville Independent School District.

City of Smithville Comprehensive Plan '97

City wished to finance all of its projects including the amounts listed under "City Funds" in Table XII-6, the debt coverage will still be 2.13 to 1 without a rate increase. With street and drainage assessments added, the coverage becomes approximately 5.8 to 1 and 2.6 to 1, respectively.

The City should consult with its financial advisor to prepare a funding scheme for the proposed capital improvements before increasing taxes or raising rates.