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1 Community Goals and Objectives

1.1 Introduction

Community goals and objectives guide the actions recommended throughout the Comprehensive Plan. Lone Oak residents' goals and objectives were developed through public hearings, presentations and interviews. On November 1, 2010 Lone Oak held a planning workshop at City Hall. The purpose of the workshop was to identify, organize, and analyze goals and objectives for the community. The conclusions from the workshop can be expressed as a community vision statement that describes residents' hopes for what Lone Oak might be like in 2031:

City of Lone Oak Community Vision Statement

In 2031, Lone Oak will be a friendly, affordable community known for its excellent city services, quiet residential life, and access to basic necessities. The City will be characterized by:

- *Parks and recreational activities that meet the needs of residents of all ages.*
- *Businesses that serve the basic needs of the community.*
- *Diverse housing opportunities affordable to and serving the needs of all segments of the population.*
- *Water and wastewater systems that are low-maintenance and meet safety standards*

1.2 Community Planning Workshop

The planning workshop gathered information from Lone Oak residents using an effective, established process known as the Goals Grid Method.¹ The following questions were presented to those in attendance:

1. What are you trying to achieve?
2. What are you trying to preserve?
3. What are you trying to avoid?
4. What are you trying to eliminate?

Participants responded as follows:

Preserve

- The presence of newcomers in Lone Oak's newest housing development.

Achieve

- Public and commercial amenities, including:
 - Franchise eateries
 - Better internet services (Cumby Tel is working on DSL/wireless fiberoptic)
 - A trucking warehouse and possibility of light industry
 - Sidewalks
 - More affordable housing options such as apartments and duplexes that should be income-adjusted
 - A public park
 - A citywide civil alert/tornado warning system
- Additional housing options:
 - Bring in more housing developers
 - Build more multi-family units such as apartments and duplexes
 - Income-adjusted housing
 - Apply for funding for HOME program through Texas Department of Housing and Community Affairs
- Infrastructure improvements:
 - Street repaving
 - Sidewalks
- Improved electrical system-put power lines below ground

¹ Nichols, Fred (2000) *The Goals Grid: A Tool for Clarifying Goals and Objectives*

- Zoning for alcohol sales
- Enforcement of city codes

Eliminate

- Condemned housing and blight
- Flooding problems
- Street maintenance issues such as potholes

Avoid

- Heavy industry

1. 3 Goals and Objectives Framework

The results of the Goals Grid Method were used in conjunction with field work and background research to define specific goals, objectives, and policies found at the end of each chapter in the Comprehensive Plan.

Goals are overarching descriptions of the ideal future condition to which the community aspires.

Objectives are measurable outcomes that lead to the achievement of a goal.

Policies are actions that can be taken by residents, City staff, and elected officials to accomplish each objective.

The goals, objectives, and policies serve as a guide that all residents of Lone Oak may use to help shape the physical, economic, and social character of their community.

2 Population Analysis

2.1 Methodology

This population analysis forecasts current and future populations for the City and ETJ and enables planning for future community facilities and services. The United States Census Bureau collects population information at ten-year intervals; this information is a primary source for analyzing current population characteristics, and creating population estimates and forecasts. Methods used to identify current and long-term population trends include the cohort component method, symptomatic method, trend extrapolation methods, and analysis of occupied housing and constraints on land use. Local information regarding future development and local or regional economic shifts that may affect the economic base of the community are also taken into account.

2.2 Historic & Present Population

Table 2A: Lone Oak, Population Change, 1960-2000

Year	Lone Oak	Hunt County	State of Texas
1940	735	-	6,414,824
1950	571	-	7,711,194
1960	495	39,399	9,579,677
1970	518	47,948	11,196,730
1980	467	55,248	14,229,191
1990	521	64,343	16,986,540
2000	521	76,596	20,851,820
2010	598	86,129	25,145,561

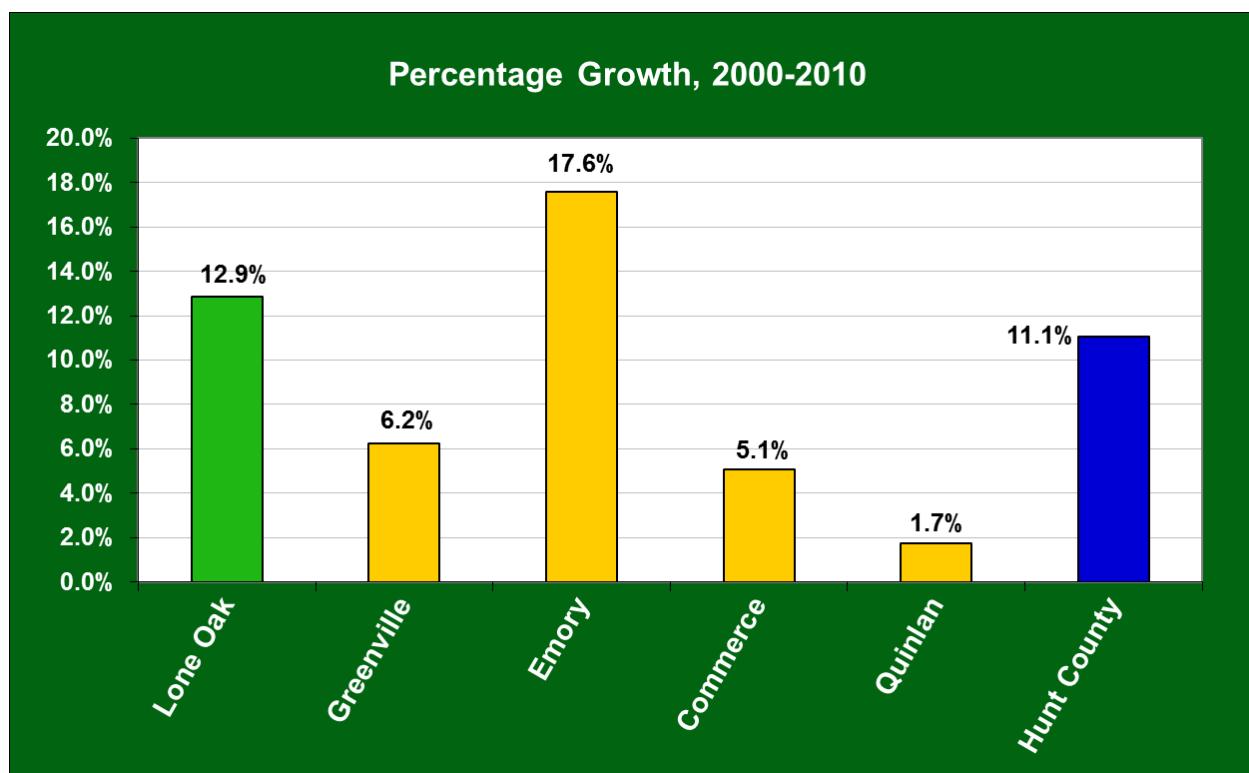
Source: US Census Bureau, Profile of Demographic Characteristics, 1960-2010.

The US Census reports that Lone Oak's population in 2000 was 521 residents, exactly the same as in 1990. In the same time period the population of Hunt County increased by 19%. Between 1940 and 1960, Lone Oak's population dropped by 33%. Since 1960, the population has remained fairly stable.

Regional Growth:

As illustrated in *Chart 2A: Regional Growth 2000-2010*, regional population change for cities near Lone Oak ranged from 1.7% to 17.6%. The most growth occurred in the City of Emory. Lone Oak is the smallest of area cities, and grew by 12.9% between 2000 and 2010. The area city which grew the least was Quinlan, which grew by only 1.7% during the same time period. The metropolitan center closest to Lone Oak is Dallas, which is located 60 miles to the southwest. Surprisingly, Dallas grew less than 1% between 2000 and 2010. Given the growth in surrounding communities, it is surprising that Lone Oak experienced no change over that decade.

Chart 2A: Regional Growth, 2000 –2010



Source: U.S. Census Bureau

2.3 Population Characteristics

The analysis of the population characteristics of Lone Oak uses data from US Census Reports for 1990, 2000, and 2010. At the time this plan was written, only

limited information was available from the 2010 Census. Available 2010 data included total population counts, race and ethnicity counts and occupied and vacant housing counts. The analysis identifies racial breakdown, homeownership by gender, disability status, and age cohorts of Lone Oak's population.

Project Beneficiaries by Sex, Race and Ethnicity. *Table 2B: Population by Race & Ethnicity, 2000-2010* below describes how the population's race and ethnicity changed during the last decade.

In 2000, Lone Oak's White population comprised 94% of the total population. Citizens of all races who describe themselves as Hispanic/Latino decreased slightly from 3.8% in 2000 to 3.2% in 2010. The African American population shrunk by 0.8% during the same time frame.

In 2010, Hunt County residents were 82% White, with 8.3% of the population identifying themselves as African American, and 13.6% describing themselves as Hispanic or Latino.

Table 2B: Population by Race & Ethnicity, 2000- 2010

	<i>Lone Oak</i>		<i>Hunt County</i>			
	2000	2010	2010	2010		
Characteristic	Number	%	Number	%	Number	%
Total Population	521	100%	598	100%	86,129	100%
White	492	94.4%	559	93.5%	70,248	81.6%
Black or African American	16	3.1%	14	2.3%	7,133	8.3%
American Indian, Alaskan Native	1	0.2%	4	0.7%	804	0.9%
Asian	1	0.2%	2	0.3%	916	1.1%
Native Hawaiian / Other Pacific Islander	0	0%	2	0.3%	147	0.2%
Other	8	1.5%	5	0.8%	4,852	5.6%
Two or More Races	3	0.6%	12	2.0%	2,029	2.4%
Hispanic or Latino	20	3.8%	19	3.2%	11,751	13.6%
Non-Hispanic or Latino	507	96.2%	579	96.8%	74,378	86.4%

Source: 2000 and 2010 Censuses of Population and Housing, Summary Population and Housing Characteristics and Summary Social, Economic, and Housing Characteristics

Project Beneficiaries by Sex, Race and Income. *Table 2C: Beneficiary Report* contains information required by the U.S. Department of Housing and Urban Development in the fulfillment of this planning grant. It uses 2000 Census numbers as HUD had not released Beneficiary determination numbers for the 2010 Census at the time of this report. The numbers detailed for project beneficiaries below may not correspond exactly to the 2000 numbers presented in Table 2B above. This is because HUD grant programs generally require at least a 51% low to moderate community income level to qualify for funding, but income levels are not collected from all Census respondents. Census income levels are derived from a 1-in-6 sample and weighted to represent the total population. Race beneficiary numbers are then mathematically derived to correspond to income beneficiary numbers. When Census income level estimates seem too high, extra door-to-door surveys are conducted in communities to verify a 51% low to moderate income level. Because the income tabulation is slightly different for the grant application, the resulting numbers generally do not correspond to the 100% population samples that are represented in Table 2B.

Table 2C: Beneficiary Report

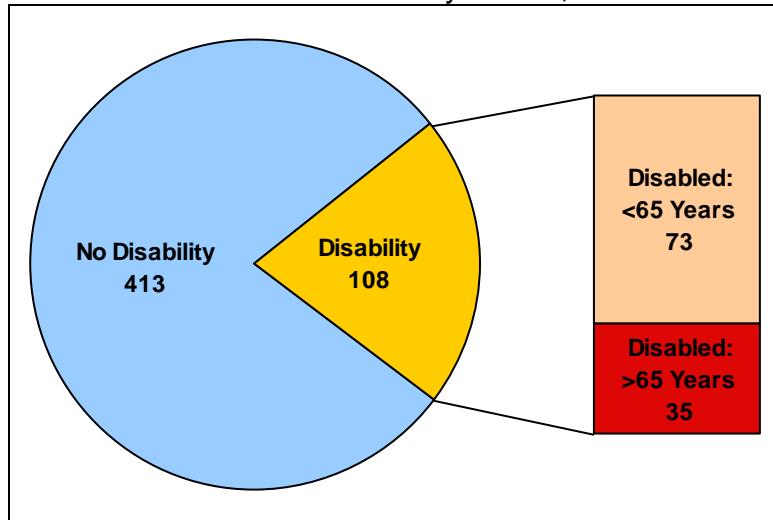
Total Project Beneficiaries 527 Male 257 Female 270

Race	Non-Hispanic	Hispanic Ethnicity also	Total
White	488	10	498
Black/African American	16	0	16
Asian	1	0	1
American Indian/Alaskan Native	0	1	1
Native Hawaiian/Other Pacific Islander	0	0	0
American Indian/Alaskan Native & White	2	0	2
Asian & White	0	0	0
Black/African American & White	0	0	0
American Indian/Alaskan Native & Black/African American	0	0	0
Other Multi-Racial	0	9	9
		Grand Total	527

Income Level	No. of Persons
Very Low (at or below 30% of the AMFI)	97
Low (31-50% of the AMFI)	109
Moderate (51-80% of the AMFI)	101
Non-Low/Moderate (above 80% of AMFI)	220
Total	527
Subtotal – All Low/Mod	307
Percent Low/Mod	58.26%

Disabled. In 2000, 108 (21%) of Lone Oak' residents possessed some sort of disability². Of the 70 residents over the age of 65, 35 (50%) responded that they have a disability. *Chart 2B, Disability Status, 2000*, illustrates the percentage of disabled people in Lone Oak. The disabled category for the year 2000 is more sensitive than the one for 1990 and includes questions such as the ability to lift 25 or more pounds. At the time this plan was written, Census 2010 disability data was not available.

Chart 2B: Disability Status, 2000



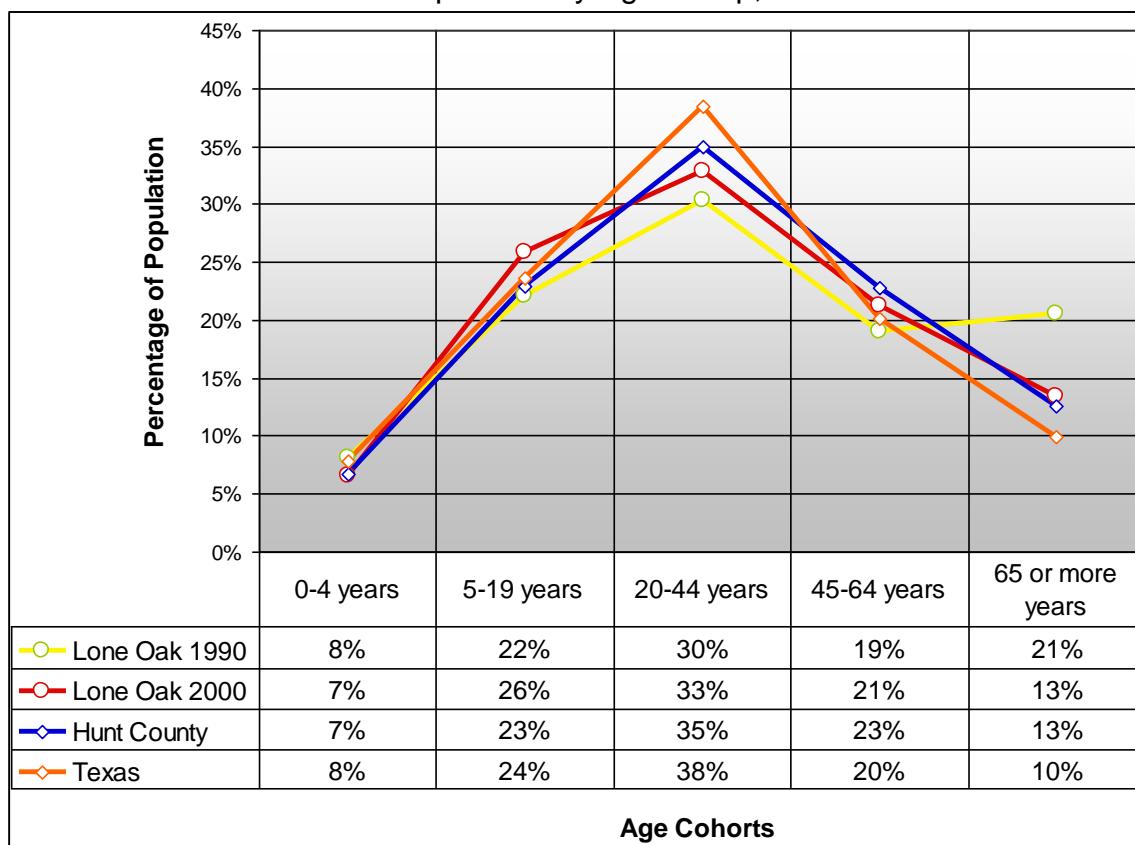
Source: U.S. Census Bureau, 2000 Census

Age Cohorts. In 2000, the median age for residents of Lone Oak was 34.6 years, slightly younger than Hunt County's median (35.5 years) and older than the State's median (32.3 years). *Chart 2C: Population by Age Group, 1990–2000*

² The 2000 Census states that individuals were classified as having a disability if any of the following three conditions were true: (1) they were 5 years old and over and had a response of "yes" to a sensory, physical, mental or self-care disability; (2) they were 16 years old and over and had a response of "yes" to going

tabulates the populations of the City, County and State into five separate age cohorts: 0-4; 5-19; 20-44; 45-64; and 65 or greater. Between 1990 and 2000, Lone Oak's percentage of those over 65 shrunk, while the younger cohorts grew. With this change, the senior population in Lone Oak is very similar to that of Hunt County and Texas. The change may indicate a decline in retirees choosing Lone Oak as a retirement destination or a growth in younger families coming to Lone Oak to live and work. At the time this plan was written, age cohort information was not yet available from Census 2010.

Chart 2C: Population by Age Group, 1990 – 2000



Source: 1990 and 2000 Census of Population and Housing, Summary Population and Housing Characteristics

As children enter early adulthood, many move from small towns to larger cities to take advantage of the educational and employment opportunities offered in larger

outside the home disability; or (3) they were 16 to 64 years old and had a response of "yes" to employment disability.

metropolitan areas. In middle age, some of the people, who left as they entered adulthood, return once their children are grown. This trend usually results in a smaller portion of the population between the ages of 20 – 44 years old in a rural town than the state average and could explain the increase in those aged 65 and over in most of those towns. Lone Oak's 20-44 year-old cohort made up 33% of the population in 2000, only 2% less than Hunt County's and 5% less than the state's population in the same category. This may indicate that Lone Oak has a population that may be influenced by peoples' desires to live in a small town, but still have access to jobs and amenities in nearby larger cities.

2. 4 2011 Population Estimate

Population estimates help determine how much growth has occurred since the last decennial census. Estimates identify changes to the city's population and also provide a benchmark to guide population projections and forecasts. The Texas State Data Center periodically issues population estimates for all incorporated places in the state. The Center uses a combination of the symptomatic, cohort component and housing unit methods to calculate estimates and projections. Descriptions of these methods are as follows:

The **Symptomatic Method** is based on factors such as county-level birth and death data, public and private school enrollment, Medicare enrollment, net movement of people from the military to civilian populations, and housing unit figures.

The **Cohort-Component Method** bases its calculations on each age group, or cohort, used in the census process. Projections rely on data that describe county-level birth and death rates and county-to-county migration patterns for each cohort. Projections also include historical trends in local school enrollment and vehicle registration.

The **Housing Unit Method** employs the formula $P = (H \times PPH) + GQ$. Where P = total population, H = occupied housing units, PPH = average number of persons per household, and GQ = population in group quarters. The Texas State Data Center's housing unit method also considers building permit and demolition data to identify changes to the housing stock.

The 2010 Census reported Lone Oak's population at 598. The Census 2010 housing tabulation was similar to fieldwork windshield surveys for the plan completed a few months after the Census count. The Census counted 268 total units, out of which 227 were occupied. The fieldwork in the summer of 2010 found 269 total units, out of which 255 were occupied. To calculate the 2011 population estimate, data was used from the GrantWorks housing count (255 occupied units), the current number of water connections in the city (300 connections in the city limits), Texas State Data Center estimates, and the 2010 Census. The 2011 population estimate for Lone Oak is 624.

Lone Oak's extraterritorial jurisdiction (ETJ) contains approximately 226 additional residents based on census data and the windshield survey (86 occupied homes \times 2.63 persons per household according to 2010 Census data). The ETJ is an area extending one-half mile from the city limits within which an incorporated city has certain rights and responsibilities. Combined, the total population within Lone Oak's ETJ and city limits in 2011 is approximately 850.

2.5 Future Population Forecast

Population forecasts are a key element in planning for the future. Federal, state, and local funding decisions for facilities such as highways, sewage treatment plants, and schools are based upon the projected number of people who will use them. A population forecast is a statement of what a place's population will be

given a set of likely future conditions that consider the physical, social, economic, or political conditions that might encourage or inhibit growth.³

Several factors that can have an impact on population change were considered when forecasting the size of Lone Oak's future population, including:

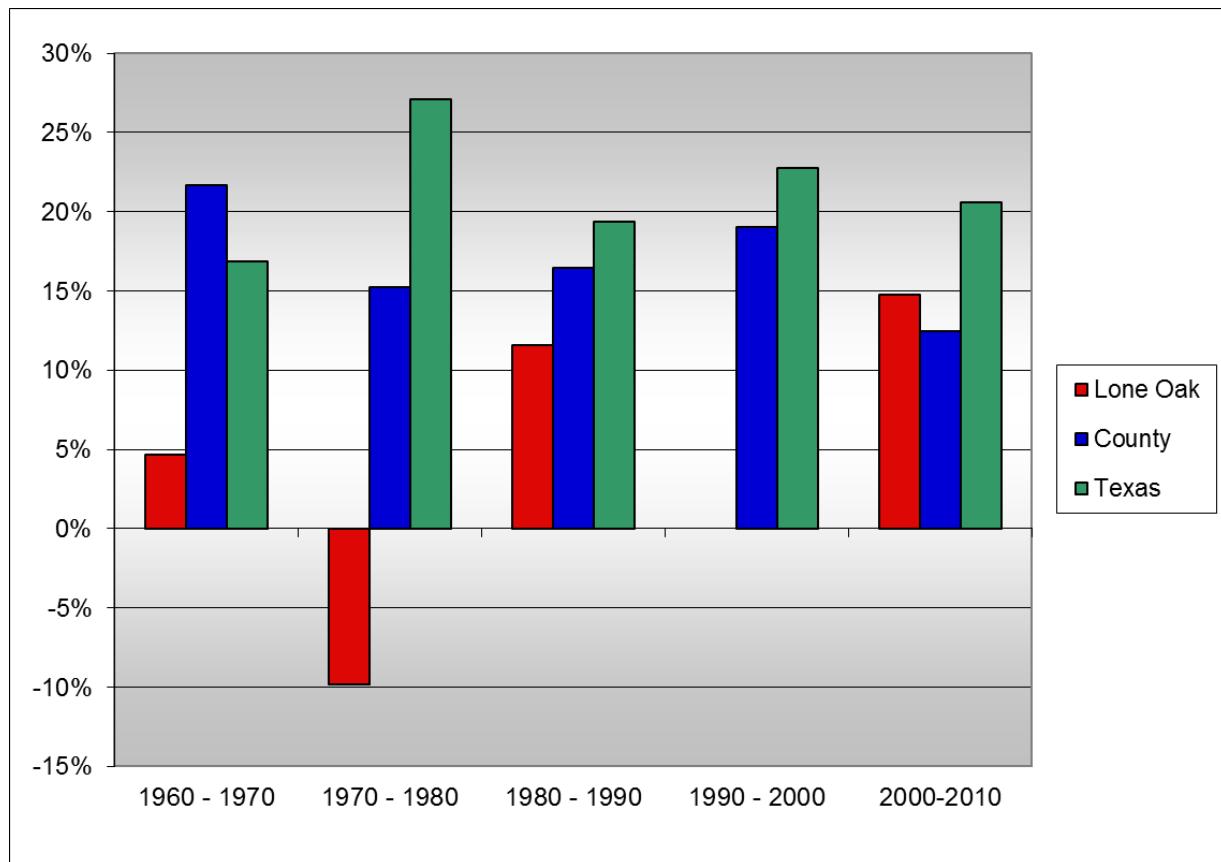
- Historic growth and migration patterns;
- Age of population;
- Public facilities;
- Location along routes to employment centers;
- Ability to annex surrounding areas located in the ETJ; and
- Expected new subdivisions.

Historic Growth and Migration Patterns. According to the Census, Lone Oak's population growth fluctuated between 1960 and 2000 (*Chart 2D*). During the 1970s, Lone Oak's population declined by 10% while Hunt County's grew by 15%. Between 1960 and 1970, Hunt County's population increased by 22%. During the same time, Lone Oak's population grew by approximately 5%. It is possible that the increase in county and city populations may have been due to the construction of Lake Tawakoni. In 1965, the manufacturing sector accounted for 4,500 jobs in Hunt County. By the 1980s, the county's economy experienced growth and had 62 manufacturing firms, which accounted for approximately 6,575 jobs. Since 2000, agriculture, manufacturing, and education have been main components of the region's economy.⁴

³ Richard E. Klosterman, *Community Analysis and Planning Techniques* (Savage, Maryland: Rowman & Littlefield, 1990).

⁴ Source: Hunt County. *Handbook of Texas Online*. Retrieved April 27, 2011, from <http://www.tshaonline.org/handbook/online/articles/hch22>

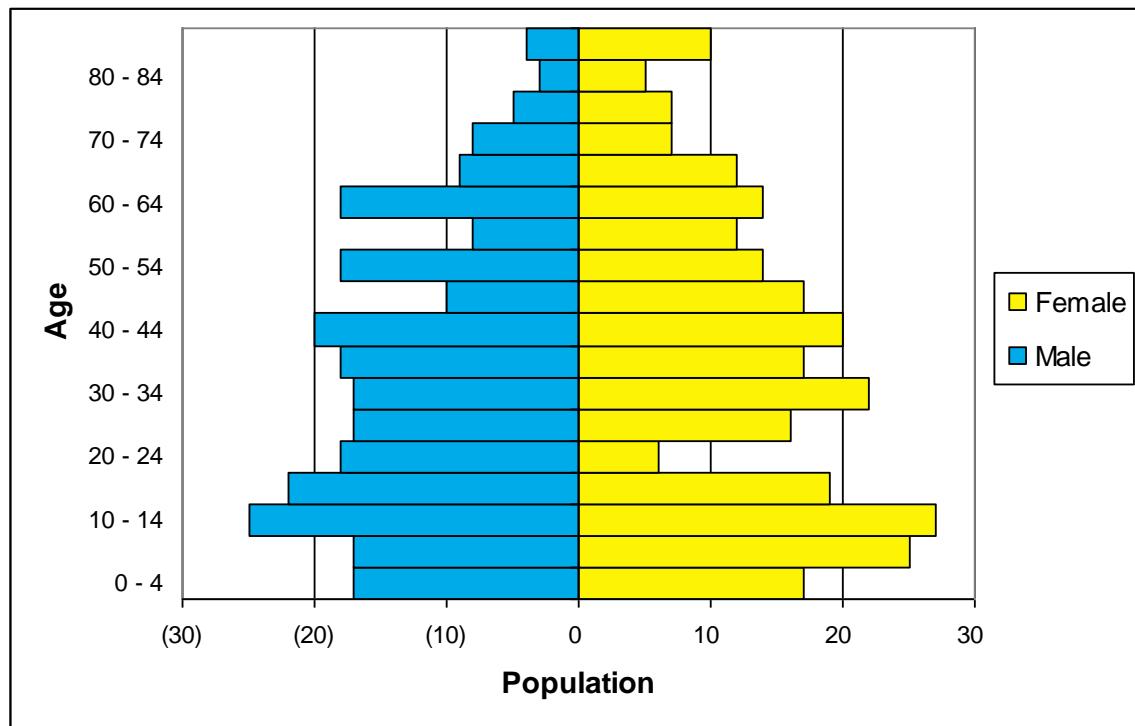
Chart 2D: Population Growth Comparison between Lone Oak, Hunt County, and Texas, 1960-2010



Note: Lone Oak experienced no growth from 1990-2000.

Age of Population. The City's male-female ratio at the 2000 census was very close to 1.0 (0.95). The greatest difference was for those between 20 and 24 years of age, possibly indicating a larger tendency for young women to go away to college than young men.

Chart 2E: Population by Age and Gender, 2000



Public Facilities. The City maintains a number of local services and amenities that enhance the quality of life for its residents. These services and facilities include water, wastewater, streets, and drainage systems, police protection, a local library, and a covered pavilion for public use.

Industrial/Commercial Base. According to the Texas Workforce Commission's current (February 2011) estimates, unemployment in Hunt County is at 9%, which is higher than the State's rate of 8.2% for the same time period. The Texas Workforce Commission does not report employment data for communities of Lone Oak's size. Utilities, manufacturing and retail represent the anchors of the private local economy. Education and health services are by far the largest public sectors in the county. Major employers in Lone Oak and the surrounding area include retail, wholesale trade, and manufacturing.

Geographic Location. The City of Lone Oak is in northeast Texas approximately 60 miles northeast of Dallas, the closest metropolitan area, and 13 miles southeast of Greenville, the closest large city (population 25,557). The eastern shore of Lake Tawakoni is accessible by road 9 miles south. Lake Fork Reservoir is 27 miles to the southeast. Interstate 35 runs east-west nine miles north of the City.

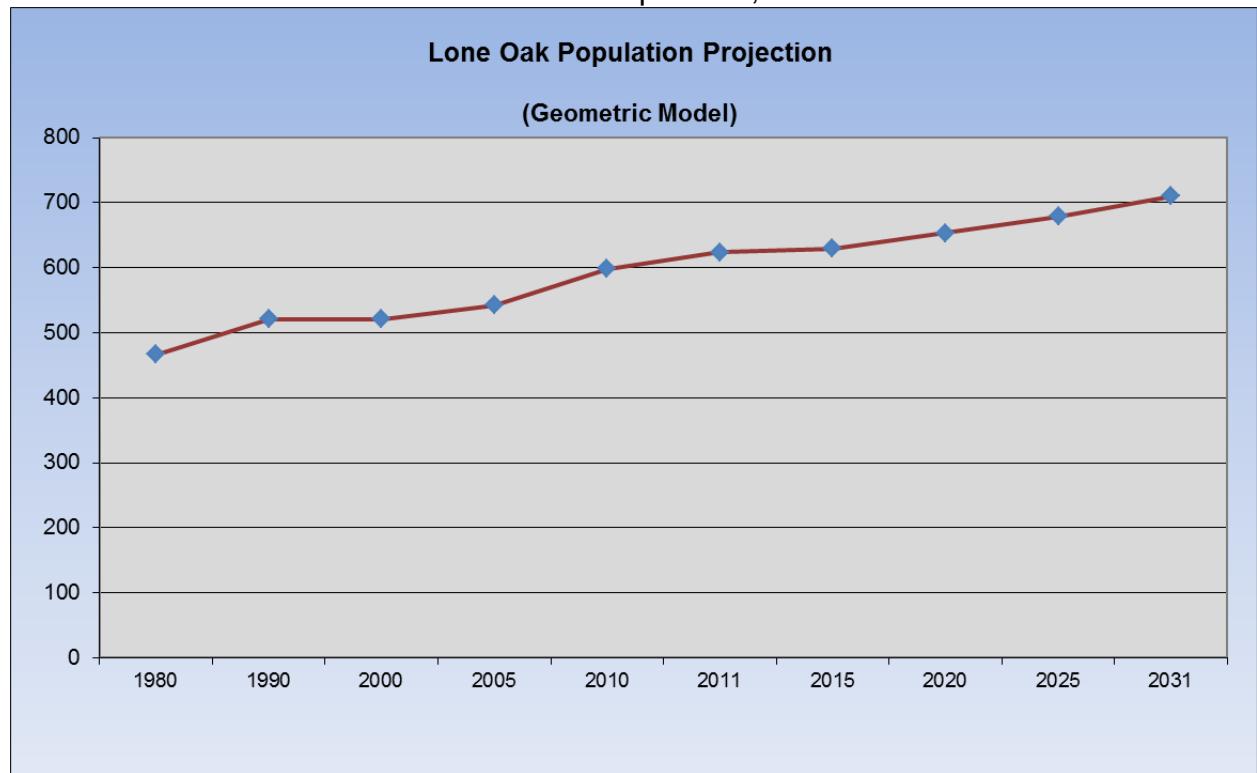
Additional Developable Lots. Ample space remains available for development throughout both the City of Lone Oak and its ETJ. Approximately 47 acres or 7 percent of the land within Lone Oak's city limits consists of semi-developed landscapes. The ETJ contains an additional 18 acres of semi-developed land. Semi-developed areas include vacant, subdivided land of less than 10 acres. Semi-developed distinction requires area accessibility through existing roadways and a reasonable proximity to existing water and sewer infrastructure. Semi-developed areas also include land where surrounding development densities make agricultural uses less practical and where residential and other development remains likely. Overall, the region maintains approximately 65 acres of semi-developed land, representing two percent (2%) of the municipal region.

In addition, 354 acres (50%) of Lone Oak's landscape exists as either undeveloped open space or agricultural land. Likewise, the City's ETJ remains overwhelmingly comprised of agricultural and open space areas. The City's ETJ contains approximately 1,867 acres of undeveloped space totaling 89% of the entire ETJ region. Altogether, Lone Oak's entire municipal region holds roughly 2,221 acres of undeveloped space. This total represents 79% of the City's entire region. The undeveloped land may consist of agriculture, grassland, and flood plains. Although future development typically occurs in semi-developed areas, new subdivisions and subsequent growth can utilize agricultural and undeveloped areas. In these cases, the City should support efforts that discourage development in flood plains due to the risk of flooding. Also, the City

may want to protect viable agricultural from development through farm-land incentives.

Lone Oak's Twenty-Year Population Forecast. Based on these factors and considering growth trends throughout the County, the City is expected to grow during the next twenty years. The forecasted population of Lone Oak in 2031 is **710**. This forecast assumes that economic growth will occur in Lone Oak and its immediate surroundings, and that the city has ample land for future growth and development during the planning period.

Chart 2F: Forecasted Population, 1980 -2031



Source: Texas State Data Center's State Population Estimates and Projections Program combined with Cohort-component method calculations and Texas Water Development Board 2009 Regional Water Plans County and City Population Projections.

Population Distribution

Information regarding the distribution of population in Lone Oak in 2000 is based upon 1990 Census data, 2000 and 2010 Census data, and the 2010 windshield

survey conducted by GrantWorks, Inc. Population distribution and density was mapped (Map 2A) using the 2031 projected population number of **710** people.

Population Build-out

Population build-out refers to the total number of people who could reside within the current City limits if all undeveloped land were developed for residential use. This section illustrates the build-out population of *semi-developed* land and the build-out population of *semi-developed agricultural, forest, and open space land*.

Ideally, a city's development begins with the "infill development" of semi-developed properties. Semi-developed property includes vacant, subdivided land of fewer than 10 acres. The property must be accessible through existing roadways and proximate to existing water and sewer infrastructure. Semi-developed properties also include land where surrounding development densities make agricultural uses impractical but where other development remains feasible. Developing semi-developed land before agricultural, forest, and open space saves infrastructure costs and can promote a livelier downtown.

Although future development typically occurs in semi-developed areas first, new subdivisions and subsequent growth often utilize agricultural, forest, and open space. This land may include woodlands, riparian areas and flood plains. When developing agricultural land and open space, the City should support efforts that discourage development in riparian areas and flood plains, which can put old and new structures at risk of flooding, widen existing flood plains, and degrade surface water quality.

As shown in *Table 2D*, Lone Oak has enough land area within the City limits to support an additional 162 people over the 2011 estimate of 624 people if the semi-developed, agricultural, and open space land were developed as residential properties at current densities of 0.88 people per acre and the current residential

land percentages (20% of total land in the city, 6% total land in the ETJ). This estimate does not consider environmental carrying capacity, infrastructure carrying capacity, governmental financial capacity, or community character.

Table 2D: Population Build-Out

<i>How many people can the land hold at current densities and residential ratio?</i>		
Land Use	Within City Limits	City and ETJ
Semi-Developed Land (acres)	47	65
Population	643	879
Agricultural and Open Space Land (acres)	354	2,221
Population	767	1,833
Semi-Developed, Agricultural, Open Space Land (acres)	401	2,286
Population	786	1,862

3 Housing Study

3.1 Background

The Housing Study identifies the location and condition of Lone Oak's housing stock. It identifies the various types of housing, including single-family detached (the typical house) and mobile/manufactured homes. The information gathered in this study sheds light on the housing needs of the community, helps to direct the formation of housing goals, and establishes a blueprint for future actions the City might take to provide adequate housing for its residents.

3.2 Methodology

The 2000 Census of Population and Housing provides some insight into the general housing conditions in Lone Oak, including the age and number of units, and the costs associated with owning or renting a housing unit.

In the spring of 2010, an exterior/windshield survey of all residential buildings in Lone Oak was conducted by GrantWorks, Inc. to determine the physical condition of each housing unit. A housing unit can be a single-family detached house, a mobile/manufactured home, or a multifamily unit such as an apartment, condominium, or town home. Data gathered during a windshield survey provides a geographic perspective on the condition of housing in different parts of the City. The survey uses a classification system that rates the condition of each housing unit on a scale from "standard" to "dilapidated" as defined in *Table 3A: Housing Condition Survey Classifications and Criteria*. The windshield survey also identifies vacant and abandoned houses.

Table 3A: Housing Condition Survey Classifications and Criteria

Classification	Criteria
Standard	Few or no minor visible exterior defects such as: <ul style="list-style-type: none">cracked, peeling, or missing paint

	<ul style="list-style-type: none"> cracked, sagging, rotting, or missing siding, steps, porch planks, or other wooden surfaces cracked or broken window panes cracked masonry, brick, or mortar surfaces missing or damaged roof shingles small rust spots on mobile homes <p>Generally meets local building codes No detriment to health and safety present</p>
Deteriorating	<p>Few visible exterior defects requiring repair beyond routine maintenance such as:</p> <ul style="list-style-type: none"> missing or damaged wooden surfaces that could cause injury if walked upon or leaned against missing window panes badly deteriorated window frames major holes in exterior walls, up to one (1) foot across and/or penetrate through the interior walls roof missing many shingles or has holes up to six (6) inches across chimney bricks missing extensive rusting, joint separation on mobile home exterior <p>Rehabilitation is economically feasible</p>
Dilapidated	<p>Fails to provide safe shelter Several of the major defects listed under Deteriorating Any major structural damage such as:</p> <ul style="list-style-type: none"> sagging foundation sagging roof slanted or tilted exterior walls missing doors collapsed chimney or porch fire or severe water damage <p>Rehabilitation is not economically feasible</p>

3.3 Current Housing Conditions

This analysis draws from the windshield survey described above and data from the 2000 and 2010 U.S. Census. The two data sets are used in conjunction to render a complete picture of the City's current housing stock.

Windshield Survey: The windshield survey tabulated 360 single-family housing units (including mobile/manufactured housing units), and no multifamily units within the City's corporate boundaries. The results of the survey are mapped as Map 3A: Existing Housing Units and are tabulated below in *Table 3B*.

Table 3B: Housing Data from Windshield Survey, City Limits

Type / Condition	Occupancy	City	ETJ	Total Region	
Stick Frame	Standard	Occupied	65	259	
		Vacant	0	1	
	Deteriorated	Occupied	1	23	
		Vacant	1	1	
	Dilapidated	Occupied	0	3	
		Vacant	0	10	
Total (Occupied)		219	66	285	
Total (Vacant)		11	1	12	
<i>Subtotal - Stick Frame Homes</i>		230	67	297	

Type / Condition	Occupancy	City	ETJ	Total Region	
Mobile & Manufactured	Standard	Occupied	23	12	
		Vacant	0	1	
	Deteriorated	Occupied	13	7	
		Vacant	1	2	
	Dilapidated	Occupied	0	1	
		Vacant	2	0	
Total (Occupied)		36	20	56	
Total (Vacant)		3	3	6	
<i>Subtotal – Mobile & Manufactured Homes</i>		39	23	62	
<i>Subtotal - Single Family Units</i>		269	91	360	

Type / Condition	Occupancy	City	ETJ	Total Region	
Multi-Family	Standard	Occupied	0	0	
		Vacant	0	0	
	Deteriorated	Occupied	0	0	
		Vacant	0	0	
	Dilapidated	Occupied	0	0	
		Vacant	0	0	
Total (Occupied)		0	0	0	
Total (Vacant)		0	0	0	
<i>Subtotal - Multi-Family Homes</i>		0	0	0	

Type / Condition	Occupancy	City	ETJ	Total Region
Housing Condition	Vacant	1	1	2
	Total Standard	218	78	296
	Deteriorated	Occupied	35	43
		Vacant	1	4
		Total Deteriorated	36	47
	Dilapidated	Occupied	3	4
		Vacant	12	12
		Total Dilapidated	15	16
	Total (Occupied)	255	86	341
	Total (Vacant)	14	4	18
<i>Total Housing Units</i>		269	90	359

Source: GrantWorks, Inc. Windshield Survey, 2010

According to the windshield survey, there are 269 households within the city limits of Lone Oak. Of the 269 households 218 (81%) are in standard condition, 36 (13%) are in deteriorated condition and 15 (6%) are in dilapidated condition.

Residents in ETJ: The windshield survey identified 90 housing units in the extraterritorial jurisdiction (ETJ) of the City. Housing conditions are similar in the ETJ to those within the City, and there is a higher percentage of manufactured housing (26% in the ETJ compared to 14% in the City). The ETJ contains no multifamily housing.

Vacancy & Abandonment: At the 2000 Census, the City's vacancy rate (16.7%) was much higher than that of Texas (9.4%). During the windshield survey only ten "for sale" signs were identified and a total of 14 homes (5%) were identified as vacant. However, the 2010 U.S. Census recorded a 15.3% vacancy rate (41 units). Both census and survey were conducted in 2010. Possible reasons for the **discrepancy include:**

- misunderstanding by census or GrantWorks surveyors of each unit's occupancy status

- higher than average effort required by census workers to determine occupancy because of low resident response rate to mail-in census form (71% response rate for Hunt County)

Of the vacant housing identified during the survey, 12 units appeared in dilapidated condition. Vacant dilapidated housing causes health and safety hazards and represents a tax liability to government entities in the form of uncollected property taxes. The City should demolish all existing vacant dilapidated structures for health and safety reasons.

The City's codes are enforced by the City police officers. The City passed a mobile home ordinance in 2009, but it was not being enforced at the time this plan was written.

Owner & Renter Occupied Housing: The U.S. Census provides basic information regarding City housing characteristics in 2000. According to the census, approximately 70% of the total housing stock in Lone Oak is owner occupied and 30% is renter occupied (See *Table 3C* in the next section). There are no multi-family housing structures in Lone Oak. At the time this housing study was written, detailed housing characteristics data was not yet available from the 2010 Census.

3.4 Housing Analysis

This section describes the extent of housing challenges within Lone Oak and identifies the housing needs of the current and prospective population.

Fair Housing / Housing Choices:

Because this plan was funded through the TXCDBG program of the US Department of Housing and Urban Development, the City affirmed that it would “affirmatively further fair housing” (AFFH) and enforce the 1968 Fair Housing Act. Critical questions asked in evaluating the City’s obligation pertain to whether

governmental entities have intentionally or unintentionally sanctioned the segregation process to limit free housing choice by policy and budget decisions; and whether the City has sufficiently educated the public about the Fair Housing Act and taken proper steps to enforce the Act.

Race: *Table 3C* below gives an overview of the City's housing with respect to availability of housing options regulated by national fair housing law, which prohibits discrimination based on disability, familial status, race, color, religion, sex, or national origin. White/Caucasian residents, who make up the majority of the population (93%), are over twice as likely to own as to rent.

Table 3C: Owner & Renter Occupied Housing by Race/Ethnicity

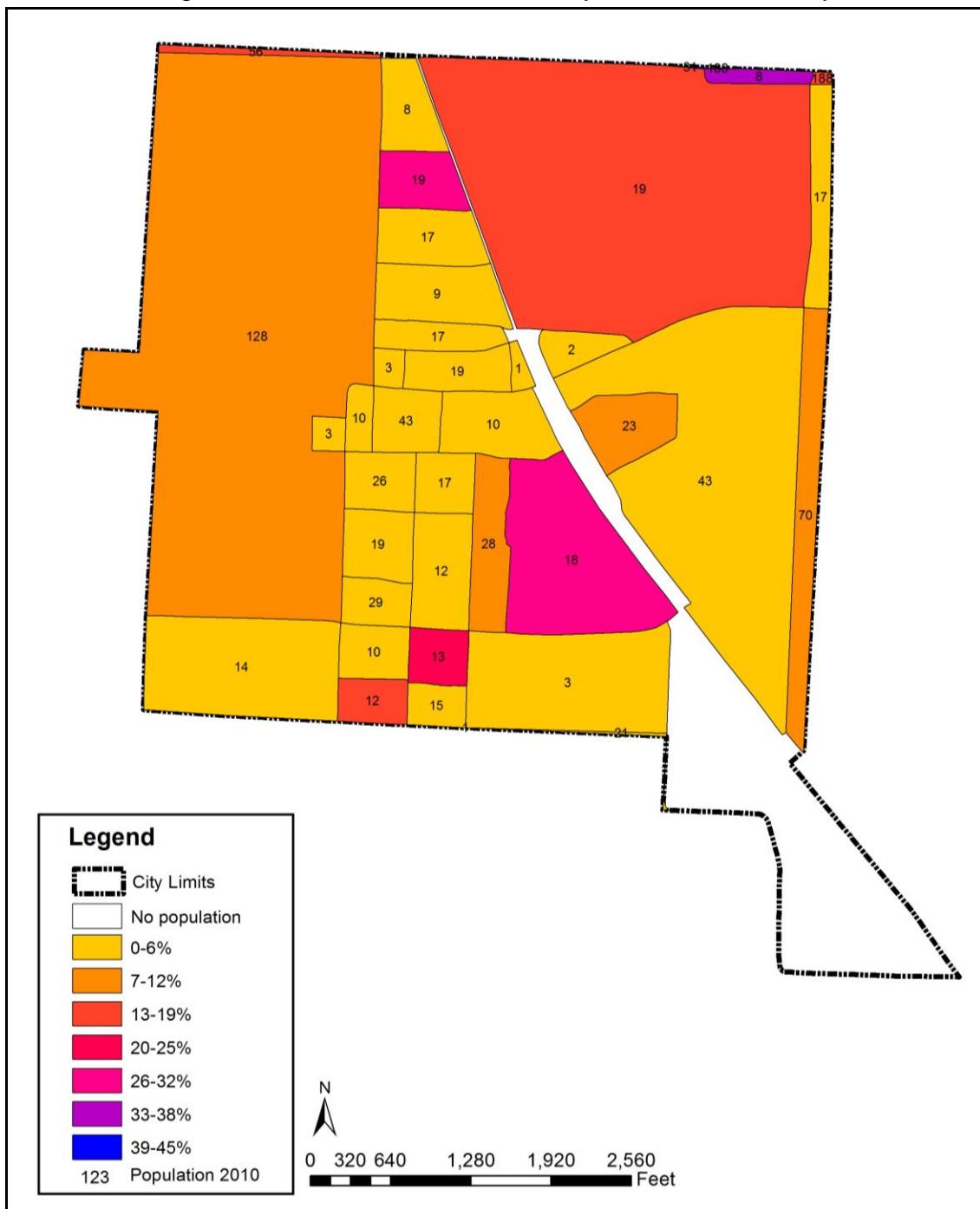
Race/Ethnicity	Number of Households	% of All Households in Lone Oak
White	182	93.3%
Owner Occupied	129	66.2%
Renter Occupied	53	27.2%
Black/African American	7	3.6%
Owner Occupied	4	2.1%
Renter Occupied	3	1.5%
American Indian or Alaska Native	0	0.0%
Owner Occupied	0	0.0%
Renter Occupied	0	0.0%
Asian	1	0.5%
Owner Occupied	1	0.5%
Renter Occupied	0	0.0%
Other	5	2.6%
Owner Occupied	3	1.5%
Renter Occupied	2	1.0%
Hispanic	5	2.6%
Owner Occupied	3	1.5%
Renter Occupied	2	1.0%
Total Households	195	100.0%

Source: 2000 U.S. Census, tables: H14 & H15H

Households of protected classes, including race and ethnicity, are located throughout the City. Using Census 2010 data, *Figure 3A* shows the greatest

concentrations of minorities in Lone Oak are located in blocks in the northeastern and southern portions of the city.

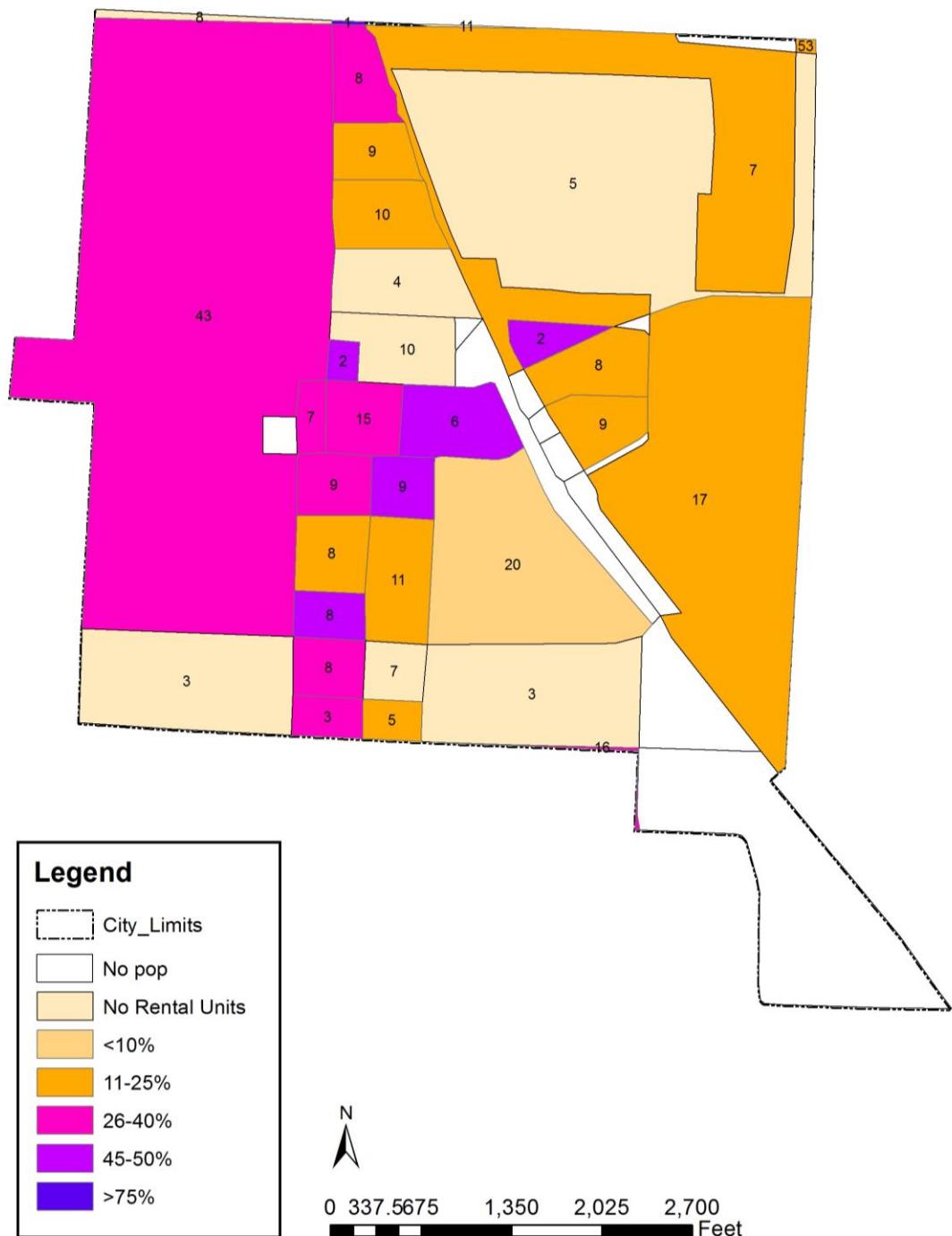
Figure 3A: Distribution of Minority Households in City



Numbers labeled = Total Population in the Census Block. Blocks are colored by Percent Minority in the Census Block. Source: Census 2010 by Census Block.

These statistics indicate that home ownership is accessible to minority populations. Rental housing is concentrated in the western half of the city but single-family rentals are available in all parts of Lone Oak, as evidenced in *Figure 3B* below. Numbered labels represent the number of total housing units in each Census Block. At the time this housing study was written, Census 2010 data was not yet available for rental unit distribution. Therefore, the figure below uses 2000 Census data. The numbers and concentrations of rental homes in Lone Oak may have changed since 2000. At the time this plan was written, there were no multi-family units in Lone Oak.

Figure 3B: Distribution of Rental Units in City by Census Blocks



Labels = Number of housing units by block. Colors represent percent rental units of total units in the Census Block. Source: Census 2000, SF1, Table H4 by Census Block.

Disabled Population: In 2000, 21% of the population reported having some type of disability. It is not known how many rental and how many single-family homes are ADA accessible. The City currently has a zoning ordinance. Zoning ordinances should not restrict non-related occupants from sharing the same residence, as that would impede the establishment of group homes for disabled individuals.

Familial Status: A variety of rental properties and homes for ownership are available to accommodate families. Fewer choices are available for single occupants. Approximately 56% of total housing units in the city have three or more bedrooms. The majority of homes with three or more bedrooms are owner occupied, indicating fewer choices for families seeking multi-bedroom rental units.

Table 3D: Accommodations for Families

Owner occupied:	131	
No bedroom	0	0%
1 bedroom	3	2%
2 bedrooms	49	27%
3 bedrooms	68	37%
4 bedrooms	8	4%
5 or more bedrooms	3	2%
Renter occupied:	52	
No bedroom	0	0%
1 bedroom	0	0%
2 bedrooms	28	15%
3 bedrooms	24	13%
4 bedrooms	0	0%
5 or more bedrooms	0	0%
Total	183	

Source: Census 2000, SF3, Table H42

* This table reflects SF3 Census data, or those in the City who filled out the long form in the 2000 Census. Therefore, numbers are a sample and do not reflect all of Lone Oak's housing units. Analysis focuses on percentages.

Education: The City publishes the following ad in its newspaper of record in conjunction with TXCDBG grants. The City last ran this ad in November of 2010:

To promote fair housing practices, the City of Lone Oak encourages potential homeowners and renters to be aware of their rights under the National Fair Housing Law. Title VIII of the Civil Rights Act of 1968, as amended, prohibits discrimination against any person on the basis of race, color, religion, sex, handicap, familial status or national origin in the sale or rental of units in the housing market. For more information on fair housing or to report possible fair housing discrimination, call the U.S. Department of Housing and Urban Development's toll-free hotline at 1-800-669-9777.

Communities may have policies that unintentionally fail to further fair housing. These can be reflected in comprehensive plans, capital improvement projects, zoning or subdivision ordinances, and requirements for assistance to homes in floodplains. Given that certification of AFFH is required when receiving HUD funds, jurisdictions should ensure that their practices do not promote concentrations of protected classes, that they further fair housing and that they do not unintentionally preclude housing affordability or restrict accessibility to housing for persons with disabilities.

Housing Problems

Housing Stock Age: The age of a community's housing stock is an indicator of its overall condition. As shown in *Table 3E*, approximately 72% of Lone Oak's housing stock was constructed before 1980. The City has 14% less new housing under 30 years old than the County.

Table 3E: Housing by Age

Age of Units	Total Housing Units	City		County	
		225	32,490		
<1939	21%	48	7%	2,378	
1940 - 1979	51%	115	51%	16,570	
1980 - 2000	28%	62	42%	13,542	

Source: 2000 US Census DP-4. *Profile of Selected Housing Characteristics*

Housing Type: Table 3C does not address what *type* of housing was constructed. Of the housing stock within Lone Oak, 14% (39) is manufactured. While

manufactured housing is typically more affordable, its overall quality and longevity is questionable. In Lone Oak, the number of manufactured homes and mobile homes in standard condition is larger than the number of manufactured homes and mobile homes in deteriorated and dilapidated condition.

Affordability: Housing is considered affordable when monthly costs are less than 30% of monthly income. *Table 3F: Housing Data from the 2000 U.S. Census* tabulates the median monthly income, total number of owner and renter occupied housing units and the housing costs as a percentage of income for both renters and home owners. The table indicates that owner-occupied households with a mortgage pay the largest share of monthly income for housing in both the city (20%) and the county (26%). Based on the 30% of housing cost to monthly income standard for affordability, the housing costs for owner and renter occupied housing within the City is affordable.

Table 3F: Housing Data from the 2000 U.S. Census

		City	County
Owner Occupied	<i>Total Occupied Housing Units</i>	195	28,742
	# of Units	137	20,541
	% of Total	70%	71%
	Monthly \$ w/Mortgage (median)	\$621	\$801
	% of Income	20%	26%
	Monthly \$ w/o Mortgage (median)	\$290	\$303
	% of Income	9%	10%
Rental Units	Number of Units	58	8,201
	% of total units	30%	29%
	Median monthly rent	\$533	\$476
	% of Income	17%	16%

Source: U.S. Census DP-4, H8, H6, H7 tables

Another affordability measure for housing and a key component of mortgage lending decisions is the price to income ratio. The price to income ratio is the disparity between median income and median housing value. It provides a measure to answer the question, "Is a median priced home affordable for a median income earner?" In *Table 3G: Median Household Incomes and Housing Values* the ratio for Lone Oak, Hunt County and the State are calculated. Lone

Oak's price to income ratio is lower than both the County and the State, indicating that the median price in the City is lower than in surrounding areas.

Table 3G: Median Household Income and Housing Values

	City	County	State
Median Household Income	\$31,875	\$36,752	\$39,927
Median Household Monthly Income	\$2,656	\$3,063	\$3,327
Owner Occupied Housing Costing <\$50,000	72%	38%	23%
Median Home Value	\$34,200	\$62,000	\$82,500
Median Home Value / Median Household Income	1.1	1.7	2.1

Source: U.S. Census 2000, tables P53 & DP-4

Construction Costs: It is commonly held that housing construction costs in rural communities are cheaper than in urban areas. Land values in rural areas are typically lower and there are fewer impact and regulatory fees. However, a number of elements drive up the cost of rural construction. There are fewer rural builders and developers, which means less competition. Rural builders also produce at a lower volume while paying material costs equal to those urban areas.⁵ Regional estimates of construction costs indicate that construction costs are fairly low compared to other cities in north and east Texas. Regional statistics on land sales and construction costs indicate that building homes are less expensive in Lone Oak than the nearby larger cities of Fort Worth and Dallas. Costs for Lone Oak were not available. *Table 3F* shows a regional cost comparison.

Table 3H: Average Residential Construction Costs

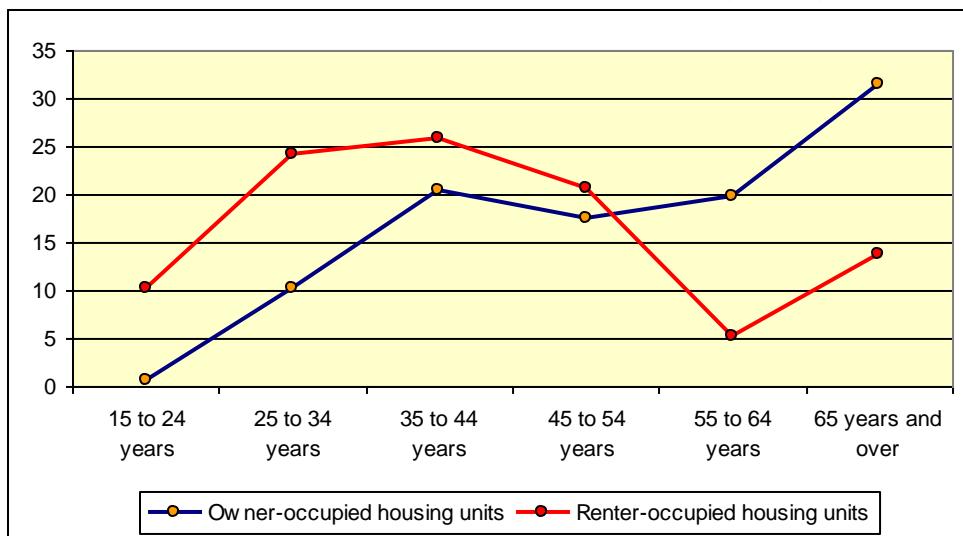
Longview	Greenville	Fort Worth	Dallas
\$118,986	\$129,485	\$141,734	\$143,483

Source: *Means Residential Square foot costs, 2008 Contractors Pricing Guide, Average One-Story Residential base costs and Location Factors*, pg. 26 and 267.

⁵ Scanlon, Kirk, (2002) *Making it Work: Developing Affordable Housing in Rural Texas*, Texas Association of Community Development Corporations, Austin TX.

Elderly Residents' Needs: Typically elderly residents' incomes are fixed, and the prospects of narrowing the disparity between income and housing costs are slim. *Chart 3A: Owner and Renter Occupied Housing by Age* shows that home ownership is more common than renting for those over 55 years and less common for those under 55 years. The percentages are almost equal for the 45-54 cohort. The high level of home ownership by the elderly - 65 years and older - occupy almost a third (31%) of owner-occupied housing in the City while constituting 21% of the population – indicates that a sizeable portion of the housing stock may be coming on the market within the planning period.

Chart 3A: Owner & Renter Occupied Housing by Age (City)



U.S. Census Demographic Profile QT-H2. Tenure, Household Size, and Age of Householder: 2000

Future Housing Based on Population Projection: As a community's population increases, demand for housing also increases. Considering the lack of vacant units in fair to good condition in Lone Oak, any additional population will almost surely result in the construction of new single-family, multifamily and manufactured homes.

Lone Oak's population is expected to remain fairly stable over the next twenty years. Based on the windshield survey conducted by GrantWorks, Inc. in 2010, the city has only one vacant home in standard condition. Therefore, the City

should focus on maintaining existing housing stock by removing vacant, dilapidated homes and rehabilitating homes in deteriorating condition. For residents wishing to build new homes, there are several platted semi-developed lots in Lone Oak.

3. 5 Identification of Housing Needs

This section discusses the extent of housing challenges in Lone Oak and identifies the housing needs for current and future population.

1. Rehabilitation of existing, aging, deteriorating, and dilapidated housing stock.
2. Removal of vacant, dilapidated structures.
3. Enforcement of ordinances controlling the maintenance of structures and yards.

Rehabilitation of Housing Stock: The City should continue to assist residents with HOME applications. In 2005, Lone Oak was awarded \$495,000 through HOME for the reconstruction and rehabilitation of houses. The City should also provide residents with information on weatherization assistance and loan programs.

Housing Codes: Deteriorating housing and lack of maintenance are two concerns identified in Lone Oak. Those issues are typically addressed through adoption of a dangerous structures ordinance and/or residential and maintenance codes. Many cities use those ordinances to eliminate or require rehabilitation of structures that pose a safety hazard. The ordinance must include: standards by which a structure is deemed uninhabitable, procedures for giving notice to the property owner, and procedures for a public hearing to determine whether the structure violates the ordinance. If a building is proved to be in violation and the owner does not vacate, secure, repair, remove, or demolish (depending on the nature of the problem), the ordinance should give

the City the power to make the repairs or demolish the building and issue a lien against the property to cover costs.

The City adopted a Manufactured Home Ordinance in 2009 (Ordinance # 115). The ordinance prohibits any additional mobile homes (those older than 1976) from locating in the city. Mobile homes already located in the city at the time the ordinance was passed are still permitted to remain in place. Manufactured homes must be located on tracts of land no less than 4,500 square feet in size, and cannot share a tract of land with another manufactured home. If manufactured homeowners wish to share a tract of land, they must apply to the City for a manufactured home park permit. Applications for manufactured home park permits have several requirements, including, but not limited to, the following:

- Plans and specifications for the park;
- An agreement to reimburse the City engineer for plan evaluation and site inspection;
- An understanding that a permit will not be granted until construction meets all of the City's ordinances and requirements;
- Application fee of \$25 plus the engineering fee.

While manufactured housing usually deteriorates more quickly than stick-frame homes, they provide affordable housing opportunities for residents with lower incomes. The City should consider easing restrictions of its Manufactured Home Ordinance if there is need for additional affordable homes in the city.

The City has ordinances pertaining to the maintenance of yards and removal of debris and rubbish (Ordinance #s 0014-A, 004A). Land and homeowners who fail to comply with the ordinances are subject to penalties.

The City adopted the International Plumbing Code, 2000 Edition (Ordinance # 35-101). The City does not have other building codes, and may want to consider adopting a later version of the International codes that regulate new construction,

building rehabilitation, electrical standards and fire safety. More information can be found at: www.iccsafe.org.

The City's police officers enforce City ordinances.

Subdivision and Zoning codes: Subdivision codes define standards for the provision of water, sewer, streets, and drainage infrastructure for new subdivisions in the City and its ETJ. Zoning codes define standards for the location, size, and appearance of new construction with the city limits. The City has a zoning code, but does not have a subdivision code. Amendments to the zoning code and a proposed subdivision code suitable for adoption have been included in *Chapters 12 and 13*.

3. 6 Local Capacity

Public Sector & Non-profits: There are no non-profit community development corporations (CDCs) operating in Lone Oak. However, there are a number of regional or county-wide agencies working in Hunt County that can assist on issues regarding housing, economic development, financing and legal support.

These include:

- Local Community Action Agencies
- Local Area Agencies on Aging
- Local Councils of Governments
- Local Legal Aid Services
- Local Housing Finances Corporations

Local Community Action Agencies: Community action agencies (CAAs) are the delivery system for federal and state antipoverty programs. Many CAAs administer TDHCA's Community Services Block Grant Program, Comprehensive Energy Assistance Program, and Weatherization Assistance Program.

Community Services, Inc.
P.O. Box 612
Corsicana, TX 75151
1-800-872-2401

CSBG Counties served: Navarro, Anderson, Collin, Denton, Ellis, Henderson, Hunt, Kaufman, Rockwall, Van Zandt.

Community Services, Inc. offers utility payment assistance for low-income candidates on a case-by-case basis, and also provides weatherization assistance for low-income households to help save energy costs and provide safer, more comfortable homes.

Local Area Agencies on Aging: Local area agencies on aging (AAAs) are affiliated with the Texas Department on Aging and offer a variety of services for seniors including case management, transportation services, meal services, senior activity centers, and home modification assistance.

North Central Texas Area Agency on Aging

Physical address: 616 Six Flags Drive, Suite 200, Arlington, TX 76011

Mailing address: P.O. Box 5888, Arlington, TX 76005-5888

Phone: (817) 640-3300; 1-800-272-3921

The North Central Texas Area Agency on Aging serves a ring of counties around Tarrant and Dallas Counties that includes Collin, Denton, Ellis, Erath, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwall, Somervell and Wise. This organization gets state and federal funds to help coordinate local elderly care in the counties. Care services include homemaker services, meals, and caregiver orientation and training of staff needed to carry these programs out. They also provide information and referral for health and social services and benefits counseling and act as a nursing home ombudsman. Priority is given to residents who have low incomes, are frail, live in rural areas, and/or have disabilities

The agency also funds monthly caregiver education and training programs through the Senior Services for Hunt County (Hunt County Committee on Aging, Inc.). Hunt County Committee on Aging mostly administers the Meals on Wheels program in Greenville, but it also offers rides (pick-up and drop-off) to elderly qualifiers from all over Hunt County. Contact: (903) 454-1444; (www.huntrockwallseniorservices.org).

North Central Texas Council of Governments: Regional councils of governments (COGs) are voluntary associations of local governments formed under Texas law. These associations address problems and planning needs that require regional attention or that cross the boundaries of individual local governments. COGs coordinate planning and provide a regional approach to problem-solving through cooperative action and may provide direct services at the local level. The North Texas Council of Governments has been growing rapidly in the last decade. In addition to basic resource coordination, the agency has been very active in regional transportation planning, sustainability initiatives, and community action programs.

<http://www.nctcog.dst.tx.us>

Counties served: Collin, Dallas, Denton, Ellis, Erath, Hood, Hunt, Johnson, Kaufman, Navarro, Parker, Palo Pinto, Rockwall, Somervell, Tarrant, and Wise.

North Central Texas Council of Governments
616 Six Flags Drive
P.O. Box 5888
Arlington, TX 76005-5888
Main Operator: (817) 640-3300

Local Legal Aid Services: Local legal aid organizations provide civil legal representation and advice at little or no cost to low income individuals who cannot afford a lawyer. Legal aid focuses on legal issues relating to basic needs, self-sufficiency, children and families, elderly and disability, and housing and homelessness prevention.

Legal Aid of Northwest Texas (www.lanwt.org) serves 114 counties in North and West Texas, including Hunt County, with legal aid for the low-income community in housing, family, health, public benefits, education, employment, individual rights and many other areas. The closest branch office to Lone Oak is in McKinney, TX.

McKinney Branch Office
901 North McDonald Street, Suite 702, McKinney, TX 75069
972.542.9405; 972.984.1638; 800.906.3045

Community Housing Development Organizations: A community housing development organization (CHDO) is a private, nonprofit, community-based service organization with the capacity to develop affordable housing or carry out other HOME program funded activities for the community it serves. No CHDO was found to be serving Hunt County.

Local Housing Finance Corporations: Local housing finance corporations (HFCs) may periodically receive bond funds to use at the local level for single family homebuyer assistance or multifamily development purposes. The North Central Texas Housing Finance Corporation serves Hunt, Rockwall, Kaufman, Ellis, and Navarro counties and Duncanville, Lancaster, Desoto, and Cedar Hill in Dallas County.

The North Central Texas Housing Finance Corporation (NCTHFC) meets quarterly in Garland to discuss housing finance issues. During housing market downturns in the past, the state has issued bonds through the HFCs to distribute to local lenders and use to construct single-family and multi-family housing for low-income residents; however, the NCTHFC has not had bonds funds to distribute in recent years. Currently, the NCTHFC offers a \$2,000 tax credit program for qualified first time home buyers. The Mortgage Credit Certificate Program is detailed at the corporation's website:

<http://www.ncthousing.com/firsttime/>

Mary Bert-Koelling
North Central Texas Housing Finance Corporation
(214) 681-3311
mkoelling@firstsw.com

Texas State Affordable Housing Corporation Texas State Affordable Housing Corporation (TSAHC) is a self-supporting, not-for-profit organization created by state statute in 1994 to provide safe, decent and affordable housing for low-income Texans and other underserved populations. The TSAHC provides a variety of affordable housing programs that range from First-time Homebuyer Programs for individuals and families. Programs provide low-interest financing to individuals, particularly first-time homebuyers, teachers, paid firefighters, EMS personnel, peace officers, correction of juvenile corrections officers, county jailers and public security officers. It also provides various financing options for developers of both single family and multifamily housing, portions of which would serve low-to-moderate income tenants. Programs are listed on the agency website at www.tsahc.org. The agency can be reached at 512-477-3555 or 888-638-3555.

Texas Department of Housing and Community Development (TDHCA) The state agency responsible for promoting and preserving homeownership, and financing the development of affordable rental housing. The agency has programs to both build and rehabilitate single family and multi-family housing. The City can apply for funding to:

- assist with multi-family unit rehabilitation projects; (*Rental Housing Development Program*);

- assist renters, including veterans and persons with disabilities, with utility and security deposits (Tenant Based Rental Assistance Program, Tenant Based Rental Assistance Program for Persons with Disabilities, and the Veterans Housing Support Program);
- provide down payment assistance to individuals who have not owned a home in three years or who are first-time home buyers (Texas HOMEbuyer Assistance Programs);
- repair or replace substandard homes for low-to-moderate income residents (HOME Rehabilitation Program and Homeownership Assistance Program); and
- construct home accessibility projects for disabled residents (Amy Young Barrier Removal Program)

Contact:

www.tdhca.state.tx.us

Phone: (512) 475-3800

or (800) 525-0657

USDA Rural Development: The mission of the U.S. Department of Agriculture (USDA) Rural Development is to improve the economy and quality of life in rural America. USDA programs include homeownership opportunities, owner-occupied housing assistance, rental assistance, rental housing development, community development activities, business development, and technical assistance in rural areas of the state (generally considered areas with a population of less than 20,000 people). The Rural Housing Service within USDA Rural Development administers three homebuyer assistance programs in rural areas. USDA also sells low-cost homes. Their website is located at www.rurdev.usda.gov/tx/hp.htm

USDA Rural Development Guaranteed Rural Housing Loans for Single Family Dwellings offers help for people who want to own a home but cannot pay a down payment. Low and moderate-income applicants can have closing costs associated with purchasing a house financed into the loan up to the appraised value of the property. Loans can be for new or existing homes. The Guaranteed Rural Housing Program charges a 1.5% guarantee fee that is due at closing. Generally, the program targets communities with populations of 10,000 or less in locations not closely associated with urban areas.

Homeownership loans from USDA Rural Development can also be used to modernize existing homes by adding bathrooms, central heating, modern kitchens, and other improvements such as driveways and foundation plantings. Individuals who meet the requirements should contact USDA directly for these loans.

USDA Rural Development provides rental assistance and subsidizes section 515 multi-family housing units. Units in this program are classified as either Family or Elderly.

The Community Facilities Grant Program aims to serve small communities and gives high priority to towns with a population of 5,000 or less. Facility categories eligible for funding include health care, cultural and educational, energy, energy distribution, public safety, community support buildings, transportation, and utilities.

The USDA Rural Development offices serving Hunt County are below:

State Office

Scooter Brockette
USDA Rural Development Housing Programs Director
101 S. Main, Federal Building, Ste. 102
Temple, TX 76501
(254) 742-9770
Scooter.Brockette@tx.usda.gov

McKinney Area Office
1404 N McDonald St
McKinney, TX 75071
(972) 542-0081 ext 4
(972) 542-4028 Fax

Allen M. Lambright
Area Director
(972) 542-0081 ext 4
Allen.Lambright@tx.usda.gov

For a complete listing of State and federal programs available see:

<http://www.tdhca.state.tx.us/overview.htm>

3. 7 Goals and Objectives to Meet Housing Plan

As discussed in the previous section, the City's most pressing housing needs will be related to maintaining the existing housing stock, providing accessible housing and housing rehabilitation for the disabled and elderly populations, ensuring that the various safety codes are met, and in the future to provide new housing for a growing population. Several goals can be established for the City to enhance its present and future housing stock. They include:

Goal 1: Rehabilitate and maintain the City's existing housing stock to ensure that housing offers adequate and safe shelter.

Objective 1.1: By 2014, reduce the number of dilapidated, vacant structures from 12 to 6.

Policy 1.1.1: Adopt and enforce a dangerous structures ordinance, by 2012 that requires removal of unsafe structures from the City.

Policy 1.1.2: By 2014, budget \$20,000 to apply for HOME funding that would allow up to 6 homes to be reconstructed; encourage homeowners of dilapidated manufactured homes to apply for this program if the City receives an award.

Objective 1.2: By 2016, all occupied dilapidated homes should be vacated and reduce the number of families living in deteriorated homes by 30%.

Policy 1.2.1: Submit applications for state and federal funds for housing rehabilitation in rural areas (including Texas HOME programs and Housing Trust Fund, and USDA RD grants or loans).

Policy 1.2.2: Provide information by 2013 to lenders and residents about state and federal loans, guarantees, and tax incentives that help low-income residents rehabilitate multi-family or single-family housing. This could be accomplished by establishing a booth in City Hall or posting information on a City website.

Objective 1.3: During the planning period, all new homes meet minimum construction standards, and new manufactured housing is of quality design and construction.

Policy 1.3.1: Hire a part-time code enforcement officer or train existing staff member(s) to perform enforcement duties.

Policy 1.3.2: Adopt proposed Subdivision Ordinance included in this plan 2013 (see Chapter 13 of this plan).

Policy 1.3.3: Adopt International Building/Residential Code by 2012.

Goal 2: Provide affordable housing for disadvantaged populations including the elderly, the disabled, single-headed household, and low-income residents.

Objective 2.1: During the planning period, multi-family units will be constructed.

Policy 2.1.1: Adopt zoning and subdivision ordinances and/or development incentives that specify providing affordable multi-family housing with handicapped designs for the elderly and the disabled.

Policy 2.1.2: On an ongoing basis, provide information to for-profit builders on state and federal funds and tax incentive programs for the provision of housing developments and financing that will accommodate low-income residents.

Objective 2.2: Fair housing practices are maintained throughout the community over the next 20 years.

Policy 2.2.1: Enact ordinances with development incentives for providing affordable housing and handicap-friendly designs.

Policy 2.2.2: Ensure that the Fair Housing policy is placed in a prominent location at City Hall.

Policy 2.2.3: Pass a Fair Housing Ordinance to ensure that future zoning and code elements do not interfere with fair housing goals, including keeping homeowner costs down.

Policy 2.2.4: Re-examine the Fair Housing Ordinance annually to ensure its compliance with federal and state law so that it will not be a hindrance to drawing state funds to the area.

Goal 3: Neighborhood houses and yards are well maintained and attractive.

Objective 3.1: By 2013, vacant lots have been cleared of debris and are regularly mowed.

Policy 3.1.1: Enforce the Nuisance and Vacant Lot Debris Ordinances annually.

Policy 3.1.2: Set up a reporting procedure for residents to report ordinance violations.

Policy 3.1.3: Pass a dangerous structures ordinance by 2012 providing for the removal of structures that represent a threat to health and safety.

Goal 4: Cooperation with other groups on projects that help the City maintain its housing stock and develop additional housing that meets the needs of its residents.

Objective 4.1: By 2013, establish contacts with regional groups that work on low income housing, fair housing, and related concerns.

Policy 4.1.1: Begin efforts to form a regional housing authority for the area by meeting other housing authorities within the region. Meet with North Central Texas Council of Governments to help get started and recruit regional housing authorities and other agencies.

To reach these goals, the following plan will guide the City's official housing-related activities in the 2011-2031 planning period, in order of priority.

Table 3I: Housing Objectives & Activities, 2011-2031

Year	Project	Estimated Cost	Source of Funds
2011-2020	Demolish dilapidated housing with assistance from local community groups, churches, fire department, etc.	\$5,000 per house (max, lower with volunteer labor)	GEN, County Prison, Local Volunteer Organizations, Fire Dept.
2011-2031	Submit applications for state and federal funds for housing rehabilitation in rural areas (including Texas HOME programs and Housing Trust Fund, and USDA RD grants or loans).	Staff Time, Grant Match up to about \$18,000	GEN
2011-2012	Adopt Fair Housing Ordinance to ensure that future zoning and code elements do not interfere with fair housing goals.	Staff Time, Attorney Fees	GEN
2012-2013	Adopt proposed Subdivision Ordinance.	\$500	GEN
2012-2013	Adopt proposed Zoning Ordinance and Zoning Map.	\$500	GEN
2012-2031	Publicly proclaim Fair Housing Month, provide information regarding federal Fair Housing policy, local Fair Housing Ordinances and housing finance	Staff Time, Newspaper Ad Fees, Varies	GEN

	opportunities to the public.		
2014	Adopt and enforce a dangerous structures ordinance.	Staff Time, Attorney Fees	GEN
2014-2015	Adopt the International Building/Residential Code and International Fire Code, and adopt a Building Ordinance	\$200 for materials/\$500 legal time to review proposed ordinance	GEN
2015-2031	Construct multi-family housing units as needed. Apply for grants and loans to fund project.	Match, Varies	GEN, TDHCA, TSAHC

4 Land Use Study

4.1 Background

The Land Use Study includes a discussion of the City's existing and future land use patterns. This plan is an informed attempt to take Lone Oak from where it is now to where residents imagine the city in 2031, twenty years from now. The plan for a community's future development is based on knowledge of the past and present and what actions can be taken to influence the course of development in the community. Because of the dynamic nature of land development, this plan should be re-evaluated periodically and amended to stay current with the needs of the community.

The Land Use Study includes:

- Existing land use Inventory and Analysis
- Discussion of future development considerations, including geographic constraints, population forecasts, economic growth, physical design, generally recognized planning principles, and expectations and desires expressed by City officials and residents.
- A policy framework of goals and objectives to help reach the vision
- A description of the elements of the future land use map

4.2 Existing Land Use Inventory and Analysis

An inventory of existing land uses provides the community with a tool that reveals how land is used and how much is used for each purpose in the community. When mapped, this inventory shows how the community is formed and how its components fit together. The location and extent of land uses in a community affects property values, neighborhood stability, traffic flow, aesthetics, and economic development potential.

The inventory of Lone Oak's land uses was conducted in the summer of 2010 by GrantWorks, Inc. The results of the land use inventory and analysis can be seen in *Map 4A: Existing Land Use*.

The land use survey of Lone Oak references the standard land use classifications in *Table 4A: Land Use Classifications*.

Table 4A: Land Use Classifications

Classification	Examples
Single-Family Residential	Single-family houses, mobile homes
Multifamily Residential	Duplexes, triplexes, apartments, condominiums
Commercial	Stores, offices
Warehouse / Industrial	Factories, salvage yards, mines, warehouses
Institutional	Educational, medical, and religious institutions
Park and Recreation	Developed public open space
Public Use	Government offices and facilities, public utilities
Major Transportation / ROWs	Highways, railways, airports, ports, rights-of-way
Semi-Developed / Vacant	Vacant subdivided lots of less than 10 acres in areas with or very near water, sewer, and street infrastructure
Agricultural / Undeveloped	Fields, farms, woodlands, open flood plain

As expected, development is much denser within the City limits than in the ETJ with approximately 50% of the City's land area developed or semi-developed compared to 11% in the ETJ. *Chart 4A and Table 4B* provide a detailed summary of the geographical extent of the each land use within the City.

Chart 4A: Land Use Percentages in the City

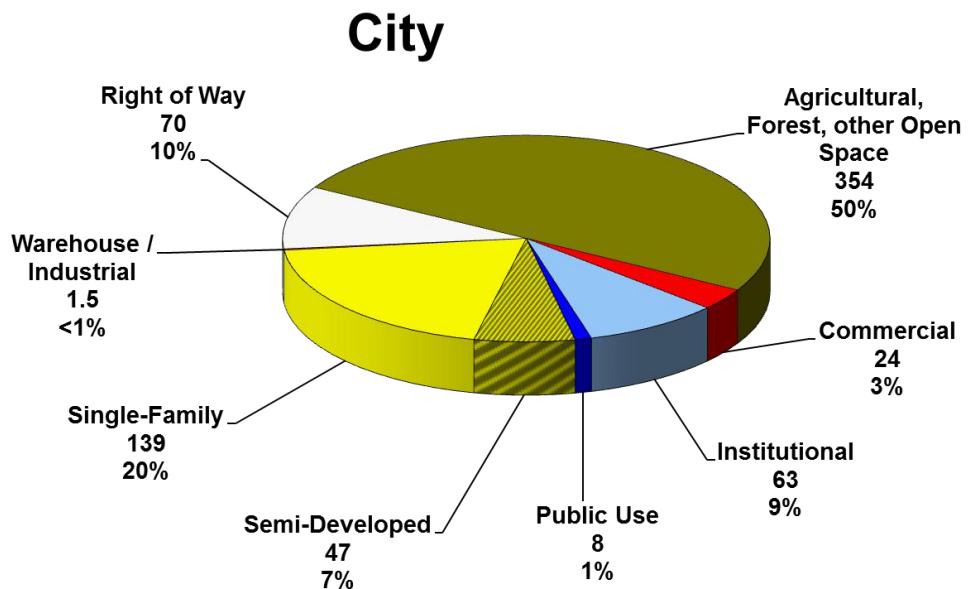


Table 4B: Extent of Land Uses within City Limits, 2011

Land Use Classification	Acres	% Developed	% Total	Acres/100
Commercial	24	7%	3%	4
Institutional	63	18%	9%	11
Multifamily	0	0%	0%	0
Public Use	8	2%	1%	1
Recreational	0	0%	0%	0
Semi-Developed	47	13%	7%	8
Single-Family	139	40%	20%	24
Utility Easement	0	0%	0%	0
Industrial	1.5	0.4%	0.2%	0
Right of Way	70	20%	10%	12
Total for Developed Areas	352	100%	50%	62
Agricultural, Forest, other Open Space	354		50%	62
Citywide Total	706		100%	124

Source: GrantWorks, Inc. Field Survey, 2010

Single-family Residential Land Use: This category comprises approximately 40% (139 acres) of the City's developed land. There are an additional 120 acres of residential land use in the ETJ. Single-family residential uses include detached

and semi-detached housing units designed to accommodate one household as well as mobile homes and manufactured housing. Most single family homes are located in residential neighborhoods, but some are interspersed with commercial properties along the state highways.

Multifamily Residential Land Use: At the time this plan was written, there were no multifamily complexes located within the City or ETJ.

Commercial Land Use: Lone Oak contains 24 acres of commercial development (7% of developed land) within its corporate boundaries, and the ETJ contains an additional 5 acres. Within the city limits, most commercial development is located along US Hwy 69 with some businesses located in residential neighborhoods.

Industrial Use: Industrial land uses are the most common source of noise, air, water and other point source pollution. Warehouse/industrial land uses comprise 1.5 acres (0.4%) of developed land within Lone Oak. The only industrial site in the city limits is located along Church St/U.S. 69 in the southern part of the city.

Institutional Land Uses: Institutional land includes areas occupied by schools, churches, hospitals, nursing homes, and similar institutions. This land use type occupies approximately 63 acres, accounting for 18% of the City's developed land. Most of the institutional uses in Lone Oak are schools and churches.

Parks and Recreation Land Use: There are no public parks or recreational sites within the city limits. Lone Oak ISD has several outdoor recreational facilities, including a track, football field, basketball and tennis courts, but these facilities are not always available to the public. More information on park facilities can be found in Chapter 10 of this plan (*Recreation and Open Space Study*).

Public Land Use: Public facilities in Lone Oak include the city hall, public library, fire department, and city storage. In total, they occupy 8 acres (2%) of developed land within the city limits.

Major Transportation and Rights-of-way: Streets, easements, and transportation rights-of-way comprise 70 acres (20%) of developed land in Lone Oak. Although the visibly developed portions of most transportation easements cover less than the total allocated area, all land within the easement retains the distinction of a “developed” landscape.

Semi-Developed or Vacant: Approximately 47 acres (13%) of developed land within the corporate boundaries of Lone Oak are semi-developed. Semi-developed areas include vacant, subdivided land of less than 10 acres that are accessible via existing roadways and reasonably proximate to existing water/sewer infrastructure. Semi-developed areas also include land where surrounding development densities make agricultural uses less practical and where residential and other development remains likely.

Agricultural, and other Open Space Land Uses

The remaining 354 acres of Lone Oak is undeveloped open space or agricultural land and makes up 50% of total land in the city. The ETJ contains an additional 1,867 acres of open space or agricultural land, which represents 89% of total land in the ETJ. Although future development typically occurs in semi-developed areas, new subdivision and growth can and does utilize agricultural and undeveloped areas. The agricultural land and open space in the city and ETJ offers ample room for future development.

4. 3 Development Considerations

The future layout of the city depends on a variety of known or assumable development considerations. These include:

- population growth;

- physical limitations: public utilities, thoroughfares, and other facilities, flooding and drainage constraints;
- governmental constraints: political character of the ETJ, regulations and zoning;
- recommended “best planning practices”; and
- land use goals and objectives established by the community

This discussion of development considerations brings together the background information necessary to compose the *Future Land Use Map* (Map 4B).

Occupied Dwellings and Future Population: Lone Oak’s population is expected to grow approximately 13% over the next decade (see *Chapter 2: Population Analysis*). This number may need to be revised in the future depending on different factors, such as change in the local and regional economy or a change in the community’s amenities. The population increase may result in the transition from semi-developed to residential land use.

Major Thoroughfares: U.S. Highway 69 is the City’s largest and busiest transportation corridor. It links the City of Lone Oak to Greenville, the County seat, and extends to Interstate 30. U.S. 69 also provides access to the City of Point to the south of Lone Oak. Additionally, F.M. 513 links the city to State Highway 276, providing access to Lake Tawakoni and the Cities of East Tawakoni and West Tawakoni south of Lone Oak.

Soils: Lone Oak and its ETJ are built on eight soil types: Bazette, Crockett, Ferris, Ferris-Heiden, Hopco, Kaufman, Leson, and Wilson. *Table 4C* contains a summary of the characteristics of soils within the City limits with relation to development.

In *Table 4C*, “Hydrologic Group” refers to the capacity of the soil to permit infiltration, excluding the effects of vegetation and slope. Group A soils have high

infiltration and low runoff potential while Group D soils have slow infiltration and high runoff potential. Construction on Group A and B soils generally does not require runoff mitigation such as retention ponds. Construction on Group C and D soils can be treated on a case by case basis if under 5 acres, while projects larger than 5 acres will generally require mitigation measures.

Table 4C also includes select building limitations. The National Resource Conservation Service has conducted soil surveys and determined the suitability of each soil type for different kinds of construction. As described by the NRCS⁶, "Not limited" indicates that the soil can be used for the purpose with few modifications. "Somewhat" indicates that limitations can be minimized by special planning, design, or installation. "Very" indicates that limitations cannot be overcome without major soil reclamation, special design, or expensive installation.

Table 4C: Soil Characteristics

	Hydrologic Group	Building Limitations						Acreage in City
		Dwellings w/out Basements; Small Commercial Buildings	Dwellings with Basements	Local roads and streets	Sewage Lagoons	Septic Tank Fields		
Bazette clay loam, 5 to 12% slopes	C	Very: shrink-swell, slope	Very: shrink-swell, slope	Very: low strength, shrink-swell, slope	Very: slope	Very: slow water movement, slope	0	
Crockett loam, 1 to 3% slopes	D	Very: shrink-swell	Very: shrink-swell	Very: low strength, shrink-swell	Not limited	Very: slow water movement	250	
Crockett loam, 2 to 5% slopes, eroded	D	Very: shrink-swell	Very: shrink-swell	Very: low strength, shrink-swell	Somewhat: slope	Very: slow water movement	50	
Ferris clay, 5 to 12% slopes, eroded	D	Very: shrink-swell, slope	Very: shrink-swell, slope	Very: low strength, shrink-swell, slope	Very: slope	Very: slow water movement, slope	16	
Ferris-Heiden complex, 2 to 5% slopes, eroded	D	Very: shrink-swell	Very: shrink-swell	Very: low strength, shrink-swell	Somewhat: slope	Very: slow water movement	55	

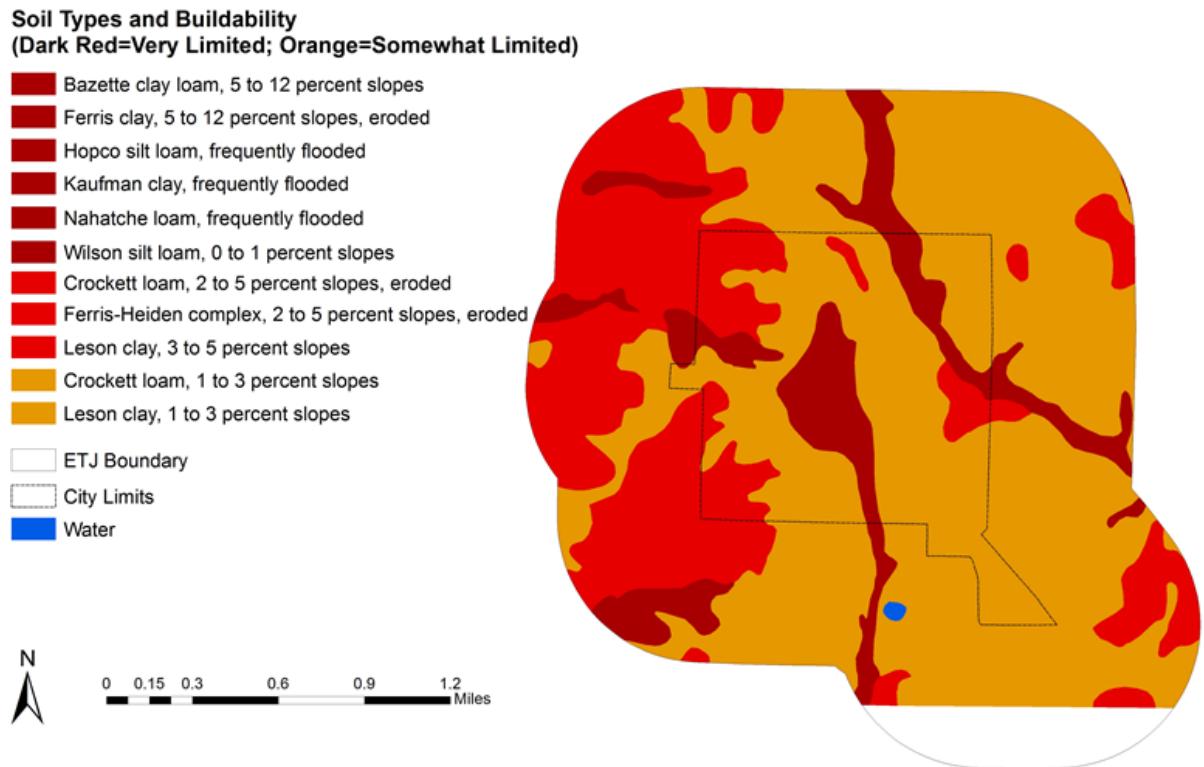
⁶ <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Hopco silt loam, frequently flooded	C	Very: flooding, shrink-swell	Very: flooding, depth to saturated zone, shrink-swell	Very: low strength, shrink-swell, flooding	Very: flooding, depth to saturated zone	Very: flooding, depth to saturated zone, slow water movement	1
Kaufman clay, frequently flooded	D	Very: flooding, shrink-swell	Very: flooding, shrink-swell	Very: low strength, shrink-swell, flooding	Very: flooding	Very: flooding, slow water movement	0
Leson clay, 1 to 3% slopes	D	Very: shrink-swell	Very: shrink-swell	Very: low strength, shrink-swell	Not limited	Very: slow water movement	58
Wilson silt loam, 0 to 1% slopes	D	Very: shrink-swell	Very: shrink-swell	Very: low strength, shrink-swell	Not limited	Very: slow water movement	81

Source: NRCS soil surveys for Hunt County accessed at <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Figure 4B shows the location of each soil type. Most of the soils in the city are very limited in terms of difficulty and expense of construction. Increasingly dark shades of red indicate increasing limitations. Many parts of the City have been developed despite challenging soil conditions. Because soil can vary widely between city parcels, boring and testing to check for presence of springs or other impediments should always be required prior to construction.

Figure 4A: Soil Types in the City Limits and the ETJ



Public Utilities: All city residents have access to water and wastewater services and paved streets. Water is supplied by Cash SUD. The City recently rehabilitated its wastewater system through a TXCDBG grant. The project included the installation of sewer lines, and also rehabilitated an existing lift station. Another recent project funded by TXCDBG provided the replacement of deteriorating water lines and also included the addition of new fire hydrants.

Public Services and Facilities: Lone Oak public services include a municipal court, public works department, sheriff's department, public library, and fire department. The city does not have a public park. Many residents make use of Lone Oak ISD's facilities, or travel to neighboring cities to participate in a range of recreational activities.

Flood Hazard: As discussed in Chapter 7 (*Storm Drainage System Study*), the City of Lone Oak has fairly flat terrain, with a maximum elevation near 570 feet in the area east of U.S. 69 in the northern city limits to around 520 feet along a stream in the west. Within the ETJ, elevation drops to 490 feet in a flood plain to the west of the city limits. Most buildings are located on an axis running north and south east of U.S. 69 and are between 550 and 570 feet above sea level. Storm drainage flows to either side of this axis, ultimately ending up in Lake Tawakoni to the southwest and Lake Fork Reservoir to the south east of the city.

The City of Lone Oak currently does not participate in the NFIP. However, it did participate in a preliminary flood insurance study in 2009. As of the time this plan was written, the City has not yet decided whether it will participate. Because of the City's extensive drainage problems, and location in floodplains, it is recommended that the City become a participant. Appendix 7A and 7B in *Chapter 7: Storm Drainage System Study* contains more details on the National Flood Insurance Program.

ETJ: The ETJ extends one-half mile from the City's corporate limits and includes approximately 2,099 acres; almost three times the size of the total area of the city. Approximately 1,867 acres (89%) of the ETJ consists of agricultural or other undeveloped land. The remaining land uses in the ETJ consist of 120 acres of single family development (6% of total land), 71 acres of right of way (3.4%), 18 acres of semi-developed land (1%), and 5 acres of recreational use (0.25%).

Subdivision Regulations and Zoning: State statutes require a subdivision plat and basic provision of utilities when the owner of a tract of land under county jurisdiction divides the tract in two or more parts, but the State does not similarly regulate development within a City. Therefore, if a City does not have other guarantees in place to ensure minimum provision of services in unplatted areas, residents should consider adopting a subdivision ordinance.

Subdivision is a tool used by communities to promote the “health, safety, morals, or general welfare of the municipality and the safe, orderly, and healthful development of the municipality.”⁷ Subdivision regulations can be used to implement plans for orderly growth and development within the municipality’s boundaries and extraterritorial jurisdiction (ETJ); require compliance with certain lot and development standards; ensure adequate public facilities such as streets, parks, water, wastewater and other facilities indispensable to the community; protect future purchasers from inadequate police and fire protection; and insure sanitary conditions and other governmental services.⁸ A city may not control use, heights, bulk, or number of buildings or residential units on property within the ETJ. Ideally, subdivision regulations, like other City ordinances, protect the residents and help guide development without inflicting unnecessary restrictions upon developers. A recommended Subdivision Ordinance is included in Chapter 13 of this plan.

Lone Oak has adopted a zoning code. Proposed revisions and updates to the City’s zoning code can be found in Chapter 12 of this plan.

Physical Form and Design: The City of Lone Oak, located in southeastern Hunt County, is situated at the crossroads of US Highway 69 and Farm roads 513 and 1567, ten miles southeast of Greenville. The central business district extends along SH 69. The Town Square was once a gathering place for the community, and today many of the local businesses are located in the square’s vicinity. Commercial, residential, semi-developed, and institutional land uses line much of each of these thoroughfares throughout the city.

The physical design of the City relates to how individual lots are developed. Physical design considerations include, among others, lot line setbacks, parking location, and building material. The City can encourage development that is

⁷ Texas Local Government Code, Chapter 212.002: Rules

⁸ As stated in *Lacy v. Hoff*, 633 S.W.2d 605, 607-08 (Tex.Civ.App.-Houston [14th Dist.] 1982, writ ref'd n.r.e.), and paraphrased in “Current Issues in Subdivision Annexation and Zoning Law,” Brown & Hofmeister, L.L.P. www.bhllaw.net.

aesthetically attractive and progresses the community's economic development goals through discussion with developers and by providing economic incentives. A number of non-profit groups are working with cities, developers, and individuals throughout the country to promote energetic, livable cities through design. These include the USDA Office of Sustainable Development (www.usda.gov), the Congress for New Urbanism (<http://www.cnu.org/>), the Urban Land Institute (www.ulic.org) and Smart Growth Online (<http://www.smartgrowth.org/>).

4.4 Future Land Use Goals and Objectives

This statement of future land use goals and objectives for Lone Oak is not official City law; rather, it is a policy meant to guide the City toward a future vision for the community.

Good planning encourages development within the City limits on lots already provided with water and sewer infrastructure before development of more distant areas. This "infill development" saves a city infrastructure costs, encourages an orderly development pattern, and increases a city's sense of place.

It is prudent to attempt to guide development in the ETJ to plan effectively for the future extension of public services and infrastructure improvements and to encourage high-quality developments that the City can sustain. The adoption of the proposed subdivision regulations should help regulate and guarantee the high quality of any development in the City's ETJ.

In surveys, interviews and workshops, City residents envision Lone Oak as continuing to be a quiet residential place that attracts newcomers. However, they want to enhance resident quality of life by the City's provision of quality streets and water and sewer services; and by increasing places for residents to congregate like parks and trails. They also need more businesses to allow residents to shop locally for basic necessities, and to also increase local job opportunities.

Goal 1: Vibrant, healthy residential neighborhoods surrounding good city services and businesses.

Objective 1.1: Over the planning period, infill lots are developed before farmland and open space. Encourage commercial infill development in semi-developed lots along U.S. Highway 69, and promote residential infill development in semi-developed lots located throughout the city's existing neighborhoods.

Policy 1.1.1: The City should work with residents and developers to encourage development on semi-developed lots by acting as an educator about development patterns and a mediator in disputes.

Policy 1.1.2: The City should require developers who choose to develop agricultural /open land to build the infrastructure to serve the development.

Policy 1.1.3: The City should provide incentives such as expedited permitting or reduced fees to developers who build in infill lots.

Objective 1.2: Over the planning period, public services and facilities keep pace with new development.

Policy 1.2.1: The City should adopt recommended subdivision ordinance standards (Chapter 13) for streets, parks, and storm drainage.

Policy 1.2.2: The City should set up a fund to provide for future construction of facilities such as parks and recreational facilities.

Policy 1.2.3: The City should require developers to help fund proportionate shares of the services and facilities needed to serve new developments through the passage of impact fees and regulations that require the adequate provision of water, sewer, street, and drainage services to new development.

Objective 1.3: By 2013, ensure all future development maintains compatibility with existing land uses.

Policy 1.3.1: Enforce City's Zoning Ordinance and adopt proposed changes (See Chapter 12).

Goal 2: Enhanced physical appearance and amenities that will appeal to new businesses, residents, and tourists.

Objective 2.1: Over the planning period, new and existing development in Lone Oak reflects a strong sense of place.

Policy 2.1.1: Preserve character in downtown area. Encourage business owners to beautify pedestrian area by providing benches and landscaping.

Policy 2.1.2: Hold meetings with businesses and land owners to develop consensus on voluntary design guidelines that contribute to the community's character and identity.

Objective 2.2: Over the planning period, City infrastructure is updated to meet current and future needs.

Policy 2.2.1: See *Chapter 5: Water System Study, Chapter 6: Wastewater System Study, Chapter 7: Storm Drainage System Study, Chapter 8: Street System Study, Chapter 10: Recreation and Open Space Study, and Chapter 11: Capital Improvements Program*. Phased improvements should be used as a guideline to rehabilitate infrastructure.

4.5 Future Land Use Map

The graphic representation on the Future Land Use Plan map is intended to help the City's elected and appointed officials and residents visualize the desired future land development pattern in the community. It represents possible future needs based on the population, housing, and other analyses in the City of Lone Oak Comprehensive Plan. The map is not a rigid, parcel-specific mandate for how land shall be developed. The Future Land Use Map should be made accessible to residents and developers and serve as the basis for discussion about land development.

Map 4B Future Land Use 2031, the future land use plan, and *Tables 4D and 4E* illustrate the City's likely development pattern in 2031. It is expected that over the planning period, several easily buildable semi-developed properties within the City and ETJ will be developed.

A small proposed neighborhood park has been located on E. Cedar St. and FM 1567 to serve the surrounding community. Additionally, a potential site for the proposed community center has been located on the corner of St. John's St. and Beard St. The proposed community center site could be developed if there are no suitable existing vacant commercial buildings that could be used instead. Additional commercial and industrial sites have been added to the U.S. 69 corridor, and future single family lots have been identified throughout the city limits. The city's future land use also includes a proposed multifamily site on the corner of Church St. and FM 1567. The tables below describe the likely allocation of land uses in Lone Oak in 2031.

Table 4D: Extent of Future Land Uses, Lone Oak, 2031

City Land Use Classification	Acres	% DEV	% TOTAL	Acres/100
Commercial	28	8%	4%	5
Institutional	66	19%	9%	11
Multifamily	1	0.2%	0.1%	0.1
Public Use	9	3%	1%	2
Recreational	1.3	0%	0.2%	0
Semi-Developed	20	6%	3%	3
Single-Family	156	44%	22%	26
Utility Easement	0	0%	0%	0
Warehouse / Industrial	3	1%	0.4%	0
Right of Way	69	20%	10%	12
Total for Developed Areas	352	100%	50%	59
Agricultural, Forest, other Open Space	354		50%	59
Citywide Total	706		100%	118

Table 4E: Extent of Future Land Uses, Lone Oak and ETJ, 2031

Regional Land Use Classification	Acres	% DEV	% TOTAL	Acres/100
Commercial	33	6%	1%	5
Institutional	69	12%	2%	12
Multifamily	1	0.1%	0.02%	0
Public Use	16	3%	0.6%	3
Recreational	6	1%	0.2%	1
Semi-Developed	38	7%	1%	6
Single-Family	276	47%	10%	46
Utility Easement	0	0%	0%	0
Warehouse / Industrial	5	1%	0.2%	1
Right of Way	140	24%	5%	23
Total for Developed Areas	584	100%	21%	98
Agricultural, Forest, other Open Space	2,221		79%	371
Regional Total	2,805		100%	469

5 Water System Study

5.1 Review of Prior Studies and Existing Data

The City of Lone Oak operates and maintains its water distribution system. The City purchases its water supply from Cash SUD WSC. Cash SUD treats the water before it is pumped into Lone Oak's water storage and distribution system. Cash SUD receives its water from two different sources. The first source is surface water from Lake Tawakoni, which the utility district treats through its own treatment plant. The water supplied to Lone Oak originates from this source. The second source of Cash SUD's water is purchased from the North Texas Municipal Water District, which receives its water from Lake Lavon. The most recent TCEQ investigation report rates the system's water quality as acceptable.

Several incremental projects have replaced the original cast iron pipes with PVC in locations throughout the City. The following is a list of the most projects funded through TDRA:

- 2009-2010(TxCDBG)-Water system improvements including the replacement of 4" and 6' cast iron water lines with 8" PVC. Project will also include installation of new fire hydrants. The project will take place on McBride St. from FM 513/1571 to Main St. and Main St. from McBride St. to Gladys St.
- 2002-2004-(STEP)-Water system improvements replaced undersized lines to improve water pressure and water quality. Project included the installation of approximately 10,300' of 6" line, 1,200' of 2" line, 5 fire hydrants, and 20 service reconnections.

The City does not have any prior water system studies.

The following sections provide an inventory of the major components of the City's water system in 2010, identify potential problems that should be addressed, and

provide a prioritized summary of the needed improvements and their estimated costs.

5. 2 Water System Inventory

Tables 5A and 5B show the inventory and locations of the City's water system.

Table 5A: Major Water System Components

Component	Location	Capacity or Size
Elevated Storage Tank	Behind City Hall	50,000 gal.
Ground Storage Tank	113 Olive Street	125,000 gal.

Table 5B: Water Distribution System Components

Component	Linear Feet (LF)	Component	# Of Units
1 inch line	659	Gate Valves	76
1 1/2 inch line	657	Fire Hydrants	45
2 inch line	12,010	Service connections	311
2 1/2 inch line	10,180		
4 inch line	5,150		
6 inch line	27,567		
8 inch line	12,230		

5. 3 Water System Analysis

Standards and Criteria. The Texas Commission of Environmental Quality (TCEQ), the American Water Works Association (AWWA), and the U.S. Environmental Protection Agency (EPA) have established regulations and standards for the safe treatment, storage, and distribution of potable water to the public. All Public Water Supply (PWS) systems operating within the State of Texas must adhere to these regulations and standards. TCEQ has adopted the following engineering standards that apply to the minimum production and supply capacities for public water systems:

Table 5C: Minimum Water System Standards

FACILITY OR MEASURE (Based on 300 Active Connections)	TCEQ / Engineering Standard	CITY
Well & Surface Water Capacity (gpm/connection)	0.6	0.83
Total Storage – TCEQ (gal/connection)	200	583
Elevated Storage (gal/connection)	100	166
Service Pump (GPM/Connection)	2.0	2.73***
Normal Operating Pressure (psi)	35	36
“C” Certified Operators*	1	1*
Minimum Main Size**	2"	1"**

Sources: TCEQ and Texas State Data Center Population Estimates for 2009 and plan fieldwork

*Depends on system type and size, according to TCEQ 30 TAC 290, Subchapter D: Rules and Regulations for Public Water Systems, Section 290.46

** According to TCEQ 30 TAC 290, Subchapter D: Rules and Regulations for Public Water Systems, no new waterline under two inches in diameter will be allowed to be installed in a public water system distribution system. These minimum line sizes do not apply to individual customer service lines.

*** Calculated using TCEQ Water Utility Database information indicating a total of 300 connections to the system and using the full production capacity of the pumps.

Table 5C indicates that the City of Lone Oak is operating in accordance with the established standards for minimum production and supply capacities.

Water Supply: The water supply for Lone Oak is purchased from the Cash SUD. TCEQ rates the water quality as acceptable.

The City's contract with Cash SUD allows for 15 million gallons per month to be delivered, which is well in excess of the 2.7 million gallons per month pumped during the 2007-2008 fiscal year. However, this amount equates to 250 gallons

per minute (GPM), which is just barely sufficient to meet the standards described above.

Water Storage: For water systems with 250-500 connections, The Texas Administrative Code, Title 30, Chapter 290, Subchapter D, Sections 290.45(b)(1) (D)(ii) and 290.45(b)(1) (D)(iv) mandates that the systems have: a) 200 gallons of total storage per connection; and, b) 100 gallons of elevated storage per connection or a pressure tank capacity of 20 gallons per connection. The City has 300 connections and meets the TCEQ standard with 583 gallons of total storage capacity per connection and 166 gallons per connection of elevated storage.

Treated surface water is purchased from Cash SUD WSC. The water is conveyed to the City's ground storage tank. Though the water is treated, the City's water system has the capability of re-treating the water with gas chlorine should it be necessary. After the ground storage tank, the distribution system employs three (3) high service pumps and an elevated storage tank that "floats" on the system. These last two components provide the pressure for the distribution system. Recent TCEQ Comprehensive Compliance Investigation (CCI) Reports indicate that the elevated storage tank is in need of minor maintenance and/or repair.

Water Distribution System: Composed of approximately 74,970 linear feet (LF) of transmission and distribution lines, water system pipes in the City of Lone Oak range in size from 1" to 8" in diameter. The City utilizes its general fund and State grant to fund the replacement of malfunctioning lines. City staff estimates that no more than 1% of substandard lines are replaced annually.

Approximately 2 percent of the system is composed of lines less than 2" in diameter. Undersized water lines do not provide adequate volume and limit pressure at the connection. The Texas Administrative Code Subchapter D,

Section 290.44(c) prohibits the installation of new water lines smaller than 2" and allows more than ten (10) connections on existing 2" or smaller size water mains only when the licensed professional engineer deems it necessary. There are a few sections of 2" diameter pipe in the distribution system. The longest section of 2" line goes south along U.S. Hwy 69 and extends approximately 1.5 miles outside of the ETJ.

System Water Pressure: The City's 50,000 gallon elevated storage tank provides the system with a working pressure of approximately 36 psi according to recent TCEQ Comprehensive Compliance Investigation (CCI) Reports. This is high enough to operate the system effectively. City staff noted that there are no pressure problems with the system.

Future Development Considerations: The City of Lone Oak is projected to experience some degree of growth during this planning period. The Texas Administrative Code (TAC) Title 30, Chapter 291 states the when a water utility reaches 85% of its minimum capacity requirements it must submit to the TCEQ Director a planning report indicating how the utility plans to expand its capacity in order to meet future demands. According to the information contained in Table 5C and based on the current estimate of +/- 300 active connections, the City's system will support the number of new connections as shown below, before reaching the 85% threshold:

Measure	Required	Provided	# New Connections
Well Production	0.6	0.833	54
Total Storage	200	583	443
Elevated Storage	100	166	125
Service Pump Capacity	2.0	2.73	61

The information shown above indicates that the most restrictive elements in the City's water system is the water production and service pump capacities with

regard to the capacity for future growth. In the City of Lone Oak's case, the water production limits are a function of the maximum purchase rate now under contract. The data shown above indicates that the current system configuration could accommodate approximately 54 additional connections before reaching 85% of its current water production capacity and 61 new connections before reaching 85% of its service pump capacity. The system may or may not have adequate capacity to accommodate the anticipated growth during this planning period.

Fire Protection Considerations: When determining water system needs, one consideration is whether the system allows fire protection to be delivered adequately. Fire departments perform individual hydrant flow tests to determine if adequate pressure and flow rates are available at specified hydrant locations. While testing every hydrant is outside the scope of this study, general guidelines can give the City some preliminary information on water system needs that would assist in fire protection. In addition, when any major new subdivision construction is considered, a computer generated water system model should be developed by the consulting engineer to determine how the additional fire flow demands may affect the existing systems capacity to meet minimum fire flow requirements.

The standard for fire protection is whether hydrants can provide adequate flow as set forth in the International Fire Code. The code also sets minimum requirements for hydrant spacing, flow capacity and construction. Generally speaking:

- 1) Every building in a community should be located no more than 500' from a fire hydrant; and
- 2) All fire hydrants should be installed on water mains no smaller than 6" in diameter.

The majority of homes are within 500 feet of a hydrant connected to a water main at least 6" in diameter. Within the City limits, 257 homes (96%) meet the spacing

standard. Within the ETJ, 18 homes (20%) meet the spacing requirement. The majority of the hydrants are connected to lines at least 6" in diameter. There are no operable fire hydrants currently located in the vicinity of the schools in the southeast portion of the City. This means that there is not sufficient fire-fighting capacity in this critical area. Furthermore, City-owned fire hydrants are not located near 73 homes in the ETJ, raising concerns about fire protection on the outskirts of the city.

System Operations. TCEQ requires that properly trained and certified operators run public water systems. The City employs one Class A certified operator.

Table 5D below shows the City's water rates for residential and commercial use. Customers in the ETJ pay the same rates as customers living in the city limits.

Table 5D: Lone Oak Water Rates

Gallons Used	Rate
2,000 gallons	Base Rate-\$35.81
(+3,000) up to 5,000 gallons	\$5.70 per 1,000 gallons
(+3,000) up to 8,000 gallons	\$6.00 per 1,000 gallons
(+17,000) up to 25,000 gallons	\$7.00 per 1,000 gallons
Over 25,000 gallons	\$8.00 per 1,000 gallons

Table 5E below contains information about the revenues and expenditures of the water utility department of the City of Lone Oak. The information is intended to give the City an indication of whether or not the City water rates are set at a level sufficient to support the operation and maintenance of the water supply and distribution system without placing an undue burden on the ratepayers or customers. The revenue information is obtained directly from billing information provided by the City.

Table 5E: Water Costs to City, Customers

Total Water Produced (sold to City by Cash SUD)	18,644,000
Total Annual Water Consumption	17,444,000
Estimated Water System Losses	1,200,000
Gross Annual Water Cost to City	\$213,100
Gross Average annual Cost per 1,000 Gallons	\$11.43
Gross Average Annual Cost per Customer	\$685.21
Gross Ave. Annual Water Revenues	\$225,073.00
Gross Ave. Annual Water Revenues per 1,000 Gallons	\$12.90
Gross Average Annual Revenue Per Customer	\$723.71
Gross Average Monthly Revenue Per Customer	\$60.31
Gross Average Monthly Usage Per Customer	4,674
Ave Monthly Cost to Customer for 1,000 gallons	\$12.90
Gross City Cost to Produce 1,000 gallons	\$12.22

Based on estimates of the gross annual cost to provide the city's water, the cost to residents within the corporate city limits is in line with the water production cost to the City of Lone Oak Water Utility. *Table 5E* above also notes that the distribution system experienced 1.2 million gallons of lost water in the last calendar year. This equates to an average water loss percentage of just over 6.4% of the total water purchased for the same period. Acceptable levels of water loss typically range from 6%-15% of total water produced or pumped.

Broken lines, meter leakage, and valve leakage are typically the leading causes of water loss. City staff indicates that leaks and faulty meters are the main causes of water loss. The City's unbilled customers include the city hall, fire department, and pavilion. Estimates for approved unbilled water usage are approximately 1,500-1,800 gallons per month. City staff estimates that approximately 100,000 gallons of water is lost per month due to leaks. Further investigations are needed to reduce the annual water loss and production costs.

Regional and Drought Planning: In 1999, the 75th Texas Legislature passed Senate Bill 1 requiring all public water suppliers to develop drought contingency plans to be implemented during periods of water shortages and drought. A

drought contingency plan combines strategies to achieve lasting, long-term improvements in water use efficiency with response measures aimed at avoiding, minimizing, or mitigating the risks and impacts of drought-related water shortages and other emergencies. The plan adopted by a water provider should ensure its capability of providing water under drought conditions. Cash SUD has adopted water conservation and drought plans, which can be found on their website at <http://cashwater.org/conservation.htm>.

The Lone Oak Comprehensive Plan places a high priority on a program of replacing old and undersized system lines to assist the region in meeting its projected water demand shortages.

Texas water law requires that new Regional and State Water Plans be prepared every five years. Lone Oak and its water supplier, Cash SUD, are in Region D (North East Texas).

The North East Texas Regional Plan states that Cash SUD will have a water deficit of 1,015 acre-feet per year beginning around 2050, and the deficit is projected to increase to 4,546 acre-feet per year by the year 2060. Cash SUD will need a contract increase in order to address its projected water supply deficit. Ordinarily, Cash SUD would request an increase from the Sabine River Authority (SRA), but the SRA has already allocated all of Lake Tawakoni and Lake Fork water to its existing customers. The SRA is proposing to transfer water from Toledo Bend Reservoir to meet its customers' needs. Water from the Toledo Bend Reservoir will be used to meet the needs of Cash SUD in 2050 and 2060.

Several strategies for meeting Cash SUD's water deficit were considered. Advanced water conservation was not considered because per capita use is less than 140 gpcd. Water reuse will not be a strategy because there are no significant water needs by Cash SUD that could be met by reuse. The use of groundwater will not be a strategy because of its inadequacy in quantity and

quality for the size of the needed supply. Therefore, surface water was chosen as an alternative source.

Prioritized Problems: City residents, staff, and consulting engineers have identified the following major areas of concern with regard to the water system:

- 1) A need to replace old, deteriorating, and undersized lines throughout the City;
- 2) A need to rehabilitate the storage facilities;
- 3) A need to find additional supplies and/or alternative supplies of treated water;
- 4) A need to provide additional fire hydrants in critical areas of the City.

Goals and Objectives for the Water System

Goal 1: A water system that operates using the most efficient and cost-effective methods.

Objective 1.1: By 2021, operating costs will be reduced by at least 15%.

Policy 1.1.1: Provide preventative maintenance of all facilities. All facilities shall be inspected once per year.

Policy 1.1.2: Negotiate with Cash SUD to address rates for water purchases.

Policy 1.1.3: Replace faulty, aging water meters.

Policy 1.1.4: Hire an engineering firm to create a water audit and propose implementation actions to reduce water loss.

Goal 2: City and area residents have clean, safe, potable water.

Objective 2.1: Over the planning period, deteriorated lines and other facilities are replaced or rehabilitated.

Policy 2.1.1: Continue maintaining and inspecting the existing system facilities according to a regular schedule and providing repairs as the need arises.

Policy 2.1.2: In phases throughout the planning period, replace deteriorated and undersized lines with PVC Lines.

Goal 3: Customers have access to a sustainable water supply that provides sufficient pressure and fire protection, particularly in times of drought.

Objective 3.1: Ensure City has adequate water supply by end of planning period.

Policy 3.1.1: Collaborate with Cash SUD to ensure projected water deficit is addressed and ensure alternative sources will be adequate.

Policy 3.1.2: Join/partner with Regional Water Planning Groups to identify ways to preserve regional water sources.

Objective 3.2: By 2031, upgrade the system to ensure adequate pressure and coverage for fire safety.

Policy 3.2.1: Replace undersized lines over the planning period, with priority given to those that serve 10 or more connections.

Policy 3.2.2: Install fire hydrants in areas with inadequate fire protection coverage.

5.4 Water Supply and Distribution System Plan

Proposed System Improvements – Planning Period 2011-2031:

The following section describes a series of proposed improvements to the existing water treatment, storage, and distribution system. The improvement projects are presented as phased improvements that are suggested for implementation over the 20-year planning period encompassed by this Comprehensive Plan.

As mentioned in the opening section, a recent Texas STEP (Small Town Environmental Program) grant has facilitated the replacement of approximately

10,300 LF of 6" water lines throughout the City. At this time, no accurate information is available as to the exact locations of those line replacements. Therefore, this plan assumes that the lines that are designated to be of 6" diameter and are listed as PVC material are the recent line replacements and are not considered for replacement during this planning period.

The projects are listed in a sequence that represents just one of several possible approaches, all of which should lead to the achievement of the long-term goals adopted by the City of Lone Oak for the operation and maintenance of the water treatment, storage and distribution system. The sequence shown in this plan is a logical, step-by-step process intended to increase the safety, efficiency, and economy of the water system operations. The sequence is intended only as a suggested program of phased improvements, and alternative sequences are recommended if funding availability requires significant changes.

Table 5F contains the estimated projected costs for each phase of the improvements program. These costs are based on current costs of record for similar projects in the same geographical area of the state. Every effort has been made to include appropriate cost factors such as inflation, variations in the market, and advances in water treatment, storage, and distribution technology. These cost estimates are predicated on several assumptions related to the scope of each phase. These assumptions are as follows:

- The choice of specific lines to be replaced within each area – The cost estimates assume that all lines less than six (6) inches in diameter will be replaced with 6"-8" C-900 DR 18 PVC pipe and fire hydrants at the appropriate spacing. The priority is placed on replacing the smaller lines, but each individual project evaluation may identify segments of larger lines that need replacement. In this event, the funding should be applied to replacing the lines with the greatest need for repair, regardless of size;

- Fire hydrants – Standard fire hydrant assemblies are included in the estimates;
- Service re-connects, valves, and appurtenances – Service re-connects, valves, and appurtenances are estimated at 10%-15% of the line costs;
- Street and Pavement Repair – Streets, driveways, and pavement repair is estimated assuming 10%-20% of the line costs
- Engineering and Surveying – Engineering and surveying services are estimated at 15% of the estimated construction costs of the combined elements as described above.

The suggested phases for the system improvements are as follows:

1. Phase 1 – 2010-2012: Continue to implement the current TCDBG Contract # 710411 for various line replacements and system improvements;
2. Phase 2 – 2012-2016: Obtain funding to replace old, deteriorating, and undersized lines in the central portion of the City. Project will include approximately 6,500 LF of 6"-8" C-900 PVC water line, six (6) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services;
3. Phase 3 – 2016-2020: Obtain funding to replace old, deteriorating, and undersized lines in the south-central portion of the City. Project will include approximately 2,750 LF of 6"-8" C-900 PVC water line, four (4) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services. Project should also include the rehabilitation/replacement of the existing EST;
4. Phase 4 – 2020-2025: Obtain funding to replace old, deteriorating, and undersized lines in the northern portion of the City. Project will include approximately 7,600 LF of 6"-8" C-900 PVC water line, five (5) fire

hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services. Project should also extend service from the existing 8" water line in the southeast of the City out to the high school area;

5. Phase 5 – 2025-2031: Obtain funding to replace old, deteriorating, and undersized lines in the southern portion of the City. Project will loop waterlines in the vicinity of the school property and extend service along the northeast side of US Highway 69. Project will include approximately 4,600 LF of 6"-8" C-900 PVC water line, eight (8) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services.

The City strives to provide a safe, efficient, and uninterrupted water supply while meeting all applicable water system standards. These goals can be accomplished by implementing the improvements described above over the planning period of 2011 through 2031. The estimated costs for the proposed improvements to the water system are as follows:

Table 5F: Water System Improvement Plan Projects, 2011-2031

Project ID/Phase	Year	Project	Estimated Cost	Source*
1	2011-2012	Continue to implement the current TCDBG Contract # 710411 for various line replacements and system improvements.	\$367,500	TxCDBG
2	2012-2016	Replace old, deteriorating, and undersized lines in the central portion of the City. Project will include approximately 6,500 LF of 6"-8" C-900 PVC water line, six (6) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services.	\$284,950	TxCDBG, GEN (General Obligation Bond), USDA, TWDB loan, UTILITY (Rev Bond)

3	2016-2020	Replace old, deteriorating, and undersized lines in the south-central portion of the City. Project will include approximately 2,750 LF of 6"-8" C-900 PVC water line, four (4) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services. Project should also include the rehabilitation/replacement of the existing EST.	\$374,348	TxCDBG, GEN (General Obligation Bond), USDA, TWDB loan, UTILITY (Rev Bond)
4	2020-2025	Replace old, deteriorating, and undersized lines in the northern portion of the City. Project will include approximately 7,600 LF of 6"-8" C-900 PVC water line, five (5) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services. Project should also extend service from the existing 8" water line in the southeast of the City out to the high school area.	\$441,100	TxCDBG, GEN (General Obligation Bond), USDA, TWDB loan, UTILITY (Rev Bond)
5	2025-2031	Replace old, deteriorating, and undersized lines in the southern portion of the City. Project will loop waterlines in the vicinity of the school property and extend service along the northeast side of US Highway 69. Project will include approximately 4,600 LF of 6"-8" C-900 PVC water line, eight (8) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services.	\$330,100	TxCDBG, GEN (General Obligation Bond), USDA, TWDB loan, UTILITY (Rev Bond)

*Sources: Texas Community Development Block Grant Program (TxCDBG), Texas Water Development Board loan programs (TWDB), US Department of Agriculture water/wastewater infrastructure loans and grants (USDA); City of Lone Oak Water & Sewer Fund (UTILITY); Municipal Funds and general obligation bonds (GEN)

5. 5 Appendix 5A

References:

CCN Regulations

- TCEQ-10362 Application To Obtain or Amend a Water or Sewer CCN

Instructions:

<http://www.tceq.state.tx.us/assets/public/permitting/watersupply/ud/forms/10362ins.pdf>

Application:

<http://www.tceq.state.tx.us/assets/public/permitting/watersupply/ud/forms/10362.pdf>

Information Regarding Public Water Production

- TCEQ – Checklist for Proposed Public Water Supply Well/Spring

<http://www.tceq.texas.gov/assets/public/permitting/watersupply/ud/forms/pubwell.pdf>

Other References Found Online:

- Texas Administrative Code, Title 30 Part 1, Chapter 291, Subchapter G, Utility Regulations, Certificate of Convenience and Necessity

[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=291&sch=G&rl=Y](http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=291&sch=G&rl=Y)

- Texas Local Government Code, Title 13, Subtitle A, Chapter 552, Water and Utilities, Municipal Water and Utilities

<http://www.statutes.legis.state.tx.us/>

6 Wastewater System Study

6.1 Review of Prior Studies and Existing Data

No prior studies have been done on the City of Lone Oak's wastewater collection and treatment system. Major improvements to the City's wastewater system are funded through grants. The following is a list of the most recent improvements funded through TxCDBG:

- 1997-2000-A TxCDBG grant provided funding for improvements to the wastewater treatment plant. The project included the conversion of the stabilization pond to a facultative lagoon, and the installation of a new stabilization pond, piping modifications, bar screen structure, effluent structure, inlet and outlet structures, and 18 manholes.
- 1999-2000-A TxCDBG grant replaced deteriorated sewer system lines and manholes and also provided first-time sewer service to 22 persons through the installation of approximately 4,450' of sewer line, 2 grinder lift stations, approximately 2,700' of force main, and approximately 1,700' of service line. The project also replaced 25 manholes.
- 2007-2009-A TxCDBG grant provided funding to address violations cited in a TCEQ Agreed Order. The project included the installation of approximately 2,982' of 8" sewer line, rehabilitation of the existing lift station on FM 1567 by installing 2 grinder pumps, and 12 service connections.

During the most recent TCEQ investigation report, an alleged violation was issued. The violation cited the failure to prevent unauthorized discharges from the wastewater treatment plant or the collection system. Since the previous investigation, a total of six unauthorized discharges occurred, totaling approximately 268,850 gallons. Four of these events occurred at the wastewater treatment plant. Two of these events occurred simultaneously at the wastewater

plant and Lift Station # 1, and were attributed to inflow/infiltration (I/I). These two events totaled 267,200 gallons.

Additional issues cited include:

- Trash in facultative lagoon and cattails in first oxidation pond
- Several daily average and maximum fecal coliform values were recorded with commas (,), which was translated as decimal points (.). For example, this led to a value of 1,202 to be recorded as 1.202. Fecal coliform daily averages should be reported using the geometric average.
- Flow measurements for November 2009 and the NH3-n daily average and daily max analyses for April 2009 were not completed on the associated Discharge Monitoring Reports.
- The permit issued on February 26, 2010 contains different effluent monitoring requirements than the previous permit. Ensure that these provisions are adhered to and the contract lab is notified of the change in sampling requirements.
- Ensure that all lift stations are equipped with audible alarms. Additionally, the Buffalo Mesa lift station needs a secondary pump to meet the TCEQ requirement.
- The influent channel/grit removal unit should be expanded to prevent overflowing during rain events and cleaned out on a periodic basis.

According to City staff, most of the City of Lone Oak's existing sewage collection system was installed in 1929, and the treatment plant was also originally constructed in the same year.

The system is aging and will require a program of improvements and upgrades in order to keep pace with the physical demands that are placed on the system as well as to maintain compliance with the changing regulatory environment. There have been several grant-funded improvement projects to the City's wastewater system in the past several years.

6.2 Wastewater System Inventory

Sewer Lines: The City's sewer mains are 2" (Pressurized force mains) to 15" (Gravity trunk lines) in diameter. Most of the original collection system was installed in the 1929. The oldest collection lines are composed of VCP, and newer lines are comprised of PVC. The newer PVC lines are reported to be in good condition, while the VCP lines are reported to be in poor condition. City staff reports that many of the older pipes have holes. This can be a primary source of excessive inflow and infiltration. Collection lines that are broken and separated also constitute a hazard to people and the environment.

Over the past several years, the City has been replacing collection mains when funding is available. As previously described, the City has qualified for three separate CDBG grants for collection line replacement, manhole replacement, and first-time sewer service since 1997. The collection lines associated with the system operated by the City of Lone Oak are shown by size, total length, and percentage of the system in *Table 6A*:

Table 6A: Major Sewer System Components

Sewer Lines			
	DIAMETER	LENGTH (ft.)	PERCENT
Force Main			
	2" FM	1,852	4.6%
	3" FM	537	1.3%
	4" FM	1,399	3.5%
Subtotal - Force Main		3,788	9%
	DIAMETER	LENGTH (ft.)	PERCENT
Gravity Feed			
	2"	166	0.4%
	4"	1,242	3.1%
	6"	23,604	58.7%
	8"	8,661	21.5%
	10"	1,713	4.3%
	15"	1,056	2.6%
Sub total - Gravity Feed		36,442	91%
Total Sewer Lines		40,230	100%

Manholes and Cleanouts: There are approximately fifty-nine (59) manholes and twenty-three (23) cleanouts in the collection system. The manholes and cleanouts are distributed throughout the system. For exact locations, see *Map 6A: Existing Sewer System Map*. Approximately 52 manholes have been replaced with CDBG funds over the last thirteen years. The older, deteriorating brick and mortar manholes in the system are a likely cause of inflow and infiltration into the collection system, and the City should continue to replace brick manholes as funding sources are available.

Lift Stations: There are five lift stations operating within the collection system. Little information is known about the lift stations. Lift Station # 1, located on F.M. 1567, was recently rehabilitated through a TxCDBG program grant. The grant included the installation of 2 grinder pumps with a capacity of 40 GPM.

Table 6B: Lift Station Inventory

Lift Stations			
Name	Pump Capacity (gpm)	Year Built	Condition
Lift Station # 1	40	Unknown	Good
Lift Station # 2	Unknown	Unknown	Poor
Lift Station # 3	Unknown	Unknown	Poor
Lift Station # 4	Unknown	Unknown	Unknown
Lift Station # 5	Unknown	Unknown	Unknown

Wastewater Treatment Facility: The City of Lone Oak owns and operates the wastewater treatment plant. The facility is an oxidation pond/facultative lagoon process plant that was initially constructed in 1929. The Permit to Discharge Wastes authorizes the disposal of treated domestic wastewater effluent at a daily average flow not to exceed 60,000 gallons per day (GPD). The City's wastewater permit does not give a 2-hour peak flow limitation.

According to City staff, average daily flows at the facility are an estimated 47,000 GPD. Peak flows at the facility are unknown at this time. City staff does not have an estimate for peak flows during storm events. The most recent TCEQ investigation encountered problems with NH3-N and fecal coliform excursions.

The new permit allows for seasonal NH₃-N limits which will alleviate any ammonia issues that may arise.

Standards and Criteria: The U.S. Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) outline the standards or criteria applicable to the design and operation of municipal wastewater systems. The standards address influent quality, collection, treatment, and effluent quality. The TCEQ guidelines were originally set forth in Title 30 Part 1 Chapter 317 of the Texas Administrative Code "*Design Criteria for Sewerage Systems*". The State of Texas has revised the standards and replaced Chapter 317 with Chapter 217, "*Design Criteria for Domestic Wastewater Systems*" which outlines system design and operations in all respects. EPA requirements mainly relate to discharge limitations and industrial wastewater treatment.

For wastewater treatment facilities, TCEQ provides detailed information concerning design flows and design loadings expected at the treatment facility for the average municipal wastewater effluent stream. Authorized effluent discharge quality limitations are established for each municipality or operator's Permit to Discharge Waste and vary based on local conditions. Typical effluent strength entering the treatment facility should not exceed approximately 200-350 mg/L BOD-5, depending on the characteristics of the influent stream and the source of the wastewater stream. BOD5 and TSS values higher than 200 mg/L would likely be the result of wastewater demand from industrial sources that should be pretreated or eliminated.

The average quantity of wastewater flow set forth by the standards depends on the source. For example, a residential subdivision would have a design flow of 75-100 gallons per capita per day, while a hospital design flow is approximately 200 gallons per capita per day. For another example, the design flow criteria for a facility with expected flows of less than 1.0 MGD establishes the permitted flow as the maximum 30-day average flow. This permitted flow is estimated by multiplying the

average annual flow by a factor of at least 1.5, and dividing that value by 12. When site-specific data is unavailable, the two-hour peak flow must be estimated by multiplying the permitted flow described above by a factor of 4.0.

The criteria for sewage treatment facilities are based on process type and address the individual system components. The design standards take into account design flow, peak flow, influent characteristics, and required discharge quality. The criteria are comprehensive and consider most treatment technologies currently in common use.

When a public sewer system experiences average daily flows in excess of 75% of its permitted capacity for three or more consecutive months TCEQ regulations require that the system owner begin planning for plant expansion or replacement. When average daily flows exceed 85% for three or more consecutive months, TCEQ requires that the owner of the facility begin construction on a new or expanded treatment facility.

Design criteria for collection systems include standards for pipe size, horizontal and vertical spacing, gradient, manhole spacing, lift station connections, and allowable infiltration/inflow. The standards require a minimum diameter of six (6) inches for gravity collection mains. The standards also specify minimum gradients for various pipe sizes that will be required to achieve a flow velocity of at least two (2) feet per second (fps). The grade requirements and pipe size minimums that should be required within the City's system are listed in *Table 6C*.

Table 6C: Sewer Gradient Standards

Main Size (Inches)	1. Fall in feet per 100' of line
6	0.50
8	0.33
10	0.25

12	0.20
----	------

The typical manhole spacing for 6" to 15" main sizes with straight alignment and uniform grades is 500 feet (maximum). Reduced spacing may be necessary based on a system's ability to clean and maintain its sewer with available equipment.

Lift station design criteria establishes general requirements that include, but are not limited to, the following:

1. The raw wastewater pump, with the exception of a grinder pump, must be capable of passing a sphere of 2.5 inches or greater;
2. The raw wastewater pump must have suction and discharge openings of at least 3.0 inches in diameter;
3. The lift station pumping capacity must have a firm pumping capacity equal to or greater than the expected peak flow;
4. For a lift station with more than two (2) pumps, a force main in excess of one-half mile, or firm pumping capacity of 100 GPM or greater, system curves must be provided for both the normal and peak operating conditions at C values for proposed and existing pipe;
5. A collection system lift station must be equipped with a tested quick-connect mechanism or a transfer switch properly sized to connect to a portable generator if not equipped with an onsite generator;
6. Lift stations must include an audiovisual alarm system and the system must transmit all alarm conditions to a continuously monitored location;
7. A lift station must be fully accessible during a 25-year, 24-hour rainfall event;
8. A force main must be a minimum of 4.0 inches in diameter, unless it is used in conjunction with a grinder pump station;
9. For a duplex pump station, the minimum velocity is 3.0 feet per second with one pump in operation;
10. For a pump station with three or more pumps, the minimum velocity is 2.0 feet per second with only the smallest pump in operation;

11. The use of pipe or fittings rated at a working pressure of less than 150 pounds per square inch is prohibited.

6. 3 Wastewater System Analysis

The wastewater system analysis evaluates the system components with respect to the applicable standards and criteria as described in the previous sections.

This analysis will consider the following elements:

- The wastewater treatment facilities;
- Industrial waste and special treatment facilities;
- Collection system conditions;
- Unserved/underserved areas;
- Manhole conditions;
- The characteristics of the soil and terrain affecting the collection facilities;
- Lift station conditions;
- Infiltration/inflow problems;
- Operational procedures.

Wastewater Treatment Facilities:

The City of Lone Oak's wastewater treatment plant is an oxidation pond/facultative lagoon processing plant that was originally constructed in 1929. According to the most recent TCEQ investigation, a new permit was issued on February 26, 2010, and the City is currently operating the plant in the interim phase. When the final phase of the permit is implemented, bacteria should be mostly eliminated with the utilization of chlorine to disinfect. Rerouting the lagoon guard system to receive flow following the final oxidation pond instead of before the pond will allow the system to function as it was originally intended. The new permit allows seasonal NH₃-N limits, which will alleviate any ammonia issues that may arise.

Collection System:

According to City staff, the general condition of the pipes within the collection system is poor. The original lines are VCP, and have holes. Sewer lines of various sizes have been replaced since 1997 through TxCDBG grants. Three separate TxCDBG projects have replaced a total of approximately 11,050 linear feet of lines since 1997.

Inflow and Infiltration (I/I): Inflow and Infiltration (I/I) are terms used to describe the flow of surface water or ground water into a wastewater collection system. Primary causes include deteriorated manholes that are no longer watertight, cracked or collapsed pipes, disjointed pipe connections, and inadvertent stormwater flows into the sanitary system via storm drains. I/I is a serious, continuous, and cumulative problem that has a significant adverse effect on the operation costs and efficiency of a wastewater treatment facility. Lone Oak is experiencing problems with inflow and infiltration due to old lines and manholes that are not watertight. City staff indicated that despite having plastic caps inside manholes, I/I still seems to be coming through, most likely through the sides of the manholes. Since 1997, the City has received grants that funded the replacement of numerous manholes and sewer lines. City staff says peak flows are unknown.

Acceptable levels of I/I are determined by applying the standard of 200 gallons per inch of diameter per mile of pipe per day. Using information collected in the system inventory, the allowable I/I for the City of Lone Oak would be about 9,831 GPD.

Manholes: The recommended spacing between manholes in the collection system is 500 feet. Based on the total number of manholes (59), the average spacing in the developed part of the City computes to approximately 682 feet, which is above the recommended maximum.

Lift Stations: The City maintains and operates five lift stations. Little information is known on the lift stations at this time.

Industrial Waste and Special Treatment Facilities: The City does not have producers of industrial wastes. Under current law, the EPA is responsible for regulating and providing guidance in the area of industrial or other special wastewater pretreatment programs. Should the need arise, the EPA will provide specific information, model ordinances, program guidelines, and expertise regarding industrial waste and pretreatment considerations. More information can be found on the EPA's website: http://cfpub.epa.gov/npdes/home.cfm?program_id=3

Operational Procedures: The City currently has one certified Class "A" licensed operator. This satisfies the minimum requirement set forth by TCEQ for a collection and treatment system of the type and capacity owned and operated by the City. In the area of operational procedures, there are several issues that all sewer systems should address and that require a minimum of capital outlay. These issues are continuous and should be addressed by routine, scheduled operational procedures such as the following:

- Establish a routine to locate sources of I/I and a plan to address these problems in a timely fashion;
- Establish a program for routine scheduled maintenance of plant mechanical equipment, possibly incorporating currently available technological systems such as SCADA (Supervisor Control And Data Acquisition) packages designed for this task;
- Monitor influent and effluent quality on a regularly scheduled basis, with appropriate recording and reporting procedures;
- Establish a routine line and manhole inspection schedule and a plan for the required line and manhole replacement and/or rehabilitation.

In many systems these operational/maintenance practices occur in the form of repair as opposed to preventive maintenance. The City is making use of TxCDBG funds to finance projects to rehabilitate and/or replace manholes and collection

lines to the greatest extent possible. In order to avoid serious problems in the future, there should be emphasis on addressing these needs regularly to maintain the system at maximum efficiency and serviceability.

Unserved Areas: There are no unserved areas in the city limits. Homes within the ETJ are not served, with the exception of 11 homes on CR 3231.

Soils Characteristics and Topography: The integrity of wastewater systems may be affected by soil and topography with respect to system infiltration and inflow, pipe breakage, and other construction issues. For example, soils with high porosity characteristics may contribute to higher system infiltration rates than soils with low infiltration rates, particularly when collection lines and manholes have deteriorated due to age and breakage. Soils that absorb water and swell, like fat clays, can crack sewer pipes and manholes, particularly when these components have been constructed with improper bedding material or techniques.

The City's soil types from USDA-National Resource Conservation Service (NRCS) County Soil Survey reports are shown in *Table 6C*. The NRCS has prepared soil surveys for most of the counties in the State of Texas. These surveys are issued for each individual county. Soils in any given area have a great deal of local variability that may not be apparent in the individual County Soil Surveys. The reports cannot provide the precise level of sub-surface conditions that is necessary to understand and predict soil behavior on individual parcels of land. While a soil survey report is highly useful in gaining broad understanding of general soil characteristics in the area, the information provided in the surveys does not remove the necessity for local onsite geotechnical investigation in determining suitability of soils for septic systems or other specific land uses.

The City of Lone Oak is located within an area that contains 9 different soil types. These soil types are shown in *Figure 6A* below. *Table 6C* contains a summary of various intrinsic characteristics of each soil type in the area with respect to a particular soil's suitability for use as a load-bearing base for construction. As described by the NRCS⁹, "Not limited" indicates that the soil can be used for the purpose with few modifications. "Somewhat limited" indicates that limitations can be minimized by special design or construction methods. "Very limited" indicates that limitations cannot be overcome without major soil removal and replacement, special structural design, or extensive use of specialized construction methods. Some areas of the City may not be suitable for development due to unstable soils typically found in flood prone areas.

In *Table 6D*, "Hydrologic Group" refers to the capacity of the soil absorb excess moisture, particularly from rainfall. Group A soils have high absorption and porosity and low runoff potential while Group D soils have low absorption and high runoff potential. Construction on Group A and B soils generally does not require soil modification. Construction on Group C and D soils should be examined and tested closely on a case by case basis.

⁹ <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Table 6D: Soil Characteristics

Soil Type	Hydrologic Group	Building Limitations					Acreage in City
		<i>Dwellings with Basements</i>	<i>Dwellings without Basements</i>	<i>Local roads and streets</i>	<i>Sewage Lagoons</i>	<i>Septic Tank Fields</i>	
Bazette clay loam, 5-12% slopes	C	Very limited	Very limited	Poor	Very limited	Very limited	14
Crockett loam, 1-3% slopes	D	Very limited	Very limited	Poor	Not limited	Very limited	903
Crockett loam, 2-5% slopes, eroded	D	Very limited	Very limited	Poor	Somewhat limited	Very limited	403
Ferris clay, 5 - 12% slopes, eroded	D	Very limited	Very limited	Poor	Very limited	Very limited	66
Ferris-Heiden complex, 2-5% slopes, eroded	D	Very limited	Very limited	Poor	Somewhat limited	Very limited	322

Hopco silt loam, frequently flooded	C	Very limited	Very limited	Poor	Very limited	Very limited	64
Kaufman clay, frequently flooded	D	Very limited	Very limited	Poor	Very limited	Very limited	3
Leson clay, 1-3% slopes	D	Very limited	Very limited	Poor	Not limited	Very limited	750
Leson clay, 3-5% slopes	D	Very limited	Very limited	Poor	Somewhat limited	Very limited	7
Nahatche loam, frequently flooded	C	Very limited	Very limited	Poor	Very limited	Very limited	3
Wilson silt loam, 0-1% slopes	D	Very limited	Very limited	Poor	Not limited	Very limited	153

Source: Soil survey of Hunt County, TX. Washington, D.C., U.S. Department of Agriculture, accessed at http://soils.usda.gov/survey/online_surveys/texas/

Figure 6A: Soil Associations for the City of Lone Oak

Soil Types and Buildability
(Dark Red=Very Limited; Orange=Somewhat Limited)

- Bazette clay loam, 5 to 12 percent slopes
- Ferris clay, 5 to 12 percent slopes, eroded
- Hopco silt loam, frequently flooded
- Kaufman clay, frequently flooded
- Nahatche loam, frequently flooded
- Wilson silt loam, 0 to 1 percent slopes
- Crockett loam, 2 to 5 percent slopes, eroded
- Ferris-Heiden complex, 2 to 5 percent slopes, eroded
- Leson clay, 3 to 5 percent slopes
- Crockett loam, 1 to 3 percent slopes
- Leson clay, 1 to 3 percent slopes

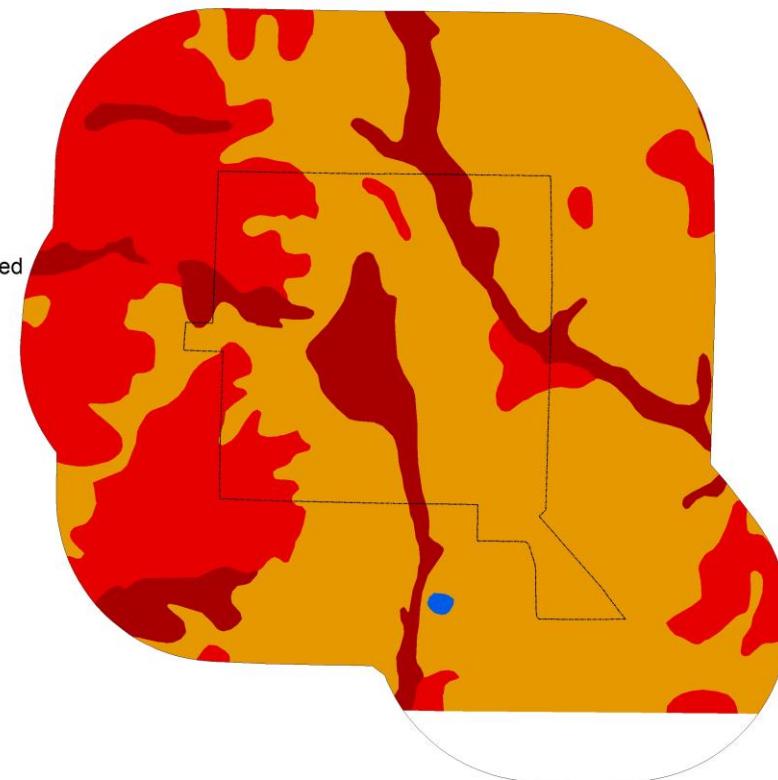
■ ETJ Boundary

■ City Limits

■ Water



0 0.15 0.3 0.6 0.9 1.2 Miles



Prioritized Problems: In summary, the wastewater system analysis and input from local sources has identified the following problems with the current municipal wastewater collection and treatment system:

1. A need for replacement of old, deteriorated collection lines throughout the City;
2. A need for the replacement of old, deteriorated brick and mortar manholes throughout the City;
3. A need to reduce the infiltration and inflow into the WWTP, particularly during and immediately following times of heavy rainfall;
4. A need to improve monitoring and reporting procedures at the plant.

6. 4 Wastewater Collection and Treatment System Plan

Goals and Objectives: The City establishes the following goals for its wastewater system:

Goal 1: An efficient wastewater system with minimal operational and maintenance costs.

Objective 1.1: Deteriorating lines and equipment are replaced by 2031.

Policy 1.1.1: Replace deteriorating and undersized lines, manholes, and cleanouts in the system to reduce inflow and infiltration in the system and thereby reduce operational costs. Install waterproofing and seals as needed.

Policy 1.1.2: Apply for grants and/or loans from the TxCDBG Program, USDA Rural Development, and other sources in order to keep the costs of system improvements at a minimum and to make major system improvements.

Goal 2: Safe and sanitary wastewater disposal.

Objective 2.1: By 2031, lines and equipment that pose a safety hazard will have been replaced as needed and an annual program put in place to ensure the continued safety of the wastewater system.

Policy 2.1.1: After major improvements are made according to the phased projects in this report, begin an annual program to smoke

test and pressure test all existing manholes and cleanouts for leakage.

Policy 2.1.2: Replace or rehabilitate lift stations in greatest need of repair following the proposed phased improvements plan.

Proposed System Improvements – Planning Period 2011-2031:

The following section describes a series of proposed improvements to the existing wastewater collection and treatment system. The improvement projects are presented as phased improvements that are suggested for implementation over the 20-year planning period encompassed by this Comprehensive Plan. The listed projects are intended as an outline of general items that are typically in need of periodic replacement and/or rehabilitation. There may be specific items of which we are not currently aware of that may require replacement and/or rehabilitation during the time period covered by this plan. These items should be substituted as needed for any of the general items proposed by this plan.

The projects are listed in a sequence that represents just one of several possible avenues, all of which should lead to the achievement of the long-term goals adopted by the City of Lone Oak for the operation and maintenance of the wastewater collection and treatment system. The sequence shown in this plan is a logical, step-by-step process intended to increase the safety, efficiency, and economy of the wastewater system operations. The sequence is intended only as a suggested program of phased improvements, and alternative sequences are recommended if funding availability requires significant changes to this proposed system improvements program.

Table 6E contains the estimated projected costs for each phase of the improvements program. These costs are based on current costs of record for similar projects in the same geographical area of the state. Every effort has been made to include appropriate cost factors such as inflation, variations in the market, and advances in wastewater technology.

The suggested phases for the system improvements are as follows:

1. Phase 1 – Obtain funding to replace old and deteriorating collection lines and manholes in the south-central portion of the City. Project should include approximately 3,750 LF of 8" SDR-26 PVC pipe, approximately seven (7) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services;
2. Phase 2 – Obtain funding to replace old and deteriorating collection lines and manholes in the north-central portion of the City. Project should include approximately 5,600 LF of 8" SDR-26 PVC pipe, approximately eleven (11) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services;
3. Phase 3 – Obtain funding to replace old and deteriorating collection lines and manholes in the central and southwest portions of the City. Project should include approximately 4,200 LF of 8" SDR-26 PVC pipe, approximately nine (9) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services;
4. Phase 4 – Obtain funding to replace old and deteriorating collection lines and manholes City wide. Project should include approximately 5,400 LF of 8" SDR-26 PVC pipe, approximately eleven (11) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services. Project should also include the rehabilitation or replacement of Lift Station # 2;
5. Phase 5 – Obtain funding to replace old and deteriorating collection lines and manholes City wide. Project should include approximately 4,600 LF of 8" SDR-26 PVC pipe, approximately nine (9) manholes, service re-connections, street, pavement, and driveway repair, and

engineering and surveying services. Project should also include the rehabilitation or replacement of the WWTP Lift Station.

Table 6E: Estimated Costs by Phase, Wastewater System Improvement Plan Projects, 2011-31

Project ID / Phase	Year	Project	Estimated Cost*	Source of Funds***
1	2011-2014	Replace old and deteriorating collection lines and manholes in the south-central portion of the City. Project should include approximately 3,750 LF of 8" SDR-26 PVC pipe, approximately seven (7) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services.	\$248,900	TxCDBG, USDA, UTILITY, TWDB
2	2014-2018	Replace old and deteriorating collection lines and manholes in the north-central portion of the City. Project should include approximately 5,600 LF of 8" SDR-26 PVC pipe, approximately eleven (11) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services.	\$348,750	TxCDBG, USDA, UTILITY, TWDB
3	2018-2022	Replace old and deteriorating collection lines and manholes in the central and southwest portions of the City. Project should include approximately 4,200 LF of 8" SDR-26 PVC pipe, approximately nine (9) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services.	\$299,100	TxCDBG, USDA, UTILITY, TWDB

4	2022-2026	Replace old and deteriorating collection lines and manholes City wide. Project should include approximately 5,400 LF of 8" SDR-26 PVC pipe, approximately eleven (11) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services. Project should also include the rehabilitation or replacement of Lift Station # 2.	\$419,400	TxCDBG, USDA, UTILITY, TWDB
5	2026-2031	Replace old and deteriorating collection lines and manholes City wide. Project should include approximately 4,600 LF of 8" SDR-26 PVC pipe, approximately nine (9) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services. Project should also include the rehabilitation or replacement of the WWTP Lift Station.	\$398,700	TxCDBG, USDA, UTILITY, TWDB
6	2011-2031	Implement improvements to the monitoring and reporting procedures at the WWTP	\$1,000 (Annually)	TxCDBG, USDA, UTILITY, TWDB

*Includes any associated engineering, administration, and/or acquisition costs.

** Project will also include service re-connects and street, pavement, and/or driveway repairs.

***Sources: TxCDBG = Texas Community Development Block Grant Program, administered through the Texas Department of Rural Affairs, TWDB = Texas Water Development Board grants and loans, UTILITY = Utility funds/revenue bonds, USDA = US Department of Agriculture Water and Wastewater Infrastructure loans and grants

7 Storm Drainage System Study

7.1 Review of Prior Studies and Geographic Context

Storm drainage facilities prevent or minimize damage resulting from overland flows or pooling of water during and following periods of rainfall. They collect and channel the runoff from heavy rainfalls or other surface water into a natural stream course or other body of water. A community's storm drainage system might include creeks, rivers, canals, reservoirs, lakes, marshes or wetlands, channels, culverts, enclosed pipe storm sewers, and ditches.

No prior studies of Lone Oak's drainage system exist.

7.2 Storm Drainage System Inventory

Field Survey: In the summer and fall of 2010, GrantWorks, Inc. conducted a field survey of the stormwater drainage system in the City of Lone Oak. The survey identified the location, type, size, condition and level of blockage or damage (when applicable) for all the drainage features including curb and gutter, channels & roadside ditches, bridges and culverts. That information is illustrated on *Map 7A: Existing Drainage System 2011*.

The drainage system elements that serve the City of Lone Oak are controlled by three (3) separate entities: Hunt County, the Texas Department of Transportation (TxDOT), and the City of Lone Oak. The City is responsible for minor roadside ditch and culvert maintenance and major structures that are located within the city limits on roads and properties maintained by the City. Hunt County is responsible for structures in the ETJ not located on US Highways or on TxDOT farm-to-market roads (FM). The City and Hunt County maintain an interlocal agreement for drainage maintenance. The County re-grades ditches if the City provides the necessary materials. Also, the County performs drainage

maintenance on an as-needed basis. Within the city limits, TxDOT maintains the roadside drainage system along U.S. Hwy 69, Katy St., Church St., F.M. 513, F.M. 1571, and F.M. 1567. TxDOT maintains drainage on an as-needed basis.

Drainage systems typically consist of curb and gutter, pipes, ditches, channels, creeks, and bridges that use the natural topography or grade of the land to convey storm water from the community to a nearby creek, river, or reservoir. The City of Lone Oak relies on a system of roadside ditches, culvert pipes, drainage channels, and curb and gutters sections (with associated inlets and underground pipe networks) to control excess storm water. The underground pipe networks in the City are difficult to map due to an inability to locate information on them.

The different types of culvert pipes found throughout the City and ETJ of Lone Oak include Corrugated Metal Pipe (CMP), Reinforced Concrete Pipe (RCP), High Density Polyurethane Pipe (HDPE), Reinforced Concrete Box Culvert (RCBC), and Steel. The field survey recorded 59 culvert pipes within the city limits and ETJ. Of those, 34 were located within the City's corporate boundaries. However, 11 of the culverts located within the city limits are the responsibility of TxDOT. Lone Oak is not responsible for the maintenance of culverts utilized for the drainage of TxDOT or County maintained right of ways. Altogether, TxDOT and Navarro County are responsible for maintaining 36 of the 59 culverts located throughout the municipal region of Lone Oak. *Table 7A: Drainage Structures Located in the City Limits* identifies the type, condition and responsible governmental entity of the existing drainage structures.

Table 7A: Drainage Structures Located in the City Limits

City Responsibility	City Limits					
	Count	%	Blocked			Damaged
			<30%	>30% & <60%	>60%	
HDPE	1	4%	0	0	0	0
CMP	13	57%	8	2	3	16
RCBC	0	0%	0	0	0	0

RCP	8	35%	3	3	2	2
STEEL	1	4%	0	1	0	0
<i>Subtotal</i>	<i>23</i>	<i>100%</i>	<i>11</i>	<i>6</i>	<i>5</i>	<i>18</i>
Outside City Limits						
County Responsibility			Blocked			
	Count	%	<30%	>30% & <60%	>60%	Damaged
HDPE	0	0%	0	0	0	0
CMP	0	0%	0	0	0	1
RCBC	3	27%	3	0	0	0
RCP	8	73%	3	4	1	0
STEEL	0	0%	0	0	0	0
<i>Subtotal</i>	<i>11</i>	<i>100%</i>	<i>6</i>	<i>4</i>	<i>1</i>	<i>1</i>
TxDOT Maintenance Responsibility			Blocked			
	Count	%	<30%	>30% & <60%	>60%	Damaged
HDPE	0	0%	0	0	0	0
CMP	12	71%	5	7	0	1
RCBC	1	6%	1	0	0	0
RCP	4	24%	1	3	0	0
STEEL	0	0%	0	0	0	0
<i>Subtotal</i>	<i>17</i>	<i>100%</i>	<i>7</i>	<i>10</i>	<i>0</i>	<i>1</i>
TxDOT Responsibility			Blocked			
	Count	%	<30%	>30% & <60%	>60%	Damaged
HDPE	0	0%	0	0	0	0
CMP	0	0%	0	0	0	0
RCBC	4	50%	3	1	0	0
RCP	4	50%	3	1	0	0
STEEL	0	0%	0	0	0	0
<i>Subtotal</i>	<i>8</i>	<i>100%</i>	<i>6</i>	<i>2</i>	<i>0</i>	<i>0</i>
<i>Total</i>	<i>59</i>		<i>30</i>	<i>22</i>	<i>6</i>	<i>20</i>
<i>% Total</i>			<i>51%</i>	<i>37%</i>	<i>10%</i>	<i>34%</i>

Source: GrantWorks field survey.

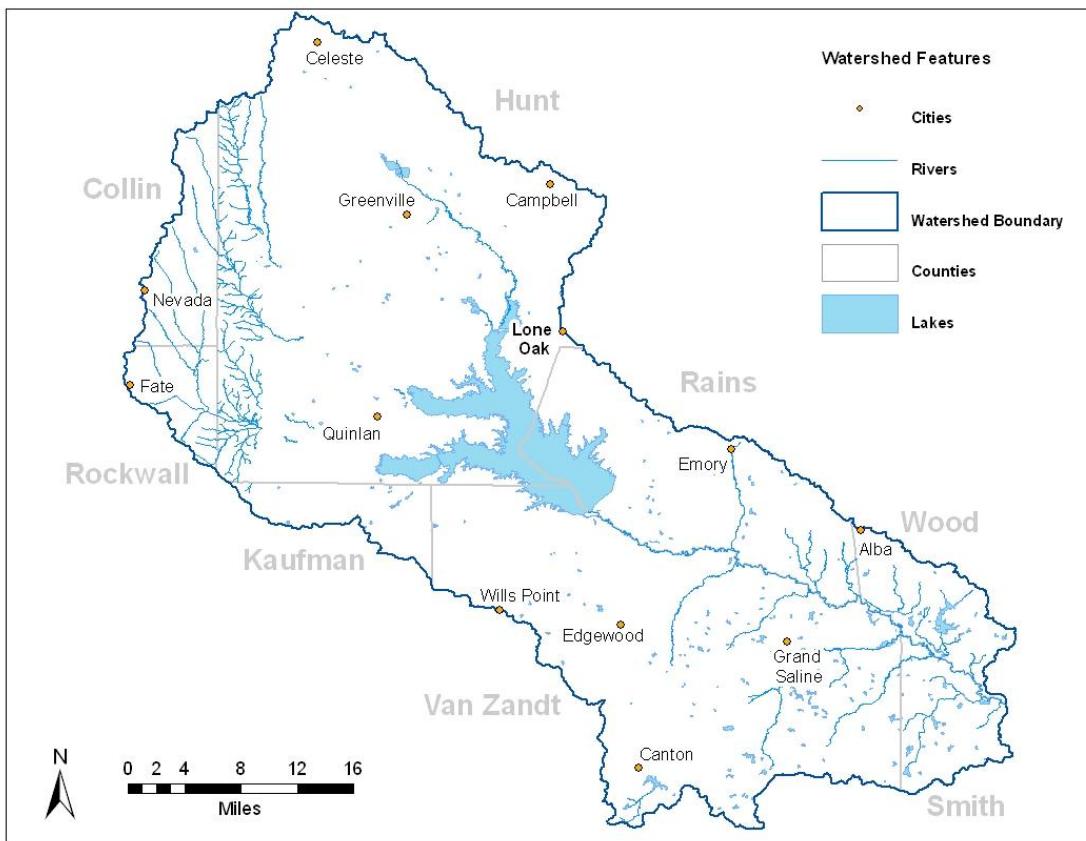
In addition to culverts, storm water is removed from the community by approximately 11,619 linear feet of curb and gutter located mostly along Main St., US Hwy 69, and in the Buffalo Mesa Subdivision. The curb and gutter system remains in mostly good condition and functions properly. There is one underground storm inlet located in Town Square, which is shown on *Map 7A: Existing Drainage System 2011*.

7.3 Storm Drainage System Analysis

Geographic Context: Lone Oak is located in the Upper Sabine Watershed. None of the major tributaries go through the city. Major tributaries south east of the city drain into Lake Tawakoni to the north. The land eventually feeds into Lake Tawakoni, which is located southwest of the city. *Figure 7A* below depicts the watershed.

The City of Lone Oak has fairly flat terrain, with a maximum elevation near 570 feet in the area east of U.S. 69 in the northern city limits to around 520 feet along a stream in the west. Within the ETJ, elevation drops to 490 feet in a flood plain to the west of the city limits. Most buildings are located on an axis running north and south east of U.S. 69 and are between 550 and 570 feet above sea level. Storm drainage flows to either side of this axis, ultimately ending up in Lake Tawakoni to the southwest and Lake Fork Reservoir to the south east of the city.

Figure 7A: Upper Sabine Watershed



Existing Drainage Facilities: The sections below examine the state of each type of drainage facility in more detail.

Roadside Ditches/Drainage Channels: Drainage channels line local, county and state roads throughout the City to convey stormwater into Pecan Branch and Bull Creek. Channel types are shown in Table 7B. The City maintains approximately 45% (~33,458 LF) of drainage channels within the City, while TxDOT and Hunt County maintain the rest.

Table 7B: Drainage Channel Type and Length, City Limits

Drainage Channel Type	LF
Roadside Ditch	73,620
Natural Lined Channel	606

Source: GrantWorks 2010 Fieldwork

Three problems were noted with the City's channel system:

1. Incomplete network of drainage channels, causing areas lacking channels to flood; and
2. Lack of maintenance and not enough staff to maintain channels.
3. Drainage ditches are shallow

The photos below are examples of these conditions.

Figure 7B: Shallow drainage channel



Figure 7C: Standing water in roadside ditches (by U.S. Hwy 69)



The City utilizes one backhoe to perform drainage facility maintenance and install new ditches. The City utilizes a trash pump to move water from flooded areas. In 2010, the city had to cut a drainage ditch along Wallace St. to alleviate flooding.

Underground storm drainage system: One underground storm drain is located in Town Square. No maps of the underground systems are available. Curb and gutter sections are shown on *Map 7A: Existing Drainage System 2010*.

There is limited curb and gutter in the city limits and is in mostly good condition. Curb and gutter sections are located along U.S. Hwy 69, Katy St., Main St., Gladys St., Buffalo Mesa, and a small section on Wallace St.

Culverts: The most significant problems with Lone Oak's culvert facilities are their inadequate sizing and their lack of maintenance. Of the 23 city-maintained culverts, 18 are damaged. Sixteen of the damaged culverts are CMP and two are RCP. Private driveways often lack culverts, and that can also contribute to road deterioration.

Figure 7D: Damaged CMP (Elm St. and Windsor St.)



The most common problem encountered with culvert pipes is either blockage from the accumulation of silt, vegetation, and other debris, or damaged ends from vehicle traffic. Of the City maintained system, 22% of the culverts have more than 60% blockage. The reduction in storm water movement caused by the clogged culverts can lead to standing water and mosquito problems for residents.

Culvert damage can result from several factors including but not limited to: insufficient turning radii of pavement sections at intersections; insufficient pavement width at intersections; high velocities of the runoff in the ditches, channels, and streams; and the absence of protective headwalls or end

treatments for the culvert pipes. Those factors cause vehicular traffic, particularly truck traffic, to pass over and crush the unprotected ends of the pipes in the process of turning. High water velocities within the ditches, channels, and streams can cause erosion and undermining of the culvert pipes, which can damage or significantly reduce their bearing capacity.

Drainage problem areas. The most problematic drainage areas are in flat areas, in areas with no drainage facilities, and in areas nearest to floodways. Problem areas are identified on *Map 7A: Existing Drainage System 2010* and described below.

East Lone Oak:

- Oak St. and Hickory St. regularly flood during storm events. Culverts in that area are damaged and undersized.

North Lone Oak:

- A home flooded on Wallace St. in 2010; City cut a new drainage ditch to alleviate flooding in that area.
- Magnolia St. holds water for 1-2 days after a storm event

South Lone Oak:

- McBride St. floods and holds water for 1-2 days after a storm event.
- Mill St. floods and is completely covered in water during a storm event.

Central Lone Oak:

- Town Square floods during rainstorms.

Flood Planning and Policies

National Flood Insurance Program: The National Flood Insurance Program (NFIP) is a FEMA program that provides federally backed flood insurance to members of communities that carry out measures to reduce the risk of flood damage. While NFIP participation is voluntary, federally backed flood insurance

is not available for structures in non-participating communities, and disaster assistance as well as federal grants and loans are not available for structures in FEMA designated special flood hazard areas (SFHAs) of non-participating communities. Various requirements and caveats apply to the obligations of lenders and property owners with respect to flood insurance, and specific questions should be addressed to FEMA or the Texas Water Development Board NFIP division.

The City of Lone Oak currently does not participate in the NFIP. However, it did participate in a preliminary flood insurance study in 2009. As of the time this plan was written, the City has not yet decided whether it will participate. Because of the City's extensive drainage problems, and location in floodplains, it is recommended that the City become a participant.

Minimum requirements for community participation in NFIP are:

1. Submittal of an application to enroll
2. Passage of a resolution declaring intent to participate
3. Adoption and enforcement of a floodplain management ordinance that meets or exceeds federal standards
4. Implementation of a permitting system for development in the floodplain

The requirements of the floodplain management ordinance depend on the level of detail at which FEMA has mapped the community's floodplain. Model ordinances are available through the Texas Water Development Board (TWDB) (www.twdb.state.tx.us/wrpi/flood/nfip.htm). The TWDB coordinates the NFIP in Texas and can help communities apply for enrollment, adopt the appropriate ordinance, and carry out other requirements of participation.

FEMA flood hazard maps and Flood Insurance Rate Maps (FIRMs) are available through the FEMA Map Service Center (<http://msc.fema.gov>). FEMA's maps provide information about flood risk areas, and most cities and counties in the U.S. have been mapped. The maps include varying levels of detail depending on

when and how the surveys were conducted. All maps include special flood hazard areas (SFHA), and some also include base flood elevations, floodways, and/or coastal high hazards. The effective date of the most recent FIRM for Lone Oak and for the unincorporated areas of Hunt County is September 4, 1991. The Lone Oak area FIRMs only include “Zone A” special flood hazard areas, also known as 100-year floodplains¹⁰. Lone Oak’s floodplains are shown on *Map 7A: Existing Storm Drainage Map*.

The decision about whether or not to participate in the NFIP depends upon the potential risk to both private property (homes and businesses) and public property (streets, parks, utilities). One home in the city limits is located in a 100-year floodplain. Approximately 40 acres (6%) of land within the City limits is within a 100-year floodplain.

Appendix 7A contains more detailed information concerning the NFIP and the benefits that a community can receive through active participation. More detailed information regarding all aspects of the program can also be found through the TWDB (www.twdb.state.tx.us/wrpi/flood/nfip.htm) and FEMA (www.fema.gov/nfip/) websites.

Appendix 7B contains information on how to score points through the Community Rating System, which is a set of actions participating communities can take to reduce flood insurance rates for property owners. Community Rating System recommended actions related to the Lone Oak Comprehensive Plan include:

- Adopting the Comprehensive Plan.
- Adopting the recommended subdivision ordinance which contains erosion and sedimentation control requirements during and after construction and standards for drainage facilities for new construction.
- Educating residents whose properties are located within floodplains about floodplain building regulations.

¹⁰ A 100-year flood has a 1% chance of occurring in a given year and a 26% chance of occurring over the life of a 30-year mortgage

- Purchasing, zoning for open space, or otherwise restricting parcels designated to be in the floodplain. The City could further increase the credits homeowners could receive on flood insurance premiums by zoning for open space along flood plains and/or purchasing drainage easements or parcels in the floodplain. The amount of premium reduction is based on the percentage of special flood hazard area preserved as open space.

Flood Prevention Ordinances: According to the best information available at the time of this plan, the City does not have a flood prevention ordinance. Should the City decide to adopt a flood prevention ordinance, it should review the model ordinances provided by the Texas Water Development Board, which can be found on their website (<http://www.twdb.state.tx.us/wrpi/flood/nfip.asp>).

Subdivision and Zoning Ordinances: The City has not adopted a subdivision ordinance, but has adopted a zoning ordinance. Recommended ordinances can be found in Chapters 12 and 13. A subdivision ordinance is adopted specifically to set minimum standards for new construction. In addition to requirements for water, sewer, and street access, a subdivision ordinance can require that lots in a floodplain must be larger than a certain size (e.g. 5 acres) or prohibit development that increases downstream flooding.

A zoning ordinance generally deals with land use and the aesthetic considerations of development, but it can also set minimum lot sizes and specify allowed impervious surface cover, which impacts the amount of rain entering the drainage system instead of infiltrating the soil where it falls.

7.4 Storm Drainage System Plan

This report is an evaluation, analysis and planning report rather than a design study, and detailed design data for individual construction projects has not been developed as a part of the report. The construction of improvements to the storm drainage system should be preceded by a detailed engineering design analysis,

plans, and specifications. This report is intended solely to provide the City of Lone Oak with guidance in the planning of future storm drainage improvements.

Prioritized Problems. City leaders, staff, and consulting engineers have identified the following areas of concern with regard to the storm-water system.

1. A need to mitigate persistent standing water and ponding in and around the Town Square;
2. A need to mitigate persistent standing water and ponding along Magnolia Street;
3. A need to mitigate persistent standing water and ponding along McBride Street;
4. A need to mitigate persistent standing water and ponding Mills Street, Oak Street, and Hickory Street.

Like many rural cities, the City of Lone Oak faces a difficult predicament with respect to drainage problems. There is no grant money available to make improvements to the drainage systems of rural towns. Routine maintenance is the only viable route available to many cities to address various drainage problems. The following plan framework outlines a specific set of actions to meet the City's drainage system needs with local resources.

Goal 1: A citywide drainage system that prevents flooding of private and public property.

Objective 1.1: Mitigate all problem drainage areas over the planning period 2011-2031.

Policy 1.1.1: Budget annually to revise drainage structures in identified problem drainage areas as according to the phased improvements plan. Work with engineers to properly size culverts and design ditches.

Policy 1.1.2: Determine if problem drainage areas can be addressed as water and sewer improvements are made.

Policy 1.1.3: Continue to communicate regularly with TxDOT and Hunt County to provide for on-going, semi-annual routine maintenance of all culvert pipes, drainage channels, and roadside ditches by removing silt, debris, and vegetation that impede the flow of water.

Policy 1.1.4: Encourage property owners to clean and rehabilitate their driveway culverts.

Policy 1.1.5: Adopt a basic street and drainage construction manual/ordinance specifying required width and depth of drainage channels and diameter of culverts for use by current and future city staff and contractors hired to construct improvements.

Objective 1.2: During the planning period, deter growth from occurring in floodplains.

Policy 1.2.1: Adopt flood a prevention ordinance that establishes a floodplain administrator. Regulate building in the flood plain and establish a floodplain development permitting system.

Policy 1.2.2: Once ordinances are adopted, contact the TWDB to determine next steps in becoming an NFIP participant.

Policy 1.2.3: During the planning period, adopt subdivision regulations that require drainage site planning, stormwater retention to alleviate downstream flooding events caused by increased impervious cover; and setbacks from floodways.

Goal 2: Maintain a functional citywide drainage system.

Objective 2.1: Implement phased improvements plan to expand drainage system between 2011 and 2031 to alleviate problem drainage areas.

Objective 2.2: By 2015, ensure City has adequate resources and training to maintain a functional drainage system.

Policy 2.2.1: Educate city public works staff on and increase annual funding to the public works department to construct properly sized drainage channels and culverts. City should consider sending staff to classes at the NCTCOG Regional Training Center to receive training in Best Management Practices on erosion and sediment control.

Policy 2.2.2: Adopt a subdivision ordinance that includes a requirement for erosion control measures and designs during construction.

Proposed System Improvements – Planning Period 2011-2031:

The following section describes a series of proposed improvements to the existing drainage infrastructure. The improvement projects are presented as phased improvements that are suggested for implementation over the 20-year planning period encompassed by this Comprehensive Plan.

The projects are listed in a sequence that represents just one of several possible avenues, all of which should lead to the achievement of the long-term goals adopted by the City of Lone Oak for the maintenance of the drainage infrastructure. The sequence shown in this plan is a logical, step-by-step process intended to increase the safety, and efficiency of the drainage infrastructure. The sequence is intended only as a suggested program of phased improvements, and alternative sequences are recommended if funding availability requires significant changes to this proposed infrastructure improvements program.

Table 7B contains the estimated projected costs for each phase of the improvements program. These costs are based on current costs of record for similar projects in the same geographical area of the state. Every effort has been made to include appropriate cost factors such as inflation, variations in the market, and advances in wastewater technology.

These cost estimates are predicated on several assumptions related to the scope of each phase. Some of these assumptions are as follows:

- ✓ Culvert pipe replacements costs are based on using Reinforced Concrete Pipe (RCP);
- ✓ Culvert replacements are estimated for a pipe size increase of at least one standard size over the existing size. Standard sizes are defined as those sizes that are readily available from a local supplier;
- ✓ The cost estimates include grading to “daylight” at each end in order to ensure positive drainage;
- ✓ Culvert replacement includes driveway and pavement repair assuming a pavement cut of 4’ in width, ROW width minus 20’ in length, and a 2” depth of HMAC pavement placement;

- ✓ New and existing roadside ditches assumes a full depth excavation with a trapezoidal cross-section of a 5.0' top width, 1.0' bottom width, a 2.0' depth at center, and 1:1 side slopes;
- ✓ Open drainage channel improvements assumes a full depth excavation with a trapezoidal cross-section of a 9.0' top width, 3.0 bottom width, 3.0' depth at center, and 1:1 side slope;
- ✓ Engineering and Surveying – Engineering and surveying services are estimated at 20%-25% of the estimated construction costs of the combined elements as described above.

The proposed phases of future drainage system improvements are as follows:

1. Phase 1 – Obtain funding to construct drainage improvements in the Town Square area and along North Mills Street down to FM 513. The project should include the installation of curb and/or area inlets in and around Town Square, re-grading of the area to drain to these inlets, installation of an enclosed, underground pipe system with curb inlets at appropriate locations. Project will include approximately 3,100 LF of 24" RCP pipe, 3,500 LF of Curb & Gutter, approximately 10 curb inlets, 400 LF of cleaning, widening, and re-grading of open drainage channel from Mill Street to the RCBC at Bull Creek, one outfall structure with rip-rap sides, and engineering and survey services;
2. Phase 2 – Obtain funding to construct drainage improvements along Magnolia Street and Norton Street down to the Town Square area improvements described in Phase # 1 above. The project should include the installation of curb inlets along Magnolia and Norton Streets, installation of an enclosed, underground pipe system with curb inlets at appropriate locations. Project will include approximately 2,800 LF of 24" RCP pipe, 3,500 LF of Curb & Gutter, approximately 5 curb inlets, Traffic Control measures, and engineering and survey services;

3. Phase 3 - Obtain funding to construct drainage improvements along McBride Street from FM 513 through the church property at the north end. The project should include the cleaning, widening, and re-grading of approximately 4,400 LF of roadside drainage ditches on both sides of McBride Street. Ditches should drain to the north from Olive Street to an outfall at the rear of the church property to the north, and south from Olive Street to existing ditches at FM 513. Project should also include intersection reconstruction with valley gutters at 5 intersections, and the replacement and addition of 3 culverts. Project will also include 2 outfall structures with rip-rap sides, street pavement and driveway repair, and engineering services;
4. Phase 4 - Obtain funding to construct drainage improvements along South Mills Street, Oak Street, and Hickory Street. Project should include the cleaning, widening, and re-grading of approximately 6,100 LF of roadside drainage ditches on both sides of the roads. Ditches should drain Mills Street to Bull Creek, and Oak and Hickory Streets to the undeveloped area to the east of the intersection of the two streets. Project should also include intersection reconstruction with valley gutters at 3 intersections, and the replacement of 3 culverts. Project will also include 2 outfall structures with rip-rap sides, street pavement and driveway repair, and engineering services.

The estimated costs for the proposed improvements described above are as follows:

Table 7C: Drainage System Improvement Plan Projects, 2011-2031

Project ID / Phase	Year	Project	Estimated Cost*	Source of Funds
1	2011-2016	Construct drainage improvements in the Town Square area and along North Mills Street down to FM 513.	\$370,350	GEN, TWDB, FMA, ** COUNTY, TxDOT
2	2016-2021	Obtain funding to construct drainage improvements along	\$264,000	GEN, TWDB, FMA, **

		Magnolia Street and Norton Street down to the Town Square area improvements described in Phase # 1 above.		
3	2021-2026	Construct drainage improvements along McBride Street from FM 513 through the church property at the north end.	\$183,700	GEN, TWDB, FMA, ** TxDOT
4	2026-2031	Construct drainage improvements along South Mills Street, Oak Street, and Hickory Street.	\$209,300	GEN, TWDB, FMA, **
5	2011-2015	Enact zoning regulations that contain provisions for building in the floodplain	\$1,000 (Legal)	GEN
6	2011-2015	Adopt a streets and drainage construction manual/ordinance	\$2,000 (Legal, Engineers)	GEN

TWDB=Texas Water Development Board Flood Protection Planning; FMA=Flood Mitigation Assistance program through the TWDB for NFIP members only; USDA= USDA Rural Development; GEN = General Funds of the City of Lone Oak; Private=Land donation, COUNTY=Hunt County Road and Bridge; TxCDBG=Texas Community Development Block Grant program if area is involved in project where street/curb and gutter repair is required; TxCDBG DR=TxCDBG Disaster Relief funds.

Notes on Estimates:

- * Negotiate a cost sharing agreement that provides equipment, labor, and materials for drainage maintenance.
- ** Refer to NFIP information concerning available funding through the program.

7.5 Appendix 7A: National Flood Insurance Program

The following describes regulations set by FEMA with which NFIP members must comply. The text derives primarily from NFIP Legislation and Regulation Guidance Documents (sections 59-61, available at www.fema.gov/plan/prevent/fhm/frm_docs.shtm)

Federal “100-year” Standard: The NFIP has used a comprehensive study by a group of experts to advise the agency as to the best standard to be used as the basis for risk assessment, insurance rating, and floodplain management for the Program. After extensive study and coordination with Federal and State agencies, this group recommended the 1-percent-annual-chance flood (also referred to as the 100-year or “Base Flood”) be used as the standard for the NFIP.

The 1-percent-annual-chance flood was chosen on the basis that it provides a higher level of protection while not imposing overly stringent requirements or the burden of excessive costs on property owners. The 1-percent-annual-chance flood (or 100-year flood) represents a magnitude and frequency that has a statistical probability of being equaled or exceeded in any given year, or, stated alternatively, the 100-year flood has a 26 percent (or 1 in 4) chance of occurring over the life of a 30-year mortgage. The regulatory flood plains cover areas that would most likely be inundated by the largest storm events that typically occur in the area. While these storm events are referred to as 100-year or 500-year events, the designation actually refers to the probability of a storm of that particular magnitude occurring in any given year. As mentioned before, the “100-year” storm has a 1% chance of occurring in any given year, and the “500-year” storm has a 0.2% chance of occurring in any given year.

Identifying and Mapping Flood-Prone Areas: Under the NFIP, Flood Hazard Boundary Maps (FHBMs), which delineated the boundaries of the community’s

Special Flood Hazard Areas (SFHAs), have been prepared using approximate methods prior to completion of a community's Flood Insurance Study (FIS). These methods identify on an approximate basis a 1-percent-annual-chance floodplain, but do not include the determination of Base Flood Elevations (BFEs) (100-year flood elevations), flood depths, or floodways. The Flood Hazard Boundary Map is intended to assist communities that do not have current FIRMs in managing floodplain development, and to assist insurance agents and property owners in identifying those areas where the purchase of flood insurance was advisable.

FISs that use detailed hydrologic and hydraulic analyses to develop BFEs and designate floodways and risk zones for developed areas of the floodplain have been subsequently produced for most NFIP communities. Once more detailed risk data was provided to communities, the community could then enter the Regular Program whereby the community is required to adopt more comprehensive floodplain management requirements and owners of structures could purchase higher amounts of insurance.

An FIS usually generates the following flood hazard information:

- BFEs are presented as either water-surface elevations or average depths of flow above the ground surface. These elevations and depths are usually referenced to either the National Geodetic Vertical Datum of 1929 (NGVD29) or the North American Vertical Datum of 1988 (NAVD88).
- Water-surface elevations for the 10-year (10-percent-annual-chance), 50-year (2-percent-annual-chance), 100-year (1-percent-annual-chance), and 500-year (0.2-percent-annual-chance) floods.
- Boundaries of the regulatory 100-year floodway. The regulatory floodway is defined as the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the entire Base Flood (100-year flood) discharge can be conveyed with no greater than a 1.0-foot increase in the BFE.

- The boundaries of the 100- and 500-year floodplains. The 100-year floodplain is referred to as the Special Flood Hazard Area (SFHA).

Floodplain Management: The Congressional Acts that created the NFIP prohibit the Federal Emergency Management Agency (FEMA) from providing flood insurance to property owners unless the community adopts and enforces floodplain management criteria established under the authority of Section 1361(c) of the Act. These criteria are established in the NFIP regulations at 44 CFR §60.3. The community must adopt a floodplain management ordinance that meets or exceeds the minimum NFIP criteria. Under the NFIP, “community” is defined as:

“any State, or area or political subdivision thereof, or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.”

The power to regulate development in the floodplain, including requiring and approving permits, inspecting property, and citing violations, is granted to communities under a State’s police powers. FEMA has no direct involvement in the administration of local floodplain management ordinances.

Minimum NFIP Floodplain Management Requirements: Under the NFIP, the minimum floodplain management requirements that a community must adopt depend on the type of flood risk data (detailed FIS and FIRMs with BFEs or approximate A Zones and V Zones without BFEs) that the community has been provided by FEMA. Under the NFIP regulations, participating NFIP communities are required to regulate all development in SFHAs. “Development” is defined as:

“Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.”

Before a property owner can undertake any development in the SFHA, a permit must be obtained from the community. The community is responsible for reviewing the proposed development to ensure that it complies with the community's floodplain management ordinance. Communities are also required to review proposed development in SFHAs to ensure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, such as 404 wetland permits from the Army Corps of Engineers or permits under the Endangered Species Act.

Under the NFIP, communities must review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions to ensure that these development proposals are reasonably safe from flooding and that utilities and facilities servicing these subdivisions or other development are constructed to minimize or eliminate flood damage.

In general, the NFIP minimum floodplain management regulations require that new construction or substantially improved or substantially damaged existing buildings in A Zones must have their lowest floor (including basement) elevated to or above the Base Flood Elevation (BFE). Non-residential structures in A Zones can be either elevated or dry-floodproofed. In V Zones, the building must be elevated on piles and columns and the bottom of the lowest horizontal structural member of the lowest floor of all new construction or substantially improved existing buildings must be elevated to or above the BFE. The minimum floodplain management requirements are further described below:

For all new and substantially improved buildings in A Zones:

- All new construction and substantial improvements of residential buildings must have the lowest floor (including basement) elevated to or above the BFE.
- All new construction and substantial improvements of non-residential buildings must either have the lowest floor (including basement) elevated to or above the BFE or dry-floodproofed to the BFE. Dry floodproofing

means that the building must be designed and constructed to be watertight, substantially impermeable to floodwaters.

- Buildings can be elevated to or above the BFE using fill, or they can be elevated on extended foundation walls or other enclosure walls, on piles, or on columns.
- Because extended foundation or other enclosure walls will be exposed to flood forces, they must be designed and constructed to withstand hydrostatic pressure otherwise the walls can fail and the building can be damaged. The NFIP regulations require that foundation and enclosure walls that are subject to the 100-year flood be constructed with flood-resistant materials and contain openings that will permit the automatic entry and exit of floodwaters. These openings allow floodwaters to reach equal levels on both sides of the walls and thereby lessen the potential for damage. Any enclosed area below the BFE can only be used for the parking of vehicles, building access, or storage.

In addition, to the above requirements, communities are required to select and adopt a regulatory floodway in riverine A Zones. The area chosen for the regulatory floodway must be designed to carry the waters of the 1-percent-annual-chance flood without increasing the water surface elevation of that flood more than one foot at any point. Once the floodway is designated, the community must prohibit development within that floodway which would cause any increase in flood heights. The floodway generally includes the river channel and adjacent floodplain areas that often contain forests and wetlands. This requirement has the effect of limiting development in the most hazardous and environmentally sensitive part of the floodplain.

Ordinance Adoption: Once FEMA provides a community with the flood hazard information upon which floodplain management regulations are based, the community is required to adopt a floodplain management ordinance that meets or exceeds the minimum NFIP requirements. FEMA can suspend communities from

the Program for failure to adopt once the community is notified of being flood-prone or for failure to maintain a floodplain management ordinance that meets or exceeds the minimum requirements of the NFIP. The procedures for suspending a community from the Program for failure to adopt or maintain a floodplain management ordinance that meets or exceeds the minimum requirements of the NFIP are established in the NFIP regulations at 44 CFR §59.24(a) and (d).

Prior to filing an application for NFIP participation, the community would have to adopt a resolution stating it wishes to become an NFIP participant and designating a Floodplain Administrator. The 77th Legislature of the State of Texas amended Subchapter I, Chapter 16, Water Code, by adding Section 16.3145 to read as follows:

"The governing body of each city and county shall adopt ordinances or orders, as appropriate, necessary for the city or county to be eligible to participate in the National Flood Insurance Program...., not later than January 1, 2001"

Model ordinances and sample permit forms are available online at www.twdb.state.tx.us/wrpi/flood/nfip.htm. Flood prevention ordinances often require or encourage appropriate development in flood prone areas and/or set zoning standards for areas to restrict the use or density of floodplain development. They also vest a designated Flood Administrator with the responsibility of delineating areas of special flood hazard; providing information about inhabited floodplain areas; maintaining FEMA flood maps; and cooperating with federal, state and local officials and private firms in undertaking to study, survey, map and identify floodplain. The Administrator is also to assist with the development and implementation of floodplain management measures.

Community Rating System: The NFIP's Community Rating System (CRS) provides discounts on flood insurance premiums in those communities that establish floodplain management programs that go beyond NFIP minimum requirements. Under the CRS, communities receive credit for more restrictive

regulations, acquisition, relocation, or floodproofing of flood-prone buildings, preservation of open space, and other measures that reduce flood damages or protect the natural resources and functions of floodplains.

Under the CRS, flood insurance premium rates are adjusted to reflect the reduced flood risk resulting from community activities that meet the three goals of the CRS:

1. Reduce flood losses, i.e.,
 - i) Protect public health and safety,
 - ii) Reduce damage to property,
 - iii) Prevent increases in flood damage from new construction,
 - iv) Reduce the risk of erosion damage, and
 - v) Protect natural and beneficial floodplain functions;
2. Facilitate accurate insurance rating; and
3. Promote the awareness of flood insurance.

There are 10 CRS classes: Class 1 requires the most credit points and gives the largest premium reduction; Class 10 receives no premium reduction. CRS premium discounts on flood insurance range from 5 percent for Class 9 communities up to 45 percent for Class 1 communities. The CRS recognizes 18 creditable activities, organized under four categories: Public Information, Mapping and Regulations, Flood Damage Reduction, and Flood Preparedness.

For example, credits are provided for use of future conditions hydrology and more restrictive floodway standards, prohibiting fill in the floodway, and adopting compensatory storage regulations, innovative land development criteria, stormwater management regulations, other higher regulatory standards, and local floodplain management plans. Credits are also provided in the CRS for preserving open space in their natural state and for low-density zoning and for acquiring and clearing buildings from the floodplain and returning the area to open space. The 2002 *CRS Coordinator's Manual* includes a new section, "Land

Development Criteria," which specifically credits community land development regulations that limit development in the floodplain or provide incentives to limit floodplain development. Communities receive credits for adopting smart growth land development criteria and for creating open space through their land development process.

7. 6 Appendix 7B: NFIP Community Rating System

The National Flood Insurance Program Community Rating System

Information from: <http://training.fema.gov/EMIWeb/CRS/>

The Community Rating System (CRS) is a part of the NFIP. The CRS reduces flood insurance premiums to reflect what a community does above and beyond the NFIP's minimum standards for floodplain regulation. The objective of the CRS is to reward communities for what they are doing, as well as to provide an incentive for new flood protection activities. The reduction in flood insurance premium rates is provided according to a community's CRS classification, as shown in the chart.

Community participation in the CRS is VOLUNTARY.

To apply for CRS participation, a community submits documentation that shows what it is doing and that its activities deserve at least 500 points. The documentation is attached to the appropriate worksheet pages in this CRS Application. The application is submitted to the ISO/CRS Specialist. The ISO/CRS Specialist is an employee of the Insurance Services Office, Inc. (ISO). ISO works on behalf of the Federal Emergency Management Agency (FEMA) and the insurance companies to review CRS applications, verify the communities' credit points, and perform program improvement tasks.

A Quick Check of a Community's Potential CRS Credit

a. Purpose

A minimum of 500 points is needed to receive a CRS classification of Class 9, which will reduce premium rates. This quick check provides some basic information for local officials to determine if their communities will have enough points to attain Class 9.

If a community does not qualify for at least 500 points, it may want to initiate some new activities in order to attain Class 9. For example, some of the public information activities can be implemented for a very low start-up cost. The quick check can identify where points can be earned for new activities.

b. Quick Check Instructions

The section numbering system is used throughout all CRS publications. Sections 300 through 600 describe the 18 creditable activities. Activity 310 (Elevation Certificates) is required of all CRS communities and Activity 510 (Floodplain Management Planning) is required of designated repetitive loss communities. The rest of the activities are optional. Only the elements most frequently applied for are listed.

If the activity is applicable, the average community score (which is in parentheses) should be entered in the blank to the left to provide a rough estimate of the community's initial credit points.

c. Minimum Requirements

Section 211 (Prerequisites): The community must be in the Regular Phase of the NFIP and be in full compliance with the minimum requirements of the NFIP. The application must include a letter from the Federal Emergency Management Agency (FEMA) Regional Office confirming that the community is meeting all of the latest NFIP requirements.

Activity 310 (Elevation Certificates): All CRS communities must maintain FEMA's elevation certificates for all new and substantially improved construction in the floodplain after the date of application for CRS classification.

Sections 501–503 (Repetitive Loss Areas): A community with properties that have received repeated flood insurance claim payments must map the areas affected. Communities with 10 or more such properties must prepare, adopt, and implement a plan to reduce damage in repetitive loss areas. The FEMA Regional Office can tell whether this applies to any given community.

d. Other Activities

If the activity is applicable, the average community score (which is in parentheses) should be entered in the blank at left to provide a rough estimate of the community's initial credit points.

Public Information Activities (Series 300)

- ____ (69) 310 (Elevation Certificates) Maintain FEMA elevation certificates for all new construction. Maintaining them after the date of CRS application is a minimum requirement for any CRS credit.
- ____ (138) 320 (Map Information) Respond to inquiries to identify a property's FIRM zone and publicize this service.
- ____ (90) 330 (Outreach Projects) Send information about the flood hazard, flood insurance, and flood protection measures to floodprone residents or all residents of the community.
- ____ (19) 340 (Hazard Disclosure) Real estate agents advise potential purchasers of floodprone property about the flood hazard; or regulations require a notice of the flood hazard.
- ____ (24) 350 (Flood Protection Information) The public library maintains references on flood insurance and flood protection.
- ____ (53) 360 (Flood Protection Assistance) Give inquiring property owners technical advice on protecting their buildings from flooding, and publicize this service.

Mapping and Regulatory Activities (Series 400)

- ___ (86) 410 (Additional Flood Data) Develop new flood elevations, floodway delineations, wave heights, or other regulatory flood hazard data for an area that was not mapped in detail by the flood insurance study; or have the flood insurance study's hydrology or allowable floodway surcharge based on a higher state or local standard.
- ___ (191) 420 (Open Space Preservation) Guarantee that a portion of currently vacant floodplain will be kept free from development.
- ___ (166) 430 (Higher Regulatory Standards) Require freeboard; require soil tests or engineered foundations; require compensatory storage; zone the floodplain for minimum lot sizes of 1 acre or larger; regulate to protect sand dunes; or have regulations tailored to protect critical facilities or areas subject to special flood hazards (e.g., alluvial fans, ice jams, or subsidence).
- ___ (79) 440 (Flood Data Maintenance) Keep flood and property data on computer records; use better base maps; or maintain elevation reference marks.
- ___ (98) 450 (Stormwater Management) Regulate new development throughout the watershed to ensure that post-development runoff is no worse than pre-development runoff.

Flood Damage Reduction Activities (Series 500)

- ___ (115) 510 (Floodplain Management Planning) Prepare, adopt, implement, and update a comprehensive plan using a standard planning process.
- ___ (213) 520 (Acquisition and Relocation) Acquire and/or relocate floodprone buildings so that they are out of the floodplain.
- ___ (93) 530 (Flood Protection) Document floodproofed or elevated pre-FIRM buildings.
- ___ (232) 540 (Drainage System Maintenance) Conduct periodic inspections of all channels and retention basins and perform maintenance as needed.

Flood Preparedness Activities (Series 600)

- ___ (93) 610 (Flood Warning Program) Provide early flood warnings to the public and have a detailed flood response plan keyed to flood crest predictions.
- ___ (198) 620 (Levee Safety) Maintain levees that are not credited with providing base flood protection.
- ___ (66) 630 (Dam Safety) All communities in a State with an approved dam safety program receive credit.

___ TOTAL ESTIMATED POINTS FOR THE COMMUNITY

8 Street System Study

Prior Studies. The City of Lone Oak has not commissioned any prior studies or analyses of the regional street system.

Existing Data. The City of Lone Oak contains approximately 9.8 miles of streets and highways within the city limits and an additional 8.4 miles of streets and highways within its ETJ, for a total of 18.2 miles. Of this total, the City is responsible for the operation and maintenance of 6.1 miles, while Hunt County and TxDOT are responsible for the operation and maintenance of the remaining 12.1 miles within the city limits and ETJ. 72% of the roads in the city limits are paved, while the remaining roads are dirt and gravel. 39% of the paved streets are considered in good condition, while 31% are considered to be in fair condition and 2% are in poor condition.

8.1 Street System Inventory

In 2010, a windshield survey of the existing street system was conducted by GrantWorks and the following information was collected:

- The dimension of each street, both the width and right-of-way;
- The surface material (e.g. asphalt, caliche, or gravel/dirt);
- A rating of the condition of each street's surface to determine its classification. The classifications are:

<u>Good Condition</u>	Few surface cracks or potholes, little edge deterioration
<u>Fair Condition</u>	Surface cracks less than 1/2 inch wide, potholes less than 2 inches in diameter or $\leq 2"$ in depth, crumbling edges extend less than 1 inch from street edge
<u>Poor Condition</u>	Surface cracks more than 1/2 inch wide, potholes greater than 2 inches in diameter or $\geq 2"$ in depth,

	crumbling edges extend more than 1 inch from street edge
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The location of existing curbs and gutters or similar drainage (all drainage structures are identified in Chapter 7 Drainage Study).

The results of the field survey are tabulated in *Table 8A: Street Inventory*. The street system is delineated within the table into streets within the city limits including the ETJ, just city limits, and roads within the City that are maintained by the City. Within those categories the material type, condition and length are tabulated, providing an outline of the streets' characteristics and condition. This provides a basis for further analysis. *Map 8A: Existing Street System* illustrates the information for spatial analysis and includes street location, condition, right-of-way and width. *Map 8A* also shows unimproved or "paper streets."

Table 8A: Street Inventory

City with ETJ				City Limits				City Limits (City Maintained Only)			
CONDITION	LF	Miles	%	LF	Miles	%	LF	Miles	%		
Asphalt				Asphalt				Asphalt			
Good	42,490	8	44%		20,024	4	39%		1,719	0	6%
Fair	22,786	4	24%		16,213	3	31%		14,299	3	47%
Poor	1,287	0	1%		1,287	0	2%		1,287	0	4%
Subtotal	66,564	13	69%		37,524	7	72%		17,305	3	57%
Dirt & Gravel				Dirt & Gravel				Dirt & Gravel			
Good	0	0	0%		0	0	0%		0	0	0%
Fair	0	0	0%		0	0	0%		0	0	0%
Poor	29,095	6	30%		14,311	3	28%		12,984	2	43%
Subtotal	29,095	6	30%		14,311	3	28%		12,984	2	43%
Caliche				Caliche				Caliche			
Good	0	0	0%		0	0	0		0	0	0%
Fair	0	0	0%		0	0	0		0	0	0%
Poor	391	0.1	0%		0	0	0%		0	0	0%
Subtotal	391	0.1	0%		0	0.0	0.0%		0	0.0	0%
TOTAL	96,050	18.19	100%		51,835	9.82	100%		30,288	5.74	100%
Street Conditions (General)											
City with ETJ				City limits				City Limits (City Maintained Only)			
Good	42,490	8	44%		20,024	4	39%		1,719	0	6%
Fair	22,786	4	24%		16,213	3	31%		14,299	3	47%
Poor	30,773	6	32%		15,598	3	30%		14,271	3	47%

TOTAL	96,050	18.19	100%		51,835	9.82	100%		30,288	5.74	100%
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Conditions by Type

All Streets (City and ETJ)				All Streets (City Only)				City Limits (City Maintained Only)			
Paved	66,564	12.6	69%		37,524	7.1	72%		17,305	3.3	57%
Good	42,490	8.0	44%		20,024	3.8	39%		1,719	0.3	6%
Fair	22,786	4.3	24%		16,213	3.1	31%		14,299	2.7	47%
Poor	1,287	0.2	1%		1,287	0.2	2%		1,287	0.2	4%
Unpaved	29,486	5.6	31%		14,311	2.7	28%		12,984	2.5	43%
Good	391	0.1	0%		0	0.0	0%		0	0	0%
Fair	0	0.0	0%		0	0.0	0%		0	0	0%
Poor	29,486	5.6	31%		14,311	2.7	28%		12,984	2.5	43%
TOTAL	96,050	18.2	100%		51,835	9.8	100%		30,288	5.7	100%

Source: GrantWorks 2010 Fieldwork.

8.2 Street System Analysis

The street system analysis determines the adequacy of the system to meet existing and forecasted needs and makes recommendations for any needed improvements concerning traffic flow and street conditions.

Lone Oak's existing street system is mostly laid out in the traditional grid pattern typical of many rural west Texas communities. Likewise, the majority of the City is organized into defined "blocks" in the traditional sense. The majority of the streets serving the City are local, residential streets; however, a few major thoroughfares traverse the city providing corridors for thru-traffic as well as passage into and out of the City.

Street Condition: The state maintained major thoroughfares remain in good condition. Most local streets are in fair to poor condition. According to City staff, the City-maintained streets that are in the best condition include Main St., Gladys St., and McBride St. The widths of the local streets range from 10 feet to 30 feet. Narrow street widths can be problematic when local traffic approaches from opposing directions. Where the right of way exists, the minimum street width should be increased to at least 14 feet to allow for safer passage of vehicles in both directions.

Most streets located in the southern part of the city are in poor condition, with the exception of streets maintained by TxDOT. According to City staff, Division St. was not constructed over a standard base, causing it to be in poor condition. City staff indicated that asphalt has not been laid onto the street system for several years. According to staff, the following roads are in the greatest need of repair: Jones St., Cedar St., Magnolia St., Division St., Windsor St., and College St.

Maintenance: The City maintains all local streets within the city limits, and also maintains the portions of Windsor Street and Broad Street located outside of the

city limits. TxDOT maintains Church Street, Katy Street, and all highways and farm-to-market roads located within the city limits. Hunt County maintains county roads located in the ETJ and assists the City with maintaining county roads within the city limits if the City provides the materials needed. The City has designated \$17,000 for street repairs for the fiscal year July 1, 2010 through June 30, 2011 to perform spot maintenance on potholes. Because of the high cost of street repairs, the relative scarcity of grant funding, and cost savings that can come from larger projects, many cities create a separate account for streets and save a set amount each year until funds are available to repair several miles of pavement.

Undeveloped Streets: In both the City and the ETJ, sections of right-of-way were dedicated when the land was platted, but streets were never constructed. These streets are known as “paper streets”, as they only exist on paper. There are two common reasons for this: 1) the developments were never completely built out; or, 2) topographical barriers made construction of the streets impractical. The following areas are examples of “paper streets” in Lone Oak.

Table 8B: Undeveloped Streets

Street Name	From	To	Preserve?
N/A	Division St.	Katy St.	Yes-may be needed for future development
N/A (two alleys located between private properties)	Main St.	Magnolia St.	No
N/A (two alleys located between private properties)	Magnolia St.	W. Cedar St.	No
N/A (continuation of Hickory St.)	Oak St.	F.M. 1567	Yes-may be needed for future development
N/A (alley)	Olive St. between McBride St. and Buffalo Mesa St	Does not connect to another street; extends into open space	No

Source: GrantWorks 2010 Fieldwork.

Paper streets may be developed as growth and economic necessity dictate; however undeveloped streets that no longer make sense within the transportation system should be abandoned and removed from the city maps. Those include sections that have already been developed for other uses, sections of street that would extend beyond the cross streets, and in areas where building roads is undesirable due to topographical barriers and extra expense. In general law cities, an abutting street may not be closed or vacated without consent of the adjoining property owners.

8.3 Street System Plan

This plan addresses the concerns noted in the preceding analysis section. It serves as a guide to the prioritization, costs, funding, and timing of future street improvements. Should the City adopt the Proposed Subdivision Ordinance, new street construction should comply with the specifications established in the ordinance.

Prioritized Problems. The problems with the City's street system are ranked and listed as follows:

1. Local streets in fair to poor condition and are in need of repaving or reconstruction.
2. Prioritizing reconstruction effort with limited budget.
3. Drainage problems cause street deterioration.
4. Paper streets need to be vacated or built.

Goals and Objectives:

Goal 1: A safe, well-maintained and functional community street system.

Objective 1.1: By 2021, the City will have repaved or reconstructed most of City maintained roads that are considered in poor condition in

conjunction with culvert replacement and roadside ditch re-grading and other infrastructure projects.

Policy 1.1.1: Complete phased program of repaving and reconstruction of streets in poorest condition as City budget allows.

Objective 1.2: By 2031, the City will have established roadside ditch maintenance program, as outlined in *Chapter 7: Storm Drainage System Study*, to preserve the integrity of the street system.

Policy 1.2.1: Prevent deterioration of surfaces by promoting drainage and weed control at street edges on an annual basis. Annual maintenance should include clearing debris from culverts and roadside ditches.

Objective 1.3: By 2015, establish a system for maintaining street system on an ongoing, rotating basis by accomplishing the following:

Policy 1.2.1: Upon completion of phased program, develop a plan to seal coat all streets on a rotating basis once every 10 years to keep paved surfaces in good condition longer.

Policy 1.3.4: Budget annually for street repairs.

Policy 1.3.5: Determine best methodology for financing street improvements by consulting engineers and financiers by 2012.

Policy 1.3.6: Pass ordinances that abandon unbuilt/unmaintained streets and alleys.

Implementation Plan:

The successful implementation of the proposed street system plan should meet all of the stated goals and objectives. A plan should effectively utilize funds by identifying street improvements that will benefit the community the most. For example, little benefit would come from constructing and then maintaining a street that met no particular planning or design standards.

Most small cities have very limited resources to expend on street improvements. Both new paving and re-paving are costly endeavors. The City also has limited

capability to maintain the existing pavement. The plan focuses on rehabilitation of City-maintained streets in the poorest conditions.

Appropriate choices for repair will depend on the amount of wear/damage to be addressed with the repair, the amount of traffic the street is expected to receive, and the amount of funds available to make street improvements. Therefore, the investigation should offer several options with associated costs for accomplishing the desired results. Options include, but are not limited to:

- **Option 1: Point Repairs:** Excavation of failed pavement sections to the base course, back-filled with cold mix asphalt and compacted to existing grade. Surface sealant is optional. This method is used to treat potholes and other imperfections and roadway hazards, and constitutes a portion of annual, ongoing maintenance.
- **Option 2: Seal Coat:** (*Also known as chip seal*) Application of asphalt cement; cover with pre-coated aggregate at about one cubic yard of aggregate per 90 square yards. Ideally, this treatment is used once every three to five years to maintain streets and forestall more costly repairs. Using recent engineering cost estimates in North East Texas, chip seal coating would cost an estimated \$2.00 per square yard.
- **Option 3: Overlay:** Depending on the severity of wear, approximately one inch of surface is milled off the existing street in order to level depressions in the pavement. The remaining surface material is overlaid with a minimum of 1.5- to 2-inches of hot mix asphaltic concrete (HMAC) or hot mix/cold laid asphaltic concrete, followed by a surface treatment (two-course). This treatment is used to completely replace the surface material of a street to address pavement deterioration and extend street life. Two-course overlay increases the life of the pavement, and would require additional milling. Using an average of RS Means data and recent costs for similar projects in Northeast Texas, overlay projects would cost an estimated \$19 per square yard, depending on processes chosen. (Labor and equipment cost estimates cited in RS Means, Heavy Construction Cost Data, 2008).

- **Option 4: Reclaim/Reconstruct:** Remove existing base to a minimum depth of six inches. Mix emulsified asphalt with recycled asphalt to create road way base. Apply two-course of asphalt cement to create bearing surface. Base is proof-rolled at each course. Surface sealant optional. Streets receiving the reclamation treatment will last 12 to 20 years, depending on the traffic load and environmental conditions. The cost of this method also approximates costs for paving a gravel road. Using an average of RS Means data and recent costs for similar projects in Northeast Texas, reconstruct projects would cost an estimated \$35 per square yard, depending on processes chosen. (Labor and equipment cost estimates cited in RS Means, Heavy Construction Cost Data, 2008).

Due to cost considerations, the City will also have to consider phasing. The phases would be implemented as funds become available and may be adjusted to reflect available funds. The order also may be re-arranged, depending on the urgency of required repairs and/or replacement. The order may also change, depending on the urgency of required repairs and/or replacement and/or anticipated growth. The phases in this plan were arranged to coincide with water, wastewater, or drainage upgrades; 2010 road conditions recorded during field survey; and anticipated growth reflected in the city's Future Land Use plan. The phases are as follows:

Phase 1 – (2011-2013) Involves the streets in poor conditions in the northern and northeastern portions of the city. These streets route traffic to residential areas and all provide direct access to U.S. 69. The repair operations should include an overlay process for the sections of the paved asphalt streets that can be salvaged and reconstruction for those areas that currently do not have pavement.

Phase 2 – (2014-2016) This phase will involve roads in the central area of the city that are unpaved. Reconstruction of these roads is recommended, though the City may choose to overlay the streets instead due to budget constraints.

Phase 3 – (2017-2021) This phase will involve the rest of City-maintained roads in poor condition not already addressed in Phases 1 or 2. Most of these roads are gravel and will require new pavement.

The street projects outlined in the following tables establish a plan for well-paved routes throughout the City. Safe and efficient flow of traffic through the residential and commercial areas requires roads are in good condition. The phasing & cost estimates for each of these phases are shown in the following tables:

Table 8C: Lone Oak Street Improvements by Phase

Phase	Street	From	To	Condition	Material	Linear Feet	Proposed Width	Square Yards	Cost
2011-2013									
Phase 1	Hall St.	Entire Street	-	Poor	Dirt / Gravel	563	16	1,001	\$35,042
Phase 1	Wallace St.	Entire Street	-	Poor	Dirt / Gravel	744	20	1,654	\$57,895
Phase 1	E. Cedar St.	Entire Street	-	Poor	Asphalt	700	16	1,244	\$23,638
Phase 1	Hickory St.	Entire Street	-	Poor	Dirt / Gravel	920	14	1,430	\$50,066
<i>Subtotal</i>						2,927		5,330	\$166,641
<i>Reconstruction costs priced at \$35 per square yard; overlay priced at \$19 per square yard. Costs for Hall St., Wallace St., and Hickory St. are for reconstruction, and cost for E. Cedar St. is for overlay.</i>									
2014-2016									
Phase 2	St. John St.	Entire street	-	Poor	Dirt/ Gravel	528	12	704	\$24,623
Phase 2	Lone Oak St.	Entire street	-	Poor	Dirt/ Gravel	282	12	376	\$13,175
Phase 2	Division St.	Entire street	-	Poor	Dirt/ Gravel	1,407	12	1,875	\$65,641
<i>Subtotal</i>						2,217		2,955	\$103,439
<i>Reconstruction costs priced at \$35 per square yard. All streets in this phase are priced for reconstruction.</i>									
2017-2021									
Phase 3	New St.	McBride St.	Middle of Street	Poor	Asphalt	323	14	502	\$9,534

Phase 3	New St.	Windsor St.	Middle of Street	Poor	Dirt/Gravel	238	14	371	\$7,043
Phase 3	Windsor St.	Etter St.	City Limits	Poor	Dirt/Gravel	331	14	514	\$18,005
Phase 3	Windsor St.	College St.	FM 513	Poor	Dirt/Gravel	1,386	14	2,156	\$75,449
Phase 3	Mill St.	Etter St.	City Limits	Poor	Dirt/Gravel	331	14	514	\$9,769
Phase 3	Magnolia St.	Entire Street	-	Poor	Dirt/Gravel	1,217	16	2,163	\$75,697
Phase 3	Elm St.	Entire Street	-	Poor	Dirt/Gravel	1,294	16	2,301	\$80,540
Phase 3	Norton St.	Entire Street	-	Poor	Dirt/Gravel	661	18	1,323	\$46,300
<i>Subtotal</i>						5,780		9,844	\$322,338
<i>Reconstruction costs priced at \$35 per square yard; overlay priced at \$19 per square yard. Costs for New St. and Mill St. are priced for overlay, costs for Windsor St., Norton St., Elm St., and Magnolia St. are priced for reconstruction</i>									

The phased improvements described below are illustrated on *Map 8B: Proposed Street Improvements 2011-21*.

Table 8D: Street Improvement Plan Projects, 2011-2021

Project ID / Phase	Project	Estimated Cost	Source of Funding
Phase 1 (2011-2013)	Phase 1 – Involves the streets in poor conditions in the northern and northeastern portions of the city. These streets route traffic to residential areas and all provide direct access to U.S. 69. The repair operations should include an overlay process for the sections of the paved asphalt streets that can be salvaged and reconstruction for those areas that currently do not have pavement.	\$166,641	GEN
Phase 2 (2014-2016)	Phase 2 - This phase will involve roads in the central area of the city that are unpaved. Reconstruction of these roads is recommended.	\$103,439	GEN
Phase 3 (2017-2021)	Phase 3 - This phase will involve the rest of City-maintained roads in poor condition not already addressed in Phases 1 or 2. Most of these roads are gravel and will require new pavement. Most are located in the southern portion of the city.	\$322,338	GEN

*Source of funds will be City of Lone Oak General Fund (GEN) possibly including funds from any new street maintenance or related tax.

9 Economic Development Study

The City of Lone Oak is located in Hunt County, a region characterized by plains and shallow stream valleys. Lone Oak became a shipping center for the area by the 1890s, and had 40 local businesses, a cotton gin, and steam gristmill. When the County was originally settled in 1839, the local economy mainly relied upon self-sufficient yeoman farming. By the early 1900s, increased access to railway transportation allowed the area to expand its economy agricultural production. Cotton was the primary cash crop through the mid-1900s. As farming became more mechanized, larger farms dominated the area, and the number of smaller farms decreased. Farming and agriculture also diversified, and cattle and livestock became important components of the County's economy. After WWII ended, the County converted a flight-training center to an industrial site, and made efforts to attract more industry to the area. In the twenty-first century, the area's economy was mainly comprised of manufacturing, agribusiness, and education. In 2010, Lone Oak's economy relied on construction, manufacturing, wholesale trade, and retail trade. This Economic Development study will look at Lone Oak's strengths and weaknesses and make recommendations for strengthening its economy during the planning period through 2031. The Economic Development Study includes:

Historic Development and General Character: describes the City's recent economic history and situates the City's economic sectors with relationship to Hunt County.

Economic Base: describes the City's economic sectors in detail.

Business Climate Analysis: describes how economic development is affected by the presence of economic development groups, availability of utilities, infrastructure, land, and resources, and skills of the labor force.

Barrier Analysis: Compares specific business cost and operating condition factors between Lone Oak, Hunt County, and the State.

Economic Development Strategies: Describes tools and partners available to the City for advancing economic goals.

Economic Development Plan: Includes a policy framework that connects the City's overarching economic goals to specific objectives and policies the City should follow. Also lists activities/policies in a table with costs and funding sources.

9.1 Historic Development and General Character

Development of the Economy: The City of Lone Oak, Texas is located on US Highway 69, 14 miles southeast of Greenville and 5 miles east of Lake Tawakoni in Hunt County. The area was first settled in the late 1850s and was incorporated in 1890. The Missouri, Kansas, and Texas Railroad built a line through the City in 1891, facilitating the shipment of goods from area farms. At that time, Lone Oak had 40 businesses. The population peaked at 1,200 in 1914 and remained high until the Great Depression and World War II.¹¹ The railway was successful until the early 1950s, when a severe drought in Texas and debts drove the company to the brink of bankruptcy. In the late 1980s, the rail company was bought out by the Missouri Pacific Railroad Company, a subsidiary of Union Pacific, and a few miles of rail line were shut down. The railroad no longer serves Lone Oak. The population has remained below 750 residents since 1930 and was 598 at the 2010 Census.

Previous Studies: The City of Lone Oak does not have any prior economic development studies.

Physical Growth of the Community: The City of Lone Oak, located in southeastern Hunt County, is situated at the crossroads of US Highway 69 and

Farm roads 513 and 1567, ten miles southeast of Greenville. The central business district extends along SH 69. The Town Square was once a gathering place for the community, and today many of the local businesses are located in the square's vicinity. Commercial, residential, semi-developed, and institutional land uses line much of each of these thoroughfares throughout the city. Residential land uses occupy approximately 20 percent and commercial uses 3 percent of land within the City limits. Agricultural and open space areas represent 50 percent of the total area land use, providing many opportunities for additional development within the City's corporate boundaries.

Lone Oak has a significant number of semi-developed lots that could serve as possible in-fill areas for both commercial and single-family construction, and also has larger blocks of land that could prove suitable for larger-scale subdivision and housing development. As examined in the housing chapter of this report, housing in the City is aging and new housing construction has slowed. In 2010, only one new building permit was issued by the City. Semi-developed lots in the city limits could accommodate any future growth.

The overall design of the City largely utilizes the grid pattern typical of many small Texas communities. The town is bisected by its major thoroughfare, SH 69. FM 513 intersects SH 69 to the north of town, and FM 1561 intersects SH 69 in the center of town. Most of the town's commercial development is located directly adjacent to one of these thoroughfares.

Two streams, Pecan Branch and Bull Creek, run through the city and its ETJ. Consequently, Lone Oak has two 100 year floodplains totaling approximately 41 acres along its western and eastern edges. Both of the floodplains extend into the ETJ. Although floodplain areas present challenges to future development, the

¹¹ Lone Oak's population was not included in the 1920 census. The 1914 population number is from the City of Lone Oak entry of the Handbook of Texas Online published by the Texas State Historical Association (www.tshaonline.org/handbook/online/)

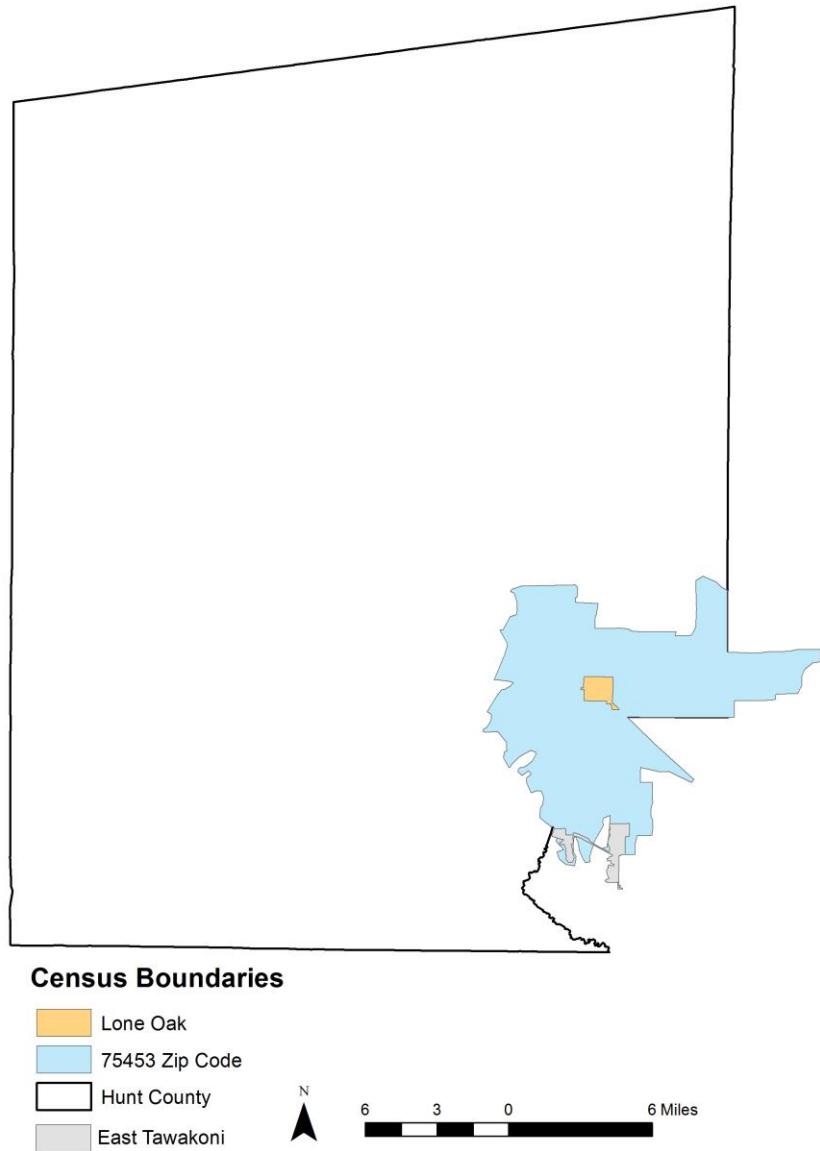
City of Lone Oak does not appear to have any overwhelming physical or natural constraints.

9.2 Economic Base Analysis

The economic base analysis reveals information about a local economy's health and its economic development potential. The Base Analysis should assist the community in determining plans for future economic programs. It should reveal which industries currently drive growth and which should drive growth in the future.

Lone Oak's Role in the Regional Economy: The analysis in this section uses census and other governmental data to discuss the economic background of the City of Lone Oak with relationship to the County. Zip Codes are the smallest unit for which the US Census collects economic data. The 75453 Zip Code includes all of Lone Oak.

Figure 9A: Census Zip Code 75453, Hunt County, and the City of Lone Oak



Existing Business Inventory:

This section consists of an inventory and descriptions of the economic components that provide employment and future growth opportunities for the community. *Table 9A* tabulates the number of businesses located in Zip Code 75453 as of the most recent County Business Patterns Census in 2008. This

information does not include any businesses established after 2008, nor does it reflect the change or closure of any establishment after that date.

Table 9A: Establishments by Sectors, 1998-2008 illustrates the number of establishments in Lone Oak for each industry and how Lone Oak compares to the county. In 2008, Lone Oak's establishments made up less than 2 percent of total establishments in Hunt County. Between 1998 and 2008, Lone Oak experienced a net decrease of 10 establishments (-31%), while Hunt County experienced a positive growth of 70 establishments (5%) for the same period.

Table 9A: Establishments by Sector, 1998- 2008

Industry	Hunt County			Zip Code 75453*			% of County (2008)
	1998	2008	% Change	1998	2008	% Change	
Forestry, Fishing, Hunting, and Agriculture Support	1	3	200%	0	0	0%	0%
Mining	3	1	-67%	0	0	0%	0%
Utilities	11	8	-27%	0	0	0%	0%
Construction	111	151	36%	5	6	20%	4%
Manufacturing	62	81	31%	0	0	0%	0%
Wholesale Trade	58	55	-5%	1	2	100%	4%
Retail Trade	264	253	-4%	8	7	-13%	3%
Transportation and Warehousing	40	33	-18%	3	1	-67%	3%
Information	22	28	27%	0	0	0%	0%
Finance and Insurance	80	94	18%	3	2	-33%	2%
Real Estate and Rental and Leasing	59	78	32%	1	1	0%	1%
Professional, Scientific, and Technical Services	73	81	11%	2	0	-100%	0%
Management of Companies and Enterprises	7	8	14%	0	0	0%	0%
Administrative and Support and Waste Management and Remediation Services	52	54	4%	0	0	0%	0%
Educational Services	12	11	-8%	1	0	-100%	0%
Health Care and Social Assistance	155	166	7%	2	0	-100%	0%
Arts, Entertainment, and Recreation	21	20	-5%	2	0	-100%	0%
Accommodation and Food Services	121	113	-7%	2	2	0%	2%
Other Services (except Public Administration)	181	172	-5%	1	1	0%	1%
Auxiliaries (exc corporate, subsidiary & regional mgt)	1	0	-100%	0	0	0%	0%

Unclassified establishments	9	3	-67%	1	0	-100%	0%
Total	1,343	1,413	5%	32	22	-31%	1.56%

*Figures from zip code 75453 are used here as a proxy for City of Lone Oak. All of the establishments listed are not located inside the City of Lone Oak, but may be within the City's ETJ.

Source: US Census Bureau 1998 and 2008 County Business Patterns, <http://censtats.census.gov>

In order to give a more accurate indication of the number of businesses within each category, the table below lists the industry and number of establishments within the 75453 zip code using 2010 taxpayer data from the State Comptroller's office. The industry categories for census data and tax data are the same. The following tables show industries in the surrounding area (zip code 75453). East Tawakoni and Lone Oak are the only cities in the zip code. *Table 9B*, then, provides a picture of the types of businesses available in the Lone Oak area.

Table 9B: Existing Businesses Zip Code 75453 (Including Lone Oak), 2010

Industry	Total Establishments	% Total
Forestry, fishing, hunting, agriculture support	1	2%
Farm Labor Contractors and Crew Leaders	1	
Mining	0	0%
Utilities*	0	0%
Construction	1	2%
Commercial and Institutional Building Construction	1	
Manufacturing	5	8%
All Other Product Manufacturing	1	
Farm Machinery and Equipment Manufacturing	1	
Other Communications Equipment Manufacturing	1	
Gasoline Engine and Engine Parts Manufacturing	1	
All Other Miscellaneous Wood Product Manufacturing	1	
Wholesale trade	7	11%
Automobile and Other Motor Vehicle Merchant Wholesalers	1	
Tire and Tube Merchant Wholesalers	1	
Furniture Merchant Wholesalers	1	
Other Construction Material Merchant Wholesalers	1	
Other Miscellaneous Durable Goods Merchant Wholesalers	3	
Retail trade	32	52%
Transportation & warehousing	0	0%
Information	1	2%
Data Processing, Hosting, and Related Services	1	
Finance & insurance	0	0%
Real estate & rental & leasing	1	2%

General Rental Centers	1	
Professional, scientific & technical services	2	3%
Graphic Design Services	1	
All Other Professional Scientific, and Technical Services	1	
Management of companies & enterprises	0	0%
Admin, support, waste mgt, remediation	1	2%
Carpet and Upholstery Cleaning Services	1	
Educational services	0	0%
Health care and social assistance	0	0%
Arts, entertainment & recreation	0	0%
Accommodation & food services	3	5%
Recreational and Vacation Camps (Except Campgrounds)	1	
Full-Service Restaurants	1	
Limited-Service Restaurants	1	
Other services (except public administration)	5	8%
Automotive Glass Replacement Shops	1	
All Other Automotive Repair and Maintenance	1	
Home and Garden Equipment Repair and Maintenance	2	
Religious Organizations	1	
Public Administration	1	2%
Courts	1	
Unclassified establishments	0	0%
Total	61	100%

Source: *Texas Comptroller, 2010*

The following table lists the businesses from Table 9B that are located within the City of Lone Oak. Approximately one-third of the zip code businesses are within Lone Oak.

Table 9C: Existing Businesses in Lone Oak, 2010

Business Description	Total Establishments
Accommodation and Food Services	2
Limited-Service Restaurants	1
Full-Service Restaurants	1
Food Manufacturing	1
Retail Bakeries	
General Merchandise Stores	1
All Other General Merchandise Stores	1
Information	1
Data Processing, Hosting, and Related Services	1

Manufacturing	1
All Other Product Manufacturing	1
Miscellaneous Store Retailers	6
Gift, Novelty, and Souvenir Stores	2
Pet and Pet Supply Stores	1
Used Merchandise Stores	1
All Other Miscellaneous Store Retailers (except Tobacco Stores)	2
Professional, Scientific, and Technical	1
All Other Professional, Scientific, and Technical Services	1
Public Administration	1
Courts	1
Retail Trade	9
Convenience Stores	1
Cosmetics, Beauty Supplies, and Perfume Stores	2
Furniture Stores	2
Gasoline Stations with Convenience Stores	1
Other Miscellaneous Store Retailers	2
Supermarkets and Other Grocery (Except Convenience) Stores	1
Wholesale Trade	4
Other Miscellaneous Durable Goods Merchants Wholesalers	2
Other Construction Material Merchant Wholesalers	1
Automobile and Other Motor Vehicle Merchant Wholesalers	1
Total	27

*Source: Texas Comptroller, 2010

A cluster analysis of Lone Oak's industries illustrates the degree to which individual industries have concentrated in the County compared to the Workforce Development Area region, the State of Texas, and in the U.S. Clustering occurs because of advantages accrued from locating proximate to other businesses in the same industry. When an industry clusters in a city, it differentiates the city from neighboring communities and can attract new residents and businesses to the city. *Table 9C* describes the advantages that come from clustering, how

clustering is influenced, and how the public sector can support the clustering of industries.¹²

Table 9D: Advantages from Clustering

Clustering Incentive/ Influence	Description	Public Sector Support
Labor Market Pooling	Market/supply of specialized skilled labor	Labor market info, specialized training
Supplier Specialization	Suppliers with specialized equipment develop to serve industry establishments	Brokering, recruiting, entrepreneurship, credit
Knowledge Spillovers	Concentration of people knowledgeable in industry share information to everyone's benefit	Networking, public sector research and development support
Entrepreneurship	Opportunities arise for expansion and new establishments within the industry	Assistance for startups, spin-offs
Path Dependence and Lock-In	Opportunities available will be shaped by activities already established	Help extend, refine, recombine existing distinctive specializations
Culture	Important to helping economies/clusters change over time	Acknowledge and support cluster organization
Local Demand	Can encourage innovation, product improvement	Aggregate and strengthen local demand

The location quotient (LQ)¹³ indicates the presence of an industry cluster. When the LQ is less than 1.0, County residents can be expected to import the good or service produced by the industry. When the location quotient is greater than 1.0, County residents can be expected to export the good or service produced by the industry or to attract people to the County for the good or service. When the location quotient is equal to 1.0, the local production in that particular industry is sufficient to meet local demand, and does not export the good or service. *Table 9E* shows Hunt County's location quotients in relation to the North Central Texas Workforce Development Area (which includes 14 surrounding counties), Texas, and the U.S. Location quotients greater than 1.0 in the year 2009 are highlighted.

Table 9E: Cluster Analysis

¹² Adapted from Joseph Cortright, "Making Sense of Clusters: Regional Competitiveness and Economic Development" (The Brookings Institution Metropolitan Policy Program, March 2006): available at http://www.brookings.edu/media/Files/rc/reports/2006/03cities_cortright/20060313_Clusters.pdf, cited in the Huntville/Hunt County Economic Development Strategic Plan

¹³ The LQ is calculated by dividing the percentage of employees in an industry in the County by the percentage of employees in that industry in the larger regions

	2003			2009		
	County to WDA	County to TX	County to U.S.	County to WDA	County to TX	County to U.S.
Agriculture, forestry, fishing and hunting	0.3	0.2	0.2	0.4	0.3	0.2
Mining, quarrying, oil and gas extraction	-	-	-	0.0	0.0	0.0
Utilities	1.5	1.7	2.0	1.8	1.6	1.8
Construction	0.7	0.7	0.8	0.7	0.6	0.8
Manufacturing	2.2	3.0	2.6	3.0	3.5	3.2
Wholesale trade	0.8	0.6	0.7	0.9	0.6	0.7
Retail trade	0.9	1.2	1.2	1.0	1.2	1.2
Transportation and warehousing	1.2	0.7	0.9	0.9	0.7	0.8
Information	0.5	0.6	0.7	0.2	0.3	0.3
Educational services	0.9	0.6	0.4	0.0	0.0	0.0
Health care and social assistance	0.9	0.8	0.8	1.1	1.0	0.9
Arts, entertainment, and recreation	0.5	0.5	0.4	0.3	0.4	0.3
Finance and insurance	0.5	0.5	0.5	0.5	0.5	0.5
Real estate and rental and leasing	0.4	0.5	0.6	0.7	0.6	0.7
Professional and technical services	0.7	0.5	0.5	0.6	0.6	0.6
Management of companies and enterprises	-	-	-	0.0	0.0	0.0
Administrative and waste services	0.3	0.2	0.3	0.3	0.2	0.2
Accommodation and food services	0.9	1.0	1.0	0.8	0.9	1.0
Other services, except public administration	0.8	0.7	0.6	0.7	0.7	0.6
Unclassified	0.4	0.4	0.3	1.8	2.0	0.5

Source: US Department of Labor, Bureau of Labor Statistics and Texas Workforce Commission Employment and Wage data (www.tracer2.com)

The cluster analysis indicates that Hunt County has sizeable concentrations in the 'Utilities,' 'Manufacturing,' 'Retail,' and 'Unclassified' industries. The utilities, manufacturing, unclassified, and health care and social assistance industries increased from 2003 to 2009, while the retail industry remained even during that time frame.

Hunt County appears to be able to draw most of its workforce from Hunt County residents. However, there may not be enough jobs in the County to accommodate all the workers as some travel to Dallas County to work, according to 2000 Census data. The Texas Workforce Commission provides county level data on worker commuting patterns. Data for Lone Oak workers is not available. *Chart 9B* and *Chart 9C* illustrate the commuting patterns for Hunt County residents and workers, as reported in the 2000 Census. The majority (81%) of

Hunt County workers live within Hunt County; the next largest share of Hunt County workers reside in Dallas and Hopkins Counties (5% each). 62% of Hunt County residents work in Hunt County, 19% of Hunt County residents work in Dallas County, and the remainder of Hunt County residents work in Collin County (6%), Rockwall County (5%), and other counties (8%). Much of the County's population resides in Greenville, the county seat, which is located in the center of Hunt County. Lone Oak makes up less than 1% of the county's population. In addition, Lone Oak is located the furthest away from Dallas County. This indicates that Lone Oak workers probably are working within Hunt County.

Chart 9A: Workplace Locations of Hunt County Residents (2000)

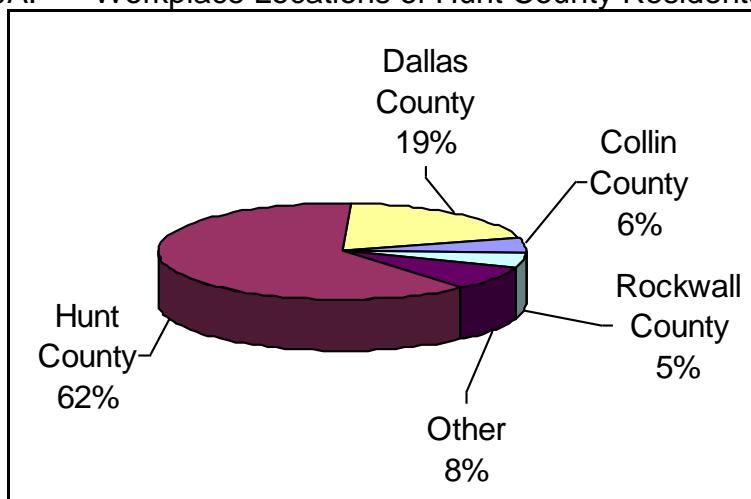
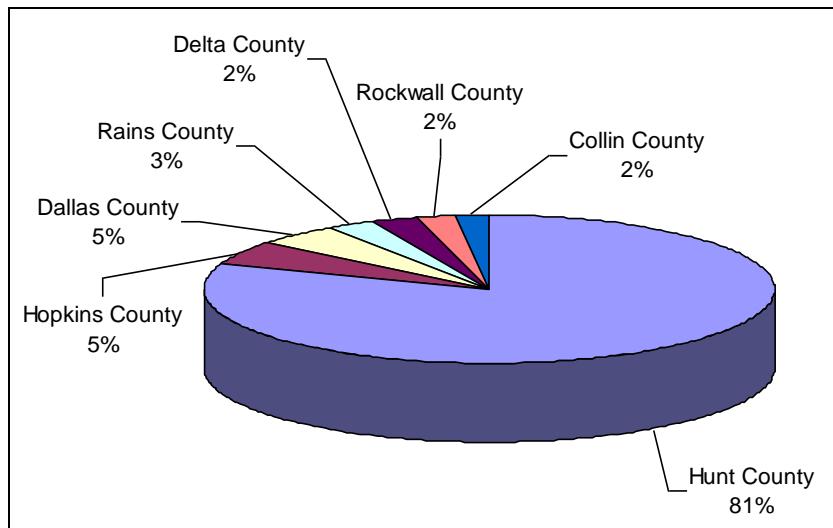


Chart 9B: Residences of Hunt County Workers (2000)



Agriculture

According to the 2007 Census of Agriculture, 2,317 farms operate in Hunt County (*Table 9F*). Lone Oak contributes an average number of farms and ranches compared to other areas in the counties, but an exceptional number of 75453 zip code farms and ranches sell more than \$250,000 annually. It should be noted that any zip code area partially inside of either county is included, so the zip code areas included in the table represent an area greater than the total area of the county. Farms in the 75453 zip code produce mostly cattle, poultry, field crops (including hay), and equine.

Table 9F: Farm Production, Hunt County

Location		Value of all agricultural products sold			
Zip Code	Place Name	Total farms	Less than \$50,000 (farms)	\$50,000 to \$249,999 (farms)	\$250,000 or more (farms)
75135	CADDY MILLS	231	223	4	4
75401	GREENVILLE	325	316	6	3
75402	GREENVILLE	320	308	12	0
75422	CAMPBELL	225	218	6	1
75423	CELESTE	201	196	2	3
75428	COMMERCE	213	197	14	2
75453	LONE OAK	278	262	10	6
75474	QUINLAN	374	367	5	2

75496	WOLFE CITY	252	230	18	4
	Total	2,419	2,317	77	21

Source: USDA – National Agricultural Statistics Service; 2007 Census of Agriculture, Zip Code Tabulations of Selected Items (<http://www.agcensus.usda.gov/>)

Retail: According to sales taxpayer information from the State Comptroller's office in 2010, Lone Oak had a total of 9 retail establishments. *Table 9G: Lone Oak Retail Establishments, 2010* provides detail about the retail businesses in Lone Oak, according to State Comptroller office records. The local retail sector exists primarily to serve the basic needs of its citizens, local businesses, citizens from nearby rural areas, and traffic from U.S. Hwy 69. The City of Greenville and Dallas-Fort Worth areas meet needs for the larger region.

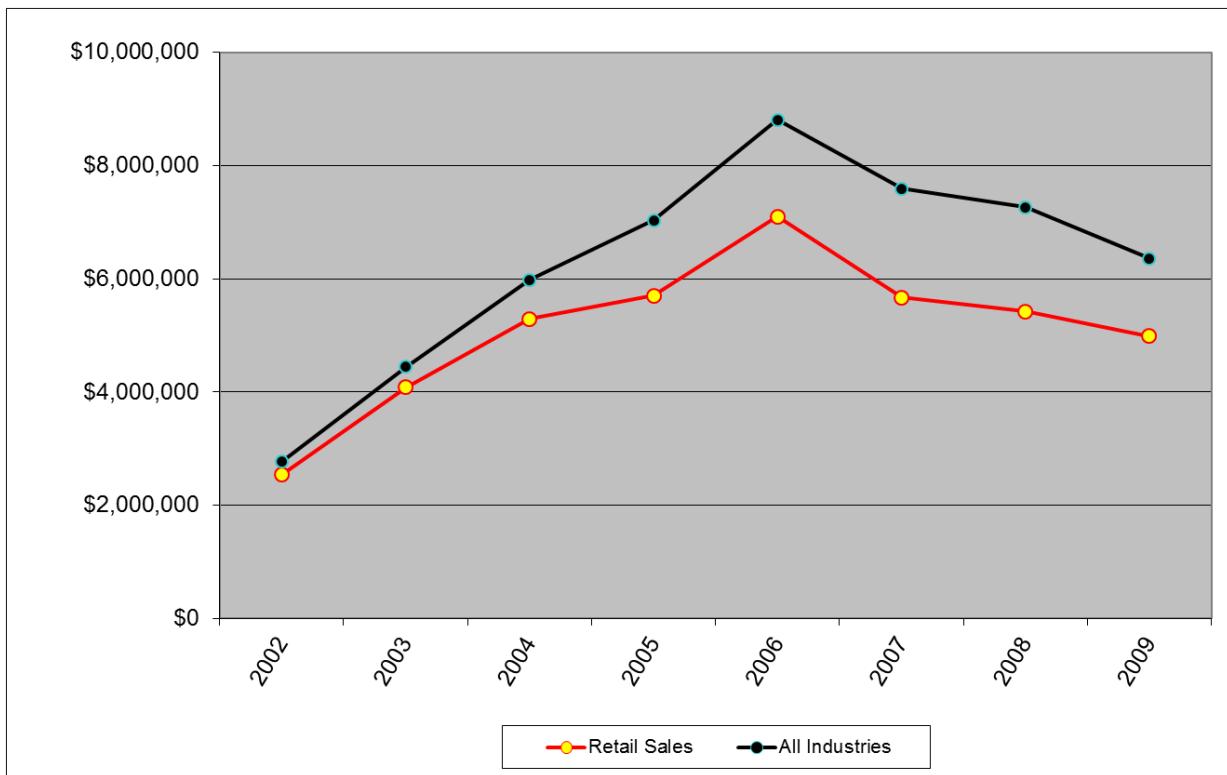
Chart 9C: Retail Sales, City of Lone Oak, 2002-2009 illustrates that City retail sales reached a high in 2006 then subsequently fell to below 2005 levels. 2010 sales for the year were not available at the time the plan was written. However, it appeared that sales had increased over 2009 through the 3rd quarter of 2010.

Table 9G: Lone Oak Retail Establishments, 2010

Business Description	Total Establishments
Convenience Stores	1
Cosmetics, Beauty Supplies, and Perfume Stores	2
Furniture Stores	2
Gasoline Stations with Convenience Stores	1
Other Miscellaneous Store Retailers	2
Supermarkets and Other Grocery (Except Convenience) Stores	1
Total Establishments	9

Source: Sales Taxpayer Information, Texas State Comptroller's office, 2010

Chart 9C: Retail Sales, Lone Oak, 2002-2009



Source: Quarterly Sales Tax Historical Data, Texas State Comptroller's office; <http://ecpa.cpa.state.tx.us/> (Quarterly Sales Tax Historical Data).

Labor Force Characteristics

Labor Supply: In February of 2011 the civilian labor force in Hunt County consisted of 37,538 people. Of that total, 34,178 people were employed and 3,360 were unemployed resulting in a County unemployment rate of 9%, slightly higher than the 8.2% unemployment rate in Texas during that time period. The North Central WDA, in which Hunt County is located, had an unemployment rate of 7.6%. *Table 9H* shows that between 2010 and February of 2011, the State's unemployment rate stayed the same, while Hunt County's unemployment rate increased slightly (from 8.8% to 9%) and North Central WDA's unemployment rate decreased slightly (from 7.7% to 7.6%).

Table 9H: Changes Civilian Labor Force, County

Year	Area	Labor Force	Employment	Unemployment	Unemployment Rate
2011	Texas	12,152,422	11,159,899	992,523	8.2%
2011	Hunt County	37,538	34,178	3,360	9.0%
2011	North Central WDA	1,227,279	1,133,436	93,843	7.6%
2010	Texas	12,136,384	11,141,903	994,481	8.2%
2010	Hunt County	37,170	33,895	3,275	8.8%
2010	North Central WDA	1,220,803	1,126,266	94,537	7.7%

Source: *Texas Workforce Commission, Civil Labor Force Employment (LAUS)*. 2011 data is for the month of February; 2010 data is annual data.

Wages: *Table 9I: 3rd Quarter 2010 Average Wages*, shows the most recent wage information available from the Texas Workforce Commission. The table illustrates that, on average, employees who work in Hunt County earn less than those in the North Central WDA and in Texas.

Table 9I: 3rd Quarter 2010 Average Wages

Area	Avg. Weekly Wages
Texas	\$876
North Central WDA	\$832
Hunt County	\$797

Source: *Texas Workforce Commission, 1st Quarter 2009 QCEW, employers paying unemployment insurance, data by place of work*.

Labor Skills: The skill levels associated with particular occupations are described using a two-part system. The first set of criteria describes the typical skill level required for a particular occupation, including practical experience, on-the-job training, and applied technical expertise. Occupations with high skill levels often require more than a year of work experience and high levels of expertise. Necessarily, these occupations have high barriers to entry such as demonstrated knowledge or required licenses. Entry barriers such as on-the-job training and

routine characterize occupations that require moderate skill levels but complex tasks that may take several months of work experience to master. Occupations with lower skill levels include those that require little prior experience and minimal on-the-job training.

The second set of criteria describes the educational prerequisites particular to the occupations. Prerequisites include college, technical school, and/or apprenticeships. Occupations with high educational entry barriers usually require at least a college degree, while those with moderate educational barriers generally require a high school diploma and might also require an associate degree from a two-year college, technical college training, or other specialized coursework or certification. Occupations with low educational barriers generally do not require completion of high school.

Table 9J shows the occupation by education requirement for residents over the age of 16 years from the 2000 census in Lone Oak, Hunt County, and Texas. City of Lone Oak residents tend to work in jobs that require moderate or low education, although 25% of employed residents are in jobs that require high education. In Hunt County and Texas, 27-33% of residents are in jobs that require high education. More detailed tables with the numbers for each employment category and skill level by gender can be found in *Appendix 9A*.

Table 9J: Occupation by Education Required

	Lone Oak	% of City	Hunt	% of County	Texas	% of State
High Education	54	25%	9,448	27%	3,026,602	33%
Moderate Education	80	36%	15,259	44%	3,833,873	42%
Moderate-Low Education	39	18%	4,326	13%	1,012,202	11%
Low Education	47	21%	5,506	16%	1,361,695	15%
Total	220	100%	34,539	100%	9,234,372	100%

Source: Extrapolated from 2000 U.S. Census, for Lone Oak city, SF3, Table P50.

Lone Oak residents have an advantage over many rural communities in their proximity to higher education institutions such as Texas A&M Commerce branch, Paris Junior College, Southwestern Christian College, and several colleges in the suburbs east of Dallas (approximately 1 hour drive away). Paris Junior College also has a branch in Greenville, only 16 miles away. Such institutions can both provide degrees and accreditation and act as partners in economic development initiatives by conducting research and providing topically relevant workshops and courses to Lone Oak residents.

Additional Business Data

Government Employment

The City of Lone Oak employs 6 full time workers, and Lone Oak ISD employs approximately 153 staff members.

Utilities

Electricity: TXU serves Lone Oak residents. Fixed monthly rates are as follows:

- Residential: \$5.95 base rate plus:
 - For average monthly usage of 500 kWh:
 - 11.40 cents per kWh
- For average monthly usage of 1000 kWh:
 - 10.80 cents per kWh
- For average monthly usage of 2000 kWh:
 - 10.90 cents per kWh

Water: The City maintains its water distribution system, but purchases its water from Cash SUD. Approximately 100% of the town is supplied with water. In 2010, the charge to customers was \$35.81 for the first 2,000 gallons, and \$5.70 for each additional 1,000 gallons up to 5,000 gallons. Rates are the same for both

inside and outside the city limits. More detailed information on the City's water system is available in *Chapter 5: Water System Study*.

Wastewater/Sewage: The City owns and maintains its municipal waste-water system, and approximately 100% of the town is served. The City also serves approximately 11 connections in its ETJ. Sewer charges are the same as water charges. The charges are: \$35.81 for the first 2,000 gallons, and \$5.70 for each additional 1,000 gallons up to 5,000 gallons. More detailed information on the City's wastewater system is available in *Chapter 6: Wastewater System Study*.

Natural Gas: Atmos Energy owns and operates the natural gas services in the community. Customers are charged a base rate of \$7.15 per month plus \$2.52 per Mcf. The rates vary by season and commodity prices, and various charges and fees apply.

Garbage Disposal: The City contracts with Waste Management to facilitate the community's garbage collection and disposal services. Commercial and residential rates are as follows:

Yards	Pick-up	Rate*
Regular hand collect w/ personal receptacles	1 time per week	\$12.05
Regular hand collect w/ trolley receptacle**	1 time per week	\$21.93
2 yard dumpster**	1 time per week	\$49.08
2 yard dumpster	2 times per week	\$95.28
3 yard dumpster	1 time per week	\$90.62
3 yard dumpster	2 times per week	\$122.67
4 yard dumpster	1 time per week	\$112.40
4 yard dumpster	2 times per week	\$153.04
6 yard dumpster	1 time per week	\$134.05

6 yard dumpster	2 times per week	\$176.14
6 yard dumpster	3 times per week	\$192.00

*Garbage rates are per month

**Dumpsters and trolley receptacles are provided by Waste Management upon request

Transportation

Thoroughfares: The City of Lone Oak is traversed by U.S. Highway 69 and Farm Roads 513 and 1567. US Hwy 69 runs northwest to south east through the city, and is intersected by FM 513 in the south and FM 1567 in the east. Lone Oak is located 15 miles south east of Greenville, the county seat of Hunt County. Tyler is 62 miles south east of Lone Oak on US Hwy 69. US Hwy 69 also connects to Interstate Highway 30, which leads to Dallas (approximately 61 miles from Lone Oak).

The thoroughfares are in good condition and are adequately sized to accommodate current traffic volumes. In 2009, Texas Department of Transportation traffic counters recorded an average of 6,400 vehicles (the highest count) on US Hwy 69 at the center of town close to the intersection of FM 1567 each day, 5,100 at the south end of SH 69, and 1,800 vehicles on FM 1571 close to the intersection of US Hwy 69. The lowest traffic count, 330 vehicles, was recorded on FM 1571 at the western edge of the city limits.

Public Transportation: The City of Lone Oak neither maintains nor offers any type of public transportation. The Ark-Tex Council of Governments runs a TRAX program funded by TxDOT and FTA that provides low cost transportation for Hunt and Morris County residents. Trips must be scheduled two days in advance through the county's service provider. Up to date information is available from www.atcog.org/trax.htm.

Rail: Lone Oak does not have rail service.

Airports: The closest small, public-use airport is located in Greenville, 14 miles to the northwest of Lone Oak. Majors Airport began operations in 1942 as a training center for the US Army Air Forces. The airport was deactivated in 1945 at the end of WWII, and was later purchased by the City of Greenville. Greenville then leased the airport. Aircraft based at Majors Airport are 90% single-engine planes and 10% multi-engine planes. Air traffic at the site consists of 92% general aviation and 8% military. The nearest airport with regional connections is Texarkana Regional Airport, located approximately 133 miles east the City. The closest international airport is Dallas Love Field Airport, located approximately 70 miles southwest of Lone Oak.

Availability of Raw Materials

The agricultural sector is an economic driver in the region. Lone Oak and the surrounding areas have readily available land for ranching and farming. Through the 1980s, the agriculture sector was a large component of the regional economy. Livestock accounted for over half of agricultural products sold in Hunt County during that time, and production of cotton, wheat, and sorghum made up the rest of the agricultural sector.

Industrial Site Location & Availability: Flat land suitable for development exists within the City's corporate boundaries and ETJ. Approximately 7% (47 acres) of land within the city limits is semi-developed, and 354 acres (50%) is agricultural or open space. Much more vacant land is available in the ETJ (1,867 acres), but land exists in both the City and ETJ with access to transportation and utility connections. Some agriculture/open space land is located in the flood plains. In the ETJ, the most easily accessible lots are located to the southeast of the city limits along US 69 and south along FM 513.

9.3 Barrier Analysis

Lone Oak's economic development potential can be measured in terms of strengths and weaknesses. Many of these exist beyond the control of the municipal government, but some can be influenced through direct spending, policy initiatives, encouragement of non-governmental organizations, or teamwork with area employers or other communities. Lone Oak's positives and negatives can be viewed as "cost factors," which relate to the cost of doing business in Lone Oak, and "operating condition factors," which describe the level and relative availability of the various elements necessary for economic development in the community. An inventory of these factors reveals *comparative advantages and disadvantages* (those factors where the City's competitive edge is greater or lesser). *Table 9K: Cost and Operating Condition Factors* shows some rules-of-thumb that can be applied when determining these factors.

Table 9K: Cost and Operating Condition Factors

DESCRIPTION AND EXPLANATION	
COST FACTORS:	
Wage Levels	Average income of adults working at least 20 hrs/wk, generally higher in suburban areas, Coastal U.S.
Electricity Costs	Industrial electric rates per kwh, generally higher in Northeast and California
Fuel Costs (w/tax)	Average gasoline cost per gallon varies little in-state
Water Costs	Cost per 10,000 gallons (commercial rates), locally determined
Sewer Costs	Cost per 10,000 gallons, locally determined
Building Costs	Cost of typical new single-family house, varies greatly
Land/site costs	Cost per acre, varies greatly from place to place
Local & State Taxes	Sales, property, and income taxes are considered
Financing Costs	Costs for local loans are compared to banks of their size and those available in larger markets. Also availability of local loans are considered.
OPERATING CONDITION FACTORS:	
Unskilled Labor	Rural and poor areas, central cities have higher percentages
Skilled Labor	Suburban, wealthy and industrialized areas have higher percentages
Productivity	Increases with presence of value-added manufacturing and skilled labor
Unionization	Present in most traditional heavy industries, many governmental agencies, some services especially in the non-Right-to-Work states
Local Regulation	Inflexible zoning, building or other regulations tend to hamper economic development
Site Availability	Near interstates, ports, airports, with utilities

Site Suitability	Terrain is level, flooding is rare, soils stable
Electric Power	Most sites in urbanized areas have ready access
Water/sewer Service	Excess capacity needed for additional manufacturing
Gas availability	Needed for many heavy industries
Motor carrier service	Interstate access or ports require and attract these
Rail/Freight service	Multiple carriers promote competitive rates
Air service	Major airport with national service within 40 minutes
Vocational Education	In most cities; the best link to area companies
School Facilities	SAT scores, expenditures per pupil
Medical Services	Surgical hospital, specialty diagnostic facilities
Natural Resources	Economically significant mining, agriculture, forestry, or recreation

Table 9L: Comparative Cost Factors and Table 9M: Comparative Operating Condition Factors summarizes these factors in comparison with Hunt County, and the State.

Table 9L: Comparative Cost Factors

Factor	Lone Oak	Hunt County	Texas
Wage Levels	\$797	\$797	\$876
Electricity Costs	\$0.108/kWh- \$0.114/kWh	\$0.0713/kWh- \$0.0890/kWh	\$0.112/kWh
Fuel Costs	\$3.50	\$3.45-\$3.57	\$3.00 -\$3.90
Water Rate (Residential, \$/5,000 gallons)	\$52.91	24.5*	\$27.50
Sewer Rate (Residential, \$/5,000 gallons)	\$52.91	25*	\$21.80
Building Costs **	\$118,864	\$118,864	\$143,336
Land costs (median price per acre)***	\$4,600	\$4,600	\$2,086
Local/State Property Taxes (2009)****	0.29%	0.51%	0.75%
Financing Costs *****	6.79%	7.16%	4.65%

Notes:

*Average of Commerce and Greenville.

** Derived from national price per square foot data from RSMeans cost plus air conditioning cost multiplied by the location factor. Priced based on a 2,000 sf home. County price is from Greenville. City price is from Greenville. Texas price is from Dallas.

*** 2009 Texas rural land sales from the Real Estate Center at Texas A&M University. Lone Oak costs considered the same as County costs.

****From the office of the Texas Comptroller website: <http://www.window.state.tx.us/>; State rate is taken from Dallas, the nearest large city to Lone Oak

*****Percentages are not interest rates charged; they are the amount of profit banks report on loans as an indicator of interest rate charges. Local rate is from Emory, county rate is from Greenville, Texas rate is from Dallas banks.

Factors not readily quantifiable are relative measures based upon the generalized assumptions and rules-of-thumb mentioned on *Table 9M*.

Table 9M: Comparative Operating Condition Factors

Factor	Lone Oak	Rating	Hunt County	Texas
Unskilled Labor	21%	Similar	16%	15%
Skilled Labor	25%	Similar	27%	33%
Productivity	cannot be determined			
Unionization	4.2%	Similar	4.4%	5.40%
Local Regulation	Zoning	Higher	No Zoning	No zoning
Electric Power	100% served		Not a competitive factor	
Water/Sewer Capacity	100%		Not a competitive factor	
Gas availability	Natural Gas provided by Atmos Energy (100%)		Not a competitive factor	
Motor carrier Svc.	9	Lower	50 +	N/A
Rail/Freight service	None within 10 miles of Lone Oak. Dallas lists 30 carriers within 50 miles.			
Air service (nearest international airport)	Dallas Love Field (70 miles)		Dallas Love Field (70 miles)	
Vocational Education	HS	Lower	Post-HS	Post-HS

Site Availability (from land use chapter of study)	57% of land area undeveloped	Similar	Most areas have ample industrial sites available, though denser development and therefore fewer sites exist in many metropolitan locations.	N/A
School Facilities (per pupil expenditures) 2009-10 District AEIS Report)	\$8,053	Similar	\$5,777 - \$8,861	\$11,567
Medical Services	Hunt Regional Medical Center (15 miles)	Similar	Hunt Regional Medical Center (15 miles)	76% of counties in state have at least one hospital, 54% are not HPSA- designated
Natural Resources	Agribusiness	Similar	Agribusiness	Cannot be determined

*Health Professional Shortage Area is designated by the U.S. Department of Health and Human Services, indicating a greater than 3,500:1 population-to-physician ratio and physicians not accessible to residents within a reasonable distance

Sources: Texas Department of State Health Services, Utilization Data for Texas Acute Care Hospitals by County, 2003;" Texas Almanac, Texas Town and Country Surveys, Texas Municipal League, City Staff, AEIS 2009-2010 Reports, Texas Department of Motor Vehicles

Conclusions: Lone Oak's advantages over other locations as a place to do business include low cost of living, low property taxes, plenty of land for future development, and adequate ISD expenditures and a school district rated exemplary. In addition, the City of Lone Oak benefits from its proximity to the DFW metroplex. County specialties in the utilities, manufacturing, retail, and unclassified industries present Lone Oak with the opportunity of attracting those industries to the city. Another opportunity is the city's proximity to Lake Tawakoni, which the city should use to its advantage to develop restaurants and other tourism-related businesses.

When compared to other communities nationwide, Lone Oak benefits from the generally lower costs of doing business in Texas. The state generally boasts lower than average housing, land, and building costs, moderate property taxes, and below-average utility rates, no state income tax, a loose regulatory environment, and a large, skilled labor force. Most of these factors exist in Lone Oak.

Disadvantages facing the Lone Oak economy include a small population base, lack of vocational training in the city, and, like many small Texas towns, some difficulty funding support efforts for services, infrastructure, and business and industrial development. Compared to the region and state, Lone Oak residents pay higher utilities rates. Compared to the state, the city also has higher financing costs, which may make it more difficult for small businesses to acquire start-up capital.

9.4 Economic Development Strategies

A city's economy is more than a list of businesses or a collection of statistics. It is also an indicator of a community's current health and future vitality. Put simply, economic development in rural America is any activity that makes the choice to remain in the community easier and more satisfying. Job opportunities are an obvious example, but this list also includes availability of decent affordable housing, quality education, an attractive, safe, and clean environment (natural and manmade), a comfortable social atmosphere, recreational and entertainment options, convenient shopping, adequate health care, and the ability to interact with the outside world in person or electronically.

Many small communities are realizing that traditional economic development geared toward recruiting a large manufacturing facility, often called "smokestack chasing," is not the only, or even the best path to take when the availability of

local resources is limited. The elements that bring quality to everyday life are known; it is how each community chooses to prioritize and encourage the various elements that define its economic development strategy. Given its proximity to Dallas-Ft. Worth, recreational opportunities at Lake Tawakoni, its exemplary school district, Lone Oak's economy may be able to grow in the areas of food and accommodation; retail, manufacturing and other services.

Local entrepreneurship

David Birch, a researcher on small businesses, estimates that 55% of business growth can be attributed to expansion of existing business, 44% to start-ups, and only 1% to relocations. Those statistics indicate that it is as or more important for a community to focus on fostering opportunities for existing and home-grown businesses than it is for a community to devote resources to attracting new businesses. A comprehensive approach to rural community development called HomeTown Competitiveness recommends increasing community involvement by creating committees and task forces charged with strengthening towns' Entrepreneurship, Charity, Youth Engagement, and Leadership. Some of the ideas promoted by the approach are:

- Developing mentoring relationships between business owners and younger residents that encourage younger generations to stay in or return to the community and enable them to continue a business when the owner retires.
- Develop a youth task force that includes members of multiple generations. Among other projects, it should coordinate with local schools and give young people the initiative and skills to transform hobbies into businesses.
- Providing scholarships for students that turn into loans if the student chooses not to return to the community after graduation.
- Establish a foundation (Community Affiliated Fund) to capture the transfer of wealth through endowments. The transfer of wealth is estimated by demographic forecasts to peak in 2014.

- Partner with local schools and workforce development groups to provide training for local businessmen to expand their schools and grow their businesses.

With the support of the Texas Department of Rural Development, the Heartland Center for Leadership Development¹⁴ has hosted several regional workshops aimed at teaching this approach in various locations across Texas. Although no new workshops are scheduled yet, TDRA plans to requisition funds to continue the program and can be contacted for more information. Workshops can also be organized by individuals or organizations; the Heartland Center generally requires a minimum of 35 registered attendees. The Center has extensive experience guiding leadership development, facilitating community meetings, and assisting community development efforts in rural towns.

HomeTown Competitiveness Approach: Some theorists believe that the future of the economy lies in small business creation and entrepreneurship. David Birch, a researcher on small businesses, estimates that business growth can be attributed 55% of the time to expansion of existing business, 44% of the time to start-ups, and only 1% of the time to relocations. This expectation is often reversed at the small town level, with the result that small town EDCs often expend most of their energy in trying to get businesses to relocate to their towns. The HomeTown Competitiveness approach to rural community development emphasizes strong community involvement by creating committees and task forces charged with strengthening towns' Entrepreneurship, Charity (Transfer of Wealth), Youth Engagement, and Leadership.

The “Pillars” of the approach (which are all supposed to work together to support the future of a town) are Entrepreneurship, Transfer of Wealth, Youth, and Leadership. The approach is one of intense community involvement. An

¹⁴ <http://www.heartlandcenter.info>; 800-927-1115

oversight or steering committee is initially set up to oversee the whole process, and the different pillars need to have community task forces or to be headed up by individuals of the steering committee although innovative approaches to any part of this whole process are encouraged. The type of people that lead these committees need to be passionate and willing to work.

The Entrepreneurial Task Force is tasked with producing increased entrepreneurial activity, fostering an entrepreneurial culture, helping the town realize their economic development goals, and increasing community wealth, among other things. The main idea here is that it is better to remain focused on growing businesses within the community and expanding existing businesses than trying to get businesses to relocate to the community. The Heartland Center argues that five businesses with two employees each is better than one business with ten employees. If 80% of a town's employment is with one employer, and it decides to leave, the town's economy is instantly destroyed. This was experienced first-hand by Hearne in the retail sector of its economy, when Wal-Mart left Hearne in 1990. Diversity and many one to two-person businesses should be the goal for small towns. The attraction of large businesses and employers is part of a prevailing attitude and culture that needs to be changed by this task force. There have been decades of decline in rural America. What is not realized is that it is possible to do business from rural America today. Rural Americans are not as place-bound as they used to be thanks to developments in telecommunications and e-commerce.

The Entrepreneurial Task Force's first step is business visitation. Basically, the task force wants to find out what existing businesses' future plans are. One objective of these visitations is the problem of transitioning businesses to other owners when their original owners decide to retire. Many times in small towns, nobody thinks about this and the shops simply close when their owners retire. This works hand in hand with the other strategies such as youth recruitment, but

what the task force is charged with is finding prospective owners and fostering relationships between the old guard and a new one, and with making sure there is a new guard to replace the old one.

The Charitable Assets Task Force is charged with establishing a community foundation and with capturing the transfer of wealth that is siphoning rural America's money to the larger cities over the generations. The first step, after setting up the foundation, is advancing the idea in the community of giving money to the community foundation. Although people often donate to charity from their current income, they rarely do from their assets, such as naming a charity in their wills. For example, encouraging everyone to give 5% of their assets to a foundation in their wills is proposed as a way to capture the transfer of wealth and make a community foundation grow. People may be more willing to do this type of thing than some think. An example the Heartland Center used was a woman who gave \$1 million to a hospital foundation 200 miles from her hometown when she died. There was no community foundation in her hometown, and so she did not have the choice of donating to it.

The type of foundation that needs to be set up is called a Community Affiliated Fund, which is governed by a Fund Advisory Committee. These require a fair amount of legal work to set up. They will need to incorporate and fill out a series of IRS and other forms. The hardest part is getting the money. The Heartland Center warns that the first donation is the hardest to secure. After that, they advise using peer pressure. Events that involve going to people's houses are best. These are basically just house meetings in which fundraisers summarize the foundation's cause and ask for money. It may be possible to tap into alumni and class reunions as well. There have been some amazing success stories in rural Nebraska according to the Heartland Center. Shickley, Nebraska, a town of about 400, has a fund worth \$1.7 million. The Center estimates that the transfer

of wealth between generations is about to peak in rural America (in 2014) due to aging populations.

The Youth Task Force's purpose is to mobilize youth engagement, support youth and adults working together on community priorities, help young people create their own business and career opportunities, and to assist youth to move their ideas into action. The basic idea is to get youth thinking about these issues and starting businesses of their own. Mentoring is key here, and there are different levels of mentoring the Center suggests, such as high school kids mentoring kindergarteners, or holding multi-generational picnics. The Center believes that adding young people to groups generally make the adults act less petty and make them behave better in general. People need to encourage these young people in small towns to "make a job instead of take a job." Not that long ago, the Center claims, Americans knew how to create and sustain entrepreneurial communities. Ninety percent of Americans were self-employed; it was common sense, and it was simply the way people lived. But it is not the case anymore. People used to have two or three businesses in rural America. They focused on capturing growing regional markets, investing wealth back into creating more wealth, building for the benefit of future generations, and encouraging their children to carry on these businesses. Now, most parents encourage their kids to move to a big city and get a good job. This attitude needs to change in rural America for it to be successful. For instance, when a pharmacy in a small town closes, generally it does not change hands as there is nobody there who can operate it or who cares to operate it. So it closes and people have to travel twenty or more miles to get pharmaceuticals, or they order them online. The business visitations mentioned in the Entrepreneurial pillar tie in here. Young people can fill these existing business roles. If a mentoring structure is in place, these transitions can happen smoothly in small towns.

The Center asserts that the world's economy is changing. The industrial age is coming to a close and the future, like the past, will be about entrepreneurship. 70% of economic growth and new jobs worldwide now are attributed to entrepreneurship, more youth are seeking the business ownership path, and the internet is overcoming geographic barriers. A major component of the approach is that the community needs to focus on attracting young people to come back to town after graduating from colleges. There are numerous ideas the Center presents on how to do this, but an intriguing one is the idea of granting scholarships out of foundation funds that turn into loans if the students decide not to return home after college. Another part of the approach is preparing a Community Teen Survey that the Center recommends handing out to 7th through 11th graders. It is geared towards finding out what kids like and dislike about their hometown. If the children do not like their own hometown, it simply needs to change. Community leaders should listen to the young people's ideas and try to implement change accordingly with charity dollars. The kids that the community needs to listen to are not the "usual suspects," such as cheerleaders and student council presidents, but perhaps are more introverted and tend to think outside the box. Many of these children may be loners. With the right kind of coaching, however, many of their interesting ideas can be turned into businesses. Business creation classes should be taught at the high school or after school. Business creation fairs can be conducted, with older business owners exchanging ideas and advice with the young ones. Some examples the Center uses to illustrate this are a group of kids that sold "natural" fertilizer (manure), and others that made hats out of rabbit pelts. A good resource for these ideas is the Innovation Center (www.theinnovationcenter.org). Eventually, the communities can set up youth city councils and youth chambers of commerce to perpetuate these movements. The key is to bring the young people of child-bearing age back to town to create new businesses or take over an existing business.

The final task force is the Leadership Task Force. The Center claims that leadership development can be taught, and that there are many different ways to do this. In general, a hometown needs to transition power to new generations smoothly, without the stifling presence of an “old guard” that resists this change and hangs on to all the power they have until they die. This power needs to be shared so that there is not a leadership vacuum when the “old guard” dies. A leadership development program implemented in Hamilton, Texas has been very successful and numbers of its graduates have gone on to be on the school board, city council, or to become business owners. There are two main types of leadership programs, one more “skill-based” that teaches ways to practice conflict management and others that basically teach “civic literacy” to the participants, giving people detailed knowledge about the town they live in so that they can more effectively live and work in it. However, there are numerous ways to achieve this leadership training.

Small towns must “change or die.” Often, the baggage at these types of programs in small towns is rather heavy. People have long memories in small towns, everyone knows each other, and people fall too quickly into the roles they are expected to play. People need to reacquaint themselves and think of each other as potential leaders or business owners, and they need to start encouraging each other and helping each other to do these things. Indications that a leadership program is working would be things like having people from the program becoming mayors or city managers, sustaining quality leadership, or witnessing an increase in community involvement.

Again, all these pillars need to work together and be coordinated by an oversight committee. The HTC approach is specifically designed to deal with the four critical issues that are destroying rural America—the generational wealth transfer problem, the historical youth out-migration trend, the loss of farms and small businesses, and the erosion of leadership capacity. The HTC approach has

been implemented in many places in rural Nebraska to great success. The State of Indiana has adopted the HTC approach as its statewide rural community development strategy. It is gaining momentum.

The Heartland Center for Leadership Development has hosted workshops aimed at teaching this approach in various locations across Texas. The Texas Department of Rural Affairs has fronted the costs of these workshops and has made a legislative appropriations request to continue funding them. It is advised that the City of Lone Oak, and in particular its EDC, plan to attend one of these conferences and implement the HTC approach in its economic development plans.

This section suggests roles that can be taken on by various entities involved in the City's economic development. Based on input from residents and the economic analyses described above, it then outlines concrete actions that the City and local entities should take to provide additional economic opportunity in Lone Oak.

Economic Development Organizations: Most direct roles in economic development are taken by private organizations such as economic development corporations, chambers of commerce, or small business development centers. Those entities can promote, retain and assist a community's businesses without the use of general public funds. These entities can promote, retain and assist a community's businesses without the use of general public funds. Lone Oak does not have a chamber of commerce or an economic development corporation.

Economic Development Corporation: Lone Oak does not have an EDC, which would reserve sales tax revenue or a portion of it for economic development activities. Instead, sales tax revenue on 0.05% of sales earns the City about \$45,000 in revenue, according to the City's fiscal year July 1, 2010 through June 30, 2011 audit. The revenue is rolled into the City's general fund to

pay for annual City operating expenses, including public safety and city administration.

Since 1979, Texas law has allowed communities to form Economic Development Commissions, with voter authorization of a 4A or 4B economic development sales tax. This sales tax is commonly called the “economic development sales tax.” It is authorized under the Development Corporation Act of 1979.¹⁵ The law allows for some flexibility in the application of the economic development sales tax. The original requirements of the sales tax, outlined in §4A of the law, have fairly strict project limitations and must be used for manufacturing and industrial development. The modified law, outlined in §4B, allows municipal infrastructure improvements and other projects that contribute to the quality of life in a community. The sales tax rate under §4A or §4B is 1/8, 1/4, 3/8, or 1/2 percent. The only restriction is that the new combined rate of all local sales and use taxes does not exceed two percent.

Examples of projects in other areas funded using §4A include:

- Seguin and its local economic development corporation assumed joint ownership of a 25,000 square foot plant. The City attracted a manufacturer by offering it a twenty-year lease-purchase agreement. A \$42,000 investment in workforce development, provided by an agreement with the local school district, provides equipment for training and retraining workers for the manufacturer.
- Hillsboro used its sales tax revenue to lend money to a mobile home manufacturer to build and equip two plants, creating 350 new jobs.

Other §4A activities might include recycling facilities, warehouse or distribution centers, and commercial development in economically depressed areas.

The §4A Sales Tax is primarily intended for manufacturing and industrial development, and cities may use the money raised by this sales tax to acquire or

pay for land, buildings, equipment, facilities, expenditures, targeted infrastructure and improvements for purposes related to:

- manufacturing and industrial facilities, recycling facilities, distribution centers, small warehouse facilities;
- research and development facilities, regional or national corporate headquarters facilities, primary job training facilities for use by institutions of higher education, job training classes; telephone call centers; and career centers that are not located within a junior college taxing district;
- a general aviation business service airport that is an integral part of an industrial park;
- certain infrastructure improvements, which promote or develop new or expanded business enterprises;
- port-related facilities to support waterborne commerce; and
- maintenance and operating costs associated with projects.

§4A corporations may, following a separate election to gain voter approval, spend §4A sales tax to clean up contaminated property.

A corporation created under §4A cannot assume, or pay principal or interest on, debts that existed before the City created the corporation.

§4B corporations may use sales tax funds for a wider range of activities and purposes. §4B funds may be used for land, buildings, equipment, facilities, expenditures, targeted infrastructure and improvements for all purposes for which 4A funds may be used, as well as for professional and amateur sports and athletic facilities, tourism and entertainment facilities, and convention and public park purposes and events; related store, restaurant, concession, parking and transportation facilities; related street, water, drainage and sewer facilities; and affordable housing and demolition of dilapidated structures. Cities must hold at least one public hearing on each project proposed under §4B.

¹⁵ Vernon's Ann.Civ.St. art. 5190.6 §§4A, 4B.

Also, to promote and develop new and expanded business enterprises that create or retain primary jobs, a city may provide public safety facilities, recycling facilities, streets and roads, drainage and related improvements, demolition of existing structures, general municipally owned improvements, maintenance and operating costs associated with projects, or any other project that the board of directors determines will promote and develop such business enterprises.

Cities with a population of less than 20,000 may use 4B tax money for such activities that promote or develop new and expanded business enterprises that will attract and retain primary employers.

The other sales tax available to municipalities for economic development is a hotel/motel tax. State law limits allows municipalities to charge up to a 7 percent on hotel and motel stays. The city may collect the tax on hotels and motels located within its ETJ, but the combination of municipal, county and state hotel/motel on an ETJ-located hotel or motel cannot exceed 15 percent. The money collected annually from such a tax could be directed by the City Council to an entity tasked with increasing tourism. Lone Oak currently has no hotels, motels or bed-and-breakfast establishments.

Chamber of Commerce: Lone Oak does not have its own Chamber of Commerce. However, the Lake Tawakoni Regional Chamber of Commerce serves Lone Oak as well as Quinlan, West Tawakoni, Union Valley, Hawk Cove, East Tawakoni, and also rural areas surrounding Lake Tawakoni. The Chamber of Commerce's role in Economic Development is focused on promoting existing businesses, attracting new businesses, and promoting tourism. It provides a website featuring local businesses, a calendar of community events, local news, and information on the area. Current, no businesses in Lone Oak are listed on the website. Membership fees are as follows:

Number of Employees	Yearly	Monthly
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0-5	\$239.40	\$19.95
6-10	\$275.40	\$22.95
11-15	\$311.40	\$25.95
16-20	\$359.40	\$29.95
20 +	\$419.40	\$34.95
Individual	\$50	N/A
Non-Profit*	\$50	N/A

10% discount if membership fee is paid in full.

North Texas Small Business Development Center: The Small Business Development Center is the largest management assistance program serving businesses in the United States. The SBDC encourages local business development efforts to meet the needs of an area's small businesses. The North Texas SBDC has a partnership with the U.S. Small Business Administration, the State of Texas, and Paris Junior College, and provides services for 49 counties, including Hunt County. Its focus is to provide information and counseling to help promote small business innovation, expansion, management involvement, and increased productivity.

Businesses first meet with a counselor, who then assesses their specific needs. Additional discussions and site-visits then provide the counselor with information needed to help a business define its plans and strategize to meet the business's goals. As part of the planning process, the SBDC conducts industry and marketing research, provides advice on where businesses should locate, and also helps with permitting and book keeping. Several courses are offered at Paris Junior College's Greenville campus, many of which are free of charge. The SBDC also offers distance learning courses online, allowing more access and flexibility to businesspeople who do not have the time or resources to travel to Greenville for classes. According to the Paris SBDC, the biggest challenge that

business start-ups face is the lack of capital. Given the economic downturn, it has become more difficult for new businesses to secure a loan. Businesses from Lone Oak have been utilizing the SBDC's services, and the City should work on promoting the SBDC to new business owners.

More information on the North Texas SBDC can be found online at: <http://www.ntsbdc.org/>. The Paris branch of SBDC can be found online at <http://www.sbdcparis.org/web/>, and can be reached by phone at (903)-782-0224.

Paris Junior College: Paris Junior College has a campus located in Greenville, TX, approximately 16 miles north of Lone Oak. The college offers associate's degrees in arts and sciences. Several certificate programs are also offered, including computer training, office occupations, nursing, and heating and air conditioning. The college also provides opportunities for continuing education, including technical training classes. More information can be found on the Paris Junior College's website: <http://www.parisjc.edu/>.

North Central Texas Council of Governments Regional Training Center: The NCTCOG Regional Training Center provides several employee development training programs for private industry and government agencies located in the North Central Texas Region. The Regional Training Center aims to provide cost efficient and high quality training programs for organizations in the region. Courses are offered in several subjects, including: Planning and Zoning, Stormwater Pollution Prevention, Safety, Public Funds Investment Act, Pavement Construction, Leadership/Management, Computer Training, Code Enforcement, and Administration/Services. More information can be found on the NCTCOG website: <http://www.nctcog.dst.tx.us/index.asp>.

Financial Tools:

Sales Tax Options: The maximum sales tax in Texas is 8.25%. Of the 8.25%, 6.25% is imposed by the State, 2% can be imposed by municipalities, and 0.5% can be imposed by counties. Municipalities and counties impose taxes on a first-come-first serve basis and cannot impose a tax that would break the 8.25% maximum. Lone Oak's current sales tax rate is 8.25%. If the City wished to establish an economic development corporation, they could adopt a Type A or Type B sales tax as long as the combined local sales tax rate would not exceed 2 percent. To achieve this, the City could lower its sales tax and could then accordingly adopt an economic development sales tax rate of 1/8, 1/4, 3/8, or 1/2 of 1 percent if the new total rate of all local taxes would not exceed 2 percent. This designation would guard funds for economic development purposes.

Main Street and Downtown Revitalization Programs: Lone Oak does not currently participate in the Texas Historical Commission's Main Street Program. The Main Street program requires that a city designate an individual to serve as the program coordinator who will spend at least 51% of their time on program activities. The Downtown Revitalization Program allows communities to qualify for the same grants as the Main Street Program without being designated as a Main Street City, but this reduction of restrictions results in a far more competitive process. Awards for both programs may be provided for construction of the following public infrastructure in the designated downtown area:

- Acquisition of land needed for public infrastructure improvements
- Water & sewer facilities/lines
- Road/street construction/improvements
- Natural gas line construction/improvements
- Electric, telephone, & fiber optic line construction/improvements
- Traffic signals and signs
- Drainage
- Sidewalk construction/improvements
- Public parking lot construction/improvements
- Other construction activities required to eliminate architectural barriers for the handicapped

The minimum award is \$50,000 and the maximum is \$150,000. The City of Lone Oak has not applied for a Main Streets Improvements Grant.

*Endowments*¹⁶: An endowment fund is a permanent fund used to generate income in perpetuity to be used by the beneficiary nonprofit organization. Land and monetary endowments have become a powerful economic development tool in rural United States communities. The City could develop or partner with a non-profit foundation that solicits and manages donations for community goals. Even a modest donation of \$10,000 from 100 estates would create a \$20,000 to \$50,000 annual revenue stream (at 2-5% return). Other considerations when creating endowment funds include:

- An unrestricted endowment allows for the greatest flexibility in answering community needs as they develop over time.
- Demographic changes indicate that the next 10 to 20 years will see an unprecedented intergenerational transfer of wealth.
- Donations can be matching to leverage grants.
- Foundations can function as estate planning guides for area retirees.
- People give to foundations represented by people they know and trust.
- Communities can create expectations of giving.
- Fewer than 20% of people have been asked to make a bequest.

Land trusts exist across Texas that are dedicated to preserving open space for a variety of purposes. Land trusts that operate in Hunt County include: Texas Land Conservancy (Louise Hanes Preserve) and the Nature Conservancy (Clymer Meadow Preserve/North Texas branch). These organizations could function as partners or resources for information on land trust formation and open space/natural resource conservation.

Revolving Loan Funds (RLF): A city-run RLF can be used to attract investment by providing low-interest financing for business start-up or expansion. Many

¹⁶ HomeTown Competitiveness (<http://www.htccommunity.org/>) has done extensive research on endowments as an economic development tool. Information in this section derives in part from a presentation made by them in Austin in December, 2008.

revolving loan funds provide bridge or gap financing between the amount of money needed to start a business and the amount available to a borrower from standard sources. A fund is typically capitalized through grant sources (e.g. Texas Capital Fund, other state/federal programs, and/or philanthropic organizations). Each round of interest and repaid loans then provides funds for future loans, so borrowers should be required to meet financial security and management ability standards to qualify for a loan. Depending on the sources of a fund's capital, there will also be different requirements for borrower activities (e.g. job creation/retention).

For a city Lone Oak's size, it is recommended that an independent financial consultant (ideally located outside Lone Oak) administer an RLF. Independent administration enables prior review of loan applications before their submittal to the council for approval. That both avoids perceived favoritism and enables a thorough review of potential borrowers by financial specialists. More detailed information on establishing an RLF is available through the Council of Development Finance Agencies (www.cdfa.net).

Retention of Local Business: The most important factor in local economic development and new job creation is the retention of existing business. In Lone Oak's case, a core group of businesses in retail, manufacturing, food services, and various other services exists that must be cultivated and expanded. Ensuring adequate water, transportation and infrastructure, as well as quality labor, are priorities for the retention of these businesses.

Germaine to keeping existing business and attracting new business is the preparedness and size of the labor force. Lone Oak residents have access to the Greenville branch of the Paris Junior College, which offers associate's degrees in the arts and sciences, as well as several continuing education courses that include technical training. The college is a great asset to the retention and expansion of local businesses through its provision of training to business's

laborers. Also, its pool of existing businesses can be tapped to train young workers.

Availability of Land, Housing Development: Approximately 7 percent (47 acres) of land within the city limits is semi-developed, in addition to 50 percent (354 acres) of the City's area presently classified as agricultural space, making the total acreage for site availability about 401 acres or 57 percent of the incorporated area of Lone Oak. Therefore, the city has plentiful land for new housing subdivisions up to a point, and it is unlikely all of this land will be developed during the planning period. However, should new development occur that takes away a significant portion of this land, the City would have to consider annexing agricultural areas in its ETJ to allow for more housing development within its borders. It should also be noted that most developers do not have the resources to build speculative homes in markets as small as Lone Oak, so homes are generally built to order. This delay forces potential residents to look elsewhere. Local realtors, mortgagors, and developers should participate if Lone Oak is to expand its housing market in the future. The banks and the realtors are the eyes and ears of the housing market; they can provide valuable information concerning the types and numbers of potential new homeowners. Housing in Lone Oak is relatively affordable, but it does not have multifamily housing, which may be needed for Lone Oak to expand its housing market and its economy in the future. Other suggestions for housing development can be found in the Housing Chapter of this plan.

Telecommunications & Utility Service: Ensuring that Lone Oak maintains and expands its internet and wireless capabilities is an important economic development tool in that internet sales can boost Lone Oak's economy without requiring buyers to come to the City. Businesses that prosper by branching into nearby communities to get the critical mass needed for sales and service also need ways to communicate between offices. Internet service for Lone Oak is

offered by Cumby Telephone Cooperative, Inc., a local provided that was founded in 1967. The company provides dial-up and DSL internet services. Dial-up rates start at \$16.95 per month, and DSL rates start at \$39.95 per month. The city also has access to wireless internet.

New Business Attraction. A factor in economic development is the attraction of new business, particularly manufacturing plants that generate increased job growth. Attracting new business can be accomplished by serving the needs of existing business. A key economic development tool is developing clusters of industries in town that serve each other. Supplies of raw materials and input products of existing businesses, and users of their waste and by-products, make good business neighbors. Likewise, businesses need service industries that assist companies in completing their work, transporting it, and providing employees with local amenities to convince them to stay in the market. Encouraging the growth of small businesses, particularly services that support large industry in the area, can help the town maintain local ownership of business decisions that can affect the long-term welfare of the community.

Business expansion is one of the top goals of residents from both a job growth and local amenity perspective. During the public workshop held in 2010, participants expressed the desire to establish franchise eateries, and would also like to explore the possibility of establishing light industrial development in the city.

The City of Lone Oak has the advantage of being located in close proximity to Lake Tawakoni. After Greenville, Lone Oak is the first city that drivers come across if heading south on U.S. 69 from I.H. 30. A main intersection in the city, U.S. 69 with F.M. Road 1571, provides visitors and residents direct access to Lake Tawakoni. The City should work to promote itself as a “gateway to Lake

Tawakoni" and recruit more local businesses that would attract visitors and also provide needed goods and services to local residents.

Lone Oak should work with the Lake Tawakoni Regional Chamber of Commerce (LTRCOC) to attract more retail to Lone Oak, especially along the U.S. 69 corridor. The LTRCOC currently has a new board, and will soon start working on economic development projects. The LTRCOC would like to increase its presence in Lone Oak, according to staff. The LTRCOC emphasizes advertising and promoting its local business members. The Chamber hosts a free business expo once a year, has an e-mail list to advertise local business events (such as sales events), and also promotes businesses on its facebook page. Also, the Chamber has a bulletin board strategically placed next to an ATM machine in West Tawakoni, which further provides more visibility and advertising for local businesses. To attract new residents and potential new businesses, the LTRCOC provides relocation packages with information on the area and the local businesses. Also, the LTRCOC provides free seminars to its members. Topics include protecting businesses from fraud and bad checks. The next seminar is scheduled for September 2011. Traditionally, Lone Oak businesses have not joined the LTRCOC. With a new board in place and new programs being developed, the City should work with the Chamber to ensure that Lone Oak is included in the mix of Chamber programs as well as encourage its businesses to join. Lone Oak may also want to consider placing a bulletin board in a centralized location in the city on which local businesses can advertise their services.

Tourism: The City of Lone Oak has a number of annual events that may appeal to tourists from the surrounding area. Annual events in Lone Oak include a 4th of July Parade and a chili cook-off that is sponsored by the Fire Department. The City is also trying to establish an annual motorcycle rally.

Other outdoor recreation opportunities near Lone Oak include fishing, swimming, and camping at nearby Wind Point Park on Lake Tawakoni, less than 6 miles

away. The City should promote itself as a stopping point for campers and fishermen on their way to Lake Tawakoni. Currently, there are no motels located in the city.

The GO TEXAN Rural Community Program (RCP), managed by the Texas Department of Agriculture, provides financial and technical assistance related to tourism and economic development to member cities and associate members (e.g. chambers of commerce and EDCs). The program keeps members apprised of workshops and tourism news. Participating cities can also apply for Hometown STARS Funds to help with advertising for local events (up to \$10,000 for half of approved promotional costs). Likewise, the Bootstrap Bucks Program reimburses up to \$2,500 in funds used for banners, posters, newspaper advertisements, and radio/television spots that promote local events.

Attract Retirees: As with tourism, Lone Oak is at a disadvantage in attracting retirees because it lacks the aesthetic charm and amenities sought out by potential new residents. However, a new development located outside the city limits called the Villages at Lone Oak has several quality homes that are attracting buyers from cities such as Dallas and Plano. The development is located on the eastern shore of Lake Tawakoni, and can be accessed by residents. This neighborhood might appeal to retirees, especially if Lone Oak improves amenities and attracts additional businesses.

The GO TEXAN Certified Retirement Community Program (CRC), codified under Texas Agriculture Code Title 2, Chapter 12, Section 12.040, is designed to help Texas communities encourage retirees and potential retirees to make their homes in Texas communities. The CRC program is established to:

- Promote Texas as a retirement destination to retirees both in and outside Texas;
- Help Texas communities market themselves as retirement locations and develop assets that retirees find attractive;

- Assist in developing retirement and long-term living communities that attract retirees, who: contribute to economic development, contribute to the State's workforce/knowledge base, and enrich Texas communities;
- Encourage tourism to Texas to encourage potential residents to evaluate the State as a retirement location and to increase the number of visitors of the retiree population.

The CRC program includes all of the advantages of the Rural Community Program with additional technical, financial, and promotional assistance. A city must qualify to participate in the program. The application requires a \$5,000 fee, a local sponsor/contact, and names of members of a Retirement Board. The community must also submit a long-term plan outlining the steps a community will take to maintain its desirability as a destination for retirees and complete a Retiree Desirability Assessment provided by the TDA Rural Economic Development Division. Lone Star may wish to pursue this program and use its guidelines to inform future retiree development decisions.

Recommendations of Previous Studies: The City of Lone Oak has not commissioned any prior economic development studies.

City Policy and Development Management: City governments play an important role in the development of the local economy. In particular, city policies and codes, as well as city service levels, can directly affect economic development. The following is a list of conditions within Lone Oak that can be affected by amending city policy.

1. **Utilities:** Lone Oak owns and maintains its wastewater system, and also maintains its water system. The City has a contract through Cash SUD to purchase water.
2. **Development Management:** Development Management Tools provide methods for lowering development costs to the City and the developer

without sacrificing development quality. Development costs that can be influenced by City processes include: fees, standards, time, and certainty. The City could charge impact fees requiring developers to pay the costs of development expansion, mainly street and utility infrastructure. It could enact development standards such as zoning and/or subdivision codes, building codes, and other codes to ensure that residents are not left with sub-standard buildings and infrastructure. Zoning regulations also allow the city to plan for city services by defining the density of uses that will occupy land in the future. It could also make an annexation plan, if it deems that bringing more land into the City limits would assist it with growth goals.

The City has a manufactured housing ordinance (Ordinance No. 115), which was adopted in 2009. The ordinance regulates mobile and manufactured homes in the city, and prevents additional mobile homes from entering the city.

The City is also interested in adopting a subdivision ordinance. A subdivision ordinance gives cities the ability to prevent the construction and installation of substandard structures within the city limits and its ETJ. Subdivision codes include design standards and development specifications. A proposed subdivision ordinance is included in this study, which can be found in *Chapter 13: Subdivision Ordinance*.

The City could also enter into mutually-beneficial development agreements that allow the City and the developer to share development costs. It could offer incentives for permitting that will lower permit costs or permit approval time if certain conditions are met. It could streamline development application, permit and public hearing processes to decrease time spent on approval stages. The City can also facilitate dialogue between residents, developers, and other stakeholders to ensure that all

perspectives of site development are considered early in the development process. That might include an on-site pre-application walkthrough by all of the stakeholders.

3. **Zoning:** The City has a municipal zoning ordinance. Zoning increases quality of life in that it promotes lower traffic congestion, safety from fire and other dangers, and facilitates the adequate provision of transportation, water, sewerage, schools, parks and other requirements. Zoning in combination with development management tools such as expedited permitting can also be used to encourage types of development unfamiliar to an area's developers. For example, performance zoning can enable any style of construction that adheres to certain noise, traffic or pollution limits while mixed use zoning and form-based zoning can encourage the development of walkable areas that combine commercial, residential, and light-industrial uses. Enforcement of zoning ordinances coupled with periodic reviews of the ordinance's effects on the community can be a powerful tool for guiding development towards a desired future. The stability that a zoning ordinance brings can also increase land values throughout the community.
4. **Property taxes:** The City levies property taxes. Property taxes are a steady revenue stream for the City, and help to fund needed improvements. According to the Hunt County Tax Assessor, the City's 2010 property tax collection rate was 83%. This indicates a responsible citizenry who may not object to higher property taxes

9.5 Economic Development Plan

The following goals, objectives, and policies synthesize the above analysis and wishes for the City expressed by residents into a set of actions that the City should follow. The underlying purpose of the economic development plan is to

fulfill the vision of the comprehensive plan that *in 2031 Lone Oak will be a friendly, affordable community known for its excellent city services, quiet residential life, and thriving local business community.*

Goal 1: Human resources are available in the form of staff, committees/task forces, and individual volunteers charged with starting and maintaining economic development initiatives.

Given the large number of economic development initiatives recommended in this plan, the City should consider the following options for mobilizing human resources. Specific organizations/groups are recommended to take on projects throughout this plan; these may change depending on the choices the City makes about hiring staff, establishing committees, and finding volunteers.

	Possible Role(s)
New Staff Member (could be part-time, could be grant-funded)	Coordinate volunteer committees Liaise with chambers of commerce, Robertson ED Foundation Create and maintain City website Organize festivals and community events Write grants to fund ED initiatives
Volunteer Committees/ Task Forces	Take on specific economic development projects (e.g. develop a city motto, establish a festival, write surveys/grants)
Individual Volunteers (could be students)	Create and maintain City website Take on small-scale projects (e.g. creation of city logo, mural painting, grant writing)

Objective 1.1: By 2013, establish a system for recruiting and connecting volunteers and city staff to work on economic development projects.

Policy 1.1.1: Determine feasibility of hiring a part-time staff member to coordinate existing economic development resources and businesses recruitment. Tasks would include:

- promote job training programs available at the North Texas Small Business Development Center and the North Central Texas Council of Governments Regional Training Center,
- meet with local employers and survey their needs
- create and maintain a city website or a city facebook page that hosts information on annual events, city policies, available

jobs in Lone Oak, businesses for sale, homes for sale and vacant land for sale

- Work with City youth to survey their views on Lone Oak, match them with business mentors in the City, and maintain an alumni list to entice students back to the City after training or higher education.

Policy 1.1.2: If a part-time staff member cannot be maintained for financial reasons, collaborate with the Paris Junior College Greenville campus to recruit business students and information technology students to complete surveys of Lone Oak businesses and their retail, supply and labor needs; and to design a website for the City.

Policy 1.1.3: Designated staff member, city official or a volunteer should establish partnership with the Lake Tawakoni Regional Chamber of Commerce, encourage local businesses to attend the Chamber's free seminars and become members and bring Chamber services to Lone Oak.

Objective 1.2: By 2013, the City should determine the feasibility of establishing an Economic Development Corporation.

Policy 1.2.1: Designated staff member or volunteer should collaborate with Lake Tawakoni Regional Chamber of Commerce, Greenville Economic Development Corporation, and North Texas Small Business Development Center Network to gather more information on EDCs and determine feasibility of a Lone Oak EDC.

Objective 1.3: By 2015, appoint a volunteer City Beautification Board to work on projects like adding signage, awnings, banners, painted trash cans and other amenities on Katy Street (U.S. 69). The Board could also be tasked with starting a Yard of the Month award; recommending budget items to clean up debris piles; beautify Town Square by considering possibility of landscaping the area by the pavilion; and, later in the planning period, determine if the City should apply for grant through Texas Parks and Wildlife to build a city park.

Goal 2: Lone Oak has a unique “brand” in the form of a logo and motto that serves to focus efforts for retaining and expanding businesses.

Objective 2.1: By 2014, identify and contract with an entity to develop a brand to place on a Lone Oak website and City signage, and for use in developing more annual events.

Policy 2.1.1: In conjunction with the Lake Tawakoni Regional Chamber of Commerce, the Lone Oak ISD staff and students, local businesses and others, establish a steering committee to create a “brand” for Lone Oak.

Policy 2.1.2: Dedicate a city funding source to assist, along with the other organizations, with funds for development of branding necessities like a city website, logo, signage etc. Involve Lone Oak ISD students and the ART Region of Texas in design efforts.

Policy 2.1.3: Hire a staff member, designate a volunteer, and/or dedicate funding to the development and maintenance of a City website. Determine if in-kind service opportunities exist to both develop and maintain a website.

Policy 2.1.4: Host city workshops to educate “first responders,” (employees in businesses on the state highways in Lone Oak); and city employees on the brand so that they can direct passersby to key Lone Oak locations and businesses.

Goal 3: Lone Oak has larger and more diverse business base, and will encourage business start-ups.

Objective 3.1: By 2013, the City should partner with area economic development organizations and the chamber of commerce to develop a targeted industry list to focus business recruitment and entrepreneurship support efforts.

Policy 3.1.1: Using volunteer support through the Lake Tawakoni Regional Chamber, City and other organizations, survey residents to identify the types of goods and services they would like to buy locally; this could be done using a free survey tool on the internet, or surveys could be kept at City Hall to be filled out when residents stop by to pay utilities bills.

Policy 3.1.2: Using volunteer support through the Lake Tawakoni Regional Chamber, North Texas Small Businesses Development Center, City and other organizations, survey business regarding their current and future needs for employee training, skills and workforce amenities like education and housing.

Policy 3.1.3: Use the results of the surveys and the workshop responses in *Chapter 1: Community Goals and Objectives* as a guide of market demand, publish ideas on the City website or City

facebook page, ensuring that needs of different age groups are expressed, including youth and seniors.

Policy 3.1.4: Assign a staff liaison to get in touch with the Lake Tawakoni Regional Chamber Board of Directors and find out about their economic development efforts. Represent Lone Oak's unique assets to potential businesses.

Objective 3.2: During the planning period, increase the pool of skilled workers to attract industries with higher paying wages.

Policy 3.2.1: Share survey results with job training personnel at the Paris branch of the North Texas Small Development Center (SBDC) to ensure that programs are tailored to the needs of local businesses.

Policy 3.2.2: By 2014, develop an up-to-date database of Lone Oak High School alumni from Lone Oak and begin sending a quarterly email, or other social networking message about happenings in Lone Oak, including available jobs and opportunities for mentoring current business owners, particularly those wanting to sell their businesses or retire.

Policy 3.2.3: Organize meetings between the Lone Oak ISD, the North Texas Small Business Development Center in Paris, Paris Junior College, and local business owners to determine ways to recruit students into the Lone Oak workforce when they graduate. This would include the establishment of internships/mentorships; supporting youth to attain higher education; and assisting youth with job placement activities.

Objective 3.3: By 2012, the City will have developed a City of Lone Oak website that will include information on advantages of and opportunities for doing business in the Lone Oak area.

Policy 3.3.1: Collaborate with Lone Oak ISD students, local businesses, volunteers, and North Texas-Paris SBDC to develop a City website by 2012. Appoint designated website administrator. Post recruiting information on the City website, including targeted industry list, resident survey of needed businesses and products, North Texas-Paris SBDC training programs, and Lake Tawakoni Regional Chamber of Commerce seminars and annual Business Expo.

Policy 3.3.2: City staff or volunteer should develop a City facebook. The Facebook page should be updated regularly with postings on community events, news, training workshops, seminars, etc. Facebook page can also be used to facilitate reaching out to Lone Oak High School alumni.

Policy 3.3.3: Work with the local utility providers to develop and annually update a community information sheet containing basic information such as demographics, tax rates, utility rates, City services, and types of local businesses, and post the information sheet on the City website.

Policy 3.3.4: Develop links on the city website to business assistance including the Lake Tawakoni Regional Chamber of Commerce, the North Texas Small Business Development Center in Paris, Paris Junior College, and the North Central Texas Council of Governments.

Policy 3.3.5: Partner with private firms, other cities and/or the Lake Tawakoni Regional Chamber of Commerce to consider providing a wireless network for the entire town, or the town center area as an amenity for the local population and to entice visitors and businesses, including the creation of home businesses.

Policy 3.3.6: Develop an up-to-date database of Lone Oak ISD alumni and recruit them back to Lone Oak after completing higher education. The City could assist with maintaining a web page on its city site for job placement opportunities, as well as a blog for alumni that would keep them up to date about what is happening in the Lone Oak cultural and business community.

Objective 3.4: By end of planning period, the City will have expanded and upgraded its infrastructure according to the water, wastewater, streets, and drainage phased improvements plans included in this study.

Objective 3.5: By 2013, adopt the Future Land Use Map that identifies sufficient, appropriate locations to meet the needs of anticipated businesses and industries that could attract businesses and employees to Lone Oak.

Goal 4: Lone Oak will have basic construction and development standards guidelines to ensure quality construction.

Objective 4.1: By 2013, adopt proposed Subdivision Ordinance and amendments to Zoning Ordinance included in this plan.

Policy 4.1.1: Planning and Zoning Commission by the end of 2013 should review proposed subdivision ordinance, discuss proposed zoning ordinance changes and make recommendations for adoption by City Council.

Objective 4.2: Add information about the City's construction standards to the Chamber relocation package and/or create a City relocation package for prospective businesses that provides this and other needed information to prospective businesses.

Policy 4.2.1: By 2012, meet with local business community, Lake Tawakoni Regional Chamber of Commerce, North Texas-Paris SBDC to develop a relocation package highlighting Lone Oak's strengths.

Policy 4.2.2: By 2015, identify means to facilitate resident, business and developer interaction with the City related to construction codes. These could include additional training for City staff and Council members, hiring of additional staff, establishment of development review procedures, and creation of development package for prospective developers.

Policy 4.2.3: Once a city website is established, City staff or designated volunteer by 2013 should put relocation package and additional information on area resources and amenities on the website.

Objective 4.3: Over the planning period, increase the credit/insurance products available for housing, business start-up, and infrastructure.

Policy 4.3.1 Every other year beginning in 2013, host informational meetings and post information on the City website to insure that lenders and creditors are educated about loans and loan guarantees available through the state and federal governments, including the Texas Capital Fund, Texas State Affordable Housing Corporation, the Micro-enterprise Loan Program from the Texas Department of Rural Affairs, etc. The USDA RD provides several programs aimed at improving the economic climate in rural communities. Business and Industry Guaranteed Loans may be used to improve, develop, or finance business, industry, and employment, including land, building, equipment, working capital, and debt refinancing. Guarantees are provided on up to 80 percent of a loan made by a commercial lender. Loan maximums are \$25 million. The Commercial lending program bolsters the existing

private credit structure through guarantee of quality loans that will provide lasting community benefits. This type of assistance is available to businesses located in areas outside any city with a population of 50,000 or more and its immediately adjacent urbanized or urbanizing area. Eligible entities include corporations, partnerships, cooperatives, federally recognized Indian Tribes, individuals, and other legal entities.

Goal 5: Long-term businesses have remained in the City and grown.

Objective 5.1: By 2015, develop a shop local initiative.

Policy 5.1.1: Work with the Lake Tawakoni Regional Chamber of Commerce and provide names and addresses of new residents so that the entity could provide a “welcome wagon” of coupons, advertisement circulars, community information, and other promotional material.

Policy 5.1.2: Using volunteer support through the Lake Tawakoni Regional Chamber of Commerce, City and other organizations, survey residents to identify the types of goods and services they would like to buy locally; this could be done via surveys sent with the utility bill or using a free survey tool on the internet.

Policy 5.1.3: Develop and print “Shop Local” bumper stickers with the Lone Oak logo or West Tawakoni logo and provide them to local businesses for distribution to their clients.

Objective 5.2: Over the planning period, attract new restaurants and tourism-related businesses.

Policy 5.2.1: Using volunteers and assistance from North Texas Small Business Development Center at Paris, and Lake Tawakoni Regional Chamber of Commerce, survey residents and businesses to see what types of restaurants and tourism businesses would be appropriate in Lone Oak. Proximity to Lake Tawakoni should be a focus for tourism-related businesses.

Policy 5.2.2: Partner with North Texas Small Business Development Center at Paris, Lake Tawakoni Regional Chamber of Commerce, and the cities of East Tawakoni and West Tawakoni, take inventory of existing businesses in the Lake Tawakoni region, and discuss what types of businesses would be needed to support the tourism industry.

Policy 5.2.3: Use results of surveys to determine what types of businesses would be suitable for establishment in Lone Oak. Use shop local initiative, City website, Lake Tawakoni Regional

Chamber of Commerce, and Paris Junior College to promote the City as an ideal location for businesses that were deemed suitable for location in Lone Oak.

Policy 5.2.4: Work with the Lake Tawakoni Regional Chamber of Commerce annually to update the chamber website to include information on target areas for new restaurants and businesses, and on other economic development initiatives.

Policy 5.2.5: Work with the Lake Tawakoni Regional Chamber of Commerce and North Central Texas Council of Governments to produce a map by 2016 of regional attractions such as parks, theaters, restaurants, and shopping areas.

Goal 6: Invest in projects that improve the quality of life in Lone Oak to attract and retain residents and businesses.

With increased flexibility in location choice, attracting businesses has as much to do with city character, housing availability, schools, recreation, and natural resources as with labor force availability and financing options. These objectives are intended to have a direct effect on quality of life in the City.

Objective 6.1: By end of planning period, develop a publically available green space network to assure that the City will be able to meet national recreation standards. See Recreation and Open Space Study of this plan, Chapter 10.

Objective 6.2: Over the planning period, increase recreation opportunities in the City for youth and seniors

Policy 6.2.1: Actively recruit businesses that provide youth and senior activities such as movie theatres, recreation centers, and game centers.

Policy 6.2.2: Create a volunteer task force to investigate funding and maintenance options for building a park.

Objective 6.3: By 2021, establish programs that will grow civic leaders.

Policy 6.3.1: Work with current leaders to establish a leadership course in which a diverse set of nominees is trained in information about City and County government, Lone Oak history, Lone Oak organizations and business assets.

Policy 6.3.2: Investigate the possibility of forming a city youth commission that would give input to the City Council on selected community problems. Encourage high school teachers and/or the newspaper to establish a teen section of a neighborhood newsletter or a section of the newspaper for teen writing to get youth involved in writing about and commenting on community issues.

Policy 6.3.3 Investigate expanding the number of citizen commissions to include more citizens in city government. A city development committee or code violation committee could assist with approvals of new development requests or with code enforcement and a retiree board could represent the retiree population.

Policy 6.3.4: Develop places for business owners on boards and commissions to serve alongside citizens.

Objective 6.4: Over the planning period, explore options for creating more housing types and for maintaining quality housing stock.

Policy 6.4.1: See *Housing Study Chapter* of this plan, Chapter 3.

Policy 6.4.2: Ensure that the City enforces new and existing codes related to housing.

Policy 6.4.3: Involve local financiers in programs that assist first-time homebuyers with financing options available from state funds.

Objective 6.5: Throughout the planning period, prioritize infrastructure projects that increase the quality of life in the city.

Policy 6.5.1: Complete all phases of the City sewer and water systems by 2031. See Chapters 5 and 6 of this plan. Complete phases of storm drainage and streets improvements as budget allows.

Policy 6.5.2: Adopt recommended Subdivision Ordinance that requires developers to adhere to construction standards to promote quality construction in the city.

Policy 6.5.3: Organize an annual clean-up sponsored by the City, involving various age groups, Lone Oak ISD and civic organizations, to remove trash and litter from area ditches, vacant lots, and drainage ways.

Table 9N: Proposed Economic Development Actions, 2011-2031

Year	Project	Estimated Cost	Source of Funds
2011-2013	Recruit volunteers and city staff to work on economic development projects	Staff, Volunteer Time	Staff, Volunteer Time
2011-2013	Collaborate with Lake Tawakoni Regional Chamber of Commerce to advertise local businesses and provide information to business start-ups	Staff, Volunteer Time	GEN
2011-2021	Establish city leadership programs. Form city youth and citizen commissions to identify and get involved with community issues.	Staff, Volunteer Time	GEN
2011-2031	Prioritize and complete phased infrastructure projects for water and sewer	~\$3,512,848	TxCDBG, GEN, USDA, TWDB loan, UTILITY
2011-2031	Apply for HOME grants to rehabilitate dilapidated housing	\$12,000 cash plus 1-12% of grant amount (\$5,500-\$66,000 for a \$550,000 grant)	GEN (Local Match)
2012	Attend a HomeTown Competitiveness workshop and begin to implement the ideas there at the City level.	\$250 for one, \$200 each for two, Staff	GEN
2012-2014	Develop a City website	\$3,000-\$5,000	GEN, Local
2012-2013	Obtain membership in the GO TEXAN Rural Community Program from the Texas Department of Agriculture, after which the City can use the brand on their promotional material and apply for different types of funding to help promote Lone Oak.	\$150 application fee	GEN
2012-2014	Organize meetings between the Lone Oak ISD, the North Texas Small Business Development Center in Paris, Paris Junior College, and local business owners to determine ways to recruit students into the Lone Oak workforce when they graduate. This would include the establishment of internships/mentorships; supporting	Staff Time	GEN

	youth to attain higher education; and assisting youth with job placement activities.		
2013	Adopt proposed Subdivision Ordinance and amendments to Zoning Ordinance	Staff and Council Time, Attorney Fees (Varies)	GEN
2015	Develop a 'shop local' initiative to promote local shops and restaurants	\$200	GEN, Local

LOCAL = donations of time/money/goods from private citizens, charitable organizations, and local businesses; Staff = Staff time; Council = Council time; USDA = US Department of Agriculture Rural Development; TxCDBG = Texas Community Development Block Grant Program; UTILITY = Utility funds/revenue bonds; GEN = Municipal funds

For TDRA Economic Development Program links, see
<http://www.TDRA.state.tx.us/index.php/Economic+Development>. Programs include:

Texas Capital Fund:

<http://www.TDRA.state.tx.us/index.php/Economic+Development/Texas+Capital+Fund>

Renewable Energy Program:

[http://www.TDRA.state.tx.us/index.php/Community+Development/Grant+Fact+Sheets/Renewable+Energy+Demonstration+Pilot+Program+\(REDPP\)](http://www.TDRA.state.tx.us/index.php/Community+Development/Grant+Fact+Sheets/Renewable+Energy+Demonstration+Pilot+Program+(REDPP))

Texas Rural Foundation - a 501(c)(3) nonprofit corporation established by the Texas Department of Rural Affairs to raise money from public, private, corporate, and other sources in order to finance health, community development, and economic development programs in rural Texas:
<http://www.TDRA.state.tx.us/index.php/Rural+Foundation>

9.6 Appendix 9A: Occupation by Education Tables

Appendix 9A.1: Detailed Occupation by Education Requirement

	Occupation	Lone Oak	% of City	Hunt	% of County	Texas	% of State
High Education	Management occupations, except farmers and farm managers	15	7%	2,481	7%	797,778	9%
	Business operations specialists	0	0%	519	2%	198,228	2%
	Financial specialists	0	0%	525	2%	206,341	2%
	Computer and mathematical occupations	2	1%	673	2%	235,137	3%
	Architects, surveyors, cartographers, and engineers	0	0%	613	2%	148,033	2%
	Drafters, engineering, and mapping technicians	3	1%	301	1%	58,386	1%
	Life, physical, and social science occupations	0	0%	95	0%	71,297	1%
	Community and social services occupations	6	3%	498	1%	122,302	1%
	Legal occupations	4	2%	153	0%	94,192	1%
	Education, training, and library occupations	24	11%	2,165	6%	564,173	6%
	Arts, design, entertainment, sports, and media occupations	0	0%	392	1%	146,076	2%
	Health diagnosing and treating practitioners and technical occupations	0	0%	652	2%	254,103	3%
	Health technologists and technicians	0	0%	381	1%	130,556	1%
Moderate Education	Farmers and farm managers	4	2%	326	1%	52,155	1%
	Healthcare support occupations	5	2%	819	2%	174,399	2%
	Fire fighting, prevention, and law enforcement workers, including supervisors	2	1%	433	1%	122,289	1%
	Other protective service workers, including supervisors	0	0%	199	1%	66,988	1%
	Personal care and service occupations	0	0%	913	3%	239,471	3%
	Sales and related occupations	24	11%	3,486	10%	1,091,343	12%
	Office and administrative support occupations	24	11%	5,644	16%	1,424,253	15%
	Production occupations	21	10%	3,439	10%	662,975	7%
Moderate - Low Education	Farming, fishing, and forestry occupations	11	5%	279	1%	61,486	1%
	Supervisors, construction and extraction workers	2	1%	404	1%	82,490	1%
	Construction trades workers	15	7%	2,093	6%	510,325	6%
	Extraction workers	0	0%	30	0%	16,732	0%
	Supervisors, transportation and material moving workers	0	0%	38	0%	18,236	0%
	Aircraft and traffic control occupations	0	0%	38	0%	17,366	0%
	Motor vehicle operators	9	4%	1,324	4%	278,313	3%

	Rail, water and other transportation occupations	2	1%	120	0%	27,254	0%
Low Education	Food preparation and serving related occupations	12	5%	1,470	4%	431,665	5%
	Building and grounds cleaning and maintenance occupations	9	4%	1,054	3%	316,458	3%
	Installation, maintenance, and repair occupations	21	10%	2,136	6%	398,806	4%
	Material moving workers	5	2%	846	2%	214,766	2%
	Total: All	220		34,539		9,234,372	

Source: U.S. Census (2000). Table applies to the Lone Oak Area (Zip Code 75453), Hunt County, and to the State of Texas

Appendix 9A.2: Occupation by Education and Gender

	Occupation	Male	Female	Total	% Total
High Education	Management occupations, except farmers and farm managers	10	5	15	7%
	Business operations specialists	0	0	0	0%
	Financial specialists	0	0	0	0%
	Computer and mathematical occupations	2	0	2	1%
	Architects, surveyors, cartographers, and engineers	0	0	0	0%
	Drafters, engineering, and mapping technicians	3	0	3	1%
	Life, physical, and social science occupations	0	0	0	0%
	Community and social services occupations	4	2	6	3%
	Legal occupations	0	4	4	2%
	Education, training, and library occupations	10	14	24	11%
	Arts, design, entertainment, sports, and media occupations	0	0	0	0%
	Health diagnosing and treating practitioners and technical occupations	0	0	0	0%
	Health technologists and technicians	0	0	0	0%
Moderate Education	Farmers and farm managers	2	2	4	2%
	Healthcare support occupations	0	5	5	2%
	Fire fighting, prevention, and law enforcement workers, including supervisors	2	0	2	1%
	Other protective service workers, including supervisors	0	0	0	0%
	Personal care and service occupations	0	0	0	0%
	Sales and related occupations	7	17	24	11%
	Office and administrative support occupations	7	17	24	11%
	Production occupations	12	9	21	10%
Moderate - Low Education	Farming, fishing, and forestry occupations	11	0	11	5%
	Supervisors, construction and extraction workers	2	0	2	1%
	Construction trades workers	15	0	15	7%
	Extraction workers	0	0	0	0%
	Supervisors, transportation and material moving workers	0	0	0	0%
	Aircraft and traffic control occupations	0	0	0	0%

	Motor vehicle operators	9	0	9	4%
	Rail, water and other transportation occupations	2	0	2	1%
Low Education	Food preparation and serving related occupations	2	10	12	5%
	Building and grounds cleaning and maintenance occupations	7	2	9	4%
	Installation, maintenance, and repair occupations	21	0	21	10%
	Material moving workers	5	0	5	2%
	Total: Gender	133	87	220	100%
	Total: All	220			

Source: 2000 U.S. Census, for Lone Oak area (Zip Code 75453), SF3, Table P50.

10 Recreation and Open Space Study

In small cities like Lone Oak, recreational areas play a key role in maintaining not only the physical health of individuals, but also the emotional health of the community. Parks and recreational areas provide pleasant places for family reunions, friendly competition, exercise, and socializing. In addition, demand for parks and recreational facilities in many Texas towns is rising as a result of: the increase in life expectancy coupled with earlier retirement ages for many people; the spread of competitive sporting programs to the youngest and oldest age groups; and the understanding that a healthy diet and regular exercise are beneficial for mental and physical well-being. The demand for park and recreational facilities in a community is also a function of the community's population. Providing for park needs to all residents usually means offering improved and accessible parks characterized by a variety of facilities.

Every city has the responsibility of providing adequate parks and open space for the health, entertainment, and beauty of the community. However, the limited availability of funds generally requires foresight in planning for future expansion of parks and public open spaces. Texas Parks and Wildlife grant funding will be extremely limited for at least the 2012-2013 budget, so the City should not expect to apply for park grants from the State in the short term.

This study touches on the above factors in examining the basic recreational facilities available to Lone Oak's residents and establishing a plan for renovation and expansion of those facilities. It is organized into the following sections:

Recreation and Open Space Inventory: Itemization of parks and recreation facilities accessible to Lone Oak's residents.

Recreation and Open Space Standards: Discussion and tabulation of the number and type of recreational facilities that should be available to residents in communities Lone Oak's size.

Recreation and Open Space Analysis: Discussion of how well existing facilities fulfill the needs of residents according to the established standards, surveys of residents, and local demographics.

Recreation and Open Space Plan: Goals and objectives based on the recreation system analysis and a proposed timeline with costs and funding sources to make desired improvements.

10.1 Plan Development Process

The 2011 Parks and Recreation planning process began in January of 2010 when the City Council authorized a professional consulting firm, GrantWorks, Inc. of Austin, to develop the City of Lone Oak Comprehensive Plan. To begin judging the level of interest in park needs, planners consulted with City Staff, City officials and residents of all ages. In January 2011, an online survey was set up using Survey Monkey, and the survey link was distributed to City Hall Staff, Council members, and Lone Oak Elementary and High Schools. Additionally, written surveys were distributed at City Hall for citizens to complete as they came in to pay their utility bills, and an ad was placed in the local paper providing the online link to the survey. Overall, 31 surveys were returned, with 3 of the surveys being from senior-aged residents. Results of the surveys and interviews, along with feedback from the public workshop drove much of the needs assessment process.

Survey results are discussed in the Needs Assessment & Identification section of this plan. In addition to surveys, the plan evaluates the city's current recreation resources in relation to its population size, a method called Standards-Based Assessments. The analysis revealed that the City does not meet recommended park Level of Service standards for small towns. The plan focuses on ways to increase the amount of developed recreation acreage and to develop formal use/maintenance agreements with Lone Oak Independent School District to allow residents more access to their facilities.

Following adoption of this plan by the City Council, the City's continuing responsibility will be to identify on-going funding resources and to provide guidance on planning and constructing new facilities, as well as building local partnerships so citizens can have more access to existing recreational facilities in the area, such as Lone Oak ISD. The Council's responsibilities will include a review of this master plan on a regular basis to ensure its goals and objectives continue to meet the changing needs of Lone Oak' citizens. Future revisions will be incorporated as necessary.

10.2 Recreation and Open Space Inventory

Local Recreational Areas: The City of Lone Oak does not own or maintain any public parks. Recreational areas within the city are provided by the Lone Oak Independent School District and local organizations.

Lone Oak Youth Sports Association: The YSA field is located in the City's ETJ, just south of the city limits off FM 513 and Broad St. It is owned and operated by the Youth Sports Association. The facility includes restrooms, 3 bleachers, and 2 dugouts. Residents use the YSA field for baseball practices and games, and play football there as well. The facility is open to the public.



Figure 10A. Pavilion at Town Square

City events are hosted here.

Pavilion at Town Square: The covered pavilion is located in Town Square, just across from the City Hall. Events hosted by the City are held here, and local children like to skate in the pavilion. The pavilion does not provide any seating, and does not offer any other amenities.

Lone Oak Civic Club: The Civic Club is available for lease for functions and events, such as weddings and family parties. Additionally, it is sometimes used by the school as a testing facility, and by the local Girl Scouts and churches for meetings. The Civic Club does not host any activities. The center is located in Town Square next door to the City Hall, and is privately owned and operated by the Hunt family.

Lone Oak ISD Maintained Recreational Facilities:

Lone Oak Elementary School, Middle School, and High School are all located adjacent to one another in the southeastern portion of the city limits along U.S. Hwy 69. All school recreational facilities are accessible to the public after school hours, during weekends, and during school vacations. The City and Lone Oak ISD do not have a formal agreement for the public to access ISD's facilities.

Lone Oak Elementary School Campus: The Elementary School is located in the southeastern portion of the city limits along U.S. Hwy 69. The campus has a fenced-in playground, which includes two playscapes and two swing sets. The playground appeared to be in good condition. Elementary school students also have access to an open field. The playground is open to public use after school hours, on weekends, and during school vacations (i.e., winter, spring, and summer breaks).

Lone Oak Middle School Campus: This campus is located between the elementary school and high school. The Middle School facilities include a tennis

court with two nets, a small basketball court with two hoops, and an additional basketball hoop not included inside the court. The facility also includes two picnic tables and a volleyball net in the grassy area between the basketball and tennis courts. The facilities appear to be in good condition. The Middle School facilities are open to public use after school hours, on weekends, and during school holidays.



Figure 10B: Middle School basketball court.

Lone Oak High School Campus: The High School has a 1/4/ mile track, a football stadium, and a baseball field. The campus facilities also include chin-up bars, a batting cage, outdoor restroom, bleachers, and concession stand. The track and fields are open to the public after school hours and during weekends and school vacations.



Figure 10C: High School track and football stadium

A detailed breakdown of the park and recreational facilities located in the City is found in *Table 10A*.

Table 10A: Recreation & Open Space Facility Inventory

Operation /Maintenance:		Lone Oak ISD	Lone Oak ISD	Lone Oak ISD	Lone Oak YSA	City	Private
Amenities	Total	Junior High and High School	Ball Fields	Elementary School	YSA Field	Pavilion	Civic Club
Fields/Courts							
Baseball Fields	2		1		1		
Tee ball Fields			1				
Basketball Courts	1 ½	1 small outdoor court and 1 additional hoop					
Football field		1					
Tennis Courts	1	1 (two nets)					
Volleyball Courts	½	1-Net on grassy area; no court					
Soccer Fields							
Baseball Backstop	2				2		
Concession Stands	1	1					
Announcer's Booth	2	1			1		
Dugout	5		3		2		
Batting Cage	1		1				
Walking Trail/Track	1	1					
Pool							
Use Areas							
Picnic Area (tables)	8	6	2				
Pavilion	2	1 (by football field)				1	
Benches	2	2					
Bleachers	7	2	2		3		

Playground Equipment							
Playscapes / Playgrounds	2			2			
Swing Sets	2			2			
Other Facilities							
Restrooms (outdoor)	3	1	1		1		
Indoor General Use	1						1



Source: GrantWorks Field Survey, 2010

Open Space A City's park system often includes dedicated open spaces to provide opportunities for passive recreation, habitat for local flora and fauna, to preserve landmarks or vistas, or ensure no development occurs in areas where potential hazards exists, such as flooding (e.g. land within a FEMA 100 Year Floodplain). Within the city limits, approximately 50% of current land use is agricultural or undeveloped. Another 7% is semi-developed, for a total of approximately 400 acres of "open" land within the city limits. Most of the undeveloped land has been subdivided and will likely be developed as the city grows. Approximately 38 acres of the undeveloped land is located within the FEMA-designated 100-year-floodplain and should be preserved as open space or parkland. The floodplain is shown on *Map 7A: Existing Storm Drainage*.

Cemeteries: Lone Oak has one cemetery, Lone Oak Cemetery (approximately 4 acres). In the 1800s, cemeteries served as areas for relaxation and walking before the institution of public parks in cities. While communities no longer rely on cemeteries to serve that purpose, they are still considered valuable open spaces in the community that some people use for walking and passive activities like reflection and meditation. The cemetery's location just north of downtown and its proximity to several neighborhoods makes it particularly useful for those activities.

Figure 10D: Lone Oak Cemetery



Regional Recreation Opportunities. Lone Oak residents have several recreation facilities located within a short drive. These areas offer swimming, hiking, camping, golfing, boating, bird watching, wildlife viewing, and fishing opportunities.

Lake Tawakoni State Park: Lake Tawakoni State Park is located approximately 40 miles southwest of Lone Oak, and is south across the lake from the City of West Tawakoni. The park is 376.3 acres in size, and includes 5.2 miles of shoreline along the south side of Lake Tawakoni. The parkland was acquired in 1984, and has a 50-year lease agreement with the Sabine River Authority. The lake, which is a reservoir that was constructed for the primary purpose of providing water for municipal and industrial use, is operated by the Sabine River Authority. The lake has a total of approximately 200 miles of shoreline, and spans across Hunt, Rains, and Van Zandt Counties. Several recreational activities are offered at the park, including swimming, boating, hiking, fishing, and mountain biking. Facilities at the park include: 5.5 miles of hiking trails, a swimming beach, picnic sites, a boat ramp, trailer pads for long-term guest host sites, 78 multi-use campsites (with water and electricity), and a Group Youth Area. Reservations can be made for the campsites and Group Youth Area.

Wind Point Park: Wind Point Park is privately operated, and is located approximately 5.5 miles southwest of Lone Oak along the northeastern shore of Lake Tawakoni. The park provides recreational opportunities such as camping, swimming, and bird and wildlife viewing. It also provides several amenities, including camping cabins, shelters, a playground, swimming beach, a camping supply store, bath houses, laundry facility, lighted fishing pier, 2 boat ramps, and facilities to play baseball, basketball, and volleyball.

Tawakoni Golf Course: The golf course is located approximately 10 miles southwest of Lone Oak in the City of West Tawakoni. The course is a public facility, and is an 18-hole course over 6,691 yards. The course was opened in 1971.

Cooper Lake State Park: Cooper Lake is a manmade lake that was completed in 1991. The park has a total of 3,026 acres and is divided into two separate park units. The first unit, Doctors Creek Unit, is located in Delta County and is approximately 39 miles northeast of Lone Oak. The second unit, South Sulphur Unit, is located in northern Hopkins County and is approximately 40 miles northeast of Lone Oak. Both parts of the park were opened in 1996, and are leased from the U.S. Army Corps of Engineers. Both units offer a wide range of activities, including camping, hiking, picnicking, water skiing, boating, swimming, bird watching, nature study, and educational programs and tours. The South Sulphur Unit also offers horseback riding.

10. 3 Recreational and Open Space Standards

Basic planning principles guide the successful development of parks and recreational facilities in communities of all sizes and types. The standards in this section provide specific information to community leaders who understand their community's goals but could use an objective perspective to help prioritize those goals and consider additional needs. The following standards must be considered in relation to the specific needs and characteristics of the community in which they are to be applied. Accordingly, the City will want to consider the standards with respect to the unique character of the Lone Oak community.

General Standards:

General open space development guidelines include:

- In most cases, active recreation areas should be separated according to the users' ages, primarily to protect younger children from injury. Some areas should be designated for use by all ages so entire families can enjoy being together.
- Recreational areas should be accessible to the age group they are designed to serve. For example, neighborhood playgrounds usually serve an area with a radius of one-quarter to one-half mile, which is a

reasonable distance for a child to walk. Care should be taken to ensure that safe pedestrian routes provide access to these facilities. Larger facilities that are designed to serve all members of a family can be accessible by automobiles, and have a service area of approximately five (5) miles.

- Combined municipal and school recreational facilities are recommended to serve the needs of the community. Lack of coordination between these types of facilities often leads to the construction of redundant facilities. If possible, school recreational areas, including parking areas, drinking fountains, and restrooms, should remain open on weekends and during the summer months.
- Greenbelts, hike and bike trails, parkways, or paths should be provided to connect large recreational areas, giving the community access to facilities, scenic views, and recreational opportunities. Vehicular routes should be encouraged only when recreational areas are separated by more than one mile; otherwise, walking trails, greenbelts, or other pedestrian routes are desirable.

Size and Service Area Standards:

Service standards provide the community with a way to judge whether there is a sufficient number of parks to serve all residents. The National Recreation and Park Association (NRPA) has created “Recreation, Park, and Open Space Standards and Guidelines” detailed in *Table 10B* (below). The guide lists types of parks found in most communities, defines a service area for each type, and provides a standard for acreage for each type of park. Using the NRPA standards, local parks are classified based on residents’ use and a service area is defined that will help plan the location and size of future parks. According to the NRPA standards, approximately 5 to 15 acres of developed park land should be available per 1,000 residents.

In addition to the NRP standards, the State of Colorado developed standards in 2003 for towns of fewer than 10,000 residents. Consultants used small town facility inventories, national and industry trend data, and government and resident surveys to determine an average acreage per capita needed for facility types in small towns. The study indicates that per capita needs in small towns that are remote and less dense than urban areas may be greater than NRPA standards because parks have a larger recreational role in small towns. The Small Parks Standards from the State of Colorado suggests that 14 acres of developed parkland are needed per 1,000 residents.

Table 10B: NRPA Service Area Standards and Guidelines

Local or Close-to-Home~6.25 to 10.5 acres per 1000

	Use	Service Area	Desirable Size	Acres/1000 Population	Desirable Site Characteristics	Local Example
Minipark	Specialized facilities that serve a concentrated or limited population or specific group such as tots or senior citizens	Less than 1/4 mile radius	1 acre or less	0.25 to 0.5	Within neighborhoods and close to apartment complexes, townhouse development, housing for the elderly or Central Business District.	None
Neighborhood park/playground	Area for intense recreational activities such as field games, court games, crafts, skating, and picnicking; also for wading pool and playground apparatus area	1/4 to 1/2 mile radius to serve a population up to 5000.	15+ acres	1.0 to 2.0	Suited for intense development; easily accessible to neighborhood population; geographically centered with safe walking and bike access; may be developed as a school-park facility	Lone Oak Elementary School
Community Park	May include areas suited for intense recreational facilities, such as athletic complexes, large swimming pools; may be an area of natural quality for outdoor recreation, such as walking, viewing, sitting, picnicking.	Several neighborhoods	25+ acres	5.0 to 8.0	May include natural features, such as water bodies, and areas suited for intense development; easily accessible to neighborhood served	None

Regional space ~ 15.20 acres per 1000

	Use	Service Area	Desirable Size	Acres/1000 Population	Desirable Site Characteristics	Local Example
Regional/metropolitan park	Area of natural or ornamental quality for outdoor recreation, such as picnicking, boating, fishing, swimming, camping	Several Communities: 1 hour driving time	200+ acres	5.0 to 10.0	Contiguous to or encompassing natural resources.	Lake Tawakoni State Park, Cooper Lake State Park,

						Mineola Nature Preserve
Regional park reserves	Areas of natural quality for nature-oriented outdoor recreation, such as viewing and studying nature, wildlife habitats, conservation, swimming, picnicking, and hiking. Generally 80% of the land is reserved for conservation and natural resource management, with less than 20% used for recreation.	Several communities, 1 hour driving time	1,000+ acres sufficient area to encompass the resource to be preserved and managed	Variable	Diverse or unique natural resources, such as lakes, streams, marshes, flora, fauna, and topography.	None

Space that may be local or regional and is unique to each community

	Use	Service Area	Desirable Size	Acres/1000 Population	Desirable Site Characteristics	Local Example
Linear park	Area developed for one or more varying modes of recreational travel, such as hiking, biking, canoeing, horseback riding; may include active play areas.	No applicable standard	Sufficient width to protect the resources and provide maximum use	Variable	Built on natural corridors, such as utility right of ways, bluff lines, vegetation patterns, and roads, that link other components of the recreation system or community facilities, such as schools, libraries and other parks.	None
Special Use	Areas for specialized or single-purpose recreational activities, such as golf courses, natural centers, marinas, zoos conservatories, display gardens, arenas, outdoor theaters. Also, plazas or squares in or near commercial centers, boulevards, and parkways	No applicable standard	Variable depending on desired size	Variable	Within communities	Lone Oak YSA, Tawakoni Golf Course
Conservancy	Protection and management of the natural or cultural environment with recreational use as a secondary objective	No applicable standard	Sufficient to protect the resource	Variable	Variable, depending on the resource being protected.	Little Sandy National Wildlife Refuge, Old

Source: NRPA-suggested classification system (Berke,Kaiser, Godschalk and Rodriguez, Urban Land Use Planning, University of Illinois Press, Fifth Edition.)

Facility Standards: In addition to size and location standards, standards are needed to determine what types of facilities should be provided in each of the City's parks. The NRPA provides one source of facility standards backed by years of research and implementation across the country. The State of Colorado study provides an alternate set of standards for towns of less than 10,000 residents. Colorado's consultants surveyed city governments and residents to determine citizen demand for park services as well as the capacity of typical park amenities in small towns (e.g. the number of people a playground can accommodate). The Colorado small-town standards are shown in *Table 10C*.

Table 10C: Small-Town Park Facility Standards

<u>Facility Type</u>	<u>Number of facilities per 1,000 residents</u>	<u>Acres required to accommodate 1 facility</u>	<u>Acreage required per 1,000 residents</u>
Soccer/multi-use fields	0.95	2.21	2.1
Baseball/softball fields	0.61	3.77	2.3
Tennis Courts	0.97	0.17	0.17
Basketball Courts	0.91	0.16	0.15
Volleyball Courts	0.13	0.1	0.01
Small skatepark (7000 sq ft.)	0.16	0.18	0.03
Full skate park (17,000 sq ft +)	0.06	0.5	0.03
BMX Track (Standard ABA Certified)	0.16	3.12	0.5
Paved Multi-Use Trail (per mile)	1.04	2.43	2.53
Dirt/Gravel Multi-Use Trail (per mile)	2.33	1.83	4.25
Playground (per 3200 sq. ft. of fully developed area)	0.16	0.14	0.02
Family Picnic Area	6.25	0.01	0.08
Group Picnic Area (with shelter)	0.36	2.06	0.74
Park Bench	7.69	0	0
Swimming Pool (outdoor)	0.12	0.34	0.04
Outdoor Events Venue (per acre)	0.42	3.19	1.34

Source: *Small Community Park & Recreation Planning Standards; 2003*, accessed at www.dola.state.co.us/osg/docs/Park%20Standards%20Report.pdf

For the purposes of the following recreation system analysis, the City uses a combination of NRPA and Colorado standards. Standards for courts, fields, playgrounds, walking trails and swimming pools were better articulated for the City in the Small Town standards. Football facilities, multi-recreation courts, and golf courses are measured by the NRPA standards because they are not

included in the Small-Town Standards. *Table 10D* incorporates both standards in a “Lone Oak” standard and serves as one of the determining factors in decisions about future park needs.

Table 10D: City Facility Standards

Activity/ Facility	Facility Space /Land Space	Size and Dimensions	Orientation	Units per Capita	Service Radius	Notes
Basketball Court	7,000 SF/ 0.16 acres	46' – 50' x 84'	Long axis N-S	1 per 1,100*	1/4-1/2 mile	Usually in school, recreation, or church facility. Safe walking or bike access. Outdoor courts in neighborhoods and community parks.
Racquetball or Handball Court	800 SF for 4-wall 1,000 SF for 3-wall	20' x 40'. Minimum 10' to rear of 3-wall court. Minimum 20' overhead clearance.	Long axis N-S Front wall at N	1 per 20,000 [†]	15-30 minute travel time	4-wall usually indoor as part of multi-purpose facility. 3-wall usually outdoor in park or school setting
Tennis Court	Minimum 7,200 SF per court (0.17 acres)	36' x 78' with 12' clearance on both sides.	Long axis N-S	1 per 1,030*	1/4-1/2 mile	Best in batteries of 2-4. Located in community or neighborhood park or near schools.
Volleyball Court	Minimum of 3,000 SF/0.1 acre	30' x 60' with 6' clearance on all sides.	Long axis N-S	1 per 7,540*	1/4-1/2 mile	Usually in school, recreation, or church facility. Safe walking or bike access. Outdoor courts in neighborhoods and community parks.
Swimming Pool	Varies with size of pool and amenities. Usually 1/3 to 2 acres.	Teaching – min. of 25 yards x 45' even depth of 3-4 feet. Competitive – minimum of 25 x 16 m, minimum of 27 SF of water surface per swimmer. Deck to water ratio 2:1.	None, although care should be taken in siting lifeguard stations relative to afternoon sun.	1 per 8,250 residents*	15-30 minutes travel time.	Pools for general community use should be planned for teaching, competitive, and recreational purposes with enough depth (3.4m) to accommodate 1m and 3m diving boards. Located in community parks or school sites.

Table 10D: City Facility Standards (continued)

Activity/ Facility	Space Requirements	Size and Dimensions	Orientation	Units per Capita	Service Radius	Notes
Adult Baseball	3.0 to 3.85 acres	Baselines – 90' Pitching distance – 60 ½' Foul lines – 320' Center field – 400'	Locate home plate so pitcher throws across sun and batter not facing sun. Line from home plate to pitcher's mound runs east northeast.	1 per 1,640*	¼-½ mile	Part of neighborhood park. Lighted field part of community park.
Little League	1.2 acres	Baselines – 60' Pitching distance – 46' Foul lines – 200' Center field – 200-250'				
Softball	1.5 to 2.0 acres	Baselines – 60' Pitching distance – 46' or 40' for women Fast pitch field radius from plate – 225' between foul lines. Slow pitch – 275' or 250' for women.	Same as baseball.	1 per 5,000 if also used for youth baseball. [†]	¼-½ mile	Slight difference in dimensions for 16" slow pitch. May also be used for youth baseball.
Football	2 acres	160' x 360' with 6' clearance on all sides	Fall season, long axis NW-SE. For longer periods, N-S.	1 per 20,000 [†]	15-30 minutes travel time	Usually part of a sports or school complex
Soccer / Multi-Use Field	1.7 - 2.2 acres	195-225' x 330-360'	Same as football	1 per 1,050*	1-2 miles	Number of units depends on popularity. Fields can be used for other informal rec areas.
Golf	9-hole 18-hole	50 acres min. 90 acres min.	Avg. length – 2,250 yds. Avg. length – 6,500 yds.	Majority of holes on N-S axis. 1 per 25,000 [†] 1 per 50,000 [†]	½-1 hour travel time	Accommodates 350 people per day. Accommodates 500-550 people per day.

Table 10D: City Facility Standards (continued)

Activity/ Facility	Space Requirements	Size and Dimensions	Orientation	Units per Capita	Service Radius	Notes
Multiuse Trails (Dirt/Gravel or paved)	N/A	Well-defined head, maximum 10' wide, maximum average grade of 5% not to exceed 15%.	N/A	Per mile: Unpaved - 430* Paved - 960*	N/A	Capacity: rural trail – 40 hikers per day per mile; urban trail – 90 hikers per day per mile.
1/4 Mile Running Track	4.3 acres	Overall width – 276' Length – 600' Track width for 8 lanes is 32'	Long axis in sector from N-S to NW-SE with finish line at northerly end.	1 per 20,000 [†]	15 minute travel time	Usually part of a high school or in community park complex.
Small Skatepark	7,000 SF/ 0.16 acres	7,000 SF/ 0.16 acres	N/A	1 per 6,410*	15 min. travel time	Part of neighborhood park.
Playground	512 SF	512 SF	N/A	1 per 1,000*	1/4-1/2 mile	Part of neighborhood park.
Family Picnic Area	435 SF	435 SF	N/A	1 per 160*	1/4-1/2 mile	- 1 garbage can within 150 ft. of every 4 picnic tables - 40 ft between picnic tables - picnic tables within 400 ft of parking
Group Picnic Area (Covered)	2 acres	2 acres	N/A	1 per 2,780*	1/4-1/2 mile	
Bench			N/A	1 per 130*	N/A	Should be included with all park facilities.
Light Activity Area	Estimated 500 SF	Estimated 500 SF	N/A	1 per 1,000*	1/4-1/2 mile	Could include facilities for horseshoe, shuffleboard, chess, meditation, or similar activity

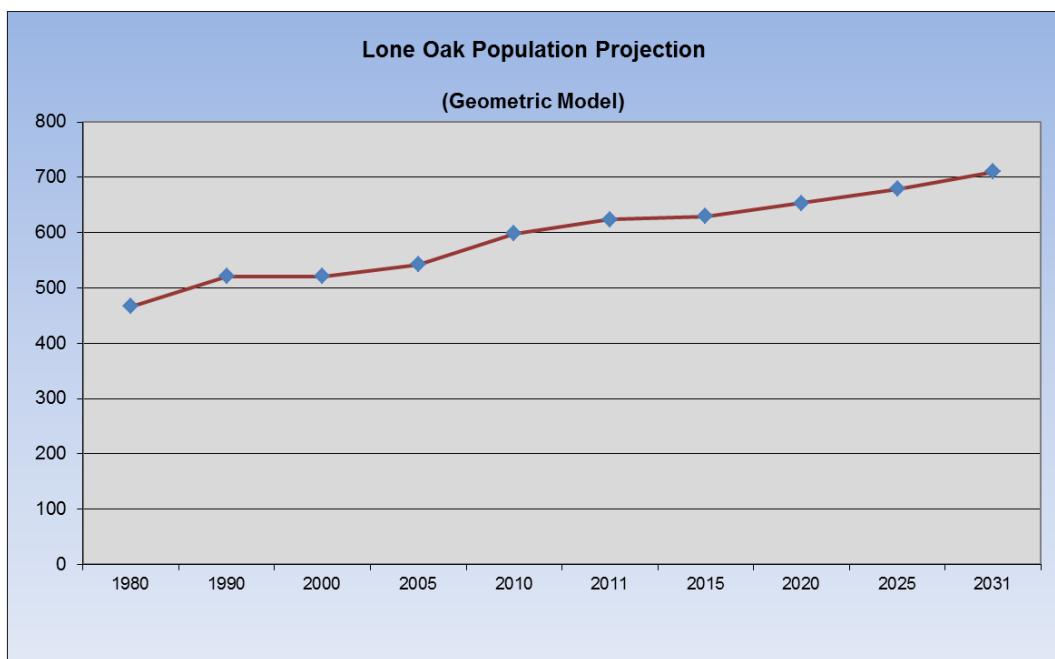
Source: NRPA-suggested classification system (Berke, Kaiser, Godschalk and Rodriguez, *Urban Land Use Planning*, University of Illinois Press, Fifth Edition.); and *Small Community Park & Recreation Planning Standards*; 2003, accessed at www.dola.state.co.us/osg/docs/Park%20Standards%20Report.pdf; [†] - indicates that units per capita came from national/large city standards; * - indicates that units per capita came from small community standards

10.4 Recreational and Open Space Analysis

Demographic Analysis: Demographic analysis is useful in parks and recreation planning because future community facilities and services depend on the size and rate of the community's growth. Population projections and analysis are explored at length in *Chapter 2: Population Analysis* of this Plan.

Population projections: The US Census reports that Lone Oak had a population of 598 for the year 2010. Historically, the population of Lone Oak has remained between 495 and 598 since 1960, although it reached a low point of 467 in 1980. Hunt County's population was 39,399 in 1960, and peaked to 86,129 at the 2010 Census. Both City and County population grew between 2000 and 2010 Census. The City's Comprehensive Plan projects that Lone Oak's population will increase to approximately 710 people during the planning period.

Chart 10A: Lone Oak Forecasted Population, 1980-2031



Source: Texas State Data Center's State Population Estimates and Projections Program combined with Cohort-component method calculations and city population estimate.

Ethnicity: Ethnicity of the City's population is detailed in *Table 10E*. This table uses data from US Census Reports for 2000 and 2010, and shows that the racial and ethnic composition of the city population remained about the same between 2000 and 2010. Racial and ethnic percentages for Hunt County are larger than Lone Oak in each category. Both City and County Hispanic/Latino residents comprise a much smaller percentage than the State's Hispanic/Latino population percentage (38%). For this plan, residents of all ages in Lone Oak were included as those surveyed about park needs.

Table 10E: Population by Race & Ethnicity, 2000-2010

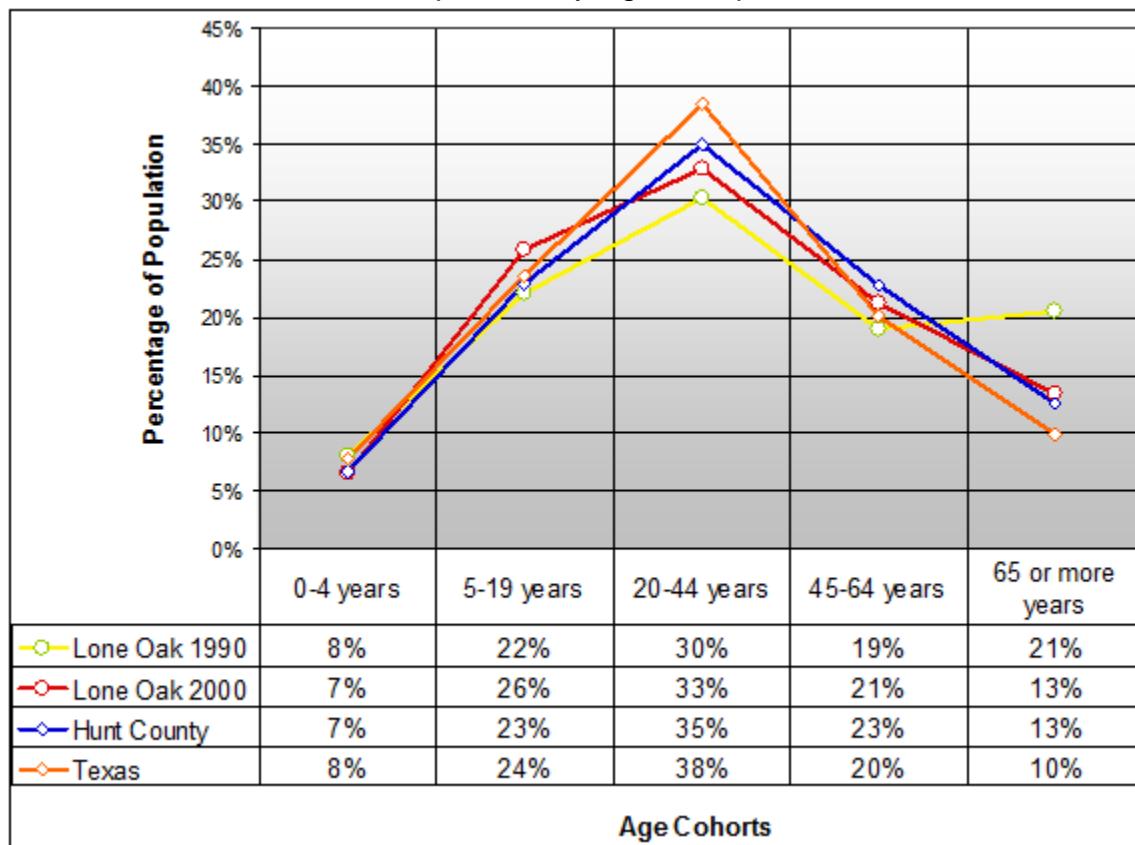
Characteristic	Lone Oak				Hunt County	
	2000		2010		2010	
	Number	%	Number	%	Number	%
Total Population	521	100%	598	100%	86,129	100%
White	492	94.4%	559	93.5%	70,248	81.6%
Black or African American	16	3.1%	14	2.3%	7,133	8.3%
American Indian, Alaskan Native	1	0.2%	4	0.7%	804	0.9%
Asian	1	0.2%	2	0.3%	916	1.1%
Native Hawaiian / Other Pacific Islander	0	0%	2	0.3%	147	0.2%
Other	8	1.5%	5	0.8%	4,852	5.6%
Two or More Races	3	0.6%	12	2.0%	2,029	2.4%
Hispanic or Latino	20	3.8%	19	3.2%	11,751	13.6%
Non-Hispanic or Latino	507	96.2%	579	96.8%	74,378	86.4%

Source: 2000 and 2010 Censuses of Population and Housing, Summary Population and Housing Characteristics and Summary Social, Economic, and Housing Characteristics

Age: Between 1990 and 2000, Lone Oak's youngest cohort (0-4 years) shrunk by 1%, while the 5-19 years cohort grew by 4%. During the same period, the 20-44 year cohort grew by 3%, and the 45-64 group increased by 2%. Those 65 or older decreased by 8%. With this change, the senior population in Lone Oak is very similar to that of Hunt County and Texas. The change may indicate a decline in retirees choosing Lone Oak as a retirement destination or a growth in younger families coming to Lone Oak to live and work. At the time this recreation and open space plan was written, age cohort data was not yet available from the 2010 Census.

School enrollment information from the Texas Education Agency's Academic Excellence Indicator System Reports shows that enrollment in Lone Oak ISD has increased by approximately 26% from 2000 to 2010. This indicates a growing population and a greater need for additional parks and recreational facilities.

Chart 10B: Population by Age Group, 1990 – 2000



Source: 1990 and 2000 Census of Population and Housing, Summary Population and Housing Characteristics

Elderly Population: The City desires to provide recreational activities for all segments of the population regardless of age. Recreational activities are limited for seniors in Lone Oak. Currently, seniors sometimes meet at the Lone Oak Civic Club to play games. The City should prioritize the recreational needs of its elderly residents.

Income: Economic downturns in the country and, in the region, make it questionable as to whether residents would have disposable income to support

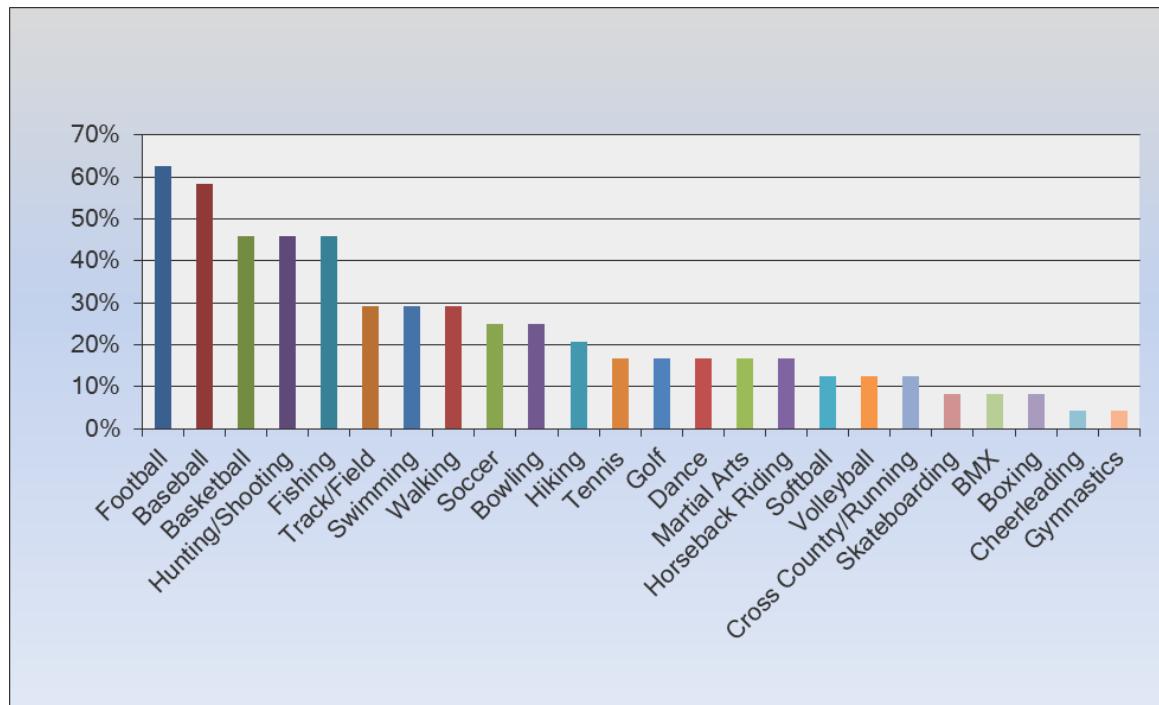
park development with fees, bonds, or higher property taxes. Average weekly wages in Hunt County in the 3rd Quarter of 2010 were \$797, lower than the state average of \$876. Unemployment in Hunt County was at 9.0% in early 2011 compared to the State's 8.2% rate. The 2000 Census reported that the median annual household income as \$31,875 compared to the statewide figure of approximately \$40,000. Per capita income reported in the 2000 Census for Lone Oak was \$15,459 compared to \$20,000 statewide.

Needs Assessment & Identification: The City used the three needs assessment techniques (demand, standards, and resources) suggested by the Texas Parks and Wildlife Department in developing this section. The demand-based approach relies on information gathered through surveys to indicate the desires of local residents for park and recreational facilities and services. The standards-based approach uses the City standards defined above to determine the number and types of facilities and the amount of park area required to meet the City's needs. The resource-based approach identifies assets and resources that could be used for open space, parks, and recreation facilities.

Demand Based Approach: The demand-based assessment is focused on the survey distributed at Lone Oak City Hall, and the online survey link distributed via newsletter ad as well as to Lone Oak Elementary and High Schools, and a planning workshop. Thirty-one (31) surveys were returned. Data gathered from the surveys identified common recreational activities of adults and children, favorite parks and needed improvements, and desired additional recreational facilities. In general, survey respondents ranked adding an outdoor picnic area and playground as most important. In addition, survey respondents also expressed their desire to have a family-friendly local public park, and also would like recreational areas to be aesthetically pleasing.

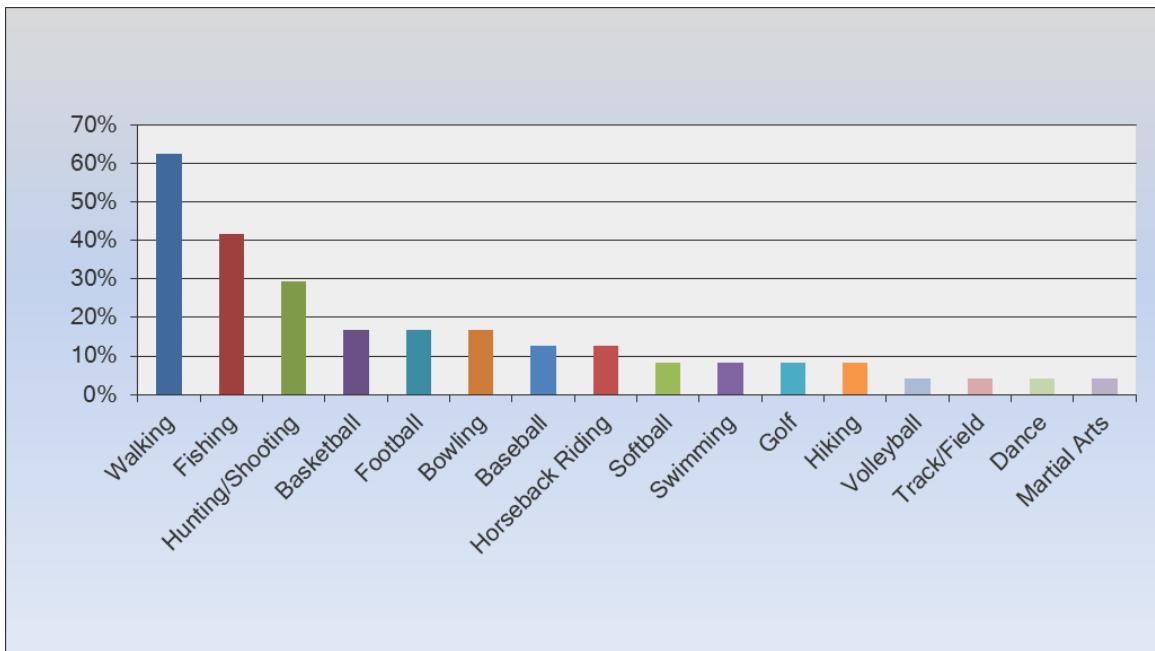
Chart 10C: Children's Top Activities shows that football, baseball, and basketball are the most popular children's activities. *Chart 10D: Adults' Top Activities* shows that walking, fishing, and hunting/shooting are the top three activities for adults.

Chart 10C: Children's Top Activities



Source: GrantWorks community recreation survey, 2011

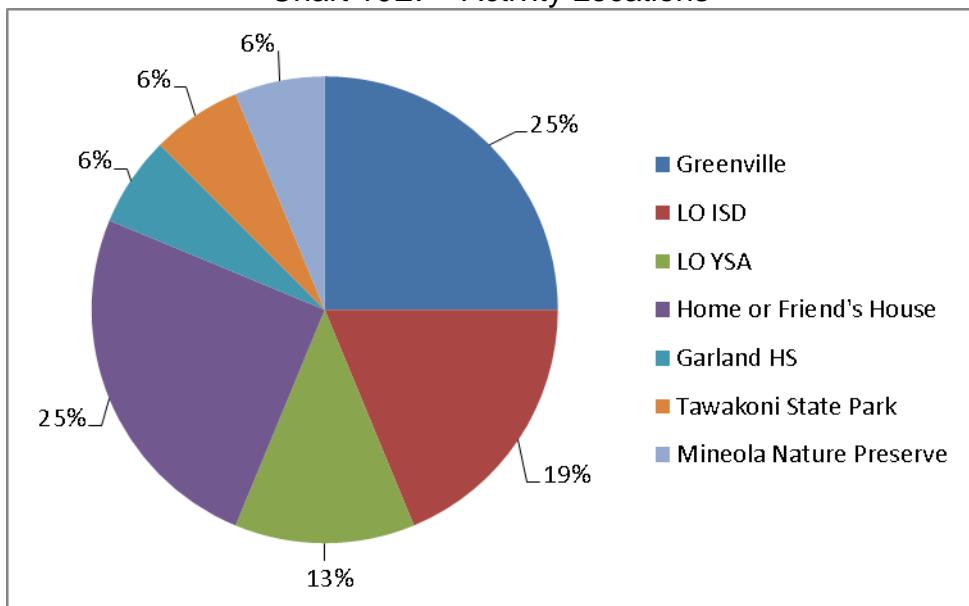
Chart 10D: Adults' Top Activities



Source: GrantWorks community recreation survey, 2011

Survey respondents indicated that they participate in recreational activities close to home and in neighboring cities. A quarter of survey respondents travel to the City of Greenville to access the city's various recreational facilities. Approximately 19% of responding households listed home or a friend's home as activity locations. *Chart 10E* below shows the different locations listed by survey respondents.

Chart 10E: Activity Locations



Source: GrantWorks community recreation survey, 2011

The survey asked the citizens if existing recreational sites in Lone Oak should be upgraded, and respondents were asked to mark “strongly agree”, “agree”, “disagree”, or “strongly disagree.” 81% of respondents stated that they strongly agree that the facilities should be upgraded or improved, and 19% agreed. 16% of respondents not respond to this question.

The final questions on the survey asked the respondents to identify and rank additional recreational facilities that they would like to have in Lone Oak. Question 7 asked the respondent if a specific facility was “very important”, “somewhat important”, or “not important.” The responses were weighted; “very important” received three points, “somewhat important” received two points, and “not important” received minus one point. Facilities that scored the highest were an outdoor picnic area, playground, and recreation center (*Table 10F*).

Table 10F: Prioritized Additional Recreational Facilities

Facility	Number of responses			Weighted Score
	Very Important	Somewhat Important	Not Important	Score
Outdoor Picnic Area	22	2	1	69

Playground	22	2	2	68
Recreation Center	18	3	1	59
Covered Picnic Area	19	2	2	59
Hike/ Jogging/ Bike Trail	16	6	3	57
Softball/ Baseball Field	14	6	3	51
Volleyball Courts	13	5	2	47
Swimming Pool	14	3	3	45
Outdoor Tennis Courts	11	6	3	42
Basketball Courts	13	4	5	42
Soccer Field	10	5	4	36
Sidewalks	9	4	1	34
Public Garden	8	4	3	29
Skate Park	6	3	5	19
Golf Course	4	3	12	6

Source: *GrantWorks community recreation survey, 2011*

Like children, seniors have particular recreational needs. They are often less mobile than other adults and need activities they are physically capable of participating in either actively (e.g. walking, swimming) or passively (e.g. watching sports). The recreational facilities judged most important by households with seniors are: covered picnic areas, outdoor picnic area, recreation center, and hike/bike/jogging trail (see *Table 10G* below). Weighted scores were established according to the same method used in the previous table.

Table 10G: Senior Households' Additional Recreational Facilities Scores

Facility	Number of responses			Weighted Score
	Very Important	Somewhat Important	Not Important	Score
Covered Picnic Area	3	0	0	9
Outdoor Picnic Area	3	0	0	9
Recreation Center	2	1	0	8
Hike/ Jogging/ Bike Trail	2	1	0	8
Sidewalks	2	1	0	8
Public Garden	2	1	0	8
Swimming Pool	2	0	0	6
Playground	2	0	1	5
Basketball Courts	2	0	1	5
Volleyball Courts	1	1	0	5
Outdoor Tennis Courts	1	0	1	2
Softball/ Baseball Field	1	0	2	1
Soccer Field	1	0	2	1
Skate Park	1	0	2	1
Golf Course	0	0	2	-2

Source: GrantWorks community recreation survey, 2011

Standards Based Approach: The standards-based assessment uses community attributes such as population, acreage devoted to parks and open space, and the number of households within the service area of the recreational areas to determine the recreational needs of the community.

Facilities. The following table identifies the City's existing and future needs based upon the population growth and standards for facilities described earlier in the chapter. The City does not currently operate or maintain any public recreational facilities. Residents have limited access to school facilities and Lone Oak YSA facilities.

Table 10H: Public Recreational Facilities Needed

Facility	Standard Units per Person	Available to public	Limited Availability	Currently needed	Needed in 2031
Basketball	1 per 1,100	0	1	1	1
Baseball	1 per 1,640	0	1	1	1
Softball	1 per 1,600	0	0	1	1
Soccer/Multi-use field	1 per 1,050	0	0	1	1
Football	1 per 20,000	0	1	0	0
Tennis Court	1 per 1,030	0	1	1	1
Volleyball Court	1 per 7,540	0	0	1	1
Group Picnic Areas (covered)	1 per 2,780	0	0	1	1
Family Picnic Areas	1 per 160	0	8 tables	4	4
Playground	1 per 1,000	0	1	1	1
Light Activity Area	1 per 1,000	0	0	1	1
Multiuse Trail (Dirt/Gravel)	1 mile per 430	0	0	2 miles	2
Multiuse Trail (Paved)	1 mile per 960	0	1	1 mile	1
Swimming Pool	1 per 8,250	0	0	0	0

Source: GrantWorks field survey, 2011 and NRPA-suggested classification system (Kaiser, Godschalk and Chapin, *Urban Land Use Planning*, University of Illinois Press.) and State of

Colorado Small Community Park & Recreation Planning Standards; 2003, accessed at www.dola.state.co.us/osg/docs/Park%20Standards%20Report.pdf

Size and Service Area.

Level of service is the term used to describe the importance or the role of a park system in a community and is expressed in acres of useable parkland per 1,000 persons. The level of service for parks and open space is based on useable space; therefore, undeveloped parkland is not included. School district and privately owned facilities (Lone Oak YSA, Civic Club) were included in the inventory above in order to fully describe local resources available, but they are not included here as they are not regularly open to the public and therefore do not fulfill the standards for local recreation services. Also, the pavilion located in Town Square was not included since it is limited in size and usage.

As was identified above, using the standard of 14 acres per 1,000 residents and the City's 2011 population of 624 people, the City should contain at least 9 acres of parkland in the following uses: 0.5 acres of minipark space, 1.5 acres of neighborhood park space, and 7 acres of community park space. However, because the City has limited funding resources for park construction and maintenance, the proposed park suggested in this plan is approximately only 1 acre in size.

The City of Lone Oak has a LOS of 0 acres of developed parkland per 1,000 residents. The City has no publically-owned park land or developed park land open to the public.

Park facility development should include consideration of the service area of proposed parks so that the maximum number of residents has access to the facilities. The service area refers to the area formed by a predetermined radius extending out from the park that would typically serve the surrounding population. Using NRPA standards, the service area for a community park is 2 miles or the whole community, a neighborhood park is ½ mile and mini-park is a ¼ mile, the

typical distance one would walk to get to the park. Special use areas have a 2+ mile radius since they typically attract visitors from outside of the city.

Population. The following table identifies the City's existing and future needs based upon the City's population and facilities' standards described earlier in the chapter. Residents have limited access to recreational facilities, so there is need for new facilities such as a public park, playground, and outdoor picnic areas. Those needs reflect some of residents' surveyed desires discussed above.

Resource-based assessment

Finally, the resource-based assessment considered financial feasibility and identified the following resources that could be developed or redeveloped to satisfy the City's parks and recreational needs. The following table indicates the type of uses that would be most appropriate at each location, but any uses would depend on the owners of the facilities.

Table 10I: Resources and Suitable Usage

Resource Type	Location/Area	Suitable Usage Types
Private Community Center	Lone Oak Civic Club located in Town Square	Suitable for formal cooperative use/maintenance agreement for indoor activities such as arts/crafts, games, children's activities, senior citizens' activities, etc.
Lone Oak YSA	South of city limits on Broad St. and FM 513	Suitable for formal cooperative use/maintenance agreement of baseball field and expansion of facilities to include picnic areas, playground, etc.
Lone Oak ISD	Southeast city limits on U.S. 69	Suitable for formal cooperative use agreement of tennis court, basketball court, playground, track and ball fields.

A review of public hearing comments, survey results, and established standards clearly indicates the need for the creation of public park facilities, however,

financial resources must also be considered when establishing realistic development priorities.

Funding will need to be found for a) park construction and b) park maintenance.

Park construction funds typically come from a combination of:

- Grants (often require match of cash, labor, land, or equipment)
- Public fundraising
- Sales tax (would require a public vote)
- City general fund

A reasonable cost estimate for a general park that includes irrigated landscaping, lights, 3 trash cans, 5 park benches, 10 picnic tables, 10 barbecue units, bike rack, restroom, and fountain is \$50,000 to \$70,000 per acre. A playground would cost between \$20,000 and \$30,000. The estimated maintenance cost for such a park is \$18,000 - \$22,000 per year and 20 weekly staff hours. A playground would add approximately \$2,000 per year and 2 hours per week for annual maintenance ¹⁷. Using those estimates, a general park with a playground would cost approximately 4% of the City's 2010 general fund budget to maintain.

Recreational and Open Space Problems:

Discussions at public meetings, resident surveys, interviews of City staff, and the application of the previously mentioned standards, identified the following problems relating to recreation facilities and open space.

1. No publically available recreation facilities.
2. Lack of picnic tables
3. Limited activities for seniors
4. Limited access by public to ISD facilities, such as track and ball fields.
5. Limited-access facilities do not meet standards.

¹⁷ From *State of Colorado Small Community Park & Recreation Planning Standards*; 2003, accessed at www.dola.state.co.us/ osg/docs/Park%20Standards%20Report.pdf

Table 10J: Recreation and Open Space Construction Priorities

Priority 1:	City Park: Build a City Park that includes at a minimum: 1 playground, 1 basketball court, 1 covered picnic area, 5 picnic tables, 1 light activity area (horseshoes, chess, or similar), 5 benches, restrooms, and a paved or dirt/gravel path.
Priority 2:	Recreation Center: Construct a multi-use recreational center that would include a ping pong table, an area for playing cards, etc. Consider redeveloping a vacant commercial space for recreation center, or develop a semi-developed lot.

10.5 Recreation and Open Space Plan

The following plan outlines projects the City should strive to achieve on a short-term basis within the first five years of the planning period and on a long-term basis. The Texas Parks and Wildlife Department recommends that Park and Recreation plans be updated every five years to reflect changing realities in recreation trends, participation, area population and funding. This plan fulfills TP&W funding application requirements until 2016. In 2016, a plan update would be required to qualify for additional TP&W grants. An update would include revised goals and objectives that raise items of lower priority to higher priority as higher priority items are accomplished; a new facility inventory; and a new survey. In 2021, a new plan would be required.

Goals and Objectives: Lone Oak's park plan provides a foundation for the development of future park and recreation facilities in the community. To realize this vision for the future, actions prescribed by this plan must relate to the specific goals that the citizens of Lone Oak hope to achieve.

Goal 1: Publicly available recreation facilities that will serve children, adults, and seniors and act as a valuable City economic development and quality-of-life resource.

Short-term Objective 1.1: By 2012, organize various activities such as board games or arts and crafts for all ages to take place in the pavilion located in Town Square.

Policy 1.1.1: City should appoint a staff member or volunteer to coordinate with the community via Lone Oak ISD, Girl Scouts, churches, and local businesses to organize activities such as arts and crafts, chess, and other games on a seasonal basis. Activities should be open to the public.

Short-term Objective 1.2 By 2013, establish formal cooperative use/maintenance agreements with Lone Oak ISD and privately maintained recreational facilities.

Policy 1.2.1: Review model agreements provided digitally with this study.

Policy 1.2.2: Meet with ISD superintendent to provide examples of agreements, determine the parameters of his/her concerns about such an agreement, and a timeline for negotiation.

Short-term Objective 1.3: In 2015, apply for a Texas Parks and Wildlife grant by the March 1 or August 1 deadline.

Policy 1.3.1: Hire a consultant to conduct the application process.

Policy 1.3.2: Raise local match in the form of land, money, and/or volunteer labor and equipment.

Policy 1.3.3: Purchase land or solicit land donation.

Long-term Objective 1.4: By 2018, construct a city park that includes, at a minimum, the following facilities to partially meet residents' needs and locally recognized standards:

- 1 playground
- 1 basketball court
- 1 covered picnic area
- 5 picnic tables
- 5 grills
- 1 light activity area (horseshoes, chess, or similar)
- 5 benches
- restrooms
- 1 paved or dirt/gravel path

Policy 1.4.1: Ensure throughout the planning period that facilities are constructed to provide adequate access to handicapped individuals.

Long-term Objective 1.5: By 2021, consider constructing a recreation center in the city.

Policy 1.4.1: Determine whether a vacant commercial building can be converted into a recreation center. If not, find suitable semi-developed lot in city to construct a new building.

Policy 1.4.2: Apply for Texas Parks and Wildlife Indoor Recreation grant. Hire consultant to conduct application process.

Policy 1.4.3: Raise local match in the form of land, money, and/or volunteer labor and equipment.

Table 10K: Recreation and Open Space Improvements, 2011-2031

Year	Project	Estimated Cost	Source of Funds
2011-2013	Negotiate formal use/maintenance agreement with Lone Oak ISD to enable residents' use of track and field, basketball court, tennis court, and playground. Also negotiate formal agreement with Lone Oak YSA.	~\$1,000 (attorney's fees) plus negotiated annual maintenance fees, if any	GEN, Local
2014	Begin fundraising for local match requirements for TP&W grant. Match requirements can be met through cash, in-kind contributions, land donation, volunteer time, etc.	Staff and Volunteer Time	GEN, Local
2015	Apply to TP&W for Small Community parks grant for to construct a public park.	\$37,500 (50% match)	GEN, Local, TP&W
2018	Construct a city park	\$50,000-\$100,000	GEN, Local, TP&W
2020-2021	Consider construction of a community center that would provide a place for indoor activities, such as card games, ping pong, activities for seniors, after-school activities, etc.	Staff Time	GEN

2022	If a community center is determined as a feasible project, apply for a TP&W Indoor Recreation Grant	50% match required up to \$375,000 for a maximum grant of \$750,000	GEN, Local, TP&W
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TP&W = Texas Parks and Wildlife Department Grants, GEN = City of Lone Oak municipal funds, Local = donations from private citizens, charitable organizations, and local businesses

Grants and Funding:

The Texas Parks & Wildlife Department administers several competitive park grant programs to assist local units of government with the acquisition and/or development of public recreation areas and facilities throughout the state of Texas. The programs and amounts are listed below for reference and future use; however, most projects are not expected to be funded during the 2012-2013 budget cycle. The Small Community Grants program awards up to \$75,000 to localities with populations of 20,000 and under. Grant applications are accepted in March. Small communities may also apply for the Outdoor and Indoor Recreation Grant programs. The Small Community, Outdoor, and Indoor Recreation Grants provide a 50% reimbursement of eligible expenses. Funding is subject to congressional and legislative allocations.

www.tpwd.state.tx.us/business/grants/trpa/

Grant Type	Reimbursement of project cost up to:	Annual Application Deadlines	Award Limit
Outdoor Recreation	50%	Mar 1 and Aug 1	\$500,000
Indoor Recreation	50%	Aug 1	\$750,000
Small Community	50%	Mar 1	\$75,000
Community Outdoor Outreach Program (CO-OP) (programming only)	100%	Feb. 1 and Oct. 1	\$50,000
Recreation Trail	80%	Feb 1	\$200,000
Boating Access	75%	Oct. 31	\$500,000

Texas Preservation Trust Fund*	50%	June 1	\$50,000
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* Available through the Texas Historic Commission, 1 to 1 match required.

Matching funds may come from a number of sources including, but not limited to the following:

- Capital improvement and revenue bonds
- Local appropriations (i.e. cash)
- 4B funds (economic development sales tax)
- In-kind labor, equipment, and materials to be provided by the sponsor or another governmental/educational entity
- The value of sponsor or publicly-owned non-parkland (must be proposed as acquisition in the application budget and the title must be transferred to the sponsor at the appropriate time **after** Department authorization is received). **Land leased from another governmental entity cannot be used as the sponsor's local match.**
- The value of the land (or fees) to be received as the result of local mandatory park dedication requirements
- The value of privately donated land, cash, labor, equipment, and materials
- Other eligible state/federal grants or resources, including but not limited to: Coastal Management Program, Community Development Block Grants, Fish and Wildlife Service.

Park land donated prior to an application being funded can only be counted as match if a “waiver of retroactivity” was approved by TPW prior to the land transfer. The waiver stands for the state fiscal year in which it is approved and the following two state fiscal years. The Park Grant Program Guidelines state: Waivers are valid only for a limited period of time. A waiver will expire at the end of the second state fiscal year following the state fiscal year in which the waiver was granted. A state fiscal year is September 1st to August 31st. Extensions up to three additional fiscal years will only be granted on a case-by-case basis.

Waivers of Retroactivity are only one means of securing park land prior to project approval while maintaining the match potential for a future grant application. Other means of securing property include the transferring of title to a private non-profit trust/foundation for holding, or through the use of certain right-of-first-refusal contracts which receive prior Department approval.

Questions regarding matching share eligibility should be directed to the Recreation Grants Branch at 512-389-8224 or by email at Rec.Grants@tpwd.state.tx.us.

Other potential parks and recreation funding programs with deadlines throughout the year include:

Major League Baseball's Baseball Tomorrow Fund. Four deadlines each year. Letter of interest submitted first. If invited to apply, app submitted later. Letters of interest due 45 days before app deadlines of Jan. 1, April 1, July 1, and Oct. 1. Funds can be used for field improvements, equipment purchases, umpire training, but not on-going operational costs. No maximum request limit, but typical award is \$50,000 to \$100,000. No match required, but match improves chances of funding.

Texas Parks and Wildlife Department's Community Outdoor Outreach Program. Three deadlines each year: Feb. 1, May 1, Oct. 1. Funds can be used to purchase supplies and equipment for outdoor programs. No construction allowed. Maximum request is \$30,000. No match required, but match improves chances of funding.

U.S. Soccer Foundation. Annual deadline in October. Priority focus changes annually, but typically, funds can be used for construction of new fields or enhancement of existing fields with lighting or irrigation, in areas primarily designed to serve low-income communities. Maximum request is \$100,000. No match required, but match improves chances of funding.

Tony Hawk Foundation. Annual deadline in early March. Funds can be used for the design, construction or operation of new skateboard parks, primarily to serve low-income communities. Maximum request is \$25,000. If funds requested for construction, match must be provided.

Tapping into Lone Oak's volunteer community will be one method of raising funds and in-kind labor and donations. Organizing church, civic, and social groups into a non-profit recreation group would enable the City to take advantage

of matching state grant programs and other funding local foundation opportunities.

11 Capital Improvement Program

The condition of infrastructure is a major concern of all communities. It deteriorates with time and use. As cities expand, stress is placed upon the capacity of local governments to accommodate additional people. A capital improvements program (CIP) provides the local government with the opportunity to identify long-term capital needs and to anticipate spending needs with multi-year planning. CIPs are the foundation of financing for capital expenditures because they blend program and needs analysis with financial capabilities. When properly developed and used, CIPs are critical tools for anticipating large expenditure items and determining when and how much money will be needed to keep up with infrastructure needs.

11.1 Financial Analysis

Lone Oak is typical of most small Texas cities in its types of revenues and expenditures. Taxes, fees, fines, interest, and occasional grant funds make up most revenues while operating expenses, maintenance, repairs, salaries, debt service, utility purchases and capital outlays make up the expenditures. Summaries of the City's actual revenues and expenditures for fiscal years ending June 30, 2008 and 2009 are included in *Table 13E* later in this chapter.

Sources and Amounts of Income and Expenditures. The City's organization of revenues and expenses follows standard governmental accounting practice. All funds are Government Fund types or Proprietary Fund types. The government funds include the General Fund. The General Fund, usually the primary fund in the government fund, is the general operating fund of the City. Income for the General Fund is generated primarily through the property tax, sales tax, permits, fines, etc. General Fund expenditures include administrative personnel costs, cost of utilities, general office expenses, professional services, public safety, streets, etc. It is used to account for resources traditionally associated with

government that are not required legally or by sound financial management to be accounted for in another fund.

The proprietary funds include operations for the activities the City operates similar to a business. The City's proprietary funds include the Water and Wastewater Utility Fund, and The CDBG Grant Fund. The Water and Wastewater Fund accounts for the operation of the City's wastewater utility. Primarily user fees fund these operations. Expenditures include personnel costs, repairs and maintenance, utilities, and professional/contract services. The CDBG Grant Fund accounts for transactions relating to the Community Block Grant which the City received in order to make improvements to its water and wastewater services.

Public Improvements Financing Practices. The type of financing used to pay for infrastructure expenditures depends on several factors, the most critical of which include the annual tax revenues generated, the unmet demand for different infrastructure projects, and the jurisdiction's indebtedness. Because costs often run into the millions of dollars, several alternatives are often used to finance infrastructure expansion or replacement: general obligation bonds and certificates of general obligation, revenue bonds, operating revenues/general fund, impact fees, and state or federal funds.

- General obligation bonds are paid out of annual general revenues. These types of bonds usually raise large sums of money with the debt retired over several decades. G.O. bonds are backed by the "full faith, credit and taxing powers" of the issuing jurisdiction. When G.O. bonds are sold, the jurisdiction guarantees that it will raise sufficient revenues to retire the debt on schedule, usually using property taxes. Because G.O. bonds are repaid by all taxpayers in a community, they are usually used to finance projects that benefit the community as a whole, such as public buildings, parks, recreation centers, and major street improvements.

- Certificates of obligation are similar to G.O. bonds, however, they are usually used to pay a contractual obligation incurred in: (1) a construction contract; (2) the purchase of materials, supplies, equipment, machinery, buildings, land, and rights-of-way for authorized needs and purposes; or (3) the payment of professional services, including services provided by tax appraisers, engineers, architects, attorneys, map makers, auditors, financial advisors, and fiscal agents.
- Revenue bonds are sold to develop projects that produce revenues to the City, such as municipal sewer and water systems. In this case, the guarantee of repayment comes from the revenues generated by the financed project, which usually includes taxes or fees collected from the project's beneficiaries. Most projects financed using revenue bonds benefit a wide class of users, such as water customers, airport users, or toll road users. Unlike G.O. bonds, revenue bonds do not require the backing by the jurisdiction's "full faith, credit and taxing powers." Consequently, the local government is not obligated to raise taxes to avoid default on the revenue bonds. Because of this, revenue bonds usually carry higher interest rates than general obligation bonds. These bonds parallel those used for private enterprises; voter approval is usually not necessary to float revenue bonds.
- Private Activity Bonds are a special type of bond administered by the Texas Bond Review Board. From the Bond Review Board website:

Private activity bonds are those bonds that meet any of the following tests: 1) Private Business Use Test - more than 10% of the proceeds are to be used for any private business use; 2) Private Security or Payment Test - payment on principal or interest of more than 10% of the proceeds is to be directly or indirectly secured by, or payments are to be derived from a private business

use; and 3) Private Loan Financing Test - proceeds are to be used to make or finance loans to persons other than governmental units.

The Tax Act of 1986 limited municipality Private Activity Bond use. The Texas Bond Review Board allocates these bonds according to a "first-come, first-served" basis every year. They should be contacted at 1-512-463-1741 (or at <http://www.brbr.state.tx.us>) if a municipality or jurisdiction wishes to be considered for an allocation.

- Operating revenues of the General Fund are funds that are derived from the income-generating functions of a local government such as sales and property tax collections and fees and fines levied by its courts. Financing infrastructure using operating revenues or the general fund saves the interest and fees associated with issuing bonds, but because the operating revenue cannot usually provide the large cash flows of a bond issuance, it is usually used to finance smaller, lower-cost capital improvement projects that can be paid for in one year. Some cities with limited budgets have allocated a portion of their budgets annually into a fund for specific projects, such as street or drainage improvement, and allowing the fund to accumulate and gain interest until it was large enough to fund a project.
- Exactions include both dedication of land for specific purposes and construction of public facilities as authorized by constitutional, statutory or charter authority, including a subdivision ordinance. A city may require that a developer fund or construct public facilities in proportion to the impact the development will have on city services. Such projects include drainage easements and facilities, street and alley right of way, water and wastewater easements and facilities, street lighting, fire hydrants, sidewalks, street signs, and traffic control devices. Less common are park dedication (or fees in lieu); school site dedications; major public works

facility dedication (water treatment plant); and public service facility dedication like fire or police stations, and library branches. The dedication, construction, or payment in lieu must be “reasonably related” to the public needs created by the new development as shown by the City.

- Fees include user fees, impact fees, and special assessments and are usually collected from the beneficiaries of a project. User fees include public swimming pool or golf course user fees, trash collection fees, or water meter tap fees. Impact fees, a type of exaction, include charges to property developers to defray the costs of providing off-site water, sewer, and transportation infrastructure impacted by the new development. Developers typically pass the cost of infrastructure development to the primary beneficiaries, the residents of the new development. Special assessments are used to fund improvements such as water, wastewater, drainage, sidewalk, parking, library, recreation, and landscaping. They are assessed against properties affected by the improvement and must be approved by property owners representing more than 50 percent of the area of property to be taxed.
- State and federal funds. Grants and low-interest loans provided by state and federal agencies have long been a key ingredient in the development of local infrastructure. Most assistance requires some form of local matching contribution and some requires that other socioeconomic conditions be present in the local jurisdiction, such as low-income neighborhoods or high unemployment. Although state and federal assistance for infrastructure has fluctuated during the past twenty-five years, increasing recently, grant programs have provided a significant source of funding for water and sewer infrastructure development in rural Texas through 2009. These sources include:

✓ **Texas Community Development Block Grant Program (TxCDBG)**

These funds, allotted to rural municipalities through the Texas Department of Rural Affairs Community Development program, originate with the US Department of Housing and Urban Development. Application cycles run bi-annually, beginning in odd years, with applications due in early fall of the even year prior to the beginning of the funding cycle. The next cycle will begin in 2011 with applications due in the summer of 2010. Grant awards are limited to \$250,000 and require a match of 5 percent. Often these funds can be used in conjunction with other funding sources to get projects built. Although the program can fund street and drainage projects, water and sewer projects traditionally have received higher scoring as priority at the state level. Beginning in the 2009 cycle, applications for funding will be scored by the Council of Governments for each region. In the case of Lone Oak, the North Central Texas Council of Governments will score applications. Communities wishing to fund other types of projects should lobby officials regarding needs for street, drainage, and housing funding.

✓ **Texas Parks & Wildlife grant program (TP&W)** The TPW administers a number of grant programs to help counties and communities build new parks, conserve natural resources, preserve historical sites, provide access to water bodies, develop educational programs for youth, and more. The Small Community Grant provides a maximum \$75,000 grant in 50% matching funds to qualifying communities to acquire and develop parkland. TPW Outdoor Recreation Grant funds provide up to \$500,000 and Indoor Recreation Grant funds provide up to \$750,000 to eligible applicants. 50% matching funds are required for both grant programs. Other TPW grants and programs include the Community Outdoor Outreach Program, Recreational Trail Grants, and a variety of wildlife and other

recreational grants. For more information, visit TPWD's Web site at www.tpwd.state.tx.us, write to TPW at 4200 Smith School Road, Austin, Texas, 78744, or call 1-800-792-1112.

- ✓ **Safe Routes to School Program (TxDOT)** Funds are available for the planning and construction of infrastructure related to sidewalks, trails and school crossings in the vicinity of primary and middle schools. The Texas Department of Transportation makes irregular program calls to applicants interested in applying for funding. The next anticipated application period would not take place before 2011, but is subject to federal funding decisions. The program is funded through Congressional SAFETEA-LU funding and funds are dependent on continued funding from Congress.
- ✓ **State Water Revolving Loan Funds and State Loan Programs (Texas Water Development Board)** The TWDB's State Revolving Loan Fund makes loans available to expand water and sewer systems in rural areas. Typically, utility districts and cities are the applicants for assistance. The Board also provides funding for water system improvements through the Drinking Water State Revolving Loan Fund, funded through EPA. This low interest loan program was created to finance projects that help bring existing public water systems into compliance with drinking water rules and regulations. The Texas Water Development Fund II, funded through state loans, is available to fund both water and wastewater improvement projects, and some major flood control projects. All programs provide utilities and political subdivisions loans at below market rates. However, often the funded entity must float bonds as collateral for loans; and pledge system revenues and/or taxes. The loans are typically for 20 to 25 years, although they may be financed for a maximum of 50 years. More information is available through the Texas Water Development Board's

Office of Project Finance and Construction Assistance, Program and Policy Development Division at (512) 463-7853.

- ✓ **Economically Distressed Areas Program (EDAP) (Texas Water Development Board)** This program provides financial assistance in the form of a grant, a loan, or a combination grant/loan to bring water and wastewater services to economically distressed areas where the present water and wastewater facilities are inadequate to meet the minimal needs of residents. The program also includes measures to prevent future substandard development. Under new 2008 rules for funding, target areas in any county statewide that meet distress criteria of incomes averaging less than 75% of the statewide median income are eligible for this funding. The Board projects it will have \$25 million to allocate each of the next 10 years through 2015 for sewer and water projects in economically distressed areas that lack sewer or water services. Knox County, with a median household income of \$25,453 compared to the state median household income of \$39,927, may qualify for EDAP funding as it is at 64% of the state income level. However, EDAP will not provide funds for counties that have not adopted the TWDB's Model Subdivision Rules, which Knox County has not done. The Model Subdivision Rules basically state that residential subdivisions be provided with water and sewer infrastructure up front, either paid for or bonded by developers. More information on this topic can be accessed at <http://www.twdb.state.tx.us/assistance/msr/index.htm>.

- ✓ **USDA's Rural Development Service (RD)** Funds are available for water and wastewater projects through the agency's Rural Utilities Services agency. Water and Waste Water Disposable grants or loans are available to communities of less than 10,000 in population. This

source has financed Lone Oak water system improvements in the past. The USDA service center for the region is located in McKinney. The office works with communities to secure low-interest funding for projects that may be also funded partially with USDA grant monies. Often, municipalities are required to issue certificates of obligation to secure the loan, as has Lone Oak on at least one of the loans. They can repay at low interest rates over a 40-year period. Professional service fees can also be built into the loan amounts. The agency also has limited resources to assist municipalities with housing rehabilitation for low-income or elderly populations or for the construction of rural rental housing. Increased funding will be available through the local office in 2010. Communities are encouraged to apply for USDA funding in the fall so that applications are pending when federal funding is disbursed around February annually.

- ✓ **Federal Emergency Management Agency Flood Mitigation Assistance** This federal pre-disaster program provides grants to assist States and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program (NFIP). Applicants must participate in the National Flood Insurance Program.
- ✓ **Flood Protection Planning (TWDB)** grants to evaluate structural and nonstructural solutions to flooding problems and to consider flood protection needs of a region that includes an entire watershed. The flood protection planning grants will provide a 50/50 match with local sponsors to conduct drainage studies and develop cost-effective, technically-feasible flood control alternatives. Funds are not available through this program for construction costs.

Table 11A: Schedule of Selected State Grant Programs

Project Type	Deadlines	Program and Uses	Grant/Loan Assistance	Match
Parks	January 31	<p>Texas Parks & Wildlife Small Community Grant Program (for communities of less than 20,000 population). City would be required to self-administer the project.</p> <p>Funds can be used for development or rehab of any public <u>outdoor</u> recreation facilities.</p>	Up to \$75,000	<p><i>1 to 1 match requirement. Match can be cash, in-kind, or donated.</i></p>
Parks	July 31	<p>Texas Parks & Wildlife Department Local Parks Program Outdoor Parks (Must have master park plan completed by May 31st to apply.)</p> <p>Funds can be used for development or rehab of any public <u>outdoor</u> recreation facilities.</p>	Up to \$500,000	<p><i>1 to 1 match required. Match can be cash, land, or in-kind.</i></p>
Parks	May 1	<p>TPW Recreational Trails Program. Funds can be used for new trail development or rehab of existing trails, and trail amenities such as parking areas, restrooms, drinking fountains.</p>	Up to \$100,000	<p><i>20% of total project cost required as local match contribution (can be cash, land value, and/or in-kind).</i></p>
Parks	May 31	<p>Texas Parks & Wildlife Park Master Plan. Plan must be approved by TPW to be eligible for points in TPW Outdoor and Indoor grant programs; already completed in Comprehensive Plan, but should be submitted to TPW.</p>	N/A	<p><i>No match required.</i></p>
Parks	July 31	<p>Texas Parks & Wildlife Department Local Parks Program Indoor Parks (Must have master park plan on file with TPW.)</p> <p>Funds can be used for development or rehab of any public <u>indoor</u> recreation facilities.</p>	Up to \$750,000	<p><i>1 to 1 match required. Match can be cash, land, or in-kind.</i></p>

Parks	October 31	<p>TPW State Boating Access Program. Funds can be used to develop new or renovate public boating access facilities including boat ramps, parking areas, access roads, boater amenities such as restrooms, picnic areas, courtesy docks, etc.</p>	Up to \$500,000.	<i>25% of total project cost required as local match contribution (can be cash, land value, and/or in-kind).</i>
Eco Devt	Applications awarded monthly	<p>*Texas Capital Fund/Infrastructure Development-Real Estate Programs for economic development projects that create new jobs for low-to-moderate income persons (new or expanding businesses). Texas Department of Agricultural Affairs.</p> <p>Infrastructure Development: Public infrastructure improvements can include: water & sewer facilities/lines, pre-treatment facilities, road/street construction/improvements, natural gas line construction/improvements, electric, telephone, & fiber optic line construction/improvements, harbor/channel dredging, purchase of real estate related to public infrastructure improvements, traffic signals and signs drainage improvements, and railroad spurs.</p> <p>Real Estate Development: Funds must be used for real estate development to assist a business that commits to create and/or retain permanent jobs, primarily for low and moderate-income persons. The real estate and/or improvements must be owned by the community and leased to the business. Award may not exceed 50% of the total project cost. A minimum equity injection also is required of the business.</p>	<p>From \$50,000 to \$1,000,000, based on the number of jobs the business will create or retain.</p> <p>Locality can request up to \$25,000 per job business will create/retain during a 3-year period.</p>	<p><i>No match required by public locality.</i> Business is required to inject 10 to 33% equity.</p> <p>Other costs to business: Pv-INF and Pv-RE are 100% repayable loans at 0% interest over 20 years.</p>

Eco Devt	June each year	<p>Texas Capital Fund – Downtown Revitalization Program. Funds can be used for public infrastructure improvements such as parking, sidewalks, lighting, utility upgrades in designated “historic commercial district.”</p> <p>Engineering costs are not eligible to be paid with TCF-DRP funds so these costs must be paid for with local funds.</p>	Up to \$150,000.	<i>10% is minimum required match, but only get points if match is either 20% or 30%. On a \$150,000 grant, that means \$15,000 is required, but points awarded for \$30,000 or \$45,000 (can be cash and in-kind)</i>
Eco Devt	early October each year	<p>Texas Capital Fund – Main Street Program. Funds can be used for public infrastructure improvements such as parking, sidewalks, lighting, utility upgrades in designated “historic commercial district.”</p> <p>Engineering costs are not eligible to be paid with TCF-DRP funds so these costs must be paid for with local funds.</p>	Up to \$150,000.	<i>10% is minimum required match, but only get points if match is either 20% or 30%. On a \$150,000 grant, that means \$15,000 is required, but points awarded for \$30,000 or \$45,000 (can be cash and in-kind)</i>
Water/Sewer	Varies	Small Towns Environment Program, (STEP) funds for water and sewer projects utilizing at least 51% local volunteer labor and in-kind donations to complete project.	Up to \$350,000	<i>No match required.</i>
Drainage	October of each year	Flood Mitigation Assistance Program Funds for planning and project grants to develop or update the flood hazard component of a Multi-Hazard Mitigation Plan (prepared by the CoG) and for constructing flood mitigation projects.	Planning grant max: \$50,000 Construction: No more than \$3.3 million over a 5-year period.	25% match of which not more than half (12.5%) can be of in-kind services.

Housing	Ongoing	HOME Funds can be used for rehabilitation or demolition and reconstruction of up to six substandard homes. Rehabilitation is not permitted for manufactured homes.	Up to \$550,000 for 6 homes	<i>Match required, 1% to 12.5% on total project amount, depending on population size. Plus \$12,000 in cash leverage. Match can be in-kind or cash.¹⁸</i>
Sidewalks	Fall (when federal funds available) SRTS plan must be approved by TxDOT	Texas Department of Transportation Safe Routes to School. Non-infrastructure funds can be used to create student safety programs and incentives. Infrastructure funds can be used to construct sidewalks, bike lanes, drop-off lanes, etc., or install signage, signalization, etc. Must have an SRTS Plan in place to apply for infrastructure construction funds.	Infrastructure construction projects: Up to \$750,000	<i>No match required, but local injection can earn additional points. Match contribution can be cash, land value, and/or in-kind.</i>
Streets/ sidewalks	Fall	Texas Department of Transportation (TxDOT) Transportation Enhancement Program. Infrastructure funds can be used for 12 categories for non-traditional transportation projects to enhance the aesthetics of roadways and provide facilities for pedestrians and bicyclists, including preservation of abandoned railways and acquisition of scenic easements; and landscaping along roadways.	Reimburses 80% of costs of project	<i>20% match required, plus costs reimbursed only.</i>
Water/ Sewer	Applications taken every other year. Next cycle applications due in summer of 2012 for 2013-2014 biennium	Texas Community Development Program. <u>Community Development Fund.</u> Last round of applications were due in September of 2008, with awards made for 2009-2011. Funds can be used for water and/or sewer improvements. Drainage improvements can be constructed if they are incidental to the water or sewer improvements.	Up to \$350,000 (varies by region)	<i>Match based on population: 0 – 1,500 persons = 5% 1,501 – 3,000 = 10% 3,001 – 5,000 = 15% ≥ 5,000 = 20%</i>

¹⁸ HOME program requirements change regularly.

Infrastructure	Early Feb each year	Renewable Energy Demonstration Pilot Program (TDRA) Assists rural communities with installing renewable energy projects, including wind turbines or solar panels to power wastewater treatment or water treatment facilities.	Up to \$500,000	Match of 2% to 25% required, depending on town size. Sliding scale earns points on application. Match can be cash, land, or in-kind.
Planning	Applications taken every other year. Next cycle applications due in summer of 2012 for 2013-2014 biennium	Texas Community Development Program. <u>Planning and Capacity Building Fund.</u> Last round of applications were due in September of 2008, with awards made for 2009-2011. Funds can be used to map housing, land use, streets, drainage, public utilities; determine needs to ensure adequate utilities; determine future growth patterns (10-year growth period); & establishes a capital improvement plan.	Varies by size, but maximum grant is \$50,000.	Match based on population: 0 – 1,500 persons = 5% 1,501 – 3,000 = 10% 3,001 – 5,000 = 15% ≥ 5,000 = 20%

Other potential parks and recreation funding programs with deadlines throughout the year include:

Major League Baseball's Baseball Tomorrow Fund. Four deadlines each year. Letter of interest submitted first. If invited to apply, app submitted later. Letters of interest due 45 days before app deadlines of Jan. 1, April 1, July 1, and Oct. 1. Funds can be used for field improvements, equipment purchases, umpire training, but not on-going operational costs. No maximum request limit, but typical award is \$50,000 to \$100,000. No match required, but match improves chances of funding.

Texas Parks and Wildlife Department's Community Outdoor Outreach Program. Three deadlines each year: Feb. 1, May 1, Oct. 1. Funds can be used to purchase supplies and equipment for outdoor programs. No construction allowed. Maximum request is \$30,000. No match required, but match improves chances of funding.

U.S. Soccer Foundation. Annual deadline in October. Priority focus changes annually, but typically, funds can be used for construction of new fields or enhancement of existing fields with lighting or irrigation, in areas primarily designed to serve low-income communities. Maximum request is \$100,000. No match required, but match improves chances of funding.

Tony Hawk Foundation. Annual deadline in early March. Funds can be used for the design, construction or operation of new skateboard parks, primarily to serve low-income communities. Maximum request is \$25,000. If funds requested for construction, match must be provided.

Other options for financing capital improvements may include:

- use of county prisoners as day laborers for drainage, park, and street projects as a way to save money and accomplish additional work;
- encouragement of volunteer groups to make simple park improvements and to clear brush and debris out of vacant lots and drainage ways;

Cost of Financing. Each option available to pay for infrastructure carries a certain financial obligation. One objective of local governments is to incur minimal interest and finance charges, which may depend on the bond rating of the jurisdiction. If enterprise funds, revenues from general taxes, or outside assistance from state or federal sources are sufficient to pay for infrastructure development, no financing costs will be incurred. A 2009 Texas Municipal League survey of cities indicated that, for cities with populations between 1,500 and 1,700 residents, general obligation bond debt ranged from \$20,000 to \$7 million and certificate of obligation debt ranged from about \$140,000 to \$13.6 million. Revenue bond debt ranged from \$20,000 to \$550,000. Most of the debt paid for water and sewer infrastructure, municipal buildings, parks, and community centers.

Equity. Local governments must determine the relationship between those who receive the benefits and those who pay the costs. In some cases, it is possible to identify groups of individuals who benefit more directly from a particular project; in others, the benefit may be more widely distributed. Some forms of financing may be more burdensome to one group of citizens than another, leaving local governments to decide how the costs and benefits of infrastructure projects will be distributed.

Political Acceptability. While most communities have a range of infrastructure financing options, local political realities often play a major role in determining which option is chosen. In some communities, it may not be politically feasible to increase property taxes, while it may be acceptable to issue bonded

indebtedness for a specifically earmarked purpose. In other cases, it may be more acceptable to charge fees directly to those who benefit from a project or incur debt that will be repaid by fees charged for use of the project.

Long Term Debt. According to the city's 2009 Annual Financial Report, the City pays debt on governmental activities, namely bonds payable; and on its business-type activities, revenue bonds. The City has any outstanding general obligation bond, which would be paid through property tax revenue. It issued revenue refunding bonds in 2001 and 2006, and a promissory note with the Texas Commission on Environmental Quality in 2005. *Table 13B* describes its long-term debt obligations.

Table 11B: Long Term Debt

Governmental Activities				
<i>Obligation Bonds, Series 2001</i>	Year ending June 30	Principal	Interest	Total Requirements
	2010	\$11,635	\$1,833	\$13,468
	2011	\$12,216	\$1,252	\$13,468
	2012	\$12,827	\$641	\$13,468
	Totals	\$36,678	\$3,726	\$40,404
<i>Notes</i>	2010	\$10,774	\$391	\$11,165
	2011	\$3,309	\$45	\$3,354
	Totals	\$14,083	\$436	\$14,519
Business-Type Activities				
<i>Refunding Bonds Payable</i>	Year ending June 30	Principal	Interest	Total Requirements
	2010	\$32,403	\$11,936	\$44,359
	2011	\$34,323	\$10,241	\$44,564
	2012	\$35,789	\$8,458	\$44,247
	2013	\$16,000	\$6,602	\$22,602
	2014	\$16,500	\$5,734	\$22,234
	2015-2019	\$99,000	\$13,819	\$112,819
	Totals	\$234,015	\$56,790	\$290,805
<i>Notes</i>				
	2010	\$1,463	\$109	\$1,572
	Totals	\$1,463	\$109	\$1,572

Debt Affordability. Debt capacity analysis can facilitate well-informed decisions about the issuance of additional long-term debt and is a key planning tool to ensure that governments meet their capital needs without sacrificing their financial strength. The analysis below provides some benchmarks to use in making decisions about financing of capital projects during the planning period. More detailed debt affordability studies may be required prior to major debt issuance decisions.

Two types of indicators can be used to evaluate the current debt burden of a municipality: debt outstanding, which measures the total dollar amount of principal that must be repaid, and debt service, which includes the principal and interest payments that must be repaid on an annual basis.

When considering the use of debt to finance capital improvements, four common measures of a City's ability to issue new debt should be considered:

Direct Debt

- (1) *Total general obligation debt outstanding as a percentage of the assessed value of property in the City should not exceed 10%.* This indicator measures the government's fiscal capacity. Communities with higher percentages should carefully consider whether the local tax base can support new debt. More fiscally conservative communities may establish six percent as the upper limit for this item. Communities also could calculate general obligation debt as a percentage of *total market value*, as a measure of the community's wealth, or capacity of the tax base to support present and future revenue needs. Some cities have set limits for general obligation debt at 3% of total valuation.

The total assessed value of the property in Lone Oak as of fiscal year 2010 was \$18,967,506. The City's voter-approved general obligation debt is less than 2 percent of assessed property value. Based on a benchmark of 6 to 10 percent of assessed property value, Lone Oak's local tax base could support between \$1 and \$1.9 million in general obligation debt.

(2) *Per capita bonded indebtedness* *The amount of direct debt outstanding for each citizen of a jurisdiction should generally be kept below \$1,200.* If fiscal policy is especially conservative, \$600 in bonded debt per resident would be a more reasonable number. Direct debt includes all long-term obligations directly supported by general revenues and taxes. It does not include interest expenses. If it considered its own debt per capita (*including the sum of all general obligation bonds and notes outstanding*), the City could support between \$338,400 and \$676,800 in general obligation debt, according to this indicator.

The City should consider residents' overlapping debt burden in making decisions related to the political viability of debt issuance. Overlapping debt, a resident's direct debt outstanding from all jurisdictions in a tax base, provides a measure of a resident's total debt burden. As shown in *Table 13C*, Lone Oak residents are paying \$5,120.46 per capita to all its taxing entities for general obligation bonds (*principal only*).

Table 11C: Total/Overlapping Debt FY 2009

Taxing Entity	Outstanding Debt	City's Share of Tax Base	City Residents' Per Capita Share of Debt
Lone Oak	\$310,137	100%	\$549.89
Lone Oak ISD	\$22,170,061	11%	\$4,434.01
Hunt CO		1%	\$136.55
Totals	\$33,787,598		\$5,120.46

Source: Texas Bond Review Board Website: at <http://www.brb.state.tx.us/lgs/lgsdbsearch.aspx>

(3) *The City's annual debt service (principal and interest) should not exceed 20% of the City's annual receipts.*

The City's annual debt service for 2011 is expected to be \$61,386 (principal and interest for 2011 in *Table 13B*). In the fiscal year July 1, 2010 through June 30, 2011, the City expects to generate \$192,410 through taxes and other revenues from governmental activities. The debt service is about 32% of the City's annual receipts. According to this indicator, Lone Oak should not incur more debt service at this time.

(4) *Revenue Debt:*

Lone Oak has issued revenue bonds, a loan used to improve revenue-generating equipment such as utilities. Revenue bonds are paid back through revenue funds and thus do not increase per-capita debt for city residents. One measure of calculating the limits of revenue debt is by determining the City's debt service coverage ratio (DSCR), which refers to the amount of cash available to meet annual payments on debt and is calculated by the following:

$$\frac{\text{(Net Operating Income + depreciation and amortization + non-operating revenues)}}{\text{Annual Debt Service (principal and interest)}}$$

A debt service coverage ratio of greater than 1 is required in order to make annual debt payments. At the 1 ratio, all income is wrapped up in paying debt. Financiers often consider this debt service coverage ratio when determining whether taking on new debt is advisable.

In 2009, the Proprietary Fund had a Debt Service Coverage Ratio of 7.6 (\$377,764/\$49,870). The City is within the benchmark for revenue debt. Based on 2008-2009 audits, the City should not exceed \$377,000 in annual revenue bond obligation in that fund. The most significant contributor towards non-operating revenues was a TxCDBG grant awarded in 2009.

Summary

The City should consider these benchmarks when determining ways to finance its capital improvements program. Based on this analysis, the City could afford to issue up to \$1.9 million in general obligation debt, depending on its fiscal policy. When considering per capita indebtedness, a measure of the willingness of taxpayers to take on more debt, however, the City may only be able to support between \$338,400 and \$676,800 in general obligation debt. In the Utility Fund, \$377,000 may serve as a debt benchmark until the current revenue bonds are paid off.

These numbers are benchmarks only and are dependent on market interest rates, available funding packages, loans and bonds issued by other area political entities, and other factors that would have to be examined more carefully at the time of financing.

11.2 Income and Expenditures

Most Government Fund revenues for the City were generated through taxes, franchise fees, and fines. Expenditures exceeded revenues in both 2008 and 2009.

Table 11D: Government Fund Operating Revenues & Expenditures

	2008	2009
Revenues	\$798,656	\$313,269
Expenditures	\$849,338	\$331,800
Net change	\$(50,682)	\$(18,531)

Both revenues and expenditures have decreased significantly over the two examined years. This is due to a HOME grant that was awarded in the fiscal year ending June 30, 2008.

Table 11E: Government Fund Revenues and Expenditures

	2008	2009
Revenues		
Taxes and Franchise Fees	\$123,711	\$115,776
License and Permits	\$962	\$825
Fines	\$149,095	\$140,329
Miscellaneous	\$4,719	\$56,091
Interest Earnings	\$162	\$248
Intergovernmental Support	\$520,007	-
Total Revenues	\$798,656	\$313,269
Expenditures		
Police/Public Safety	\$134,070	\$68,537
Health and Welfare	\$499,600	\$480
Administration	\$135,457	\$59,540
Municipal court	\$31,202	\$61,879
Public Works	\$14,560	\$106,011
Debt service	\$34,449	\$35,353
Total Expenditures	\$849,338	\$331,800
Other Financing Sources (Uses)		
Transfers In	\$58,814	-
Transfers Out	(\$2,000)	(\$14,356)
Loan Proceeds	\$26,035	-
Net Other Financing Sources (Uses)	\$82,849	(\$14,356)
Excess (Deficiency) of Revenues & Other Resources Over Expenditures & Other Uses	\$32,167	(\$32,887)
Fund Balance-(July 1)-Beginning	\$6,182	\$38,349
Fund Balance-(June 30)-Ending	\$38,349	\$5,462

The City has two revenue sources within the proprietary fund, including water and wastewater. These activities are running over cost, and money from the Governmental Fund has had to be transferred in fiscal year 2009 to help make up the deficits in operating income.

Table 11F: Proprietary Fund Revenues and Expenditures

	2008	2009
Revenues:		

Utility Services/Service Fees	\$298,099	\$305,657
Late Charges	-	\$6,084
Total Operating Revenues	\$298,099	\$311,741
Operating Expenses:		
Water/Wastewater Services	\$279,038	\$275,748
Depreciation Expense	\$55,682	\$55,470
Amortization Expense	\$1,521	\$1,521
Total Operating Expenses	\$336,241	\$332,739
Non-Operating Revenues (Expenses):		
Interest Earned	\$2,086	\$600
Interest and Fee Expense	(\$13,619)	(\$8,829)
Grant Revenues	-	\$350,000
Total Nonoperating Revenues (Expenses)	(\$11,533)	\$341,771
Income (Loss) Before Contributions & Transfers	(\$49,675)	\$320,773
Operating Transfers In (Out)	(\$56,814)	\$14,356
Change in Net Assets	(\$106,489)	\$335,129
Net Income (Loss)	(\$38,142)	(\$20,998)
Net Assets-Beginning (July 1)	\$525,002	\$418,513
Net Assets-Ending (June 30)	\$418,513	\$753,642

11.3 Community Income Levels

The income levels of residents may have some bearing on which state and local funding programs are available for capital improvements. The following statistics may be useful in making these determinations.

In 1999, Lone Oak annual per capita income was 72% percent of the national per capita income. Some programs require per capita income to be 80 percent of the national income or lower.

The unemployment rate for Hunt County in June of 2010 was 9.1 percent, below the national unemployment rate of 9.6 percent, and higher than the state rate of 8.5 percent. Lone Oak unemployment rates are not readily available. Some

programs require that unemployment rates exceed the national rate by at least one percentage point.

The Median Family Income in 2009 for Hunt County was reported by the US Department of Housing and Urban Development as being \$67,600. Households eligible for low-income programs had an annual income in 2010 at or below the rates in *Table 13G*. New income limits are released annually by HUD.

The median family income for Lone Oak in the 2000 census was \$31,875 compared to \$45,861 statewide (70 percent of statewide). Many programs require the city median to be 75 percent of the state median income or lower. TxCDBG programs require that at least 51 percent of residents for communitywide projects be classified as “very low” or “extremely low” according to the HUD definitions in the table below.

Table 11G: HUD Income Limits

Hunt County, Texas								
FY 2010 Income Limit Category	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
<u>Extremely Low (30%) Income Limits</u>	\$14,350	\$16,400	\$18,450	\$20,500	\$22,150	\$23,800	\$25,450	\$27,100
<u>Very Low (50%) Income Limits</u>	\$23,950	\$27,350	\$30,750	\$34,150	\$36,900	\$39,650	\$42,350	\$45,100
<u>Low (80%) Income Limits</u>	\$38,300	\$43,750	\$49,200	\$54,650	\$59,050	\$63,400	\$67,800	\$72,150

11.4 Capital Needs Inventory and Prioritization

The capital needs listed here should be built while keeping in mind their relative importance. However, due to competition for limited funds, improvements that may be considered “mandatory” because they promote health and safety may be built after other improvements considered “desirable” or “acceptable” such as certain street construction or new utility department vehicles. A community must consider both the urgency and the feasibility of a particular capital project. If funds are likely to become available for a lower priority project before a higher

priority project, the City should indicate this on its capital improvements schedule. Capital needs have been classified using the following system:

1. Mandatory (M): those which address an imminent threat to life or health;
2. Necessary (N): those which provide important public services by improving existing systems and/or replacing obsolete facilities;
3. Desirable (D): those which improve the aesthetic aspects of a community or address quality of life issues;
4. Acceptable (A): those which may fall under the “necessary” or “desirable” categories above, but are undertaken primarily to reduce operating costs to the City.

Table 11H: Capital Needs Prioritization

Water Project	Year	Need
Continue to implement the current TCDBG Contract # 710411 for various line replacements and system improvements.	2011-2012	Mandatory
Replace old, deteriorating, and undersized lines in the central portion of the City. Project will include approximately 6,500 LF of 6"-8" C-900 PVC water line, six (6) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services.	2012-2016	Necessary
Replace old, deteriorating, and undersized lines in the south-central portion of the City. Project will include approximately 2,750 LF of 6"-8" C-900 PVC water line, four (4) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair, and all necessary engineering and surveying services. Project should also include the rehabilitation/replacement of the existing EST	2016-2020	Necessary
Replace old, deteriorating, and undersized lines in the northern portion of the City. Project will include approximately 7,600 LF of 6"-8" C-900 PVC water line, five (5) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair. Project should also extend service from the existing 8" water line in the southeast of the City out to the high school area.	2020-2025	Necessary
Replace old, deteriorating, and undersized lines in the southern portion of the City. Project will loop waterlines in the vicinity of the school property and extend service along the northeast side of US Highway 69. Project will include approximately 4,600 LF of 6"-8" C-900 PVC water line, eight (8) fire hydrants at appropriate locations, valves and appurtenances as needed, service re-connects, street, pavement, and driveway repair.	2025-2031	Necessary
Wastewater Project	Year	Need
Replace old and deteriorating collection lines and manholes in the south-central portion of the City. Project should include approximately 3,750 LF of 8" SDR-26 PVC pipe, approximately seven (7) manholes, service re-connections, street, pavement, and driveway repair.	2011-2014	Necessary
Replace old and deteriorating collection lines and manholes in the north-central portion of the City. Project should include approximately 5,600 LF of 8" SDR-26 PVC pipe, approximately eleven (11) manholes, service re-connections, street, pavement, and driveway repair.	2014-2018	Necessary
Replace old and deteriorating collection lines and manholes in the central and southwest portions of the City. Project should include approximately 4,200 LF of 8" SDR-26 PVC pipe, approximately nine (9) manholes, service re-connections, street, pavement, and driveway repair.	2018-2022	Necessary
Replace old and deteriorating collection lines and manholes City wide. Project should include approximately 5,400 LF of 8" SDR-26 PVC pipe, approximately eleven (11) manholes, service re-connections, street, pavement, and driveway repair. Project should also include the rehabilitation or replacement of Lift Station # 2.	2022-2026	Necessary

Replace old and deteriorating collection lines and manholes City wide. Project should include approximately 4,600 LF of 8" SDR-26 PVC pipe, approximately nine (9) manholes, service re-connections, street, pavement, and driveway repair, and engineering and surveying services. Project should also include the rehabilitation or replacement of the WWTP Lift Station.	2026-2031	Necessary
Drainage Project	Year	Need
Construct drainage improvements in the Town Square area and along North Mills Street down to FM 513.	2011-2016	Necessary
Construct drainage improvements along Magnolia Street and Norton Street down to the Town Square area improvements.	2016-2021	Necessary
Construct drainage improvements along McBride Street from FM 513 through the church property at the north end.	2021-2026	Necessary
Construct drainage improvements along South Mills Street, Oak Street, and Hickory Street.	2026-2031	Necessary
Public Facilities/Economic Development/Tourism	Year	Need
Construct a city park	2018	Desirable
Consider construction of a community center that would provide a place for indoor activities, such as card games, ping pong, activities for seniors, after-school activities, etc.	2020-2021	Desirable
Streets	Year	Need
In the northern and northeastern portions of the city, overlay the sections of the paved asphalt streets that can be salvaged and reconstruct areas that currently do not have pavement.	2011-2013	Desirable
Continue annual street maintenance program.	2011-2031	Necessary
Reconstruction of unpaved roads in central portion of the city.	2014-2016	Desirable
Overlay or reconstruct roads in poor condition throughout city.	2017-2021	Desirable

11.5 Capital Improvements Program Schedule

The following table delineates the proposed capital improvements for the 2011-2016 planning period, the estimated costs, sources of funds, and timing of the projects. The projects are listed in order of priority. Projects that fall after 2016 are listed in detail in the appropriate chapters.

Costs for projects are estimates based on recent representative bids for similar items. Unit costs may vary within a given time period for a variety of reasons including but not limited to:

1. Economies of scale – A project with large quantities of a particular item will have a lower unit cost than a project with small quantities;
2. Relative location of the project with respect to the bidding contractors location – Contractors having to mobilize labor, equipment, & materials from a long distance will bid a higher unit cost than contractors in the local area;
3. The general state of the economy – Contractors & Suppliers bid lower when work is scarce than when work is plentiful;
4. Energy prices – PVC, steel, iron and fuel costs rise and fall with the global price of oil.

Table 11I: Capital Improvements Program Schedule, Fiscal Years 2011-16

Project ID / Phase	Type	Scheduled Capital Improvement Projects	Year	2011	2012	2013	2014	2015	2016	Priority	Cost	Source of Funds*
1	W	Continue to implement the current TxCDBG Contract # 710411 for various line replacements and system improvements.	2011-2012							M	\$367,500	TxCDBG
2	S	In the northern and northeastern portions of the city, overlay the sections of the paved asphalt streets that can be salvaged and reconstruct areas that currently do not have pavement.	2011-2013							D	\$166,641	GEN
3	WW	Replace old and deteriorating collection lines and manholes in the south-central portion of the City. Project should include approximately 3,750 LF of 8" SDR-26 PVC pipe, approximately seven (7) manholes**	2011-2014							N	\$248,900	TxCDBG, USDA, UTILITY, TWDB
4	D	Construct drainage improvements in the Town Square area and along North Mills Street down to FM 513.	2011-2016							N	\$370,350	GEN, TWDB, FMA, ** COUNTY, TxDOT

City Wide	S	Continue annual street maintenance program.	2011-2031				N	\$10,000-\$15,000 annually	GEN	
5	W	Replace old, deteriorating, and undersized lines in the central portion of the City. Project will include approximately 6,500 LF of 6"-8" C-900 PVC water line, six (6) fire hydrants at appropriate locations, valves and appurtenances as needed**	2012-2016					N	\$284,950	TxCDBG, GEN, USDA, TWDB, UTILITY
6	S	Reconstruction of unpaved roads in central portion of the city.	2014-2016				N	\$103,439	GEN	
7	WW	Replace old and deteriorating collection lines and manholes in the north-central portion of the City. Project should include approximately 5,600 LF of 8" SDR-26 PVC pipe, approximately eleven (11) manholes**	2014-2018				N	\$348,750	TxCDBG, USDA, UTILITY, TWDB	
8	W	Replace deteriorating, undersized lines in the south-central portion of the City. Project will include approximately	2016-2020				N	\$374,348	TxCDBG, GEN (General Obligation Bond), USDA, TWDB loan, UTILITY	

		2,750 LF of 6"-8" C-900 PVC water line, four (4) fire hydrants, valves and appurtenances as needed** Project should also include rehabilitation/replacement of existing EST.					
9	D	Construct drainage improvements along Magnolia Street and Norton Street down to the Town Square area improvements.	2016-2021		N	\$264,000	GEN, TWDB, FMA

*TP&W = Texas Parks and Wildlife Department Grants, city is required to pay 50% match for amount awarded, TWDB = Texas Water Development Board loans, USDA = U.S. Department of Agriculture loans, TxDOT = Texas Department of Transportation, TxCDBG = Federal CDBG grants through the Texas Department of Rural Affairs, GEN = City municipal funds or bonds, LOCAL = donations from private citizens, charitable organizations, and local businesses; Wastewater Utility = Revenue Bonds from new fees or other new funding source such as a 4B tax or other mechanism; FMA= Flood Mitigation Assistance program through the TWDB for NFIP members only; COUNTY=Hunt County Road and Bridge

**Project will include service re-connects, street, pavement, and driveway repair.

12 Zoning Ordinance

12.1 Zoning Ordinance Context and Notes

The City of Lone Oak zoning ordinance was adopted on July 9, 2007. The City no longer has a copy of its adopted zoning map. The new proposed zoning map included in this plan is based from the City's existing zoning ordinance and existing and future land use.

Amendments to the text preserve the formatting included in the text of the original zoning ordinance. Several typographical and numerical errors existed in the original zoning document. A digital copy of the original ordinance is included on the CD enclosed in the comprehensive plan binder. This copy shows typographical and numerical corrections crossed out and highlighted in yellow and other suggestions and notes highlighted in turquoise. The following changes/updates have also been made:

- References to the City of Emory were found throughout the original document and were changed to the City of Lone Oak
- Changes in numbering have been made, and typos and spelling errors were corrected
- The original document does not include a full description of the Planned Development District category, and it was included in the Mobile Home Parks section. A full description and new Planned Development District section have been included in the corrected versions of the zoning ordinance.
- The original and new copies of the ordinance have been digitized for the City to have the ability to make future changes
- The City could not locate its zoning map. This plan includes a new zoning map that is ready for adoption by the City.

The Zoning Map included with the comprehensive planning studies is intended for adoption by the City as a replacement for the existing zoning map that cannot be located. Any changes will be need to be passed by city ordinance include.

No zoning amendments should be made without consultation by the City Council with the City's attorney.

The following background information is provided as a review for city officials and residents.

12.2 Zoning in Brief

Zoning is the most common means of regulating local land use in the United States. It gained popularity in the 1920s when many states, including Texas in 1927, passed planning and zoning enabling legislation allowing cities and some counties to enact land use plans and zoning regulations.

Zoning seeks a balance between the right of the property owner to use land and the right of the general public to a healthy, safe, and orderly living environment. Conventional purposes of zoning have focused on:

1. Separating conflicting land uses;
2. Ensuring that new development is located according to a general community plan; and
3. Promoting quality development that will not harm the health, safety or welfare of the public.

In Texas, a city's zoning power extends only over land within its corporate limits. A city has no zoning power within its extraterritorial jurisdiction (ETJ) or within other territory outside of the city limits. State law and legal history have further defined the purposes of zoning regulations:

Lessen street congestion by limiting the level and density of development in the various zoning districts to allow for appropriate match between types of development and the level of infrastructure that can be reasonable provided by the city.

Promote safety from fire and other dangers by imposing minimum yard setback and access-related requirements to hinder the spread of fire and to ensure access by emergency personnel and equipment.

Promote health and general welfare by separating land uses that involve potentially dangerous activities, excessive noise, pollution, odors, or heavy traffic to non-residential or non-commercial areas of the city.

Promote adequate light and air by requiring setbacks, open space, and building location, arrangement, size, or height requirements.

Prevent undue concentration of population or overcrowding through minimum or maximum square footage, lot sizes, or parking space requirements.

Facilitate adequate transportation, water, sewer, schools, parks, and other public service requirements through matching the infrastructure requirements of a particular land use with the city's ability to provide for these needs.

Zoning must have a consistent, close connection to real community goals and objectives, not vaguely perceived needs. The right of the public to restrict the use of private property must be based on a well-reasoned, desired future community, as expressed in a locally-adopted community plan (specified in Section 211.004 of the Local Government Code). These often take the form of a Future Land Use Plan, Comprehensive Plan or Master Plan.

Local Government Code Section 211.003 provides that a city may enact zoning regulations to address any of the five following aspects of development:

1. height and size of buildings
2. percentage of a lot that is occupied
3. size of yards, courts or other open spaces
4. population density of the site
5. location and use of the buildings and land for residential, business, industrial, or other purposes

For historical, architecturally significant, or cultural sites or areas, cities may regulate the construction, alteration, or razing of structures. In addition, zoning ordinances usually contain standards that the city has established with regard to minimum lot sizes, setbacks, yards, impervious cover, parking, screening, and other criteria that must be met when developing property. A typical ordinance also sets out the permitted uses of land within designated zoning districts and indicates how to obtain special use permits, variances, and amendments of the zoning ordinance.

Zoning regulations must be uniform for each kind of building in a district, but may vary from district to district based upon the character of each district and its suitability for particular uses, with due consideration given to conserving the value of buildings and encouraging the most appropriate use of land in the city.

Zoning has not been successful in reshaping land uses and growth that occurred in the past. Often, cities adopt zoning ordinances in reaction to some undesired development or series of events, such as mobile homes moving to vacant lots in a neighborhood of single-family homes or a new business generating noxious pollution or lots of traffic. These types of situations are usually regulated through *nuisance ordinances* such as those regulating noise, pollution, dangerous structures, mobile homes, junk cars, etc.

Though zoning is not generally aimed at controlling land uses that legally existed prior to the adoption of land regulations, the ordinance can be used to prevent nonconforming uses or structures from being rebuilt if they are destroyed, or from being converted to another nonconforming use. To illustrate this point: an auto body repair shop in a residential zone that was considered a nonconforming use burns down. If the owner proposed to rebuild it on the same site, the city government, under the zoning ordinance, could legally prevent the owner from rebuilding the shop at that location.

A zoning ordinance consists of two parts—the text and a map. The text explains the different land use zones and districts, including permitted and conditional uses, minimum lot requirements, general development standards, and how the zoning process is to be administered. The zoning map reflects the future land use according to the city's plan and shows the location of the zones and districts for different types of land uses. Ordinances or resolutions adopting zoning refer to both the text and the map.

12.3 Zoning Code Types

A city enacting zoning regulations or revisions has a few choices on types of zoning codes. The technical expertise needed to implement a code varies according to the type of zoning.

Use-based (conventional) codes are the regulations for land use developed throughout most of the 20th century. Also known as Euclidean zoning, they define what use can be used on each property, often emphasizing a separation of uses. The original intent of conventional codes was to separate non-compatible uses so that factories that generated pollution and large-truck traffic were not located next to housing or small commercial shops. Its focus is on preventing development that could damage a neighbor's property or safety. The codes often

separate retail, single-family, multi-family, office, and industrial uses from one another and apply strict standards to what types of uses and density can be placed on each property. The codes are based on a City Future Land Use plan often found in a Comprehensive Plan that articulates a vision of how property should be used during a planning period. That vision usually includes decisions about where city government would provide its services in the future.

Conventional Zoning involves separating a city into land use zones and districts. Typical zones are R-Residential, M-Industrial/Manufacturing, and C-Commercial Districts refer to a specific kind of zone such as R-1 Single Family Residential or R-2 Multifamily Residential. In each district, certain land uses are permitted outright or may be permitted as conditional uses; other uses are prohibited or not listed. For example, in a residential zone, a single-family house is permitted outright, a daycare in a single-family home may be permitted conditionally if it does not change the character of the area, but the construction of a fast-food restaurant (an intensive commercial use) is likely to be prohibited.

Finally, conventional zoning sets building intensity limits, or building envelopes, on lots through uniform application in a zone of setback, height, density and other requirements.

Unified development codes are a single one-stop shopping document containing existing zoning and subdivision regulations and any other development-related regulations in the City's Code of Ordinances. They seek to avoid conflicting or inconsistent language often found in separate zoning and subdivision ordinances. It seeks to guide policy makers through the entire land development process from "platting to certificate of occupancy."

Form-based codes focus on building form, de-emphasizing density and use regulation. In place of long lists of allowed uses in a district, the codes focus on what buildings should look like, their role in shaping the public space, their role in

creating “a place” or town character, and their relationship to the street or other transportation infrastructure, like sidewalks, open space between buildings and parking access. They focus on the idea that uses of a building may change over time but its façade, relationship to other buildings and its role in creating public spaces will remain. ¹⁹

In form-based codes, “zones” can be defined by devising a system of districts, neighborhoods and corridors; designating street types in the City (local streets, state highways, county roads), or by the categorizing types of land uses in the City (agricultural, central business district, open spaces, residential neighborhoods, etc). A building’s relationship to its environment is defined in each designation, including allowable building types, dimensions, parking locations, façade features, and the appearance of the streetscape (width of sidewalks, landscaping, bike lane, street widths, lighting, and street furniture). In addition to building form, these codes usually emphasize mixed uses, defining allowable housing and commercial types so that they are compatible and can be placed near each other within one zone. Instead of a use-based zoning map, the code is based on a Regulating Plan that assigns broad zones accompanied by graphic-based tables that show required elements for building shapes, placement, street types and neighborhood character in each zone. The zones are often broader and more flexible than in a conventional ordinance.

The form-based code is designed to be short, full of graphics, and easy to administer. These codes incorporate a 1) regulating plan (a schematic representation of the master plan illustrating the location of streets, blocks and public spaces, 2) building form standards based on definitions of building types allowed that are appropriate to the City and its region or neighborhood and that allow buildings to complement neighboring buildings and the street; 3) street

¹⁹ Source: Form-based Codes Institute, Sample Request for Qualifications (RFQ) For Consultants to Prepare a Form-Based Code, 2007; at formbasedcodes.org; and Form-Based Codes Fact Sheet, 2005; Local Government Commission access on the Web in January of 2009 at http://www.lgc.org/freepub/PDF/Land_Use/fact_sheets/form_based_codes.pdf

standards (plan and section) that balance the needs of motorists, pedestrians, bicyclists, and transit riders, and 4) use regulations, as needed.

The creation of a form-based code requires public participation that allows residents, officials and city staff to develop a vision for the city. The beginning aspects of the creation of a form-based code begin with the City's Comprehensive Plan. Plan goals and objectives delineated in *Chapter 1: Community Goals and Objectives*; and at the end of each chapter were generated during public workshops, hearings and interviews of officials, residents and others with regional interests. They define a Vision for the City to work toward during the 20-year Plan duration. A zoning code carries out the vision.

Urban design consultants are usually employed to draft form-based codes to include drawings rendered based on the city's character and vision that accurately and clearly represent the required building formats. Although that process requires up-front expenses, the idea is that the form-based code will eventually save the City expenses of drawn-out development processes and lengthy code language interpretations. With the vision already created and outlined in the forms drawn into the Code, decisions on development applications largely can be handled by city staff, much as is the process for issuing a building permit when the buildings actually begin to be built. Up-front training of staff also will be required to reassure the public and developers that applications approvals are meeting the code's requirements.

Hybrid codes have attempted to combine elements of form-based zoning and conventional zoning. They are most often used when conventional zoning is already in place. Often hybrid codes incorporate the form sections of the form-based code and keep the provisions, processes, use allocations and other standards of the conventional code. While such code re-writes introduce desired building forms without undertaking a complete re-write of a code, critics of hybrid

coding insist that such a scheme only adds urban design standards and cannot achieve the desired form-based code effect of creating a “public realm.” A more appropriate version of hybrid coding in cities where zoning codes already exist would include applying a form-based code to particular tracts, neighborhoods or districts of the City. The City’s existing regulatory framework remains in tact on developed property to ensure procedural consistency and adherence to state and local legal requirements.

For example, form-based zones can be applied to certain areas of town where compatible infill (that is, redevelopment or the filling in of vacant property) is desired, while traditional zoning categories can remain in other areas where industrial uses, for example, may present concerns related to safety and property protection. Form-based coding is especially beneficial for undeveloped, unplatted property, known as “greenfields.”

Transfer of Development Rights (TDR) These programs, often implemented in localities wanting to preserve land for a specific use like agriculture or open space (or for other community goods like affordable housing or recreation) allow property owners to sever their development rights (or maintain a base minimum of development rights) on land (*sending areas*) and sell them to developers to allow them to increase density or other features on other property (*receiving areas*) already zoned for higher development-type uses. Local governments may also buy development rights in order to control price, design details, restrict growth, or create a TDR bank that developers can use to achieve their development goals on already-zoned property.

TDR programs can be more difficult to administer than zoning, since agreements require the seller to place deed restrictions or conservation easements on his or her property. Cities often require assistance from legal staff or not-for-profit land trust advisors to ensure proper preparation of easement documents. However, the TDR programs can be more permanent than zoning as they cannot bend to

political will at a later time. They also can lower the need for administration of variance requests. Developers can purchase TDRs to meet density or other needs on their properties, rather than trying to downzone undeveloped parcels.

The downside to TDR programs is that they lock in property uses, limiting future options of a community as societal values and community characteristics change over the years. In addition, some legal “takings” issues have arisen in relation to TDR implementation if a sending area were zoned for zero growth. Thorough comprehensive planning that gauges the need for development in a community is essential so that the community designates appropriate amounts of sending and receiving areas.

TDR programs are most effective in communities facing strong development pressure, where officials believe it would be difficult to successfully implement traditional zoning restrictions to achieve preservation goals or where financial resources are not available for municipalities to buy land or development rights on their own. It allows officials to use the market to pay for the preservation of public goods like open space.

Planned Unit Development (PUD) A PUD is a designed grouping of varied and compatible land uses, such as housing, recreation, commercial centers, and industrial parks, all within one contained development or subdivision. It is used within conventional zoning or form-based code to allow for flexibility in land use planning. It can be used as an overlay district or as a zoning category designation. It is usually implemented to carry out master planning of a tract of a land; and intended to carry out specific goals of the comprehensive plan, foster City or public/private partnered special projects, allow for the development of mixed use, transit-oriented, or traditional neighborhoods with a variety of uses and housing types; and/or to preserve natural features, open space, and other topographical features of the land. Standards within a PUD usually are

negotiated on a case-by-case basis, and require approval procedures similar to those found in subdivision ordinances, including plan review and public hearings.

12.4 Legal Concerns

There are four major areas of legal concern for communities with zoning. The first centers on the constitutional right to free speech found in the First Amendment. Provisions adopted to control aesthetics, especially sign regulations, are especially vulnerable.

The second area of concern is called the *taking issue*. The Fifth Amendment prevents governments from taking private property unless it is for a public purpose and just compensation is paid. Normally, when private land is taken for use as a road or park, the landowner will be fairly compensated. However, a taking may arise from land use regulations that deprive a property owner of virtually all economic value of the property.

Two other areas of concern arise from the Fourteenth Amendment. One is called *due process*, which governs the substance and conduct of all government regulations. Due process requires that governments treat all people fairly and reasonably. The restrictions imposed by zoning regulations must be reasonable. They must be based on actual needs and not on arbitrary or unrealistic standards. In administering the zoning regulations, local government must treat all people fairly, give proper notice of hearings, and follow all procedures set forth in the Texas enabling statutes to avoid violations of due process.

The final legal concern regards the *equal protection clause* of the Fourteenth Amendment. This clause requires governments to treat all people in the same manner unless there is a valid purpose for dissimilar treatment. The equal protection clause is especially stringent when it involves prohibition of discrimination based upon race, creed, color, disability, national origin or gender.

Deed Restrictions

State law does not allow cities that have adopted zoning to also enforce private deed restrictions. Enforcement of deed restrictions remains a private matter between the involved property owners to be settled through private civil litigation. Generally courts have held that when both zoning regulations and deed restrictions exist, the strictest provision must be met. For example, if the owner of a property located in a Commercial zoning district wishes to build a paint store, the city would not protest if the land has a deed restriction limiting use to residential. The private citizens affected by the proposed land use change could file, and would likely win, a civil suit aimed at enforcing the deed restriction.

Historic Overlay

Local government Code section 211.003(b) allows cities to regulate the construction, alteration, or razing of structures that are historically, culturally, or architecturally significant. This is often done by creating an overlay mechanism in the zoning ordinance that may be applied to certain individual buildings or to a larger district. This overlay is an additional zoning designation and must be shown on the official zoning map.

The historic overlay can regulate certain aesthetic or design issues for historic structures but not the use of the property. For example, the city would have approval authority over changes to the façade of a historic movie theater, but could not address whether the building be used for a theater or a bookstore.

Historic preservation should be addressed in a separate ordinance that establishes the procedures for the operation of a local historic preservation commission, the means by which a property owner may seek to make changes to a historic structure, criteria and design standards, the legal effect of commission review, and an appeals procedure.

Pre-existing Uses

Property uses in place before a zoning ordinance takes effect that do not adhere to the zoning ordinance are called *nonconforming uses*. A person who claims the right to continue a nonconforming use bears the burden of establishing that the use pre-existed the zoning regulation. Courts usually only protect “innocent” nonconforming uses. Nonconforming uses are not considered innocent if they are begun with the knowledge that the regulations will soon apply or that the regulations are in the process of being proposed.

Most zoning ordinances prohibit a nonconforming use from being re-started if it is temporarily discontinued for a specified period of time. Both the time period and the definition of “discontinued use” must be clearly stated in the zoning ordinance. Six or twelve months are typical time periods used, but courts have generally held that in order for there to be a finding of discontinuance of use, there must be an intent to abandon and some overt act of abandonment, such as failure to pay property taxes or utility charges or severe deterioration of the structure. The mere passage of time during which a nonconforming use is discontinued does not indicate abandonment by itself, even if the time period is lengthy.

Cities may prohibit the expansion of a nonconforming use beyond the level that was present at the time the city zoning regulations took effect. Many cities allow modest expansion, a practice upheld by the Texas courts. In these cases, the zoning ordinance requires board of adjustment approval of the increase.

Since 1972, Texas courts have allowed cities to include provisions in their zoning regulations that require the discontinuance of nonconforming uses if the owners are provided a reasonable amount of time to recover their investment from the particular use, a practice commonly known as *amortization*.

Amortization involves the determination of the owner's capital investment in the property and of his expected income stream from the property. The city can use this information to allow the nonconforming use sufficient time to remain in existence to reasonably reimburse the property owner for his investment in the property.

A city may be legally required to provide compensation to a property owner if the time period for phasing out the nonconforming use was not sufficient for the property owner to recoup reasonable monetary expectations from the property. There does not appear to be clear court precedent that establishes a uniform time period during which all investments in a property are realized. Accordingly, cities must consider resolution of such issues on a case-by-case basis after consultation with legal counsel.

Zoning in Annexed Areas

A city may require an annexed area comply with the city's existing zoning ordinance. If it wants the regulations to apply immediately upon annexation, a city must pass an ordinance specifying the zoning classifications and district boundaries that will apply to the new area when it is annexed. This ordinance must have a public hearing that is advertised in the local newspaper at least 15 days beforehand.

In no case will zoning become effective for a property until the area is actually annexed. However, a city may pursue an injunction to halt proposed development or construction in an area outside the city limits if the construction would violate the proposed zoning regulations. To secure an injunction, the city would have to show that an ordinance annexing and zoning the area had already passed its first reading.

There are special provisions relating to annexed areas that have been used for agricultural operations for the last fifteen years. Zoning laws and other municipal

regulations generally may not be applied to agricultural operations that were located outside the city boundaries on August 31, 1981. There are exceptions to this protection; if the city confronts this issue, it should consult with its legal counsel regarding Agricultural Code Chapter 251

Sexually Oriented Businesses

According to the U.S. Supreme Court, cities may not completely prohibit the operation of sexually oriented businesses within a city. However, the regulation of the location of these businesses is allowed. Sexually oriented businesses, as defined by state law, include “a sex parlor, nude studio, modeling studio, love parlor, adult bookstore, adult movie theater, adult video arcade, adult video store, adult motel, or other commercial enterprise, the primary business of which is the offering of a service or selling, renting, or exhibiting of devices or any other items intended to provide sexual stimulation or sexual gratification to the customer.”

Many cities prohibit such businesses within 1,000 feet of a school, regular place of religious worship, or residential neighborhood. Attorneys recommend following the “five percent rule” in regulating the location of sexually oriented businesses. Under this standard, a city should ensure its ordinance allows at least five percent of the acres of the city territory available for the location of sexually oriented businesses. However, these areas must be located where such businesses could practically and legally locate.

Wireless Telecommunications Facilities

The 1996 Telecommunications Act sets forth certain limitations on a city’s authority to regulate the location of wireless telecommunications facilities (47 U.S.C.A. 332 (c)(7)). In essence the law requires that zoning or other regulations cannot have the effect of banning the construction, modification, or placement of wireless telecommunications facilities in the city and that zoning decisions cannot systematically give one telecommunications service provider an advantage over its competitors. Zoning regulations can be written to limit these facilities to non-

residential areas, but can only recommend more restrictive placement such as on public lands or on sites where telecommunications facilities already exist.

Mobile Homes and HUD-code Manufactured Housing

The Texas Manufactured Housing Standards Act (Article 5221f) sets the limits on city regulation of mobile homes and HUD-code Manufactured Housing. “Mobile homes” are defined as certain structures constructed before June 15, 1976, and “HUD-code manufactured homes” are defined as certain structures constructed on or after June 15, 1976 and meet minimum standards set by the U.S. Department of Housing and Urban Development (HUD). A city’s ability to regulate a structure through zoning and other regulations under this Act depends on whether the structure is a mobile home or a HUD-code manufactured home.

Section 4A of Article 5221f allows incorporated cities to completely prohibit installation of mobile homes as a residential dwelling inside the city limits unless the mobile home in question was occupied within the city limits before the prohibition.

A city has less power in regard to regulating HUD-code manufactured homes as residential dwellings. State law only allows cities to require that these structures locate in areas deemed appropriate by the city. The city may not completely “zone-out” HUD-code manufactured homes within the city limits.

The zoning ordinance should indicate those areas within the city that are available for HUD-code manufactured homes. The requirement that HUD-code manufactured homes be allowed in some part of the city does not affect the validity of deed restrictions that are otherwise applicable to various properties. Often, deed restrictions prohibit placement of manufactured homes on involved properties.

Group and Community Homes for the Disabled

The Community Homes for Disabled Persons Location Act (Texas Human Resources Code, Section 123.001) regarding community homes for groups of disabled people preempts municipal zoning regulations whenever there is any conflict with the Act. A “community home” must meet all of the following criteria:

The home must provide food, shelter, personal guidance, care, habilitation services, and supervision to persons with disabilities who reside there. The phrase “person with a disability” is defined by statute to include any person whose ability to care for himself, perform manual tasks, learn, work, walk, see, hear, speak, or breathe is substantially limited because the person has one or thirteen conditions specifically listed in the statute (see Section 123.002 of the Texas Human Resources Code for the complete list).

- The home must not be located within one-half mile of another community home.
- The home must not have more than six persons with disabilities and no more than two supervisors residing in the home at the same time.
- The home must meet all applicable state or federal licensing requirements.
- The home must be operated by an authorized state agency or entity such as a nonprofit corporation or be a personal care facility listed under Chapter 247 of the Texas Health and Safety Code.

By statute, the exterior of the home must retain compatibility with surrounding residential structures. If the group home meets the above conditions, the city must allow the home to locate in any district that is zoned residential. Further, any deed restriction that would prohibit the use of the property as a group home is invalid if the restriction was imposed or amended after September 1, 1985. Municipal ordinances may require that residents of the community home not park more motor vehicles at the facility than there are bedrooms in the facility.

Even when a group home does not qualify under the state Act, it may qualify under federal law. The Fair Housing Amendments Act of 1988 forbids local laws that would constitute discrimination against the handicapped in housing. In essence, this federal law prevents cities from imposing blanket prohibitions on the location of group homes for the disabled in residential neighborhoods. Cities must provide some reasonable procedure for allowing group homes for the disabled to locate in an area zoned for residential use.

The protections provided to group homes for the disabled are not necessarily extended to group homes for other classes such as troubled youth who may or may not be disabled. If a city is faced with a request to allow a group home of this nature, it should determine whether the members of the group meet any of the state or federal requirements for disability. If not, and if the facility is run by a nongovernmental entity, the home is likely to be subject to the traditional zoning regulations.

Federal, State, County or School District Properties

City ordinances do not generally apply to federal or state entities or their property. In many cases, federal and state agencies make an effort to find appropriate locations for their facilities, but they are not obligated to comply with local zoning regulations.

Courts have determined that state statute allows independent school districts to choose any reasonable location of school buildings within the district and allows counties to locate a solid waste dump anywhere appropriate as long as the dump complies with state law. In these two instances, the state has given counties and school districts the power to choose locations without regard for city zoning regulations.

City building codes may be imposed on school district facilities and auxiliary county courthouses, but not on main county courthouses, state or federal facilities.

Religious Structures and Facilities

Recent rulings, particularly the U.S. Supreme Court case of *City of Boerne v. Flores*, have held that the Religious Freedoms Restoration Act was unconstitutional in the way it limited the ability of local governments to regulate properties owned by religious groups in the same way as those owned by other groups. Generally, religious entities are subject to the same laws as any other entity as long as those laws are neutral in their construction. Despite these recent rulings, cities should consult with legal counsel before applying zoning regulations to churches or to other structures used for religious practice.

Sign Regulations

Cities may regulate the size, location, height, and lighting of signs, but the regulation of the content of the sign's message are almost always beyond a city's power. Most cities prefer to address the regulation of signs by a separate city ordinance independent of the zoning ordinance due to concerns that a First Amendment challenge regarding the sign regulations would invalidate the entire zoning ordinance.

Pawnshops

Consumer Credit Commissioner licensed pawnshops, as defined in Section 2 of the Texas Pawnshop Act (Article 5069-51.02, Vernon's Texas Civil Statutes), must be permitted in at least one general zoning classification (such as commercial). No additional special use permits other than those imposed by the state may be required by the city.

12.5 Administering the Zoning Ordinance

The city must designate both the staff and the entities needed to assist in the zoning process. Such entities usually include a zoning commission, a board of adjustment, and designated city staff to handle day-to-day zoning issues.

Zoning Commission

General law cities (Type A, B or C) can choose to appoint a zoning commission or have their city councils perform that function. The zoning commission is responsible for recommending zoning regulations and district boundaries.

The members are appointed by a majority vote of the city council. For general law cities, the requirements are included in the zoning ordinance. The term of office is limited to two (2) years by the Texas Constitution.

Though not specifically required, many cities require that zoning commission members be residents of the city and that terms of office be staggered. Removal, filling of vacancies, and successive terms are not addressed by state statute and are determined by each locality in its ordinance.

Planning Commission

Municipalities may create separate entities called “planning commissions” for approval of plats and producing and recommending a master or comprehensive plan for the city. Appointing a planning commission is at the discretion of the city council. Ordinances or charters of many cities combine the functions of the planning commission with those of the zoning commission in an entity called the “planning and zoning commission.”

Although rarely done, general law city councils may themselves serve as a combined planning and zoning commission, though it is much more common for a separate council-appointed entity serve in this capacity.

Combined Planning and Zoning Commission

A planning and zoning commission recommends zoning district boundaries and zoning regulations for each district. Public hearings are held to produce a draft zoning ordinance and zoning map for consideration and approval by the city council. Once the ordinance has been approved, the commission considers and makes recommendations to the city council on amendments to the zoning ordinance and in certain cases, special use permits. The commission is also responsible for reviewing and approving plats.

If allowed for by city ordinance, a planning and zoning commission can provide review and make recommendations to the city council on matters such as right-of-way abandonment, amendments to the platting ordinance, and the acceptance of donated rights-of-way and easements.

Board of Adjustments

The Board of Adjustments is created by ordinance for the purposes of: hearing appeals to decisions made by an administrative official or the planning and zoning commission; deciding special exceptions and variances from the zoning ordinance; and hearing and deciding other matters authorized by the zoning ordinance. Although the Standard Zoning Enabling Act does not require a Board of Adjustment (in which case the legislative body issues variances and hears appeals), having the Board of Adjustments review administrative decisions and hear appeals avoids the problem of a city council both issuing regulations and reviewing appeals as well as the potential legal difficulties caused by the council acting in both a legislative and an administrative capacity. Legislation in Texas (Acts 1997, 75th Leg., ch. 363, Sections 1-3, eff. Sept. 1, 1997) specifically allows Type A general law municipalities to designate the governing body (or legislative body) to act as the board, but states that court review should apply the same standard of review that it would apply to a board not containing members of the governing body. Therefore, if a governing body acts as a board of adjustment, it

must closely follow rules for granting variances as if it was an administrative, and not a legislative, body. The board consists of at least five members, each appointed for two years.

Amendments to the Zoning Ordinance:

All zoning regulations and amendments to those regulations must be adopted by ordinance rather than by resolution. For amendments to the zoning ordinance, state law generally requires review and recommendations by the planning and zoning commission and final passage by the city council with public notice and hearings at both steps.

There are two types of amendments to the zoning ordinance: a zoning change affecting a specific property (commonly referred to as “rezoning”) and a comprehensive system-wide change to the text of the zoning ordinance that affects all similarly situated properties throughout the jurisdiction.

To change the zoning classification for specific tracts, the act requires notice by mail of the zoning commission’s hearing to all property owners within the city limits and within 200 feet of the affected tract (or partial tract if only a portion is being rezoned). If the owners of 20 percent of the land within the area to be reclassified *or* the owners of 20 percent of the land within 200 feet of that area protest the proposed change by written petition, the change must be approved by three-fourths of the entire city council to pass. The mayor’s vote is only counted if he is able to vote on such matters under local provisions.

The right of protest of a zoning change exists anytime there is a proposed change to the zoning ordinance and requires a three-quarters majority of the city council to approve the change. The duty to provide special notice to the landowners within 200 feet of the proposed change is only required if the change involves a zoning reclassification to a particular property. For example, if an amendment would uniformly change the uses allowed under a particular zoning

classification but not actually change the classification of any specific areas in town, no special notice would be required to any particular landowners. If administrative changes to the ordinance are proposed, such as increasing the number of days during which any zoning decision can be appealed, no special notice would be required to specific landowners.

There are four requirements that must be met under Chapter 211 of the Local Government Code before zoning regulations are adopted or a change in zoning regulations or district boundaries is approved:

Planning and zoning commission issues a preliminary report that describes all proposals for zoning regulations or district boundaries. This report may be in written or verbal format. The information included in the report is not specified in state law. Many communities include land use maps that show how the proposed change would impact residential, commercial, and industrial areas of the city and a recommendation of the planning or zoning commission. The local zoning ordinance should indicate the format and type of information to be addressed in the preliminary report.

Planning and zoning commission gives notice and holds public hearings for proposed changes affecting a particular tract or group of properties. The notice must be sent to all property owners within 200 feet of the affected property(s) by U.S. mail at least eleven (11) days before the hearing date. The hearing notice must state the time and location of the public meeting and the address and proposed change to the zoning classification for the property(s) in question. The identity and addresses of affected property owners is determined by reference to the most recently approved city tax roll. If the city has recently annexed property that is not reflected in the most recent tax roll and that property is within 200 feet of the proposed change, an additional newspaper notice is required (Section 211.007(c) of the Local Government Code).

Planning and zoning commission issues final report with recommendations, as required by state law. The local zoning ordinance should indicate whether the report be presented in verbal or written format and what information should be included in the report, other than the required recommendation of the planning and zoning commission.

After providing proper notice, the city council holds a public hearing and considers the final report to give interested parties and citizens the chance to comment on recommendations. Notice of the time and place of the hearing must be published in an official newspaper of general circulation at least 16 days before the date of the hearing. The city council may receive the recommendations of the planning and zoning commission, hold the public hearing, and take action on the proposed ordinance at the same meeting.

If a proposed zoning change is considered by the city council of a general law city that also serves as the zoning commission, the council must provide the 16-day newspaper notice and must send written notice of the proposed change by U.S. mail to each property owner whose property is within 200 feet of the proposed change. There is an additional 30 day waiting period for adopting the proposed change beginning on the date that the required newspaper and individual notices are provided to the property owners.

Changing the area affected by a rezoning amendment:

Areas subject to rezoning cannot be increased once the issue comes before the city unless additional notice is provided to affected property owners. In order for the change to be valid, all land subject to the proposed changes must have been described in the notice as required by state statute and city ordinance.

The area subject to a proposed zoning change can be reduced after the issue has been brought before the city without the provision of additional notice to affected property owners because not making the zoning change will not present

an additional injury to the neighboring property owners. The city only needs to ensure that it has provided notice of the maximum area of land potentially subject to the change.

The planning and zoning commission has the power to recommend and the city the power to approve a reduction of the proposed area affected by a rezoning with or without the permission of the applicant. Most zoning experts agree that the planning and zoning commission should recommend the change before council consideration.

Changing the zoning use of an area affected by a rezoning amendment: An area subject to a proposed rezoning cannot be subjected to a change that is less restrictive (more intense) than what was originally requested unless additional notice is provided to the affected property owners. However, the same area may be subjected to a more restrictive (less intense) zoning designation than was in the original notices because neighboring land owners are usually not harmed by a change that incorporates a use that is less intense than was originally proposed.

The planning and zoning commission has the power to recommend and the city council the power to approve a reduction of the intensity of use proposed by a rezoning with or without the permission of the applicant. Most zoning experts agree that the planning and zoning commission should recommend the change before council consideration.

Conditional Zoning:

Zoning changes that include additional requirements such as a fence, hedge, or other physical feature are called “conditional zoning.” Any conditions placed upon the rezoning must be reasonable and directly related to the zoning change in question. They should also protect the general public welfare and not just the interests of a few neighboring property owners.

13 Subdivision Ordinance

13.1 Purpose and Intent

The City of Lone Oak has not enacted subdivision controls within its incorporated limits and within its half-mile extraterritorial jurisdiction (ETJ). What follows is a model subdivision ordinance that is suitable for consideration and adoption by the Lone Oak City Council. This ordinance should be considered and adopted if and when the City Council determines that updating its existing subdivision controls is necessary to the City's continued orderly development. During consideration and prior to adoption, the City Council should seek counsel and advice from the City's attorney regarding the legal aspects and implications of subdivision controls.

The subdivision of land is a major factor in the process of achieving sound community development which ultimately becomes a public responsibility, since streets and utilities must be maintained and public services customary to urban areas must be provided. Without a subdivision ordinance, a city has little recourse to prevent installation of substandard infrastructure beyond denial of water/sewer connections or rejection of roads for city maintenance. When a city refuses to allow infrastructure connections or to accept dedication of street right of way, it can wind up in expensive legal battles with developers.

More importantly, the built environment can enhance or diminish the overall quality of life in the community. Land subdivision is a critical first step in defining the built environment. Therefore, it is to the interest of the public, the developer, and the future owners that subdivisions be conceived, designed and developed in accordance with appropriate design standards and development specifications. It is the intent of these regulations to aid in guiding the growth of the City of Lone Oak, Texas and its environs in an orderly manner; and to provide attractive, well planned subdivisions with adequate streets, utilities, and building sites in a manner that will be uniformly applied.

The goals and objectives guiding the City in the preparation and adoption of this ordinance are:

- To provide for the harmonious development of the urban area.
- To coordinate the supply of services as a tool for directing the optimal distribution of population in the urban area.
- To provide for the separation of pedestrian and vehicular traffic.
- To designate and preserve through advance dedication/reservation of rights-of-way for transportation corridors.
- To insure the acquisition of land and facilities for public needs - parks, schools, open space, fire and police facilities.
- To preserve and maintain scenic vistas.
- To encourage the preservation of natural vegetation to minimize erosion.
- To restrict development in areas where hazards may result.
- To minimize the financial burden of urban development upon the City.
- To assure the accuracy of land records.
- To address the needs of sensitive lands that would be adversely affected by common land development practices or by the strict applications of this ordinance.
- To encourage the recognition and preservation of natural ecosystems.
- To implement the Comprehensive Plan for Lone Oak.

During consideration and prior to adoption, the City Council should seek counsel and advice from the City's attorney regarding suggested changes and implications of subdivision controls.