



Planning and Zoning Commission

Tuesday, June 25, 2024 at 5:30 PM

Breckenridge City Offices Commission Chambers
105 North Rose Avenue
Breckenridge, Texas 76424

AGENDA

CALL TO ORDER

APPROVAL OF MINUTES

1. Consider approval of the June 3, 2024, meeting minutes as recorded.

PUBLIC HEARING

2. Public hearing regarding a request to replat the property at 303 S. Jackson, currently legally described as Walker Caldwell 11 Addition, Block 35, Lots 8,9, & N/48 of 10, into two lots (one lot will measure 8400 square feet and the other 12,320 square feet). The property owner intends to sell these lots.

SCHEDULED AGENDA ITEMS

3. Discussion and any necessary action regarding a requested replat to the property at 303 S. Jackson, currently legally described as Walker Caldwell 11 Addition, Block 35, Lots 8,9, & N/48 of 10, into two lots (one lot will measure 8,400 square feet and the other 12,320 square feet). The property owner intends to sell these lots.
4. Consider Approving the Breckenridge Comprehensive Plan-TxCDBG Contract #CPC21-0522

ADJOURN

I certify that this notice was posted at the City Offices, 105 North Rose Avenue, Breckenridge, Texas by 5:00 P.M., Friday, June 21, 2024.

Jessica Sutter, City Secretary

This facility is wheelchair accessible, and accessible parking spaces are available. Request for accommodations or interpretive services must be made 48 hours prior to this meeting. Please contact the City Secretary's Office at (254)559-8287 or FAX (254)559-7322 for further information.

Removed from the City Offices bulletin board at _____ on _____ by _____.



Planning and Zoning Commission

Tuesday, June 3, 2024 at 5:30 PM
Breckenridge City Offices Commission Chambers
105 North Rose Avenue
Breckenridge, Texas 76424

MINUTES

PRESENT

COMMISSIONER PLACE 1
COMMISSIONER PLACE 3
COMMISSIONER PLACE 4
COMMISSIONER PLACE 5
COMMISSIONER PLACE 6

LES STRICKLAND
CORY WIMBERLY
JB SPARKS
GENOA GOAD
RAUL DURAN

CITY MANAGER
CITY SECRETARY
FIRE CHIEF/CODE ENFORCEMENT
FIRE/CODE SECRETARY

CYNTHIA NORTHROP
JESSICA SUTTER
MALCOLM BUFKIN
CHRISTI TIDROW

ABSENT

COMMISSIONER, PLACE 2
COMMISSIONER PLACE 7

ERIC BRENNAN
BLAINE REATHERFORD

CALL TO ORDER

JB Sparks called the meeting to order at 5:31 p.m.

APPROVAL OF MINUTES

1. Consider approval of the April 29, 2024, meeting minutes as recorded.

Commissioner Duran made a motion to approve the April 29, 2024, meeting minutes as presented. Commissioner Wimberly seconded the motion. The motion passed unanimously.

SCHEDULED AGENDA ITEMS

2. Discussion and any necessary action regarding the Breckenridge Comprehensive Development Plan - TxCDBG Contract #CPC21-0522.

Ken Coignet of Public Management presented the draft Comprehensive Development Plan to commissioners

No Action Taken

ADJOURN

The meeting adjourned at 6:51 p.m.

JB Sparks, Commissioner Place 4

ATTEST:

Jessica Sutter, City Secretary

CITY OF BRECKENRIDGE
105 NORTH ROSE AVENUE
BRECKENRIDGE, TEXAS 76424

Pursuant to Section 22-4(B)(3) of the Code of Ordinances of the City of Breckenridge, the Planning & Zoning Board will hold a public hearing:

DATE: Tuesday, June 25, 2024

TIME: 5:30 PM

PLACE: City Commission Chambers, 105 N. Rose Ave.

Said public hearing will be to consider:

The property owner of 303 S. Jackson currently legally described as Walker Caldwell 11 Addition, Block 35, Lots 8, 9, & N/48 of 10 requests to replat the properties into two lots (one lot will measure 8400 square feet and the other 12,320 square feet). The property owner intends to sell these lots.

Any and all persons interested in the above referenced item may attend such hearing and will be given an opportunity to be heard.

Cynthia Northrop
City Manager
City of Breckenridge, Texas

Publish: June 5, 2024



City of Breckenridge

PLANNING AND ZONING COMMISSION STAFF REPORT

Meeting

Date: June 25, 2024
To: Members of the Planning and Zoning Commission
From: Christi Tidrow
Subject: Request to replat property.

Purpose:

Consider and make recommendation on request to replat the property at 303 S. Jackson, currently legally described as Walker Caldwell 11 Addition, Block 35, Lots 8, 9, & N/48 of 10, into two lots (one lot will measure 8,400 square feet and the other 12,320 square feet). The property owner intends to sell these lots.

Existing Condition of Property:

The property in question is currently two and a half vacant lots.

Adjacent Existing Land Uses and Zoning:

North: Residential single-family home – zoned R1
South: Residential single-family home – zoned R1
East: Nursing Home outside city limits
West: Residential single-family home – zoned R1

Development Review Analysis:

The property owner would like to replat this property into two lots and sell them.

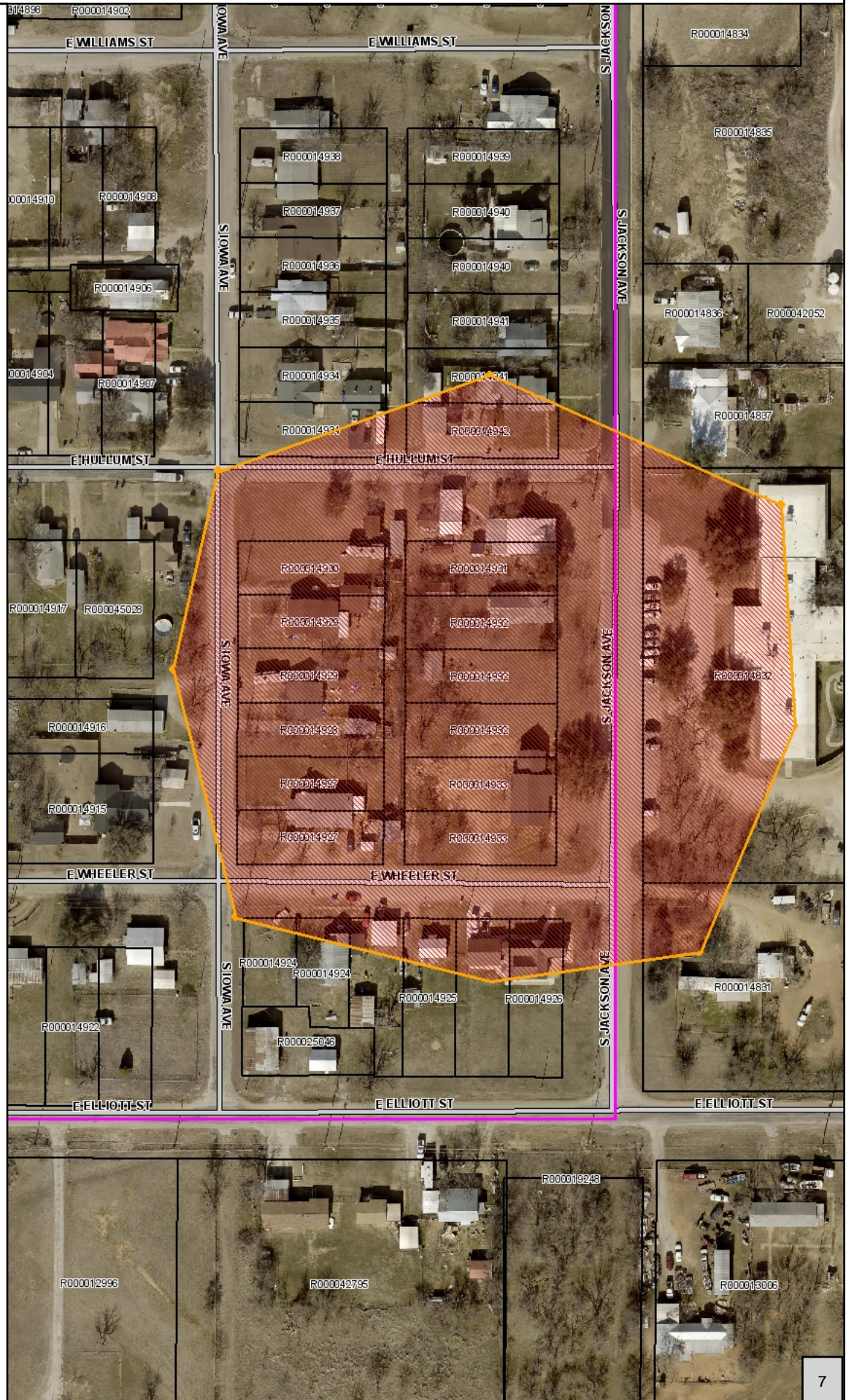
Staff Recommendation:

City staff forwards this request for your consideration.



Map

- Extra-territorial Jurisdiction
- City Limits
- Local Road Labels
- Local Roads
- Stephens CAD Parcels



Data displayed were gathered by the City of Breckenridge for municipal purposes. No guarantee is made regarding suitability for any other use or purpose.



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BOLDLY LEADING *Breckenridge*



TXCDBG COMPREHENSIVE PLAN



TXCDBG COMPREHENSIVE PLAN

#CPC21-0522

PREPARED FOR:

City of Breckenridge
105 North Rose Avenue
Breckenridge, Texas 76424
(254)-559-8287

PREPARED BY:

Public Management, Inc.
15355 Vantage Pkwy W. Ste 360
Houston, Texas 77032
(281)-592-0439



ACKNOWLEDGMENTS

The City of Breckenridge wishes to thank and acknowledge those who supported the development of this comprehensive planning document. The City is especially grateful to the elected officials and members of the community that attended and participated in meetings throughout the planning process.

City of Breckenridge City Commission

Bob Sims Mayor	Gary Mercer Mayor Pro-Tem	Blake Hamilton City Commissioner	Rob Durham City Commissioner	Vince More City Commissioner
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City of Breckenridge Planning & Zoning Commission

Les Strickland	Genoa Goad	Raul Duran Jr.	Blaine Reatherford
Cory Wimberly	Eric Brennan	JB Sparks	

City of Breckenridge Municipal Staff

Cynthia Northrop MPA, CPM City Manager	Jessica Sutter City Secretary	Christi Tidrow Development Coordinator
Stacy Harrison Public Services Director	Todd Henderson Public Works Director	

This document was prepared by:



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Enprotec | Hibbs & Todd

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The Office of Rural Affairs, Texas Department of Agriculture in conjunction with the United States Department of Housing and Urban Development furnished financial support to the activity described in this publication which does not necessarily indicate the concurrence of the Office of Rural Affairs, Texas Department of Agriculture or of the United States Department of Housing and Urban Development with the statements or conclusions contained in this publication.

“The Community of Breckenridge aims to be an appealing, family-centered environment inviting growth, investment, and tourism”

Vision Statement - 2023 Breckenridge Strategic Plan



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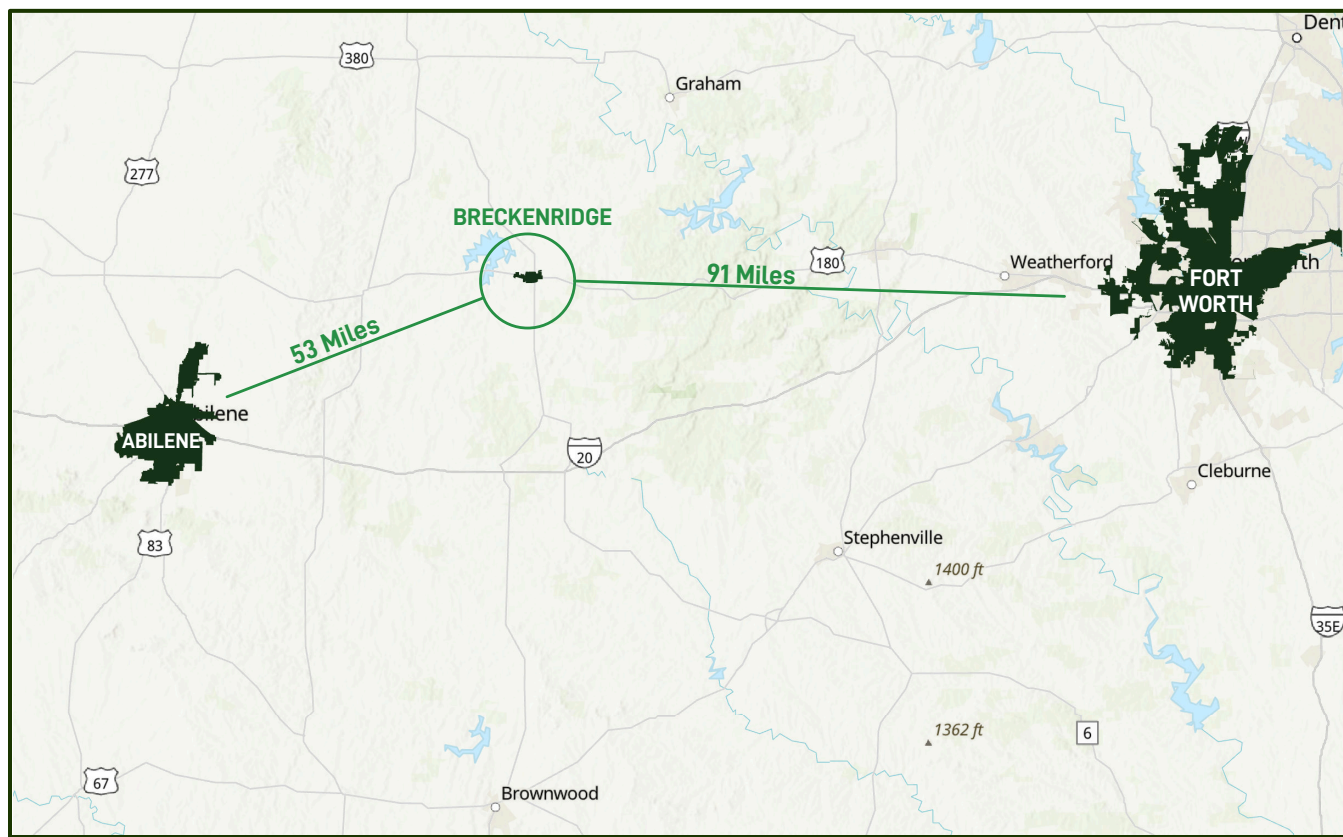
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THE
BURCH

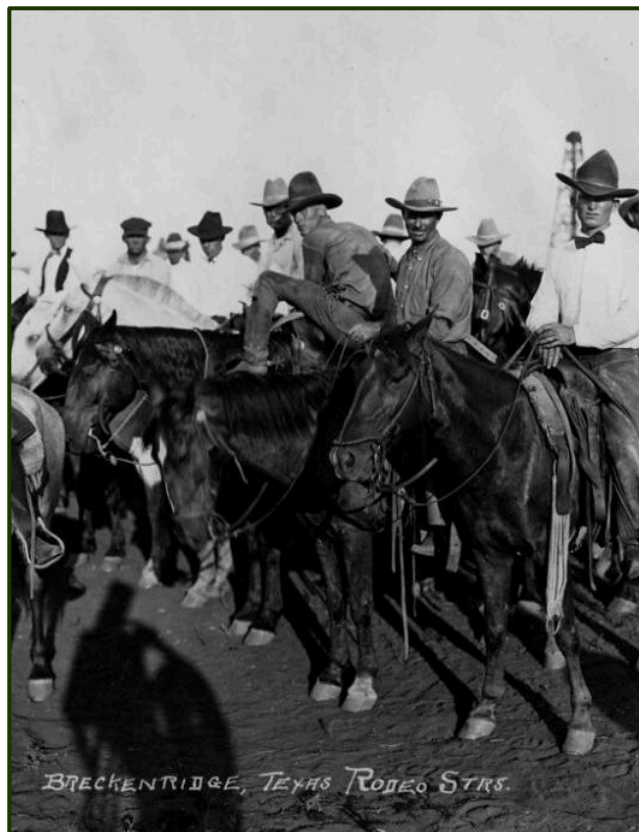
INTRODUCTION

Figure 1.1 Breckenridge Location Map



History

The City of Breckenridge, the county seat of Stephens County, is located at the intersection of U.S. highways 180 and 183, four miles east of Hubbard Creek Reservoir in west central Stephens County. (Figure 1.1) It originated around 1854 as Picketville, named either for the post and clay structure of the early homes or for early rancher Bill Picket. When the county was organized in 1876, the town was made county seat and renamed Breckenridge after John C. Breckinridge, United States senator from Kentucky and vice president, although the spelling of the name was altered. By 1884 Breckenridge had an estimated 500 inhabitants, Methodist, Baptist, and Presbyterian churches, a district school, a bank, and five general stores. Breckenridge served as the court and local trading center for several quiet decades until 1916–17,





when oil discoveries at Ranger occurred. Drilling started at the Breckenridge field in 1918, but the boom did not really get underway until 1920, when the town saw the arrival of thousands of workers and speculators, who threw up acres of tents and shacks in the classic oil boomtown manner. From a population estimated at 1,500 in January 1920 the town grew to 30,000 within a year. By July, the town acquired its first railroad, the Wichita Falls, Ranger and Fort Worth, which was soon joined by the Cisco and Northeastern. After three exciting years, oil production slowed, and the town lost much of its population, although it held its place as a commercial and oil production center. By 1930 the population had fallen to 7,569, and the town had 480 businesses. The Great Depression brought the population down further to 5,826 in 1940. The population was 5,665 in 1990, 5,868 in 2000, 5,780 in 2010 and 5,435 in 2020. Current estimates show the City with a population of 6,209.



Plan Overview

The City of Breckenridge has drafted this comprehensive plan to support the goals and objectives of the City through 2040. Throughout the planning process, the City has remained committed to the core values that were identified through the Strategic Planning process in 2023 (Figure 1.2). This plan identifies the current characteristics of the City, and provides a set of goals and objectives to address the challenge of updating public infrastructure, increasing recreational opportunities, and improving the overall quality of life for current and future residents.

“Consistently plan for higher quality of life through positive community relationships that value citizens, welcomes visitors, and invites business growth focusing on innovation, education, and safety.”

Mission Statement - 2023 Strategic Plan

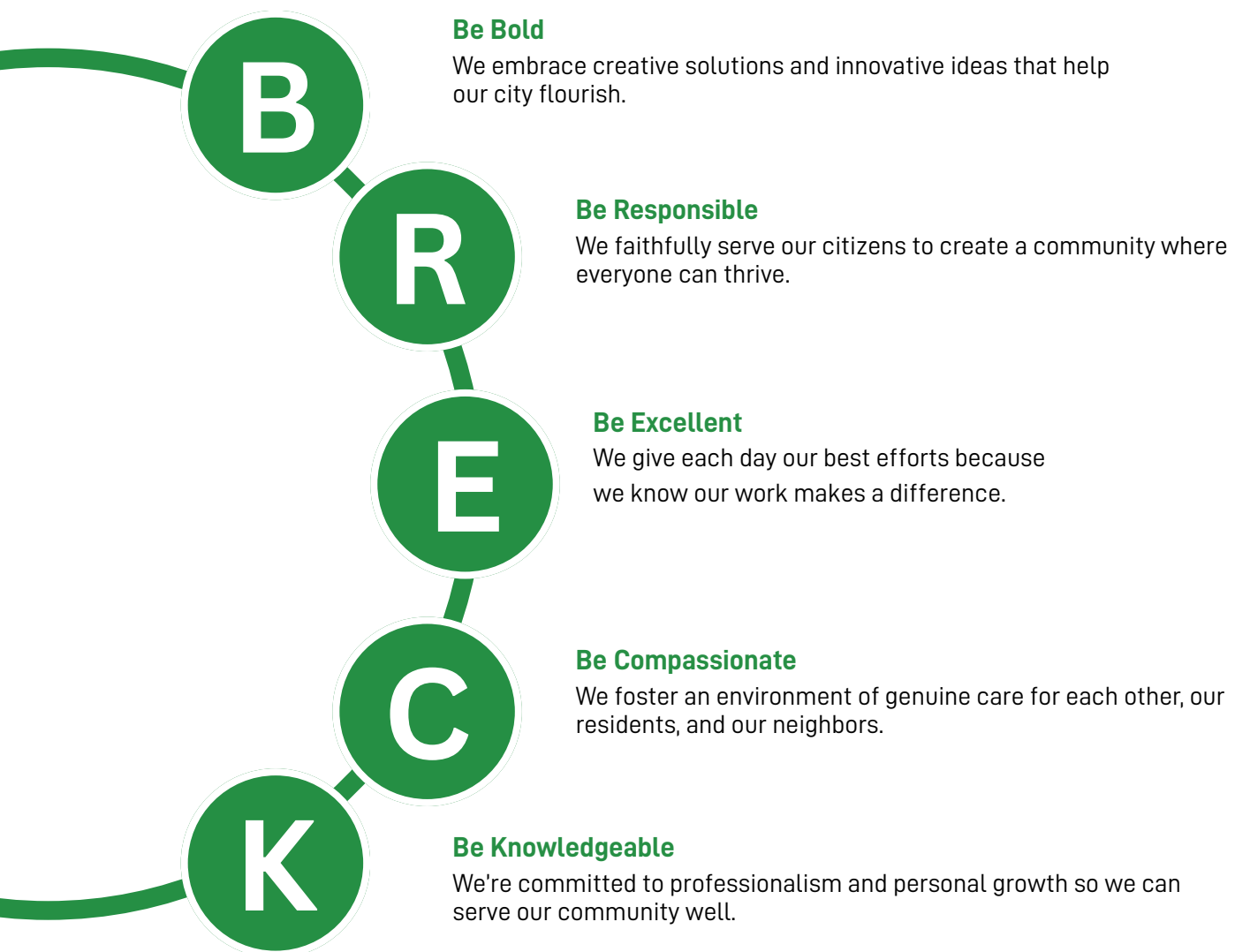


Figure 1.2 Core Values - 2023 Strategic Plan

Financial Analysis

Past, Present, and Anticipated Sources and Amounts of Income; Annual Budgets; and Operating Costs

- The **General Fund** is the City's primary operating fund. It accounts for all financial resources of the general government, except those required to be accounted for in another fund. Sources of income for the General Fund in Breckenridge are revenues from ad valorem taxes, sales taxes, franchise taxes, occupancy taxes, fines, fees, license and permits, service revenues, penalties and late payments, interest and miscellaneous revenues.
- **Enterprise funds** are used to account for a city's business activities that receive a major portion of their funding from user charges. Sources of income for the Enterprise Fund (Utility System and Airport) are revenues from the water and sewer systems, administrative and other sources.
- **Special Revenue Funds** are used to account for revenue that is earmarked by law or by city policy for specific purposes such as the Tourism Fund, Impact Fee Fund and Tax Increment Finance Fund.
- **Capital Projects Funds** account for all financial resources and expenditures for the acquisition or construction of major capital facilities. These include the Capital

Improvement Fund and Utility Capital Reserve Fund.

- **The Debt Service Funds** account for money set aside to pay the principal and interest on long-term debt. Lastly, the **Internal Service Funds** are used to account for revenue and expenses for services rendered by one city department to another¹.
- Sources of expenditures include **Personnel & Personal Services, Supplies, Maintenance Contractual Services Capital Outlays and Debt Service.**

The tables on the following page show the past present, and anticipated income and expenses of the general fund for the City of Breckenridge. The city adopts an annual budget each year.

¹ City of Breckenridge

Table 1.1 - City of Breckenridge Actual Income and Expenditures for Prior Years

Fiscal Year	Revenues	Expenses	Excess (Deficiency)
2019 - 2020	\$4,159,525	\$4,169,716	-\$10,191
2020 - 2021	\$4,675,289	\$4,284,513	\$390,776

Source: City of Breckenridge

Table 1.2 - City of Breckenridge Anticipated Income & Expenditures (General Fund)

Fiscal Year	Total Estimated Revenues	Total Expenditures
2022 - 2023	\$4,757,700	\$4,648,143

Source: City of Breckenridge

Direct and Overlapping Public Debt

Table 1.3 - City of Breckenridge Direct and Overlapping Public Debt

Public Entity	Debt Outstanding	Estimated Share of Overlapping Debt
<i>City of Breckenridge Overlapping Debt</i>	\$0.00	\$0.00
<i>Subtotal, Overlapping Debt</i>		\$0.00
<i>City of Breckenridge, Direct Debt</i>	\$20,732,000	\$20,732,000
<i>Subtotal, Direct Debt</i>		\$20,732,000
Total Direct and Overlapping Debt		\$20,732,000

Source: City of Breckenridge Finance Department

Table 1.4 - City of Breckenridge Outstanding General Obligation Debt & Schedule of Retirement

Year Ending September 55	Revenue Debt Service Fund		General Debt Service Fund	
	Principal	Interest	Principal	Interest
2024	\$365,000	\$281,945	\$235,000	\$396,706
2025	\$372,000	\$274,987	\$265,000	\$367,075
2026	\$380,000	\$268,042	\$280,000	\$353,450
2027	\$387,000	\$260,767	\$295,000	\$339,075
2028	\$395,000	\$253,432	\$310,000	\$323,950
2029-2032	\$1,652,000	\$930,395	\$1,410,000	\$1,128,300
2033-2036	\$1,635,000	\$784,569	\$1,725,000	\$815,675
2037-2040	\$1,731,000	\$623,922	\$2,075,000	\$459,125
2041-2043	\$1,418,000	\$345,094	\$1,790,000	\$109,200
2044-2055	\$4,012,000	\$462,659		

Source: City of Breckenridge Finance Department

Public Improvements Financing Practices

Breckenridge has historically financed its public improvements through the following means, or some combination of these means:

- Cash Reserves
- Utility Fund Surpluses
- Certificates of Obligation
- Bonds
- Loans
- Intergovernmental Grants

Recommended Standards Concerning Debt Limitations

Debt as a Percentage of Assessed Property Value: General obligation debt outstanding (debt backed by the full faith and credit of the city) should not exceed 10% of the assessed value of property in the City. More fiscally conservative communities use six percent as the upper limit for direct debt. Less

fiscally conservative communities calculate direct debt using market value rather than assessed value. The total assessed taxable value of the property in Breckenridge in 2022 was \$279,588,491. Based on a benchmark of 6 to 10 percent of assessed property value, Breckenridge's local tax base could support between \$16,775,309 and \$27,958,849 in general obligation debt. Breckenridge's current general obligation debt is \$10,098,555.

Per capita bonded indebtedness: Recommended debt to household ratio is a range between \$1,500-\$2,000. At the time of this report, the city's debt to household ratio for property tax supported debt was \$2,074.

Annual Debt Service: Annual debt service should not exceed twenty percent (20%) of annual revenues. At the time of this report, the City's total annual debt service is approximately 2.6% of total annual revenues.



HOUSING

Introduction

Housing is often viewed as a barometer for the state of the economy, and this is certainly the case at the moment. The relationship between housing and economic performance, however, operates at a number of spatial levels. In recent years, policy makers and political leaders have started to make stronger links between housing and economic development at the local level. The type and quality of the housing stock can have a significant impact on the health and wealth of the City. The ability to attract and retain people and provide support for those who need it relies on good housing and attractive and inclusive neighborhoods. Cities should be able to provide choices to their residents. Cities are composed of people with various preferences, needs, and budgets.

One barrier to developing effective housing policy is the lack of information on housing quality at the community level. Although the U.S. Census Bureau's American Housing Survey collects housing quality data for larger metropolitan areas every 6 years, smaller-area data for most municipalities and neighborhoods are not available. One of the purposes of this planning section is to provide the City with an inventory of the housing units within the corporate limits of the City. This inventory will be merged with U.S. Census data and the data will be analyzed to identify the extent of problems and identification of housing needs. The housing needs assessment will be utilized to form the goals and objectives. The plan will provide implementation strategies that will assist the City in achieving the housing goals through housing rehabilitation programs and policy recommendations. The hope is that this housing plan helps the City transform the housing stock into a



primary contributor for economic development and positive population growth.

Inventory

In 2023, Public Management, Inc. conducted a windshield survey of all of the residential and commercial structures in the City. This survey consisted of classifying residential structures by their type, condition, and occupancy status. Commercial structures were identified by their condition and occupancy status as well. Lastly, municipal properties, such as city hall, police stations, etc... and churches were also identified on the map.

Definitions

Standard Structure - a structure that has deteriorated less than ten percent (10%) of its highest value. An observation of such a structure may reveal no physical problems or minor items of needed repair such as flaking paint.

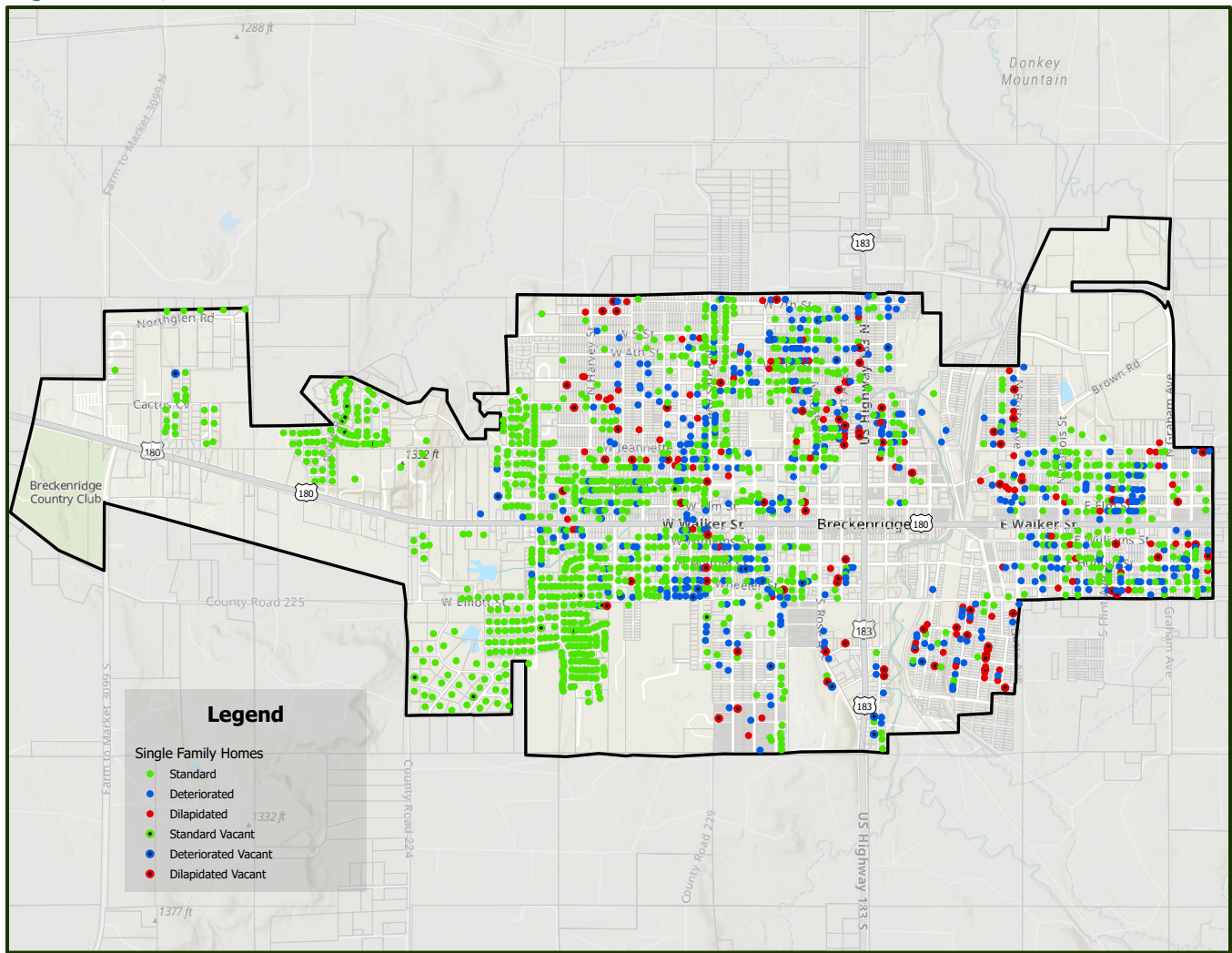


Deteriorated Structure - a structure that has deteriorated from ten percent (10%) to fifty percent (50%) of its highest value. An observation of such a structure may reveal physical problems ranging from rotted siding and roof deterioration to foundation problems and limited structural damage.

Dilapidated Structure - a structure that has deteriorated more than fifty percent (50%) of its highest value. An observation of such a structure may reveal a number of physical problems consisting of severe foundation problems, extensive structural damage, roof deterioration, rotted siding, electrical problems, and plumbing problems.



Figure 2.1 Single Family Structures Distribution Map



Single Family Structures

A single family structure is considered a permanent structure which is used by individuals and/or families for living purposes. It is detached from other housing units. The above map (Figure 2.1) shows the distribution of single-family structures throughout the City.

In total, Public Management counted a total of 1,824 single family structures in the City. Of those, 1,199 were considered to be in standard condition, 421 were considered to be in deteriorated condition, and 97 were considered to be in dilapidated condition. The map to the right (Figure 2.2) displays a heat map showing the areas which contain higher numbers of dilapidated vacant single family structures. In total, Public Management counted 76 of these structures throughout the City.

Figure 2.2 Vacant Dilapidated Structures Heat Map

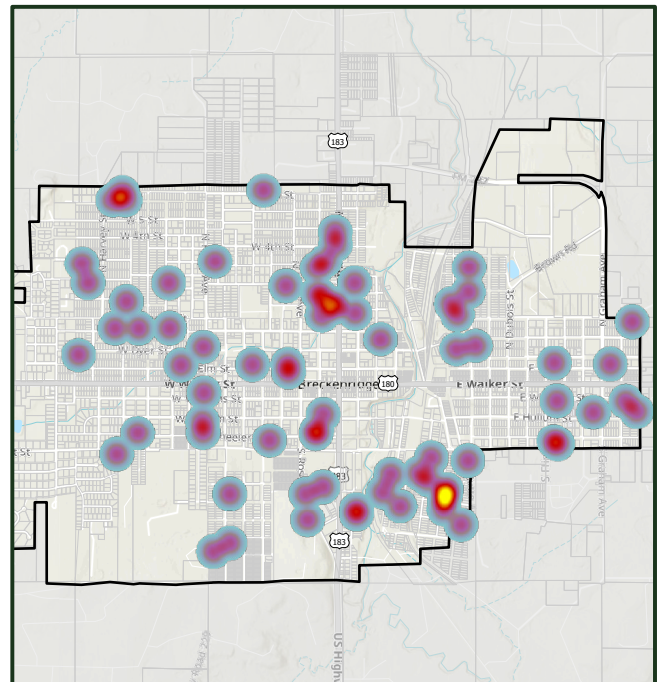
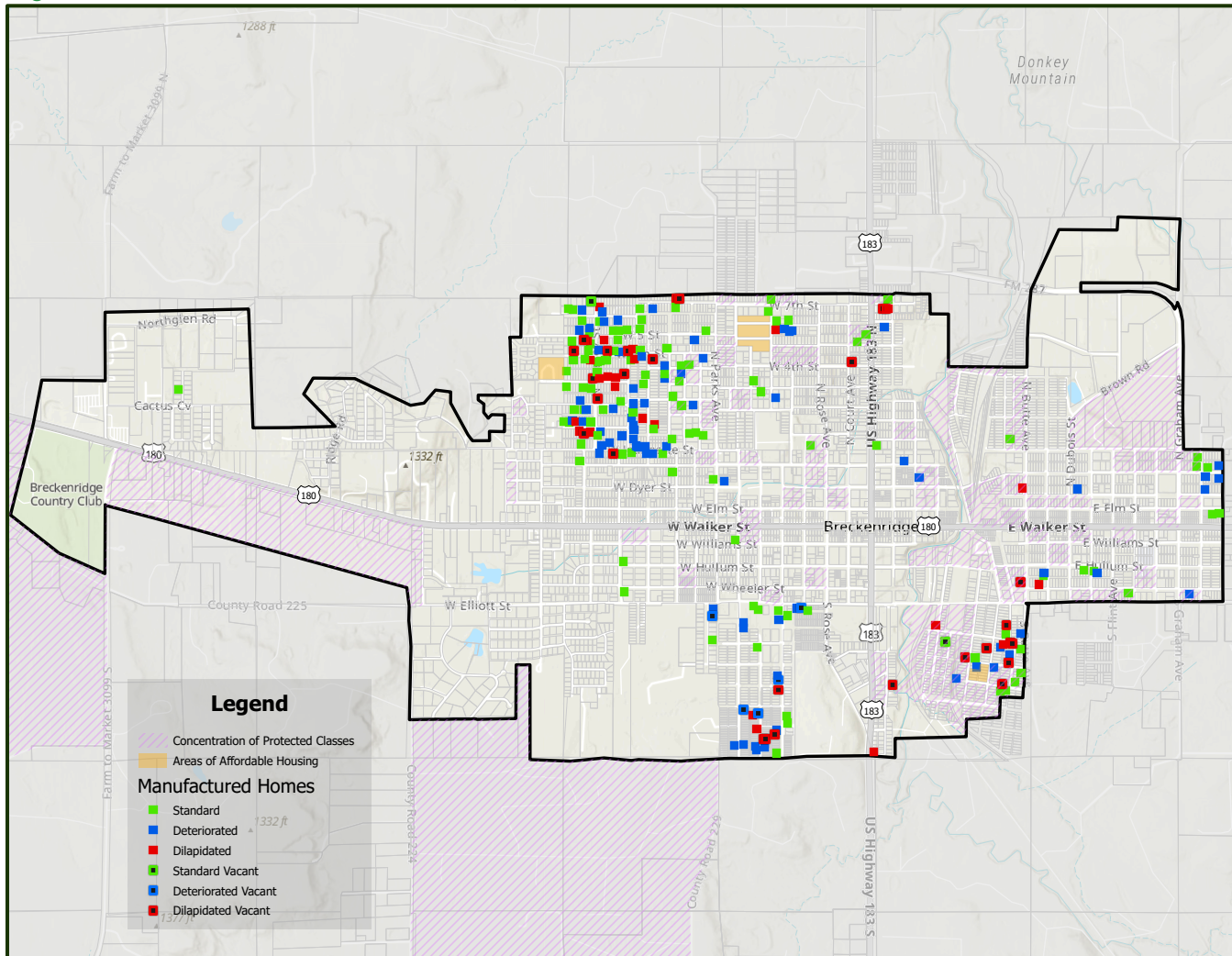


Figure 2.3 *Manufactured Homes Distribution Map*



Manufactured Homes

HUD Code defines a manufactured home as a structure constructed on or after June 15, 1976, according to the rules of the United States Department of Housing and Urban Development, transportable in one or more sections, which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air conditioning and electrical systems. The above map (Figure 2.3) shows the distribution of manufactured homes throughout the City.

In total, Public Management counted a total of 236 manufactured homes in the City. Of those, 103 were considered to be in standard condition, 74 were considered to be in deteriorated condition, and 24 were considered to be in dilapidated condition. The map to the right (Figure 2.4) displays a heat map showing the areas which contain dilapidated vacant manufactured homes. In total, Public Management counted 28 of these structures throughout the City.

Figure 2.4 *Vacant Dilapidated Structures Heat Map*

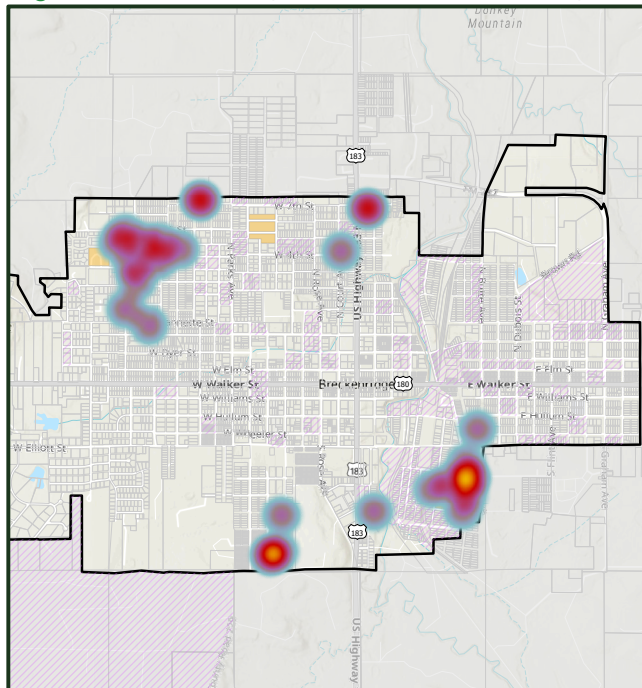
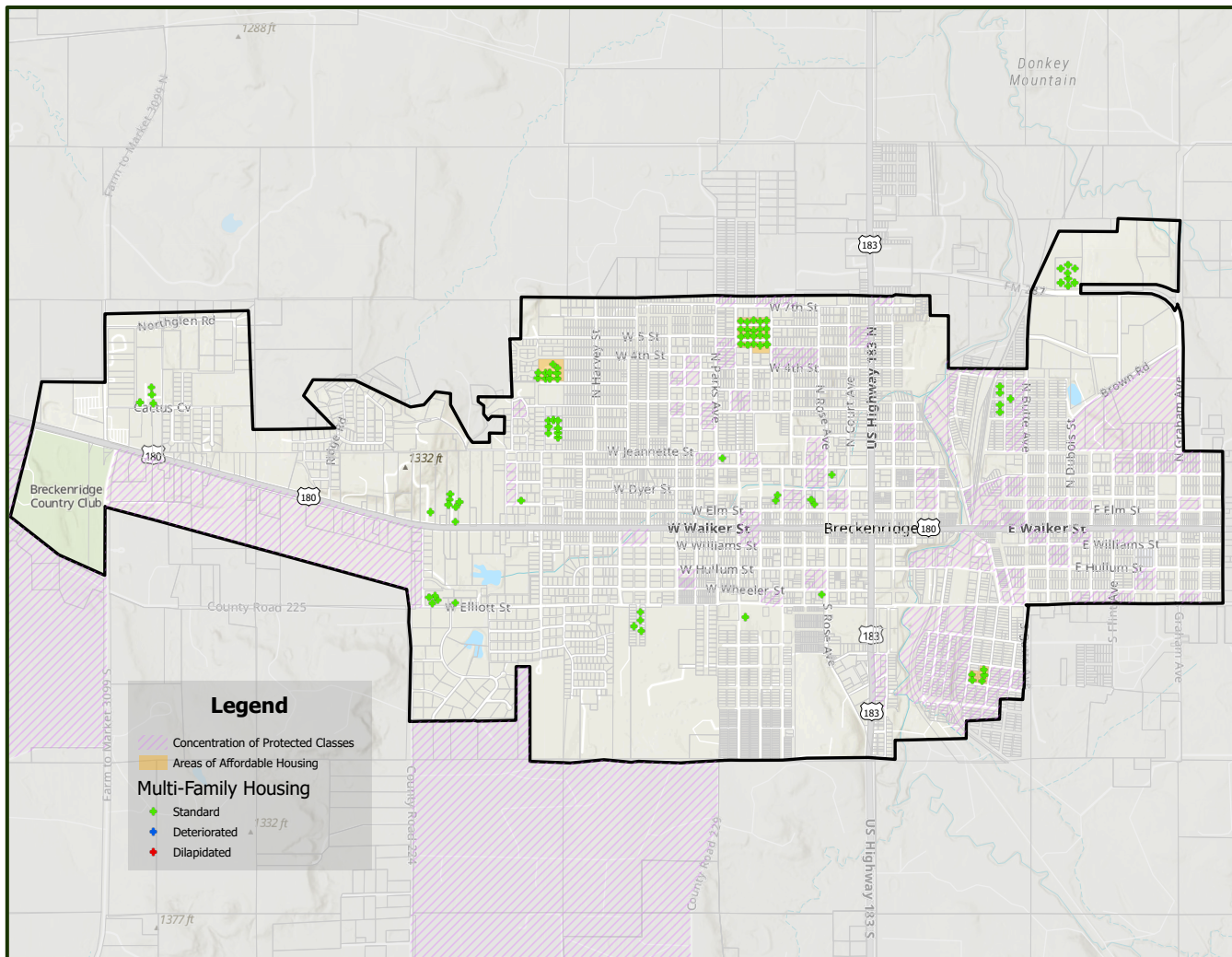


Figure 2.5 Multi- Family Housing Distribution Map



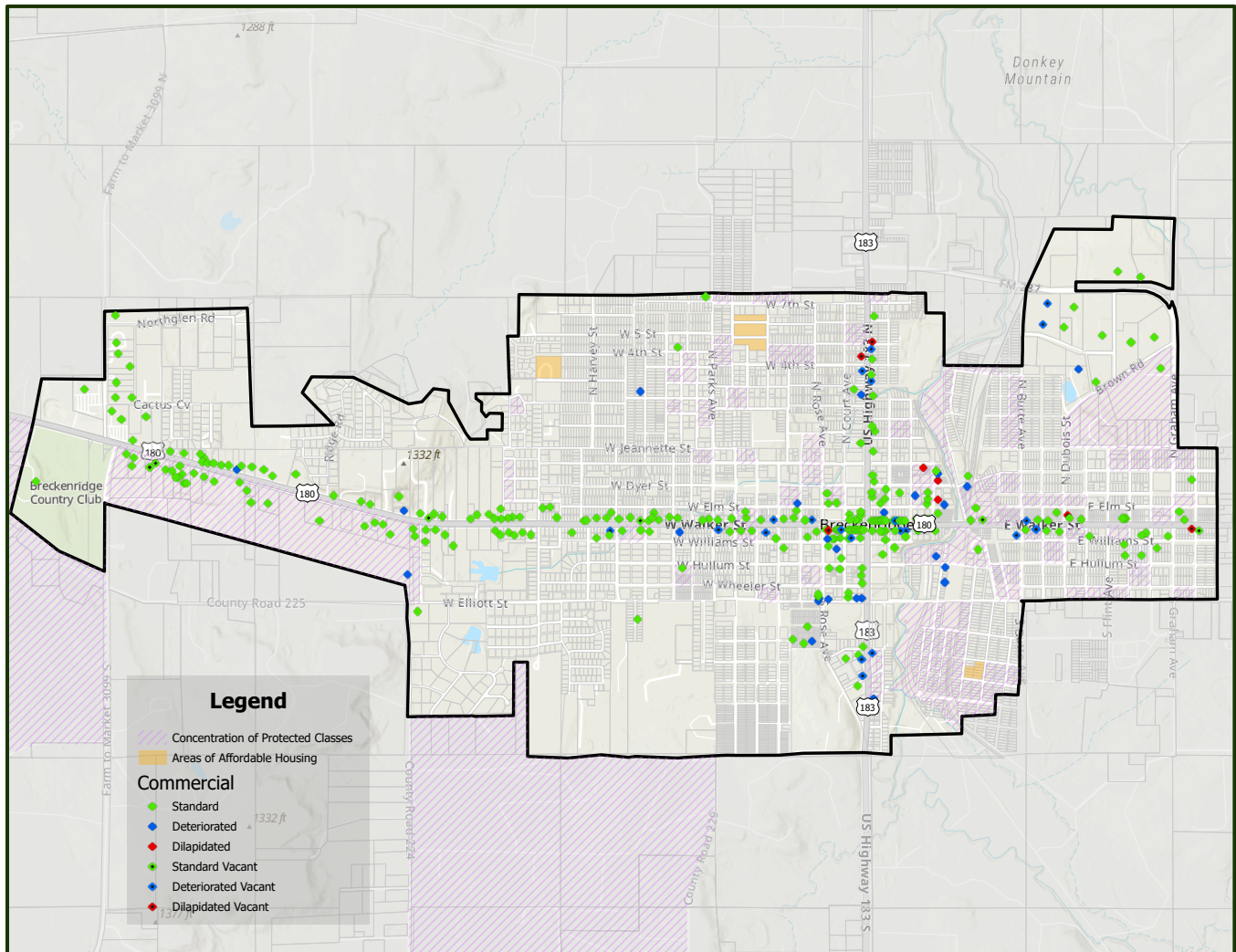
Multi-Family Housing

Multi-Family housing is defined a permanent structure which is used by individuals and/or families for living purposes. It is attached to other housing units in single level or multiple level structures. The above map (**Figure 2.5**) shows the distribution of multi-family housing units throughout the City.

In total, Public Management counted a total of 113 multi-family housing structures, consisting of 406 total units. These units comprise 16.5% of the existing housing stock.



Figure 2.6 Commercial Distribution Map



Commercial

A commercial structure is a permanent structure that is intended for conducting business activities. These structures are designed and constructed to accommodate various commercial ventures such as retail stores, offices, restaurants, hotels, shopping malls, and warehouses. Commercial structures can vary greatly in size, design, and function, depending on the specific needs of the businesses they house. The above map (Figure 2.6) shows the distribution of commercial structures throughout the City.



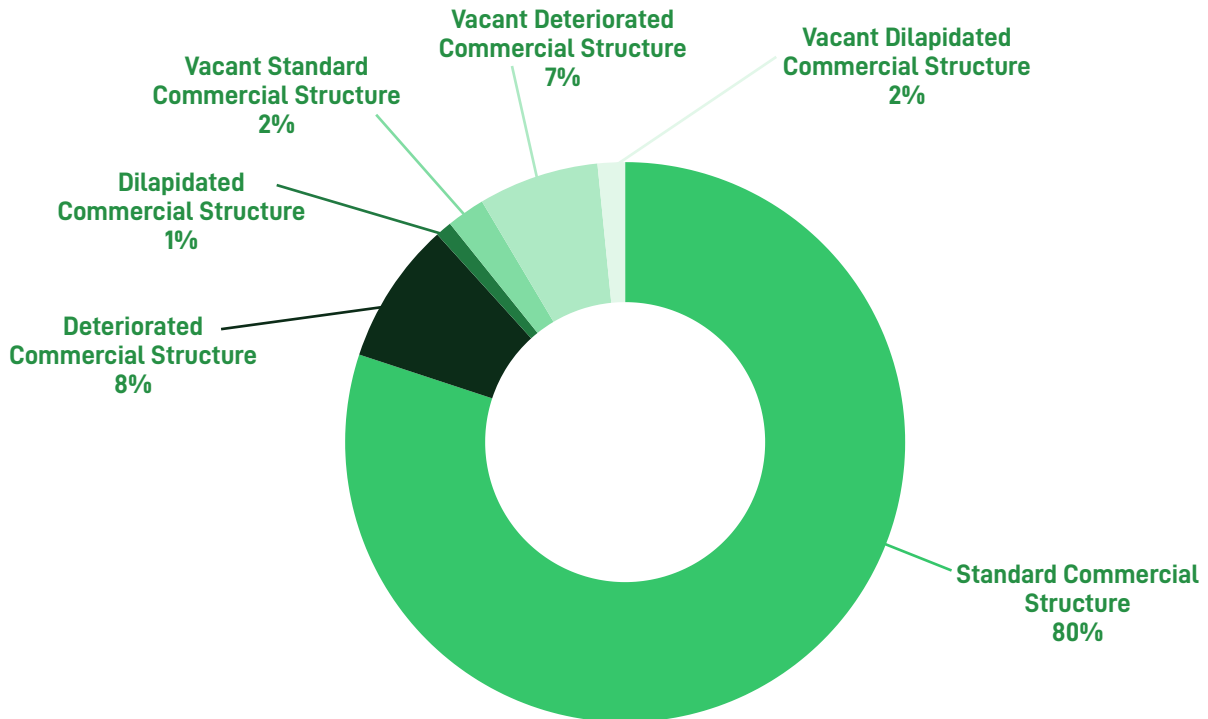
Analysis

The table below (**Table 2.1**) includes a comprehensive list of all residential structures that were surveyed. The below chart shows the number of commercial structures by their condition.

Housing Unit Type	Number	Percentage
Standard Single-Family Structure	1,199	48.6%
Deteriorated Single-Family Structure	421	17.1%
Dilapidated Single-Family Structure	97	3.9%
Standard Manufactured Home	103	4.2%
Deteriorated Manufactured Home	74	3.0%
Dilapidated Manufactured Home	24	1.0%
Standard Multi-Family Unit	406	16.5%
Deteriorated Multi-Family Unit	0	0.0%
Dilapidated Multi-Family Unit	0	0.0%
Vacant Standard Single-Family Structure	13	0.5%
Vacant Deteriorated Single-Family Structure	18	0.7%
Vacant Dilapidated Single-Family Structure	76	3.1%
Vacant Standard Manufactured Home	2	0.1%
Vacant Deteriorated Manufactured Home	5	0.2%
Vacant Dilapidated Manufactured Home	28	1.1%
Total Structures	2,466	
Total Occupied Structures	2,324	94.2%

Source: 2023 Housing Unit Survey, Public Management, Inc.

Chart 2.1 - Inventory and Classification of Commercial Structures



Census Data

According to the Census data, approximately 67.7% of the City's occupied housing units are owner occupied, compared with 77.2% for Stephens County.

Table 2.2 - Occupied Housing Unit Types

Type	Number (Breckenridge)	% of Total	Number (Stephens County)	% of Total
Owner Occupied	1,329	67.7%	2,614	77.2%
Renter Occupied	634	32.3%	771	22.8%
Total	1,963	100.0%	3,385	100.0%

Source: 2021 United States Census - American Community Survey

According to Census data, 516 units, or 25.8% of the City's total housing units are vacant, compared to 1,295, or 27.7% for Stephens County.

Table 2.3 - Occupancy Status

Type	Breckenridge	% of Total	Stephens County	% of Total
Occupied Units	1,963	79.2%	3,385	72.3%
Vacant Units	516	20.8%	1,295	27.7%
Total	2,479	100.0%	4,680	100.0%

Source: 2021 United States Census - American Community Survey

Identification of Housing Needs

Substandard Housing - According to the field survey, deteriorated and dilapidated units constitute approximately 30.1% of the City's total housing stock. According to the American Public Health Association, poor housing conditions are associated with a wide range of health conditions, including respiratory infections, asthma, lead poisoning, injuries, and mental health. Addressing housing issues offers public health practitioners an opportunity to address an important social determinant of health. Public health has long been involved in housing issues.

The City of Breckenridge has been proactive in addressing substandard housing. The City has a process for mitigating substandard housing that involves informing the homeowner of violating minimum standards, providing solutions to bring the property into compliance, then removing substandard structures, when all other remedies fail.

Aged Housing Stock - According to Census data, approximately 79% of the city's housing stock was built before 1980. The chart below (**Chart 2.2**) shows the relative age of the housing stock for Breckenridge. This is a concern because 27.3% of the

City's households include individuals that are over the age of 65. Older homes and manufactured homes typically have smaller doorways and restrooms that make mobility difficult for individuals in wheelchairs. In addition, there may not be ramps installed, as needed for easy access.

Because older homes require more maintenance, building inspection and code enforcement are two crucial front-line implications for localities.

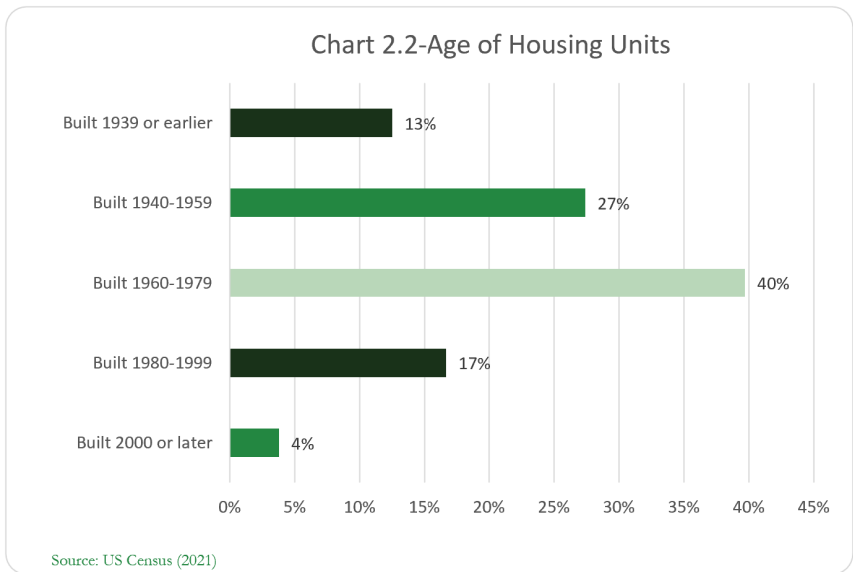
Providing assistance to elderly residents, who often lack the financial means or physical ability to repair older homes, is also of particular concern for officials. Cities such as Breckenridge should try to continue to target additional funding from federal Community Development Block Grants, city programs, outside agencies and the private sector in order to combat this issue.

Building Inspector

A Building Inspector is responsible for enforcing the provisions of the building, residential, electric, gas, mechanical, plumbing and other related codes. The City of Breckenridge has an active building services division, along with a part-time building inspector and utilizes a third part provider. The City currently enforces 2015 international building codes. The building inspector is responsible for issuing building permits and conducting inspections during all phases of construction.

Code Enforcement

In addition to housing rehabilitation assistance, another way to upgrade the condition of the housing stock is to stay active with code enforcement. The



Code Enforcement Officer is responsible for enforcing the city's property-related codes. These include substandard buildings, abandoned vehicles, weed and debris and other related codes. The City has a part-time code enforcement program, along with a part-time code enforcement officer. Proactive simply means that City officials are touring the neighborhoods and reporting code violations. Reactive means that the code enforcement office must respond to complaints by Breckenridge citizens or other agents. Once code violations are noted, the City must implement an effective program for correcting the problems. The City's program operates on both levels.

Neighborhood deterioration occurs over a period of many years. Without proper code enforcement, housing units fall into a state of disrepair, or the properties become cluttered with junk and overgrown weeds. There are generally two (2) types of structures that present problems for any city's code enforcement office; vacant and occupied dilapidated structures. These structures can be both a safety hazard and a health hazard. If the unit is

structurally unsafe, the roof and walls could collapse. One option is for the City to acquire vacant structures through arrangements with the County and School District, thus allowing the City 100% ownership. This procedure qualifies the material for disposal into the landfill. The City then auctions the vacant properties via sealed bids. It is the hope that these lots will then be re-developed into productive properties once again.

Applicable Codes and Ordinances

The City has the following housing-related codes and ordinances.

- Building Codes
 - International Building Code-2021
 - International Residential Code-2021
 - International Mechanical Code-2021
 - Uniform Plumbing Code-2021
 - National Electrical Code-2020
 - International Energy Conservation Code-2021
 - International Fuel Gas Code-2021
 - Fire Code-2021

Identification of Housing Needs

- Substandard Buildings (dilapidated and deteriorated residential structures)
- Aging Housing Stock
- Availability of affordable housing
- Neighborhood conservation-continued strong code enforcement is needed in order to protect older neighborhoods

Previous Implementation Actions

The City has implemented several policies that protect against discrimination and encourage fair housing practices. The City also advertised a fair housing public service announcement. In addition,

the City has affirmatively furthered Fair Housing through Infrastructure Planning and Development.

Office of Rural Affairs within the Texas Department of Agriculture (TDA)

In general, the City has not utilized Texas Community Development Block Grant funds for housing related projects. These funds are typically set aside to address infrastructure needs.

Local Administrative and Legal Capacity

Available to Overcome Housing Related Problems

The City's main housing related obstacle is the need to repair or remove dilapidated structures. A majority of the City's housing related problems originate from owner-occupied units. The City does not have the ability to offer assistance to those in need because funds are limited. Given this scenario, it is recommended that the City seek assistance from the various Federal and State housing repair assistance programs.



Housing Plan (Goals & Objectives)

Goal 1: Increase the City's Stock of Quality, Affordable, Single-Family Units.

2023-2035

- Objective 1:** Continue efforts to mitigate or remove substandard units.
Probable Costs: \$3,500.00 per unit
- Objective 2:** Consider the use of the HOME program (administered through the Texas Department of Housing and Community Affairs TDHCA) in an effort to repair dilapidated housing units throughout the community.
Probable Costs: \$1,000.00 per unit
- Objective 3:** Consider the use of Housing Preservation Grant (HPG) funds, administered through the United States Department of Agriculture (USDA), in an effort to repair owner-occupied dilapidated housing units throughout the community.
Probable Costs: 25% matching funds (approximately \$25,000)
- Objective 4:** Consider the use of the Section 504 Home Repair program, administered through the United States Department of Agriculture (USDA), which this provides loans/grants to very-low-income homeowners to repair, improve or modernize their homes to remove health and safety hazards.

Goal 2: Increase code enforcement.

2023-2035

- Objective 1:** Promote continuing education for staff to ensure that all staff members are aware of any updates to applicable codes and ordinances.
- Objective 2:** Consider outreach programs community-wide to assist connecting property owners with dilapidated units, to various assistance programs such as grants and low interest loans.
- Objective 3:** Consider periodic meetings to ensure that all staff is enforcing the codes consistently.
Probable Costs: Variable

Housing Plan (Goals & Objectives)

Goal 3: Improve the quality of living for Breckenridge residents by upgrading the quality of the housing stock.

2023-2026

Objective 1: Consider the acquisition of vacant structures through arrangements with the County and School District and demolish these structures. Sell these properties for minimal cost to re-developers, with the stipulation that affordable new housing be constructed on the lot within a certain time period.

Probable Costs: Variable

Objective 2: Inform potential homeowners of various programs that may be available through TDHCA such as "My First Texas Home".

Objective 3: Consider a partnership between private and public sectors to bring about quality, affordable, new housing developments, such as the development outlined in the feasibility study

Probable Costs: Variable

Goal 4: Increase building code enforcement.

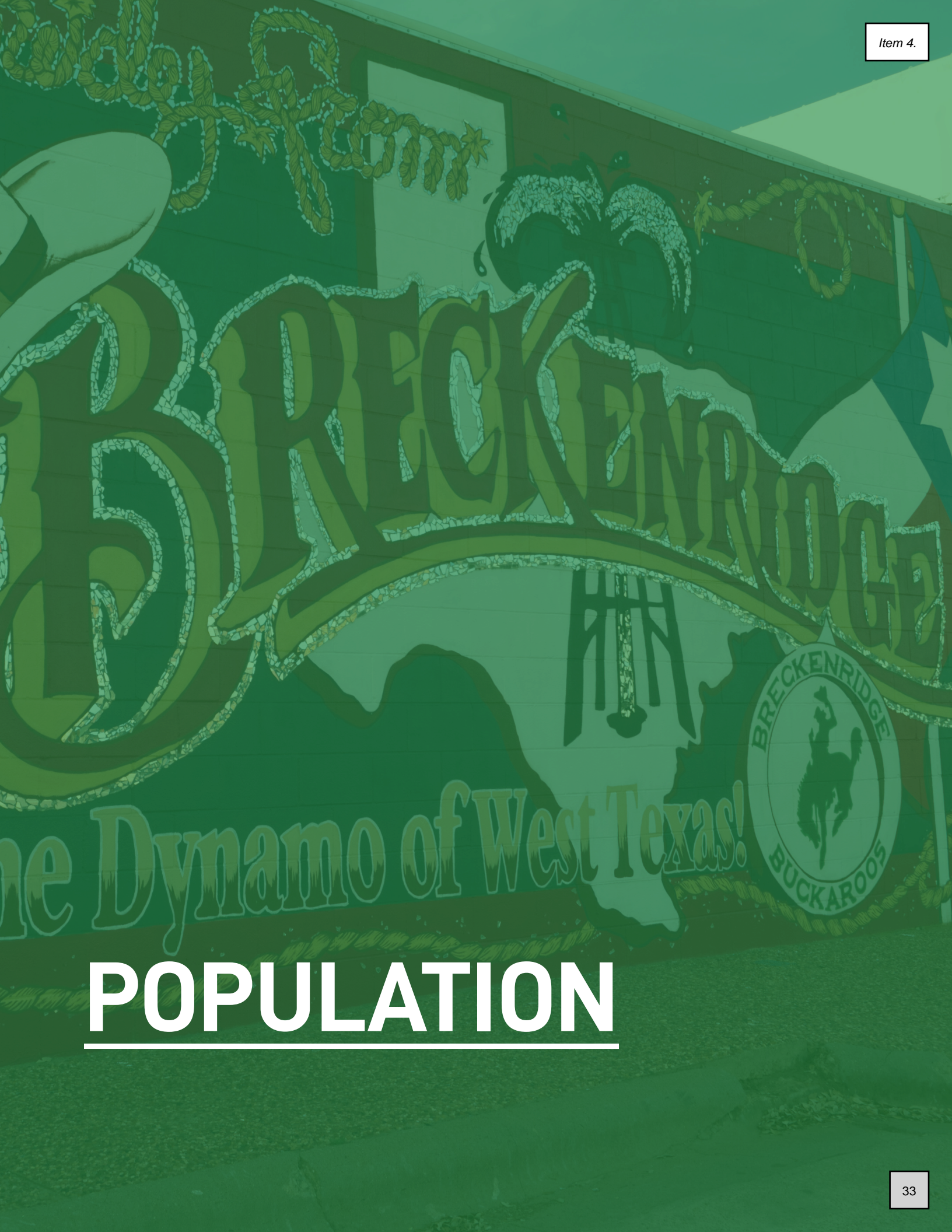
2023-2035

Objective 1: Consider adoption of the most recent international building codes.

Objective 2: Continue to promote continuing education for staff to ensure that all staff members are aware of any updates to applicable codes and ordinances.

Long-Term Initiatives (2025 and Beyond)

- Continue to enforce all housing related codes and ordinances.
- Continue efforts to secure funding for housing related projects.
- Continue to further fair housing opportunities by encouraging developers to offer residents a variety of housing options.

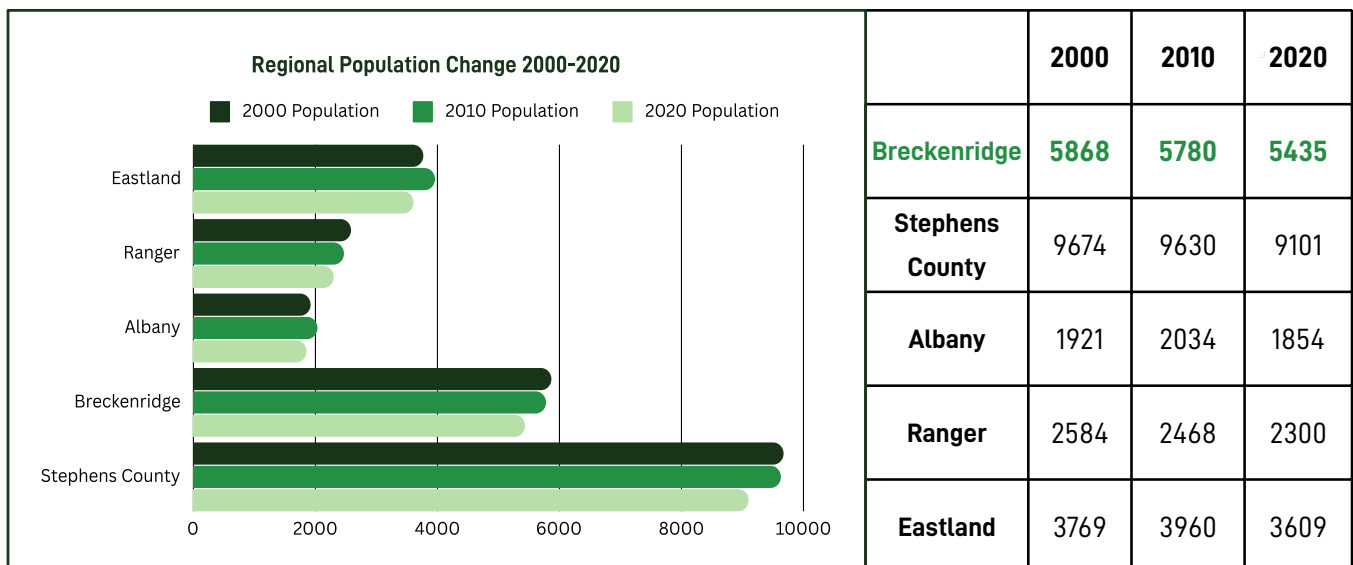
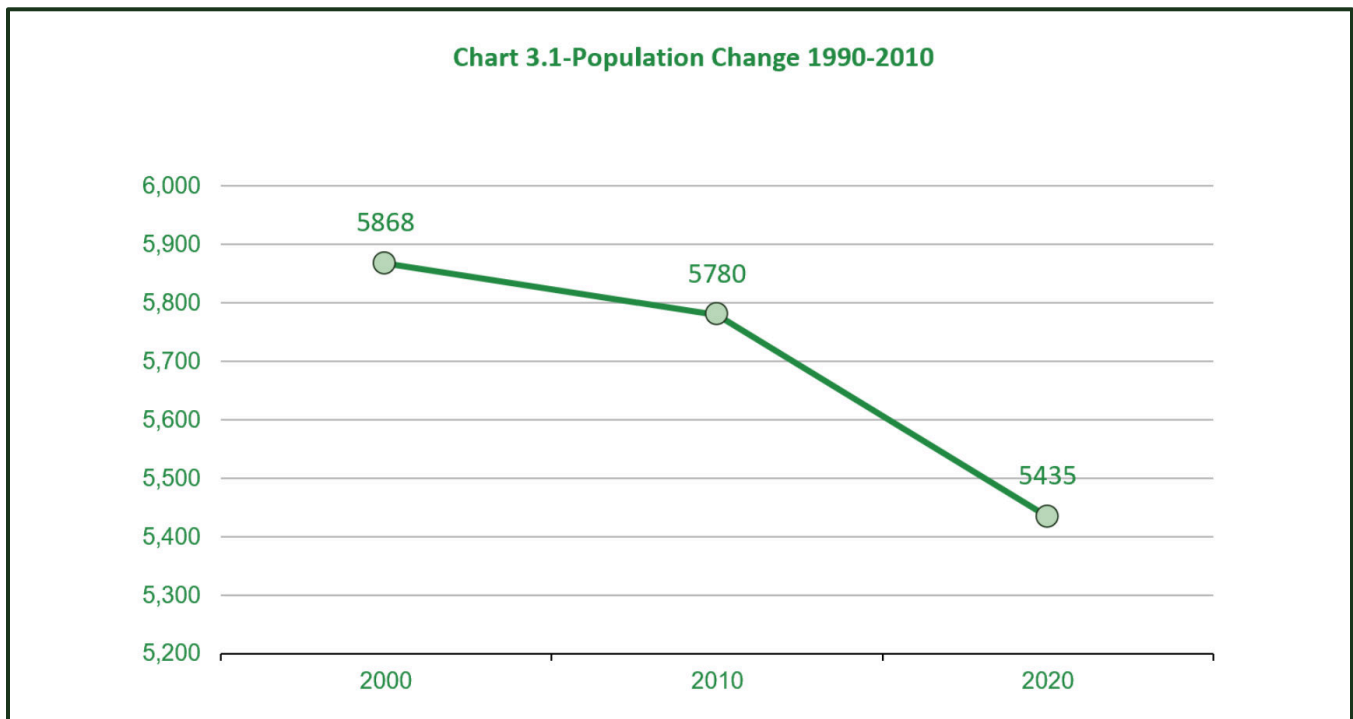


POPULATION

Introduction

Breckenridge served as the court and local trading center for several quiet decades until 1916–17, when oil discoveries at Ranger occurred. Drilling started at the Breckenridge field in 1918, but the boom did not really get underway until 1920, when the town saw the arrival of thousands of workers and speculators, who threw up acres of tents and shacks in the classic oil boomtown manner. From a population

estimated at 1,500 in January 1920 the town grew to 30,000 within a year. By 1930 the population had fallen to 7,569, and the town had 480 businesses. The Great Depression brought the population down further to 5,826 in 1940. The population was 5,665 in 1990, 5,868 in 2000, 5,780 in 2010 and 5,435 in 2020. Current estimates show the City with a population of 6,209.



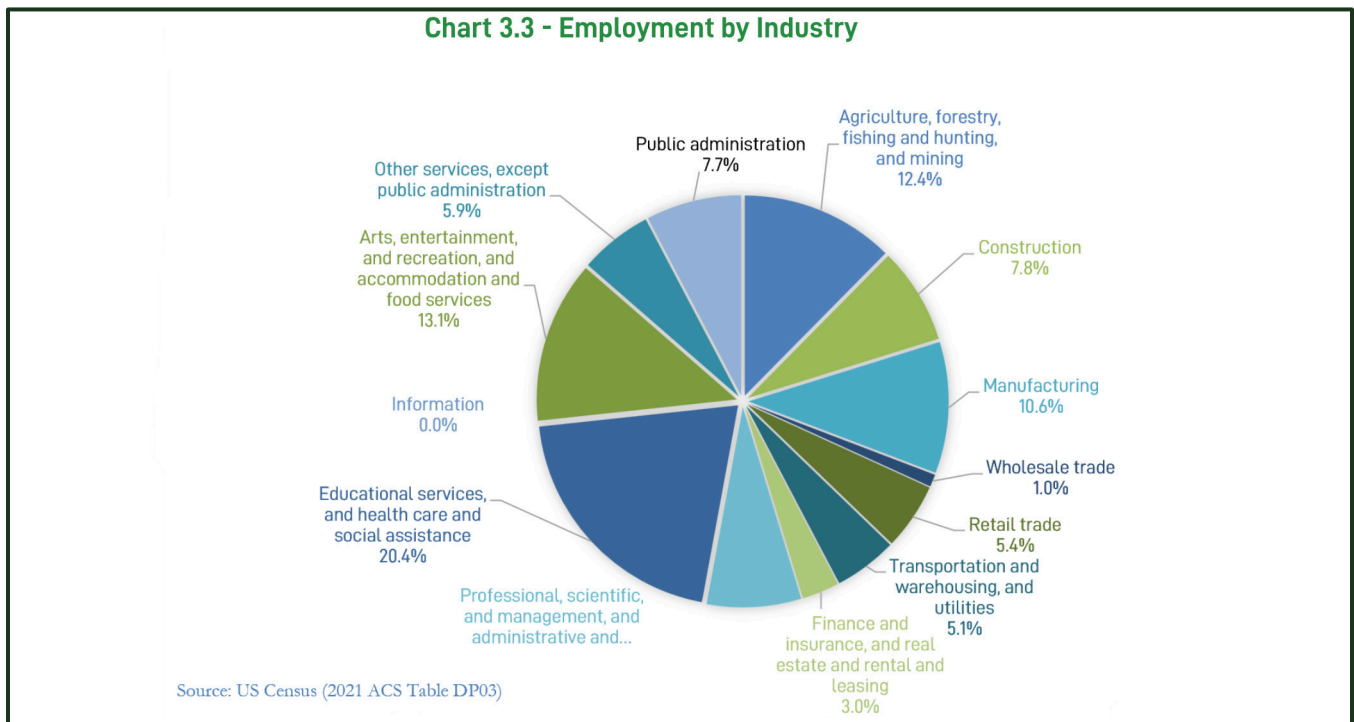
Population Characteristics

Population Distribution by Age

According to the 2021 American Community Survey, conducted by the U.S. Census, the City had a younger population compared to that of Stephens County and had the same median age as the State of Texas. The median age for Breckenridge is 35.5, compared to 35.5 for the State of Texas and 40.6 for Stephens County.

Employment by Industry Type

According to the 2021 *American Community Survey*, the Census indicated that agriculture, forestry, fishing & hunting, construction, manufacturing, educational services, health care and social assistance & arts, entertainment recreation & accommodation & food services provided the majority of employment for Breckenridge residents. This is illustrated in the chart below (**Chart 3.3**)



Ethnicity

Table 3.1 below gives a detailed composition of the Hispanic and non-Hispanic population groups by race.

Table 3.1 - 2021 Hispanic/Non-Hispanic by Race

Race	Non-Hispanic	Hispanic Ethnicity Also	Total
White	2,933	1,192	4,125
Black/African American	246	0	246
Asian	84	0	84
American Indian/Alaskan Native	0	0	0
Native Hawaiian/Other Pacific Islander	0	0	0
Some Other Race	11	267	278
Two or More Races	106	419	525
Total			5,258

Source: 2021 United States Census - American Community Survey

Demographic Profile and Income

Table 3.2 below provides a demographic profile, according to the United States Census.

General Characteristics*	Number	Percentage
Male	2,760	52.5%
Female	2,498	47.5%
Median Age (Years)	35.5	
Under 5 Years	357	6.8%
65 Years and Over	690	13.1%
Average Household Size	2.64	
Economic Characteristics*		
Median Household Income	\$39,191	
Per Capita Income	\$23,989	
Income Classifications **		
Low-Moderate (0-80% of the AMFI)	3,005	
Non-Low/Moderate (Above 80% of the AMFI)	2,530	
Total	5,535	
Subtotal - All Low/Moderate	3,005	
Percent Low/Moderate	54.3%	

*- 2021 United States Census - American Community Survey
 **- 2021 Texas Community Development Planning/Capacity/Building Fund Application

The percentage of low to moderate income persons is 54.3% and the percentage of individuals below the poverty level is 17.4%. The state average for this factor is 14.2%. According to the 2021 American Community Survey, the City lags behind the State in median household income and per capita income. The median household income statewide for 2021 was \$66,963 and the per capita income was \$34,717.

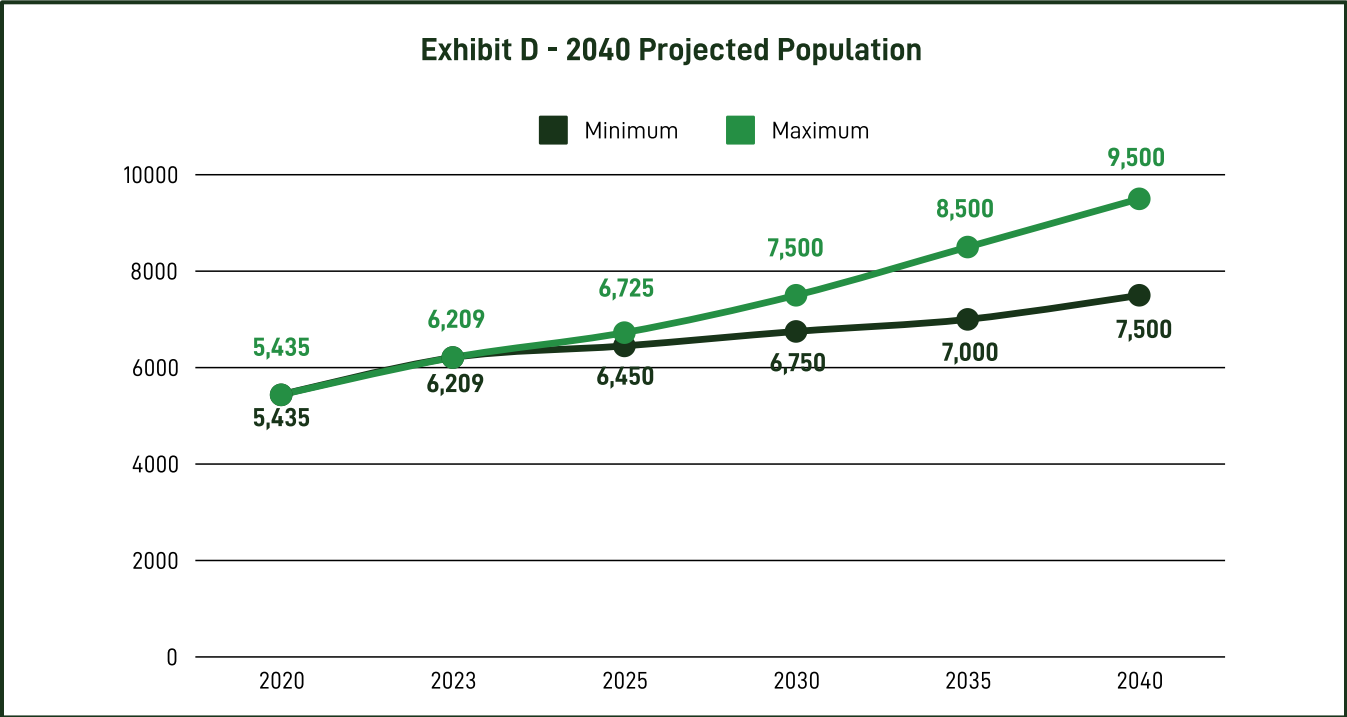
Existing Population Estimates

During the course of this planning study, Public Management, Inc. conducted a field survey of all the housing units and the land use in Breckenridge. The city presently has 2,324 occupied dwelling units. The 2021 Census states that there were 1,963 occupied housing units in the City. This represents a 361-unit difference between the 2021 U.S. Census count and the 2023 field survey. Using the figure of 2.64 persons per household from the 2021 census and multiplying it by 2,324 occupied dwelling units reveals the current population of Breckenridge.

2,324 Occupied Dwelling Units	x	2.64 Persons Per Household	=	6,135 + 74 (Institutionalized Population) 6,209 (2023 Population Estimate)
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Future Population Estimates

As shown in Chart 3.1 earlier the population fell by 433 persons between the years 2000 and 2020, according to Census data. Current estimates show solid growth between 2020 and 2023. It is likely that the City will continue to see population increases during the planning period, due to growth in the State and the increased mobility of the population in general. The future population projections of Breckenridge are shown on the graph in Exhibit D below.



Future population was determined by two methods. The first method was a linear progression of the population growth rate in the years 2020-2023. This rate was used year by year through the year 2040 to determine the maximum population growth for the City of Breckenridge as shown on Exhibit D. The minimum estimated population was derived using the Texas Water Development Board Population Projections for Stephens County.

Realistically, the population for Breckenridge will probably fall somewhere between these two scales. This population projection method does not recognize an anomaly of a major subdivision development, or apartment complex with high density housing which would skew the population curve upward. These anomalies may be expected but the intensity is not known and cannot be used in a solid population projection. The population increases indicate the need to further develop the City's infrastructure to keep up with the growth.



LAND USE

Introduction

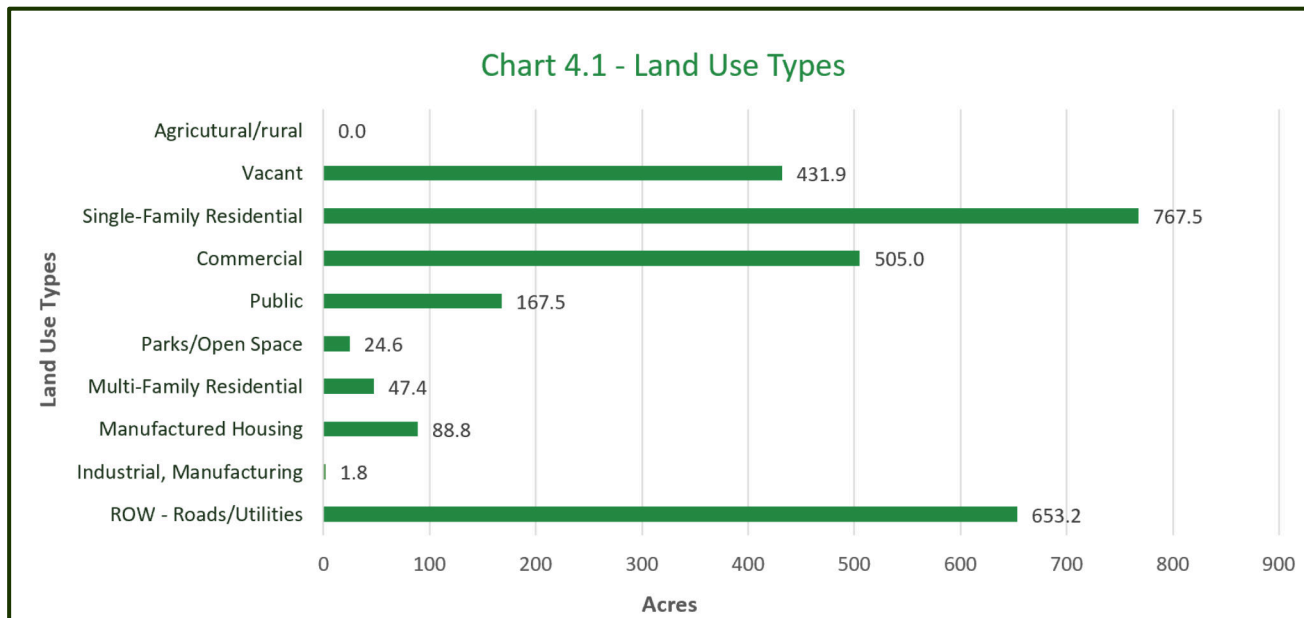
Land-use planning is the general term used for a branch of urban planning encompassing various disciplines which seek to order and regulate land use in an efficient and ethical way, thus preventing land-use conflicts. Cities often use land-use planning to manage the development of land within their jurisdictions. In doing so, the City can plan for the needs of the community while safeguarding natural resources. To this end, it is the systematic assessment of land and water potential, alternatives for land use, and economic and social conditions in order to select and adopt the best land-use options.

Often one element of a comprehensive plan, a land-use plan provides a vision for the future possibilities of development in neighborhoods, districts, or other

defined planning areas. The goal of the land use plan for the City of Breckenridge is to provide a guide for promoting an aesthetically pleasing, durable and safe living environment for present and future residents.

Tabulation

To effectively plan for the future land use patterns in Breckenridge, it is important to recognize the current land use. Understanding the conditions that lead to the existing land use configurations can help us make assumptions about future uses. The following table and chart show the existing land use in Breckenridge by category of use. The project area does not include the City's Extra Territorial Jurisdiction (ETJ) because significant development had not occurred there at the time of this report.



The overall acres per 100 persons figure identified in the following table ([Table 4.1](#)) indicates that the City has room for growth within the current corporate limits. There is significant undeveloped acreage, although some is located in the 100-year floodplain. Even so, there are still some vacant lots that could be converted to improved lots, thus increasing the city's ad-valorem tax income.

Table 4.1 - Existing Land Use

Land Use	Acres	Percentage of Total Acres	Acres per 100 Persons
Vacant	431.9	16.1%	7.0
Single-Family Residential	767.5	28.6%	12.4
Manufactured Housing	47.4	1.8%	0.8
Multi-Family Housing	88.8	3.3%	1.4
Commercial	505.0	18.8%	8.1
Industrial/Manufacturing	1.8	0.1%	0.0
Parks/Open Space	24.6	0.9%	0.4
Public	167.5	6.2%	2.7
Agricultural/Rural	0	0.0%	0.0
ROW - Roads/Utilities	653.2	24.3%	10.5
Total	2,687.8	100%	43.3
Undeveloped	1,085.1	40.4%	
Developed	1,602.7	59.6%	

Source: 2023 Field Survey, Public Management, Inc.

Analysis

Occupied Dwelling Units

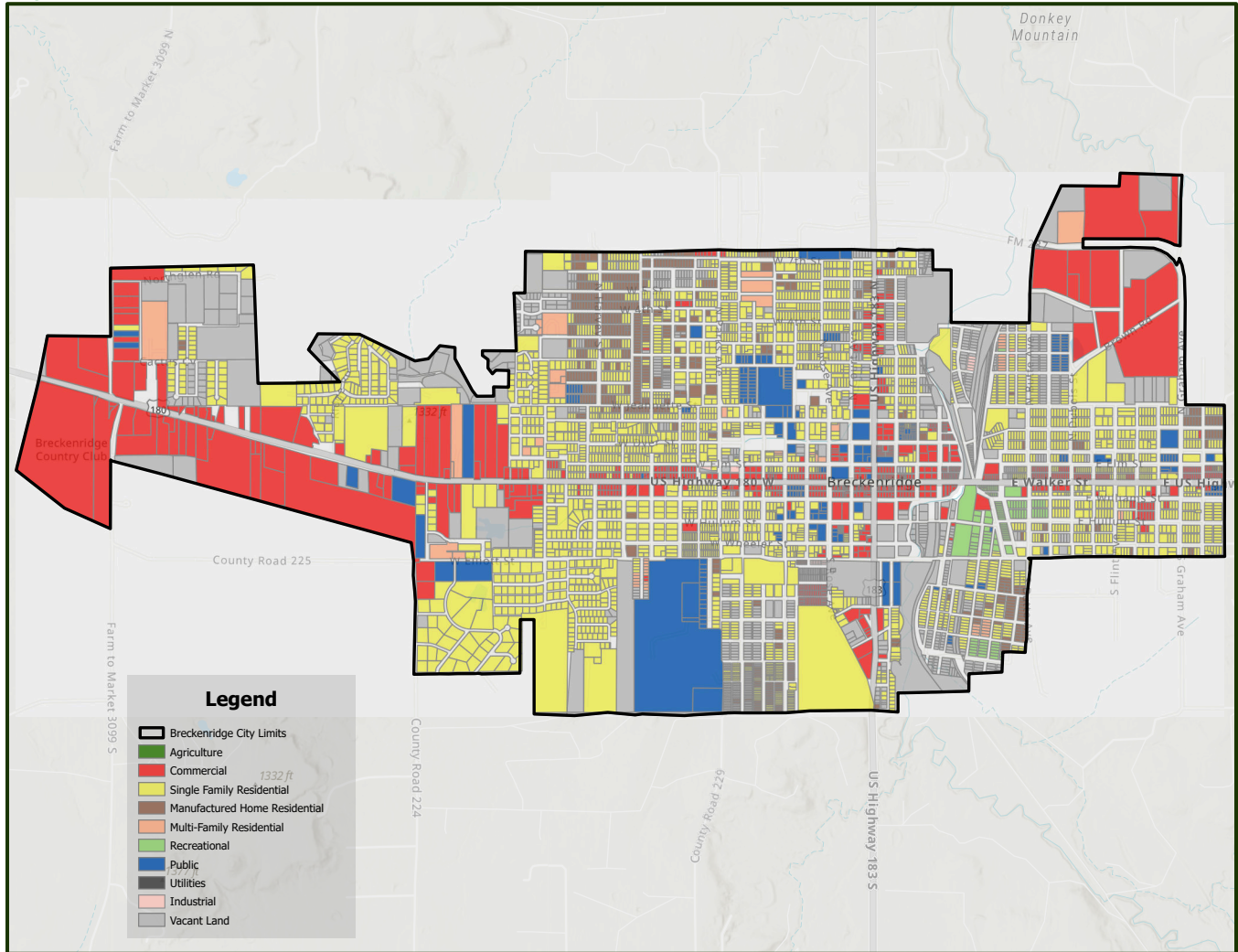
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Existing Land Use

The existing land use pattern for Breckenridge is typical for this size community. The commercial and light industrial land uses are generally adjacent to

the major highways. Residential, light commercial, and public land uses are near the central city, in traditional downtown Breckenridge. Agricultural, natural resource uses and rural residential uses extend beyond the City's corporate limits and into the ETJ. The most significant changes that could occur are the emergence of additional residential subdivisions in traditional agricultural areas. The existing land use can be observed by reviewing the Existing Land Use Map (**Figure 4.1**) on the following page.

Figure 4.1 Existing Land Use Map



Thoroughfares Impact on Land Use

The impact of the main thoroughfares on land use within the city is that many of the commercial land uses within the city have formed along these highways. Thoroughfare development likely will have a big impact on the city's future land use. These arterials and collectors provide access to the city's commercial and cultural centers for both local residents and potential customers.

Additionally, the concentration of commercial activities along these main thoroughfares not only facilitates accessibility but also influences the spatial distribution of other land uses. Residential areas tend to cluster around these commercial hubs, benefiting from the convenience of nearby amenities and services. Moreover, the development of these arterials and collectors often sets the tone for future urban expansion and redevelopment initiatives. As the city evolves, the strategic planning and management of these key transportation corridors will play a pivotal role in shaping its growth patterns and overall land use dynamics. The main thoroughfares are identified in the following table (Table 4.2).

Table 4.2 - Transportation Facilities

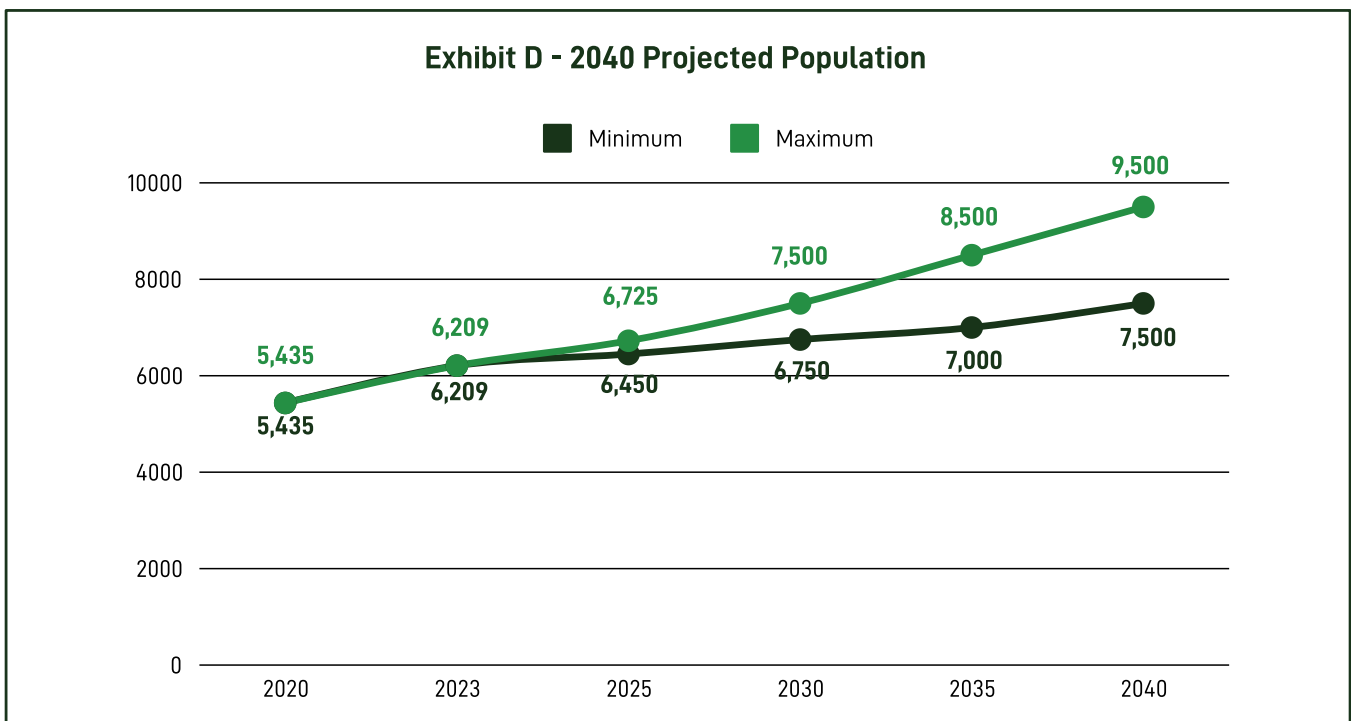
Thoroughfare	Significance	Direction
US Route 180 (US 180)	<p>U.S. Route 180 is an east–west United States highway. Like many three-digit routes, US 180 no longer meets its "parent", US 80. US 80 was decommissioned west of Mesquite, Texas, and was replaced in Texas by Interstate 20 and Interstate 10 resulting in U.S. 180 being 57 miles longer than U.S. 80. The highway's eastern terminus is in Hudson Oaks, Texas (west of Fort Worth, near Weatherford), at an intersection with Interstate 20. Its western terminus is unclear. Signage at an intersection with State Route 64 in Valle, Arizona 40 miles (64 km) northwest of Flagstaff indicates that the route starts at SR 64, which is consistent with the AASHTO U.S. Highway logs.</p>	East/West
US Route 183 (US 183)	<p><i>U.S. Route 183 (US 183) is a north–south United States highway. The highway's northern terminus is in Presho, South Dakota, at an intersection with Interstate 90. Its southern terminus is in Refugio, Texas, at the southern intersection of U.S. Highway 77 and Alternate US 77 (US 183 and Alt US 77 run concurrently for their final 80 miles (130 km) between Cuero and Refugio).</i></p>	North/South
Farm to Market Road 287 (FM 287)	<p><i>Farm to Market Road 287 (FM 287) is a designation that has been used three times. The current use is in Stephens County, from US 183 near Breckenridge to US 180.</i></p>	North/South
Farm to Market Road 3099 (FM 3099)	<p><i>The highway begins at an intersection with FM 2231 in unincorporated Stephens County. FM 3099 runs north before entering Breckenridge, where the highway has a short overlap with US 180. Leaving its concurrency with US 180, FM 3099 continues to run north, passing near Hubbard Creek Reservoir before ending at Hubbard Creek Dam Road near the Hubbard Creek Reservoir Dam. FM 3099 in Breckenridge south of US 180 is known locally as City Pool Road.</i></p> <p><i>FM 3099 was designated on November 25, 1975, from Hubbard Creek Dam Road south to US 180. On October 29, 1992, FM 3099 was extended south to FM 2231.</i></p>	North/South

Source: Public Management, Inc.

Existing & Anticipated Population

During the course of this planning study, Public Management, Inc. conducted a field survey of all the housing units and the land use in Breckenridge. The city presently has 2,324 occupied dwelling units. The 2021 Census states that there were 1,963 occupied housing units in the City. This represents a 361-unit difference between the 2021 U.S. Census count and the 2023 field survey. Using the figure of 2.64 persons per household from the 2021 census and multiplying it by 2,324 occupied dwelling units reveals the current population of Breckenridge.

2,324 Occupied Dwelling Units	X	2.64 Persons Per Household	=	6,135 + 74 (Institutionalized Population) 6,209 (2023 Population Estimate)
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Soils Characteristics as Related to Development

One of Texas' most important natural resources are its soils. Texas soils are complex because of the wide diversity of climate, vegetation, geology, and landscape. More than 1,300 different kinds of soil are recognized in Texas. Each has a specific set of properties that affect its use. Texas can be divided into 21 Major Land Resource Areas that have similar or related soils, vegetation, topography, climate, and land uses.

The City of Breckenridge lies in the North Central Prairie land resource area. The North Central Prairie occupies about 7 million acres in North Central Texas. Adjacent to this area on the north is the rather small area (less than 1 million acres) called Rolling Red Prairies, which extends into Oklahoma and is included here because the soils and land use are similar. This area lies between the Western Cross Timbers and the Rolling Plains. It is predominantly

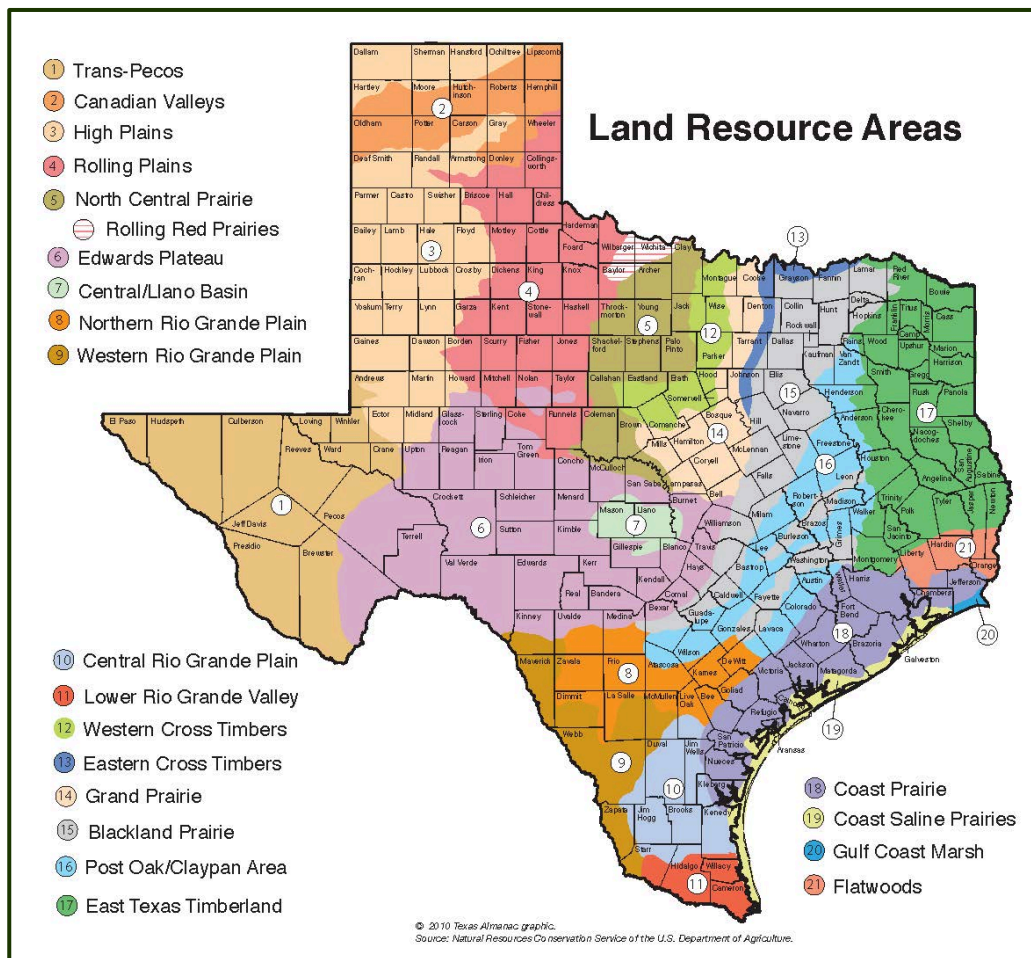
grassland intermixed with small wooded areas. The landscape is undulating with slow to rapid surface drainage.

Upland soils are mostly deep, well-drained, brown or reddish-brown, slightly acid loams over neutral to alkaline, clayey subsoils. Some soils are shallow or moderately deep to shale. Bottomland soils are

mostly well-drained, dark-brown or gray loams and clays.

This area is used mostly as rangeland, but wheat, grain sorghums, and other crops are grown on the better soils. Brush control, wind and water erosion, and limited soil moisture are the major management concerns.¹

¹ <http://texasalmanac.com/topics/environment/soils-texas>



Adequacy of Public Utilities

For existing developed land, utilities are available. However, future growth and aged facilities will necessitate the need for capital improvements to City utilities, as shown in the street, water, wastewater and storm drainage elements of this

plan. Historically, the City has been able to use Texas Community Development Block Grant Funds to help offset the costs of these improvements. It is anticipated that these funds will be available to the City in the future.

Adequacy of Public Facilities

Many of the City's public facilities are in adequate condition. The recommended improvements to the city's public facilities will be discussed in the City's Utility Studies.

Storm Drainage Problem Areas

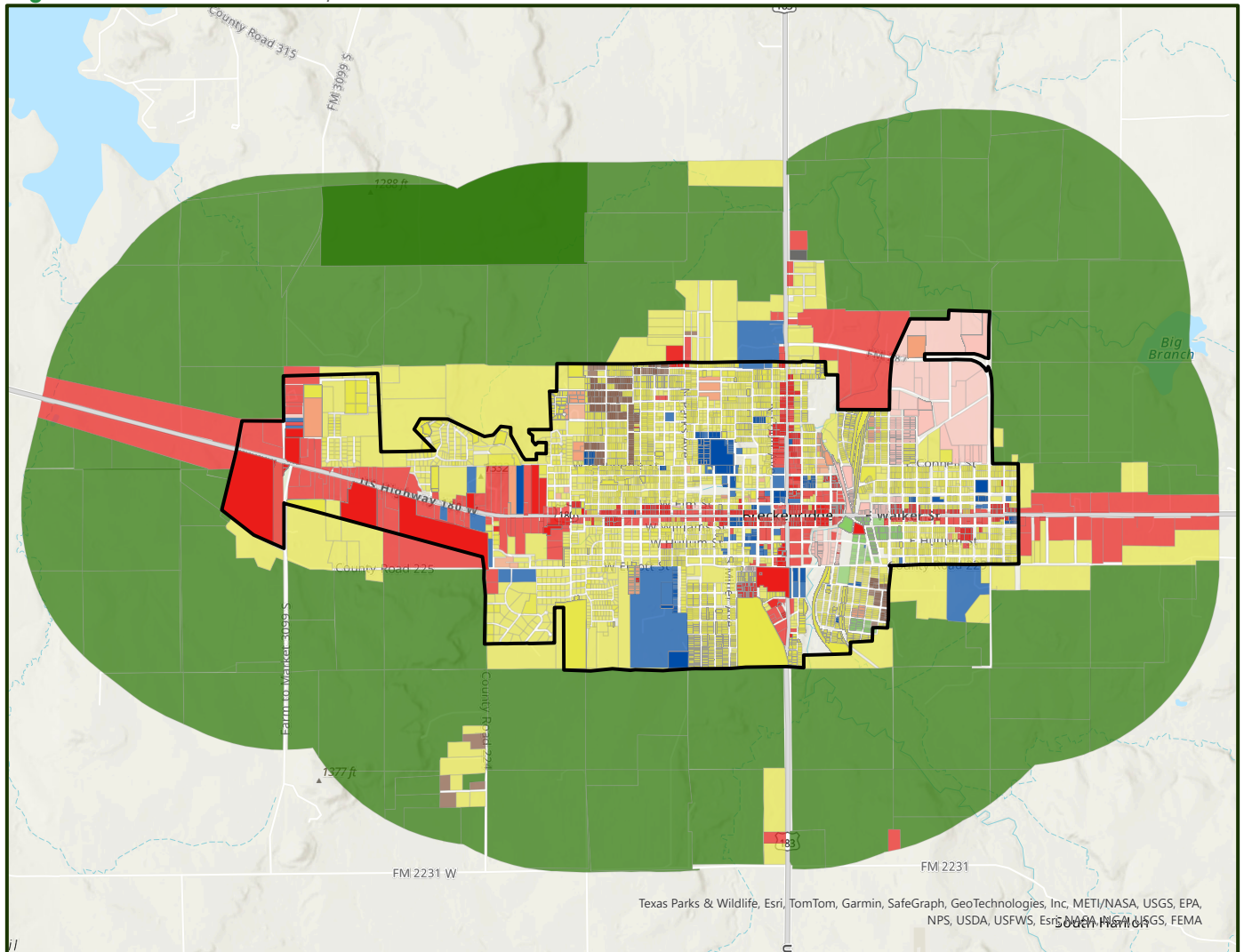
Historically, most storm drainage problems, when they occur, are a result of water bodies being at flood stage. The 100-year floodplain within the City covers about 33% of the area. A majority of the land use in these areas is undeveloped, either vacant or for agricultural uses. However, some of the 100-year flood area encompasses some residential areas. It is

important for the City to strive to keep residential uses out of floodplain areas.

Natural and Man-Made Constraints

The following features are considered natural constraints to development in the Breckenridge area: The 100-year floodplain restricts the possibility of development in certain parts of the area. The following constraints are considered man-made constraints to development: US 180, US 183, FM 287 and FM 3099, utilities and power lines. These roadways help shape development and can be positive, as retail and industrial development tends to occur near the highways.

Figure 4.2 Future Land Use Map



Land Use Plan (Goals & Objectives)

Goal 1: Improve infrastructure to accommodate the current corporate limits.

Objective 1: Follow the recommendations in the water, wastewater, streets and storm drainage elements of this comprehensive plan.

Timeline for completion: (2023-2035)

Objective 2: Pursue methods of financing these infrastructure improvements.

Timeline for completion: (2023-2035)

- A. Texas Community Development Block Grant Program (TxCDBG)-This provides funding for infrastructure development. It should be noted that these funds can only be utilized in the City's low-to-moderate income areas.
- B. Texas Water Development Board-The Texas Water Development Fund is used to provide loans to eligible applicants for the construction of local or regional water supply, wastewater treatment, flood control, and municipal solid waste management projects. This includes such facilities as water wells, transmission mains, storage tanks, and water and sewage treatment plants. The City should always compare private bond option before proceeding with Texas Water Development Board funds.
Source: <http://www.twdb.state.tx.us/>
- C. General obligation Bond Sales, Certificates of Obligation
- D. USDA Rural Development

Goal 2: Promote an aesthetically pleasing, durable, and safe living environment for present and future residents.

Objective 1: Increase code enforcement efforts.

Timeline for completion: (2024-2040)

Objective 2: Adopt the zoning ordinance that is part of this plan. The zoning ordinance tool will allow the City to protect its residential areas from non-compatible land use encroachment.

Timeline for completion: (2024-2025)

Land Use Plan (Goals & Objectives)

Objective 3: Adopt the subdivision regulations that are part of this plan.

Timeline for completion: (2024-2025)

Objective 4: Continue to clear unsightly and dilapidated buildings and/or cluttered lots that are fire hazards and eyesores, and encourage the restoration of older buildings and houses that are in good condition.

Timeline for completion: (2024-2040)

Goal 3: Preserve open spaces within the current corporate limits and the existing extra territorial jurisdiction (ETJ).

Objective 1: Strictly enforce the City's subdivision ordinance and ensure that future developments provide provisions for public spaces.

Timeline for completion: (ongoing)

Objective 2: Designate natural areas for use as nature parks, plant and wildlife conservation areas and greenbelts, throughout the city.

Timeline for completion: (ongoing)

Goal 4: Encourage the development of projects that provide beneficial economic opportunities for local residents without destroying the existing physical environment.

Objective 1: Strive to provide incentives such as tax breaks and development agreements to encourage businesses to invest in Breckenridge (via BEDC).

Timeline for completion: (ongoing)

Objective 2: Promote public and private sector economic development projects on the vacant undeveloped land and/or agricultural land.

Timeline for completion: (ongoing)



STREET SYSTEM

Introduction

The City has an extensive street system serving all modes of travel including passenger vehicles, trucks, bicycles and pedestrians. The Street System Plan is an interconnected network of "complete streets" that accommodates all modes of travel for users of all ages and abilities and safely connects people with their intended destination.

The City's street network is well established and requires extensive maintenance and management to maintain adequate levels of service. Appropriately designed streets improve the functionality of the traffic network and improve the drivability of the multiple classifications of roadways.

Street thoroughfares and rights-of-way occupy a significant amount of the City's total developed area and allow for circulation between all areas within the city. In addition to the movement of traffic, streets provide access to and drainage for abutting properties, open space between buildings, and right-of-way for various utilities. Efficiently designed streets also minimize and better manage the amount of stormwater runoff that directly impacts the

neighborhoods and parks within the service area along with the water quality in nearby streams.

A street system plan is an essential guide to ensure future growth and development will be accomplished in a uniform, orderly manner. The purpose of this planning effort is to provide more detail concerning future street development and rehabilitation/reconstruction of existing roadways.

Street System Survey

A street system plan is an essential guide to ensure future growth and development will be accomplished in a uniform, orderly manner. The purpose of this planning effort is to provide more detail concerning future street development and rehabilitation/reconstruction of existing roadways.

Prior Studies

A street system plan is an essential guide to ensure future growth and development will be accomplished in a uniform, orderly manner. The purpose of this planning effort is to provide more detail concerning future street development and rehabilitation/reconstruction of existing roadways.

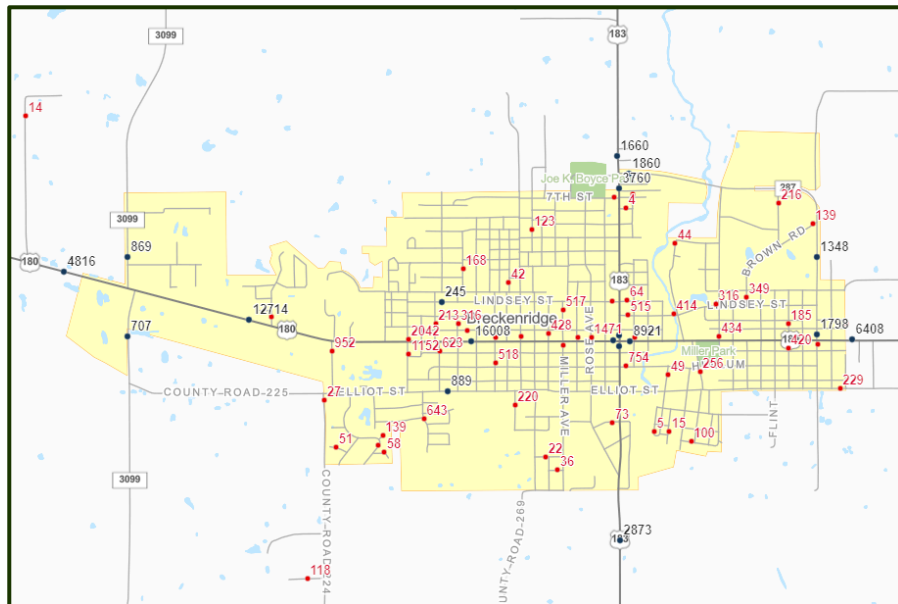


Figure 5.1 2022 TXDOT Average Annual Traffic Counts

Analysis

Inventory from Field Survey

Local roadways within the City vary in pavement width from 35' to 60' in some areas. The main thoroughfares are wider. The paved City streets are both asphalt and concrete with limited curb and gutters, open drainage channels with some areas of underground drainage.

Street Deterioration and Causes

Adequate pavement maintenance is a significant challenge for all cities of this size due to insufficient funding, labor and material costs and staff shortages. Many of the City's streets have deteriorated over time primarily due to insufficient maintenance to seal pavement cracks, which have led to moisture intrusion of the sub-base. When moisture saturates the base material, the structure weakens and potholes begin to form. The pavement structure becomes even more deteriorated during freeze and thaw cycles. Eventually, the roadway requires more than routine maintenance and a rehabilitation project is necessary.

Another cause of deterioration is the routine presence of heavily loaded traffic. Depending on the loading configuration, trash trucks often time contribute highly to the shortened life span of City streets.

When new streets are constructed or existing streets are rehabilitated, it is very important to perform pavement maintenance activities in the years that follow. By sealing cracks that form within the first one (1) to three (3) years after paving, the life of the roadway can be extended significantly. Maintenance activities such as sealcoat and crack sealing are very useful. In addition, grading ditches and cleaning

curbs help to prevent water from standing on the pavement section. In doing so, the life of the pavement will be extended.

Types of Street Improvements

1. Pavement Level-Up: process of adding hot mix asphaltic concrete (HMAC) or hot/cold laid asphaltic concrete to depression within the roadway to restore a level surface.
2. Sealcoat: application of liquified asphalt cement to the roadway surface and then overlaid with aggregate and rolled. The process seal cracks within the pavement surface and restores friction course of the driving surface. Typically, the recommended frequency for sealcoating City streets is every 7-10 years, depending upon pavement surface conditions.
3. Point Repairs: excavation of failed pavement sections to a depth of eight inches (8"), backfilled with six (6) to eight inches (8") of crushed limestone, primed and sealed with a coarse surface treatment. (used to treat potholes and other imperfections and roadway hazards).
4. Hot Mix Overlay: depending on the pavement surface condition, approximately one inch (1") of surface is milled off the existing roadway. The remaining surface material is then overlaid with a minimum of one and one-half to two inches (1.5" to 2") of hot mix asphaltic concrete (HMAC) or hot mix/cold laid asphaltic concrete, followed by a surface treatment. (used to completely replace the surface material of a street to address pavement deterioration and extend street life)
5. Identification of evacuation routes in times of disaster which will include multiple routes depending on where the disaster occurs.

Types of Street Improvement Financing

Typically, the City finances street improvements through the budgetary process. In May 2024, the City residents voted to re-enact a 0.25% street maintenance sales tax. Other financing methods include the issuance of bonds or certificates of obligation.

List and ranking of street system problems are as follows:

1. Limited budget and staff for repairs and maintenance.
2. Improper drainage at intersections, leading to base failure and development of potholes.
3. Gutters blocked by silt and grass which prevents storm water from leaving the roadway.
4. Drainage channels and bar-ditches silted in preventing proper drainage.
5. Oxidized and cracked pavement surface leading to moisture intrusion on many roadways causing potholes to develop.

Table 5.1 lists all streets within the City's corporate limits together with the width of traveled surface, type of surface, drainage method, and general condition. Exhibit "5A" is a thoroughfare map and Exhibit "5B" is a map of the road condition assessment. The above-mentioned thoroughfare and street condition classifications can generally be defined as follows:

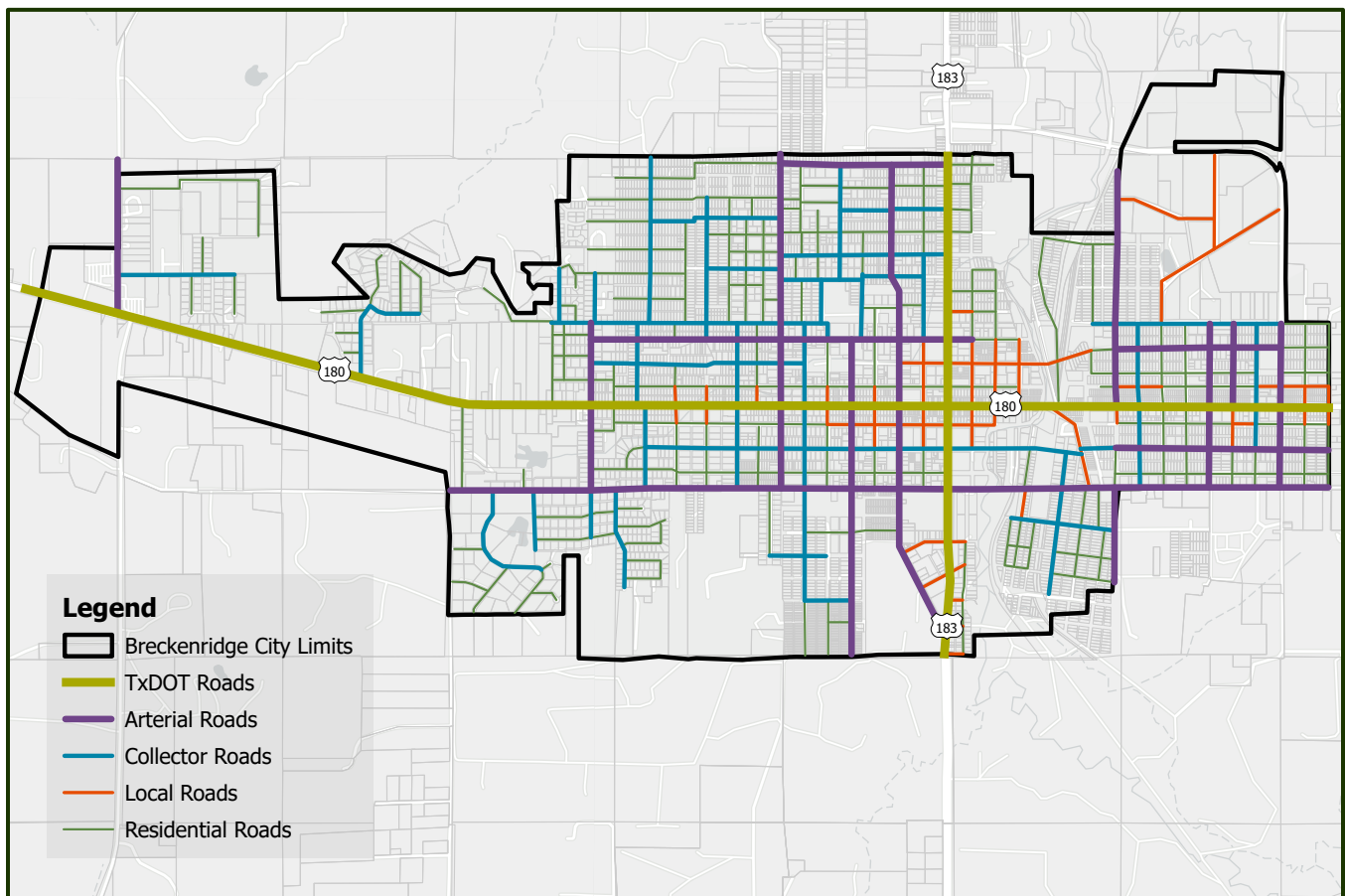


Exhibit 5A THOROUGHFARE MAP

Table 5.1 - Street Inventory

Street Name	Street Material	Street Condition	Pavement Width	ROW Width	Curb and Gutter	Ditches
CACTUS COVE	ASPHALT	FAIR	30	60	EAST OF MEDINA CT	WEST OF MEDINA CT
MEDINA CT	ASPHALT	FAIR	30		Y	N
GASTON CT	ASPHALT	FAIR	30		Y	N
NORTHGLEN RD	ASPHALT	FAIR	18		N	Y
PENBROOK ST	ASPHALT	GOOD	30		Y	N
SHA LN	ASPHALT	GOOD	30		Y	N
SAGE ST	ASPHALT	GOOD	30		Y	N
YUCCA DR	ASPHALT	GOOD	30		Y	N
RIDGE RD	ASPHALT	GOOD	30		Y	N
SUNSET BLVD	ASPHALT	GOOD	25		N	Y
MITCHELL AVE	ASPHALT	POOR	25		N	N
CHAPARRAL LN	ASPHALT	FAIR	25		N	Y
SURREY LN	ASPHALT	FAIR	20		N	Y
LONDON LN	ASPHALT	FAIR	20		N	Y
WILLOWICK LN	ASPHALT	FAIR	25		N	Y
LONDON CIR	ASPHALT	FAIR	25		N	Y
FRIAR TUCK LN	ASPHALT	FAIR	25		N	Y
SCENIC DR	ASPHALT	FAIR	15		N	N
CYPRESS ST	ASPHALT	FAIR	30		Y	N
SYCAMORE CIR	ASPHALT	FAIR	30		Y	N
HUNTERS GLEN ST	ASPHALT	FAIR	25		N	Y
GLENWOOD CIR	ASPHALT	FAIR	30		Y	N
RENEE ST	ASPHALT	FAIR	30		Y	N
MISTLETOE AVE	ASPHALT	FAIR	30		Y	N
DALLAS ST	ASPHALT	FAIR	15	60	N	Y
SAN ANTONIO ST	ASPHALT	FAIR	15		N	Y
WACO ST	ASPHALT	GOOD	15		N	Y
W COTTAGE ST	ASPHALT	FAIR	15		N	Y
POWER ST	ASPHALT	FAIR	15		N	Y

Source: 2023 Field Survey

Table 5.1 - Street Inventory

Street Name	Street Material	Street Condition	Pavement Width	ROW Width	Curb and Gutter	Ditches
E VALLEY DR	ASPHALT	FAIR	15		N	Y
E ABERDEEN ST	ASPHALT	FAIR	15		N	Y
E PARRISH ST	ASPHALT	POOR	15		N	Y
COTTAGE ST	ASPHALT	GOOD	15		N	Y
E COTTAGE ST	ASPHALT	FAIR	15		N	Y
E POWER ST	ASPHALT	GOOD	25		WEST OF O CONNOR ST	EAST OF O CONNOR ST
E GADDIS ST	ASPHALT	GOOD	15		N	Y
DUNNINGHAM AVE	ASPHALT	FAIR	25		Y	N
O CONNOR ST	ASPHALT	GOOD	25		N	Y
STOKER AVE	ASPHALT	POOR	15		N	Y
S BUTTE ST	ASPHALT	POOR	15		N	Y
ROBERT AVE	ASPHALT	FAIR	15		N	Y
GEORGE AVE	ASPHALT	FAIR	20		N	Y
JAMES AVE	ASPHALT	GOOD	20		N	Y
E ELLIOT ST	ASPHALT	GOOD	20		N	Y
E WHEELER ST	ASPHALT	POOR	20		N	Y
E HULLUM ST	ASPHALT	POOR	25		Y	N
E WILLIAMS ST	ASPHALT	FAIR	25		WEST OF S GENEVA	EAST OF S GENEVA
W ELLIOT ST	ASPHALT	VARIABLE	30		Y	N
W WHEELER ST	ASPHALT	POOR	30		Y	N
W HULLUM ST	ASPHALT	POOR	30		Y	N
W WILLIAMS ST	ASPHALT	VARIABLE	30		Y	N
W ELM ST	ASPHALT	VARIABLE	25		Y	N
W DYER ST	ASPHALT	POOR	30		Y	N
W LINDSEY ST	CONCRETE/ ASPHALT	VARIABLE	30		Y	N
W JEANNETTE ST	CONCRETE/ ASPHALT	FAIR	30	45	Y	N
W 1ST ST	ASPHALT	FAIR	20		N	Y
W 2ND ST	ASPHALT	FAIR	20	45	N	Y

Source: 2023 Field Survey

Table 5.1 - Street Inventory

Street Name	Street Material	Street Condition	Pavement Width	ROW Width	Curb and Gutter	Ditches
W 3RD ST	CONCRETE/ ASPHALT	FAIR	25		N	Y
W 4TH ST	ASPHALT	FAIR	25		N	Y
W 5TH ST	ASPHALT	FAIR	25		Y	N
W 6TH ST	ASPHALT	FAIR	20		N	Y
W 7TH ST	ASPHALT	GOOD	30		Y	N
E 1ST ST	ASPHALT	FAIR	30		Y	N
E 2ND ST	ASPHALT	FAIR	30		Y	N
E 3RD ST	ASPHALT	FAIR	15		N	Y
E 4TH ST	ASPHALT	FAIR	15		N	Y
E 5TH ST	ASPHALT	FAIR	15		N	Y
E 6TH ST	ASPHALT	FAIR	15		N	Y
E 7TH ST	ASPHALT	GOOD	15		N	Y
TEXAS ST	GRAVEL	POOR	15		N	Y
E ELM ST	CONCRETE	FAIR	50		Y	N
E DYER ST	CONCRETE/ ASPHALT	VARIABLE	40		WEST OF FRONT AVE	EAST OF FRONT AVE
E LINDSEY ST	CONCRETE/ ASPHALT	VARIABLE	30		Y	N
E CONNELL ST	CONCRETE/ ASPHALT	FAIR	15-30		EAST OF DUBOIS ST	WEST OF DUBOIS ST
E STEVENSON ST	ASPHALT	FAIR	20		N	Y
DAVIS RD	ASPHALT	VARIABLE	20		N	Y
BROWN RD	ASPHALT	POOR	20		N	Y
INDUSTRIAL PKWY	ASPHALT	FAIR	25		N	Y
INDUSTRIAL LOOP FM 287	ASPHALT	GOOD	40		N	Y
N DAIRY	ASPHALT	FAIR	20		N	Y
WESTWOOD ST	ASPHALT	GOOD	30		Y	N
N HARDING ST	ASPHALT	VARIABLE	30		Y	N
N WILSON ST	ASPHALT	POOR	20		N	Y
S WILSON ST	ASPHALT	POOR	20		N	Y

Source: 2023 Field Survey

Table 5.1 - Street Inventory

Street Name	Street Material	Street Condition	Pavement Width	ROW Width	Curb and Gutter	Ditches
N HARVEY	ASPHALT	FAIR	25		SOUTH OF W DYER ST	NORTH OF W DYER ST
S HARVEY	ASPHALT	VARIABLE	25		Y	N
N PECAN ST	ASPHALT	VARIABLE	20		SOUTH OF W DYER ST	NORTH OF W DYER ST
S PECAN ST	ASPHALT	FAIR	25		SOUTH OF W HULLUM	NORTH OF W HULLUM
N OAKWOOD ST	ASPHALT	FAIR	20		N	Y
S OAKWOOD ST	CONCRETE	POOR	30		Y	N
N SHELTON ST	ASPHALT	FAIR	20		N	Y
S SHELTON	CONCRETE	FAIR	30		Y	N
N DOUGLAS AVE	ASPHALT	VARIABLE	25		N	Y
S DOUGLAS AVE	ASPHALT	FAIR	20		N	Y
S PARKS ST	ASPHALT	POOR	25		NORTH OF W HULLUM	SOUTH OF W HULLUM
N PARKS ST	CONCRETE	GOOD	25		Y	N
N LIVE OAK	ASPHALT	GOOD	25		N	Y
S LIVE OAK	ASPHALT	VARIABLE	25		N	Y
N SMITH ST	ASPHALT	FAIR	25		N	Y
S SMITH ST	ASPHALT	FAIR	20		N	Y
N MILLER	ASPHALT	VARIABLE	25		Y	N
S MILLER ST	ASPHALT	VARIABLE	30		NORTH OF W HULLUM	SOUTH OF W HULLUM
N MCAMIS ST	ASPHALT	VARIABLE	25		Y	N
S MCAMIS ST	CONCRETE/ ASPHALT	VARIABLE	30		Y	N
S ROSE AVE	ASPHALT	POOR	30		NORTH OF W ELLOIT	SOUTH OF W ELLIOT
N ROSE AVE	ASPHALT	GOOD	30		Y	N
S COURT ST	ASPHALT	POOR	30		Y	N
N COURT ST	ASPHALT	FAIR	20		SOUTH OF W LINDSEY	NORTH OF W LINDSEY
RIDGEWAY CIR	ASPHALT	GOOD	30		Y	N
WESTRIDGE CIR	ASPHALT	GOOD	30		Y	N
N HEIGHT CIR	ASPHALT	POOR	30		Y	N

Source: 2023 Field Survey

Table 5.1 - Street Inventory

Street Name	Street Material	Street Condition	Pavement Width	ROW Width	Curb and Gutter	Ditches
N PAYNE	ASPHALT	POOR	20		NORTH OF W 5TH ST	SOUTH OF W 5TH ST
N ALBANY AVE	CONCRETE/ ASPHALT	FAIR	20-30		NORTH OF E STEVENSON	SOUTH OF E STEVENSON
N CAMDEN ST	ASPHALT	GOOD	20		N	Y
S CAMDEN ST	ASPHALT	FAIR	25		NORTH OF E HULLUM	SOUTH OF E HULLUM
N DUBOIS ST	ASPHALT	POOR	25		Y	N
S DUBOIS ST	ASPHALT	POOR	20		N	Y
N EASTON ST	CONCRETE	VARIABLE	30		Y	N
S EASTON ST	ASPHALT	FAIR	20		NORTH OF E WILLIAMS ST	SOUTH OF E WILLIAMS ST
N FLINT ST	CONCRETE/ ASPHALT	VARIABLE	25		Y	N
S FLINT ST	CONCRETE	POOR	30		Y	N
N GENEVA ST	ASPHALT	FAIR	25		N	Y
S GENEVA ST	ASPHALT	FAIR	25		NORTH OF E HULLUM	SOUTH OF E HULLUM
N HARTFORD ST	CONCRETE	FAIR	30		Y	N
S HARTFORD ST	ASPHALT	FAIR	25		Y	N
N IOWA AVE	ASPHALT	GOOD	20		N	Y
S IOWA AVE	ASPHALT	GOOD	25		Y	N
N JACKSON RD	ASPHALT	FAIR	20		N	Y
S JACKSON RD	ASPHALT	FAIR	25		Y	N
OLD CADDO AVE	ASPHALT	FAIR	25		NORTH OF E HULLUM	SOUTH OF E HULLUM
BAYLOR AVE	CONCRETE/ ASPHALT	POOR	30		Y	N
MERRILL ST	CONCRETE/ ASPHALT	VARIABLE	15-25		SOUTH OF E LINDSEY	NORTH OF E LINDSEY
VEALE AVE	ASPHALT	POOR	30		N	Y

Source: 2023 Field Survey

Definitions

“Good” - relatively smooth surface, without major potholes, well maintained, and well drained.



“Fair” - rough surface, potholes patched during periodic maintenance, less stable sub grade associated with poorer drainage, but can be traveled comfortably at a reasonable speed.

“Poor” - very rough or unpaved surface, open potholes, unstable sub grade associated with poor drainage or lack of maintenance, and cannot be traveled comfortably.



Street System (Goals & Objectives)

Goal 1: Develop adequate funding resources to “catch-up” on street pavement improvements and develop financial strategies to provide sufficient annual street maintenance to extend the service life of these improvements. Refer to Exhibit “5C” for recent and proposed paving improvement projects.

Completed: In 2023, the City issued Certificates of Obligation (CO's) to accomplish a significant amount of street paving improvements.

Costs: \$1,100,000 (approximate)

Objective 1: Phase I – Paving Improvements (see Table 5.1)

Probable Costs:\$5,050,000

(Timeline: 2024-2025)

Objective 2: Phase II – Paving Improvements (See Table 5.2)

Probable Costs: \$2,200,000

(Timeline: 2025-2028)

Objective 3: Enforce subdivision ordinances so that design standards are met in new developments.

(Timeline: currently implemented)

Objective 4: Develop annual pavement maintenance program (including sealcoat, ditch grading, silt/grass removal from gutters, etc.)

Probable Costs:\$75,000 - \$150,000 / year

(Timeline: under development)

Goal 1: Provide for roadways that can serve as evacuation routes during times of disasters.

Objective 1: Complete the street system capital improvements as outlined in

(Timeline-2024-2029)

Long-Term Initiatives (2028 and Beyond)

- Update the city's "Existing Street Conditions" map in 2029.
- Continue to utilize the City's Street Maintenance Sales Tax for routine maintenance and minor repairs on streets not listed in the Capital Improvements Schedule.
- Prepare a new street system capital improvement plan for the years 2030-2035.

Street System (Goals & Objectives)

Long-Term Initiatives (2028 and Beyond)

- Update the city's "Existing Street Conditions" map in 2029.
- Continue to utilize the City's Street Maintenance Sales Tax for routine maintenance and minor repairs on streets not listed in the Capital Improvements Schedule.
- Prepare a new street system capital improvement plan for the years 2030-2035.

Funding Sources

The sources of funding for street improvements may come from the following:

- A. Street Maintenance Sales Tax;
- B. City general fund revenues;
- C. Certificates of Obligations and/or Bond Issuances;
- D. TXDOT;
- E. Private developers for future development;
- F. Stephens County

Table 5.2 - Street System Capital Improvements, Phase I, (2024-2026)

Pg. 1

Item No.	Description	Estimated Quantity	Unit	Rate	Amount
Section 1					
1A	Stoker	820	LF	\$ 65.00	\$ 53,300.00
1B	Gaddis	3020	LF	\$ 65.00	\$ 196,300.00
1C	Intersections	10	EA	\$ 1,800.00	\$ 18,000.00
Section 2					
2A	Flint	1320	LF	\$ 75.00	\$ 99,000.00
2B	Dyer	2500	LF	\$ 70.00	\$ 175,000.00
2C	Veale	1025	LF	\$ 85.00	\$ 87,125.00
2D	Intersections	18	EA	\$ 1,800.00	\$ 32,400.00
Section 3					
3A	Harvey	2640	LF	\$ 70.00	\$ 184,800.00
3B	Oakwood	1960	LF	\$ 70.00	\$ 137,200.00
3C	Panther	1970	LF	\$ 65.00	\$ 128,050.00
3D	Shelton	2970	LF	\$ 70.00	\$ 207,900.00
3E	Payne	1820	LF	\$ 75.00	\$ 136,500.00
3F	Fourth	5280	LF	\$ 75.00	\$ 396,000.00
3G	Third	4110	LF	\$ 75.00	\$ 308,250.00
3H	Second	4420	LF	\$ 70.00	\$ 309,400.00
3I	Intersections	58	EA	\$ 1,800.00	\$ 104,400.00
Section 4					
4A	Harding	1330		\$ 90.00	\$ 119,700.00
4B	Williams	2625		\$ 85.00	\$ 223,125.00
4C	Hullum	4820		\$ 80.00	\$ 385,600.00
4D	Pecan	1000		\$ 75.00	\$ 75,000.00
4E	Harvey	1280		\$ 275.00	\$ 352,000.00
4F	Oakwood	1280		\$ 85.00	\$ 108,800.00
4G	Intersections	41	EA	\$ 1,800.00	\$ 73,800.00

Source: 2023 Field Survey

Table 5.2 - Street System Capital Improvements, Phase I, (2024-2026)

Item No.	Description	Estimated Quantity	Unit	Rate	Amount
	Paving Improvements				\$ 3,912,000.00
	Mobilization, Bonds, Insurance				\$ 196,000.00
	Allowance for Manhole Rim / Water Valve Adjustments				\$ 50,000.00
	Allowance for Curb and Gutter Repair				\$ 50,000.00
	Subtotal Estimated Construction Costs				\$ 4,208,000.00
	Contingency (20%)				\$ 841,600.00
	Estimated Construction Costs Subtotal				\$ 5,050,000.00

Source: 2023 Field Survey

Table 5.3 - Street System Capital Improvements, Phase II, (2026-2028)

Pg. 1

Item No.	Description	Estimated Quantity	Unit	Rate	Amount
Section 1					
1A	Panther	2000	LF	\$ 75.00	\$150,000.00
1B	5th	800	LF	\$ 75.00	\$ 60,000.00
1C	Elm	4500	LF	\$ 75.00	\$337,500.00
1D	McAmis	530	LF	\$ 75.00	\$ 39,750.00
1E	Intersections	40	EA	\$ 2,000.00	\$ 80,000.00
Section 2					
2A	Williams	2650	LF	\$ 75.00	\$198,750.00
2B	Intersections	15	EA	\$ 2,000.00	\$ 30,000.00
Section 3					
3A	Butte	890	LF	\$ 75.00	\$ 66,750.00
3B	Elm	4000	LF	\$ 75.00	\$300,000.00
3C	Intersections	24	EA	\$ 2,000.00	\$ 48,000.00
Section 4					
4A	Wheeler	3400	LF	\$ 75.00	\$255,000.00
4G	Intersections	20	EA	\$ 2,000.00	\$ 40,000.00
	Paving Improvements				\$ 1,606,000.00
	Mobilization, Bonds, Insurance				\$ 81,000.00
	Allowance for Manhole Rim / Water Valve Adjustments				\$ 50,000.00
	Allowance for Curb and Gutter Repair				\$ 50,000.00
	Subtotal Estimated Construction Costs				\$ 1,787,000.00
	Contingency (20%)				\$ 357,400.00
	Estimated Construction Costs Subtotal				\$ 2,200,000.00

Source: 2023 Field Survey

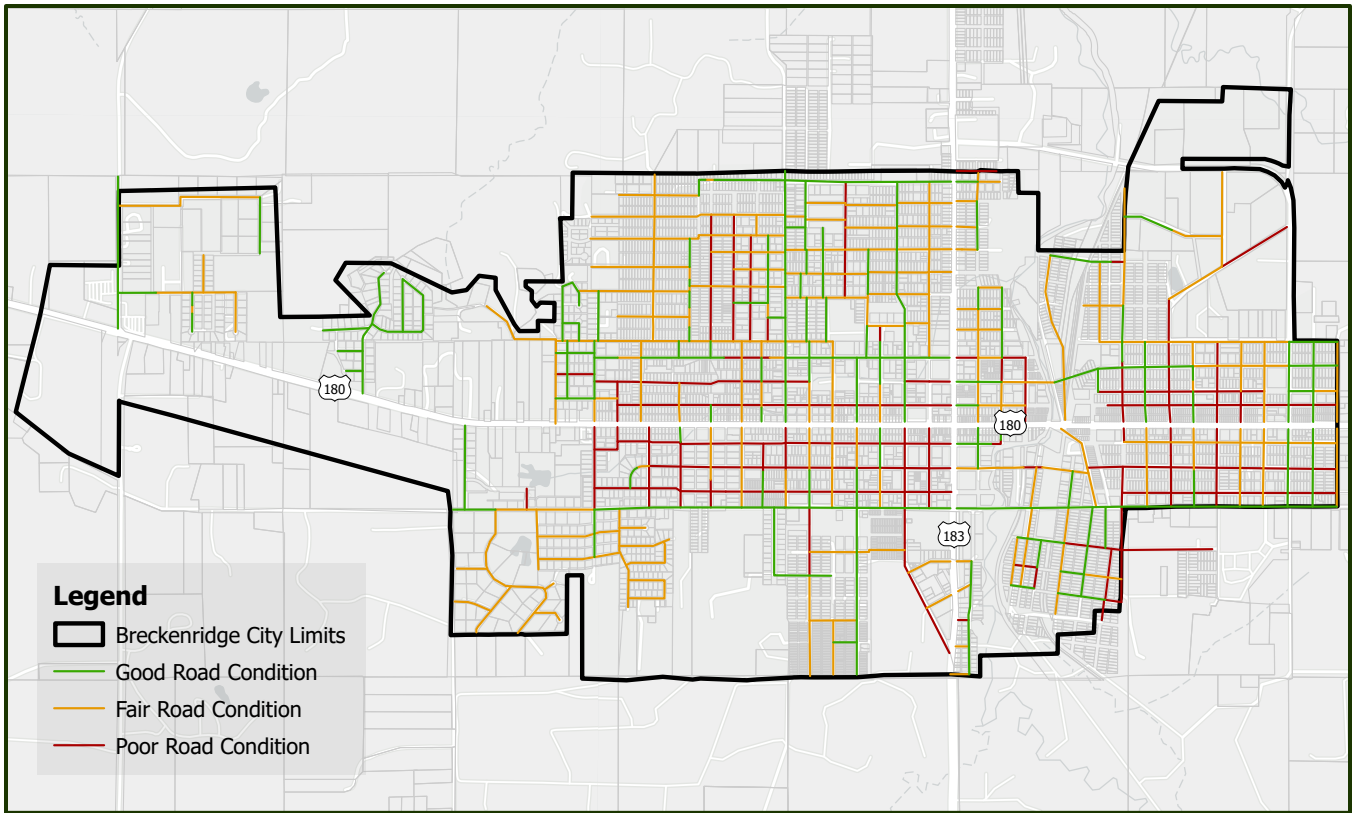


Exhibit 5B ROAD CONDITIONS MAP

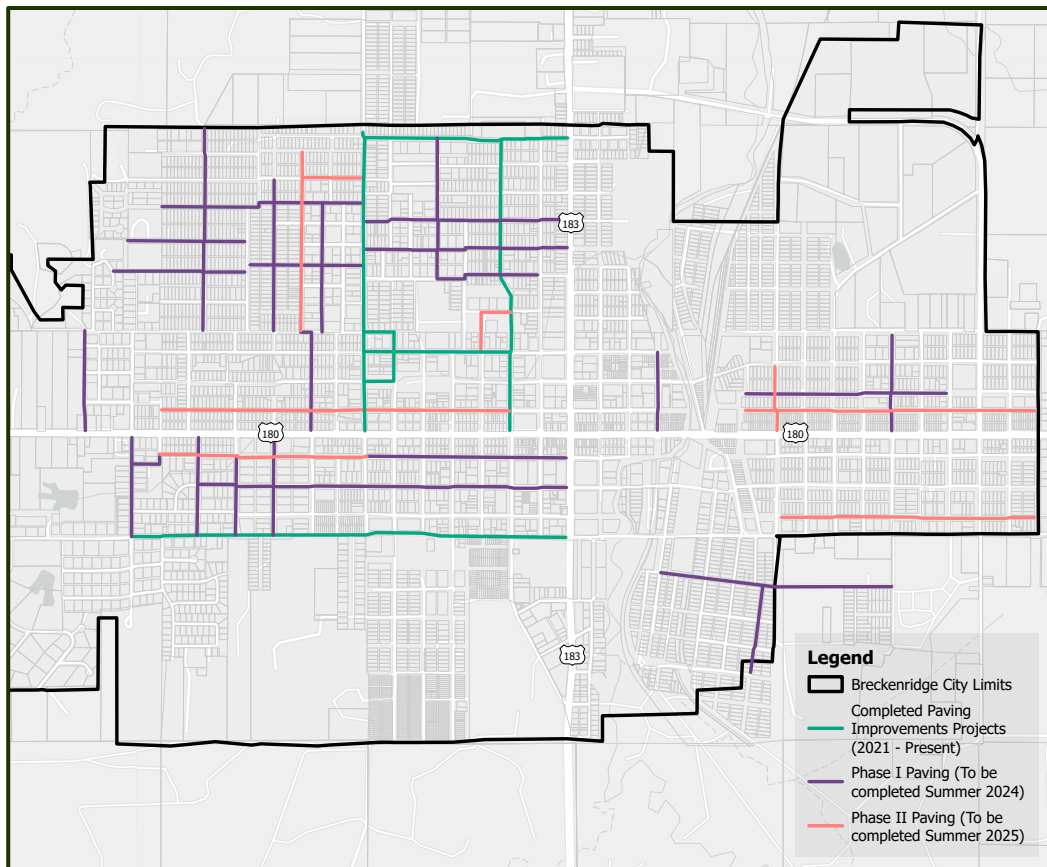


Exhibit 5C PROPOSED STREET SYSTEM IMPROVEMENTS



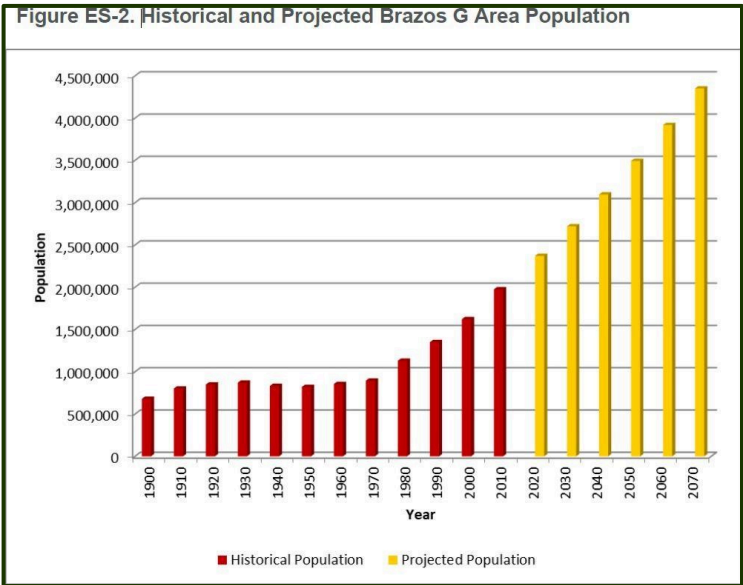
WATER SYSTEM

Introduction

The City is a member of Region "G" with the Texas Water Development Board (TWDB), as part of the state water planning process as required by Senate Bill 1. Stretching from the piney woods of Grimes County in the southeast to the rolling plains of Kent County in the northwest, the Brazos G Regional Water Planning Area includes all or parts of 37 counties. Over 90 percent of the region lies within the Brazos River Basin, with the Brazos River being the region's primary source of water. The largest economic sectors in the region are service, manufacturing, and retail trade. Major cities in the region include Abilene, Bryan, College Station, Killeen, Round Rock, Temple, and Waco.

Since 1957, the Texas Water Development Board (TWDB) has been charged with preparing a comprehensive and flexible long-term plan for the development, conservation, and management of the state's water resources. The current state water plan, Water for Texas, January 2017, was produced by the TWDB and based on approved regional water plans pursuant to requirements of Senate Bill 1 (SB1), enacted in 1997 by the 75th Legislature, and further modified by subsequent legislation. On October 28, 2020, the Brazos G Regional Water Planning Group approved the 2021 Brazos G Regional Water Plan and directed the Brazos River Authority and HDR Engineering, Inc. to submit the approved plan to the Texas Water Development Board. The planning horizon to be used is the 50-year period from 2020 to 2070. This planning period allows for long-term forecast of future water demands and supplies sufficiently in advance of needs to allow for appropriate water management measures to be implemented. As required by statute, the TWDB has promulgated planning rules and guidelines to focus the efforts and to provide for general consistency among the planning areas so that the regional plans can then be aggregated into the overall State Water Plan.

Streamflow in the Brazos River and its tributaries, along with reservoirs in the Brazos River Basin, Colorado River Basin, and Trinity River Basin, comprise the surface water supply of the Brazos G Area. Diversions and use of this surface water occur throughout the entire area. However, the supply of surface water varies greatly through the area due to the large variation in rainfall and a correspondingly large variation in evaporation rates. The principal tributaries to the Brazos River in the planning area are the Clear Fork, the Double Mountain Fork, the Salt Fork, Bosque River, Little River, Navasota River, Little Brazos River and Yegua Creek. Major water supply reservoirs are owned by the BRA (three in the planning area), U.S. Army Corps of Engineers (nine in the area), West Central Texas MWD, the City of Abilene, and Texas Utilities. The western part of the area is heavily dependent on surface water sources, largely due to limited quantities of groundwater.



Groundwater supplies in 21 counties in the Brazos G Area are regulated by 13 Groundwater Conservation Districts (GCDs). These GCDs are part of Groundwater Management Areas 6, 7, 8, 12, and 14, which are tasked with determining Desired Future Conditions (DFCs) and the Modeled Available Groundwater (MAG) for the jointly regulated aquifers in their areas. The MAG serves as the maximum annual supply that can be developed from an aquifer within a county for the purposes of regional water planning. Fifteen aquifers underlie parts of the Brazos G Area and, if developed fully, can provide a combined reliable supply of about 500,100 acft/yr, (2070 decade) based on the MAGs and other availability estimates for aquifers without a MAG estimate. The Seymour Aquifer supplies significant quantities of water in the western part of the region. Other aquifers that are depended on in the western part of the region are the Dockum and the Edwards-Trinity. The Trinity and Edwards-BFZ (Northern Segment) are heavily relied upon in the IH-35 corridor and to the west. In the eastern part of the region, the Carrizo-Wilcox is a prolific water supply with lesser amounts pumped from the Queen City, Sparta, and Brazos River Alluvium. The chart below illustrates the recommended strategies for meeting the regional demands throughout the planning period.

Table ES-4. Summary of Strategies and Projects Recommended for WUGs and/or WWP

Recommended Strategies and Projects	WUGs Receiving Supply ¹	Supply Developed						Total Project Cost
		2020	2030	2040	2050	2060	2070	
Municipal Conservation	100	0	23,441	45,098	64,776	86,273	103,439	\$614,324,416
Irrigation Conservation	20	8,308	13,848	18,980	18,898	19,139	19,139	ND
Industrial Conservation	33	1,689	3,027	3,785	3,775	3,858	4,024	ND
Leave Needs Unmet-Municipal	17	(17,082)						ND
Leave Needs Unmet – non-Municipal	21	(148,500)	(148,167)	(138,496)	(138,473)	(139,983)	(143,845)	ND
Purchase of Water/Voluntary Redistribution	19	3,106	2,059	1,864	1,984	2,872	5,639	ND
Increased or New WTP Capacity	12	8,603	21,240	27,326	27,294	26,409	26,181	\$270,297,000
Reuse	13	25,759	39,630	38,035	38,315	38,315	38,315	\$313,657,000
Blaine Groundwater	6	1,062	1,049	1,001	958	921	888	\$2,530,000
Cross Timbers Groundwater	5	878	878	878	878	878	878	\$1,954,000
Edwards Groundwater	3	757	740	734	585	585	1,200	\$2,798,000
Ellenburger-San Saba Groundwater	1	88	106	120	139	162	187	\$2,051,000
Gulf Coast Groundwater	5	1,965	2,187	1,853	1,539	1,250	1,212	\$9,526,359
Marble Falls Groundwater	1	211	203	195	198	201	204	\$2,054,000
Sparta Groundwater	2	25	25	663	663	663	663	\$5,164,000

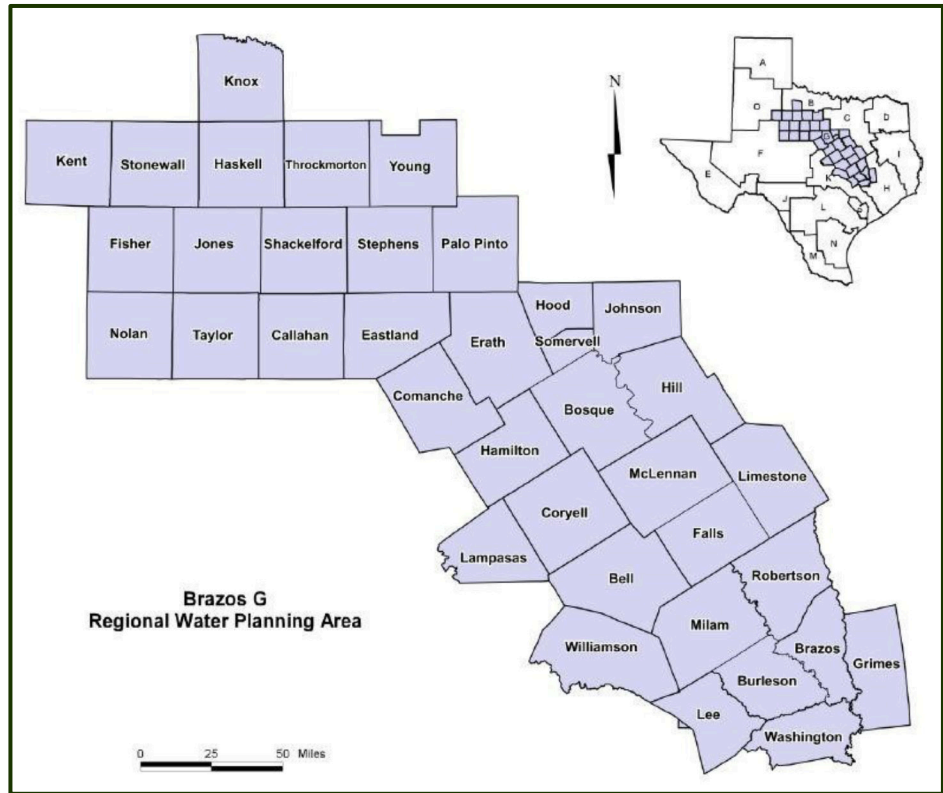
Regulation

Municipal water systems are influenced by rules of the Texas Commission on Environmental Quality, the Texas Fire Insurance Commission, and the Texas Public Utility Commission. The Texas Commission on Environmental Quality and Texas Fire Insurance Commission each exert a strong influence on municipal water systems.

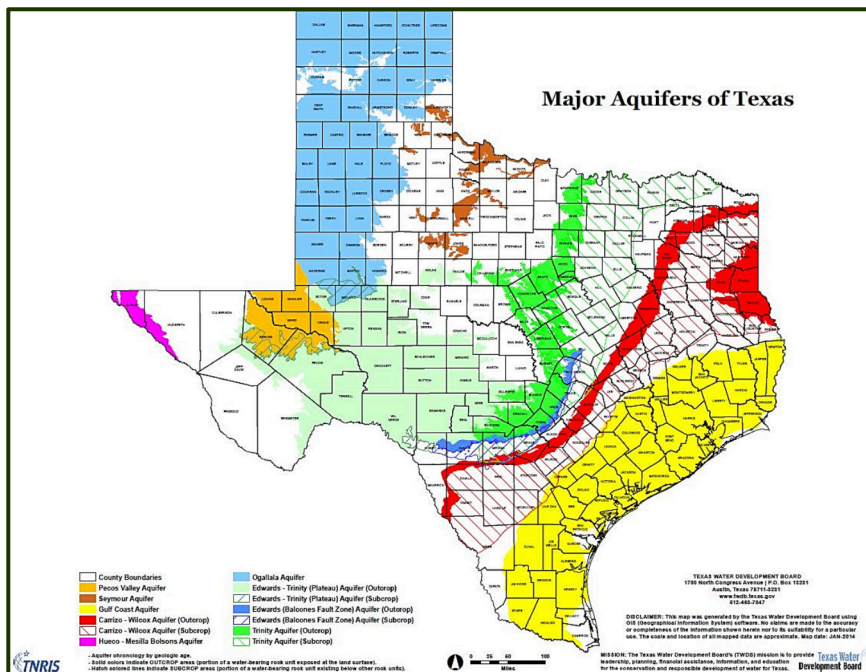
Prior Studies

The system was studied as part of overall comprehensive plans, utilizing funding from the Texas Community Development Program.

The studies included an inventory of the existing system, current mapping, an analysis of the system to meet current and future demands, and a water plan complete with goals, objectives and implementation strategies. In addition to this study, the Texas Commission on Environmental Quality conducts surveys on the City's system.



Maps and Figures



Existing Facilities

The water system is operated and maintained by the City of Breckenridge (City). Exhibit "A" illustrates the location of water lines, fire hydrants, storage facilities and the City's water treatment plant (WTP). The City purchases raw water from West Central Texas Municipal Water District (WCTMWD) that is delivered to the City's WTP from Hubbard Creek Reservoir. The City also owns and has the ability to access raw water from Lake Daniels through a gravity transmission main.

The City's WTP has a design capacity of 3.4 million gallons per day (MGD) or 2,361 gallons per minute (gpm). The WTP consists of a rapid mix basin, two 65-foot diameter clarifiers, two multi-media gravity filters, one 78,800-gallon transfer well, and a 1-million gallon (MG) ground storage tank clearwell. The high service pump station (HSPS) pulls water from the clearwell and pumps water throughout the distribution system and into the elevated storage tanks (EST). The EST's provide gravity pressure throughout the distribution system in accordance with TCEQ minimum capacity requirements. Capacities of the facilities are listed in the tables below.

Table 6.1: Existing Water Distribution Capacities

Type	Location	Capacity (gpm)
<u>City:</u> High Service Pump Station	WTP	4 @ 1400
<u>Prison:</u> Walker/Sayles Prison	Prison	2 @ 600
TOTAL PUMP CAPACITY:	Prison: 1,200 (gpm)	City: 5,600 (gpm)

Source: TCEQ Database

Table 6.2: Water Storage Capacities

Description	Capacity (gallons)
<u>City Storage</u>	
East Tower – Elevated	250,000
West Tower – Elevated	250,000
Clearwell #1 – WTP GST	1,000,000
<u>Prison:</u>	
Walker/Sayles Prison – Elevated	150,000
TOTAL STORAGE CAPACITY:	Prison: 150,000 Gallons City: 1,500,000 Gallons

Source: TCEQ Database

Analysis

Availability of Water

The City currently has the ability to utilize water from two nearby reservoirs, Hubbard Creek Reservoir (HCR) and Lake Daniel. Historically, a third water source was Lake Grand, which is approximately 2 miles northeast of the City. However, this lake is reported to have been abandoned as a drinking water supply reservoir because of "salt-water contamination" due to use in the past as a salt-water-disposal basin (Bayha 1964). Therefore, the City's existing water supplies are limited to HCR and Lake Daniel.

Hubbard Creek Reservoir

HCR is a large reservoir located in Stephens County approximately 5 miles west of the City on Hubbard Creek. The reservoir was constructed in 1962 (Bayha 1964) and is owned and operated by the WCTMWD. The WCTMWD has four member cities: Abilene, Albany, Anson, and Breckenridge. In the past, Lake Daniel was the City's primary water source, and raw water from Lake Daniel and HCR were blended in various combinations. Due to treatability issues with Lake Daniel, HCR has become the City's primary raw water source over the past years.

Existing Facilities: WCTMWD owns and operates HCR including the intake structure, raw water pump station, and a water transmission system for the delivery of raw water to its Member Cities and other customers.

Available Supply: HCR is currently about 51% full. WCTMWD contracts raw water from HCR to its Member Cities for municipal use and provides water to its Member Cities pursuant to a "take or pay" water contract between WCTMWD and each Member City which prescribes and limits the annual amount of water which such Member City may take from HCR depending on the water surface elevation of HCR.

Quality: Water quality in HCR is good, which allows for simple, conventional treatment to meet state and federal drinking water quality standards. In general, use of HCR water typically requires no advanced treatment to meet current state and federal quality requirements. Historically, if City operators wanted or needed to utilize water from both HCR and Lake Daniel, they maintained a small blending ratio of Lake Daniel with HCR water.

Lake Daniel

Lake Daniel is a small reservoir located approximately 8 miles south of the City on Gonzalez Creek (also known as Gunsolus Creek). The lake is owned and operated by the City, and was the City's primary water source from its construction in 1948 until the construction of HCR in 1962 (Bayha 1964). Since 1962, raw water from Lake Daniel and HCR have been blended in various combinations, although Lake Daniel has not been used for the last several years since HCR water has been better in quality and treatability.

Existing Facilities: Raw water from Lake Daniel flows by gravity from the intake structure at the lake to the WTP. City staff controls the flow of raw water from Lake Daniel to the City's WTP through operation of a raw water inlet control valve located at the WTP. The gravity line from Lake Daniel is capable of providing an instantaneous flow rate of up to approximately 2.0 mgd (HTI 2005).

Quality: Water quality in Lake Daniel has been problematic in the past, especially with regard to taste and odor in the water from the lower intake. Historically, City staff set the blending ratio of Lake Daniel with HCR water such that the Lake Daniel water was added until just prior to the point where the blended water began to take on objectionable taste or odor. These aesthetic issues are not surprising since Lake Daniel's lower intake is often the only one of the two intakes available. For example, at a water level of 1270 ft, the lake level is 8 ft below the upper intake opening, and the lower intake opening is 19 ft below the surface. While the top 5 ft of a lake is typically lower in turbidity and has a higher dissolved oxygen concentration due to natural wind mixing, deeper water tends to become somewhat anaerobic, which frequently results in elevated levels of iron, manganese, turbidity, and organic carbon.

Water Supply Requirements

The City provides treated water to domestic, commercial and industrial customers along with two (2) wholesale customers, Stephens Regional Special Utility District (SRSUD) and High Mesa Water Company. Projected water supply requirements are presented in Table 6.3. Future requirements were developed using projected population figures and a current average daily demand of 0.819 MGD, according to the Texas Drinking Water Watch from the TCEQ website. It is important to note that actual peak day usage in 2023 was 1.27 MGD, per the most recent TWDB Utility Profile. Often times there is a significant difference between a utility's actual usage versus the projected future usage based on TCEQ capacity requirements.

Table 6.3: Projected Water Requirements

Year	Population	Total Annual Demand (MG)	Daily Average Demand (MGD)	Projected Peak Day Demand (MGD)
2023	5,903	298.9	0.819	2.71
2030	6,130	309.1	0.847	2.81
2040	6,232	315.5	0.865	2.86
2050	6,298	318.9	0.874	2.89

Source: Texas Water Development Board (TWDB) Regional Water Plan

Ground Storage

The purpose of ground storage is to provide a large supply of water that the high service pumps may draw upon during periods of heavy demand or during a serious fire. The City has a total ground storage capacity of 1,000,000 gallons, which is sufficient throughout the planning period.

Elevated Storage

The function of elevated storage is to provide a pressurized water supply during power failures and to provide for short-term surges of demand. The City's current elevated storage capacity is 500,000 gallons plus an additional 150,000 gallons at the prison, which satisfies the current requirement for the present population and for the future population projected for the planning period.

Table 6.4: Water Storage Requirements

Year	Population (1)	Connection (2)	Total Required Storage (Gal) (3)	Total Required Elevated Storage (Gal) (4)
2023	5,903	2,750	550,000	275,000
2030	6,103	2,856	571,200	285,600
2040	6,232	2,903	580,600	290,300
2050	6,298	2,934	586,800	293,400

Source: Texas Water Development Board (TWDB) Regional Water Plan

1. From Exhibit "D" Population Projections
2. Based on TCEQ current estimations of 1.53 persons per connection
3. Based upon TCEQ required 200 gallons/connection
4. Based upon TCEQ required 100 gallons/connection

Distribution Lines

While the City has completed numerous water line replacement projects over the last decade, there still remain a vast amount of old, cast-iron water mains within the system. These lines have well exceeded the intended service life and are in dire need of replacement. The City routinely applies for funding assistance through the TWDB, Rural Development and TXCDBG funding programs to assist with water line replacement projects.

Fire Hydrants

Fire hydrants are replaced in conjunction with the water line replacement projects and when required due to inoperability. Fire hydrant locations are shown on the City's GIS system and Existing Water System Map.

Water Quality

The City's system has had many issues over the last five years, particularly with old and deteriorated pipelines leading to water main breaks and forcing the City to issue several boil water notices. A pipe failure and resulting turbidity issue occurred at the WTP in January 2022 that caused the entire City to be under a boil water notice. Projects funded by the TWDB are currently in place to make improvements at the WTP and to replace water lines within the distribution system.

Water Pressure

Water pressure is provided by the two (2) elevated tanks. For the most part, the existing system does not have significant pressure concerns. New developments on the town fringes should be evaluated for water pressure and flow requirements. In future budget planning, City should considered the development of a hydraulic model to analyze distribution system pressures and related impacts due to growth and system expansion.

Operation Procedures

The City should continue to operate the system in compliance with requirements of TCEQ. This suggests operators having at least "C" Certificates. In addition, operation and maintenance manuals should be followed and effective maintenance records should be maintained. Routine lubrication, electrical checks for hot spots, replacement of bearings and similar parts in accordance with manufacturer's recommendations are all required in order to obtain full equipment life expectancy.

The City adopted a drought contingency plan, as required by TCEQ. The drought contingency plan evaluates the system's ability to provide water under drought conditions. In the event that current drought conditions continue, the City should evaluate the system's capability to provide water under drought and other disaster-related conditions.

Emergency Power (generators)

In disaster situations such as fire, tornado, etc., emergency power should be provided at the WTP, booster pump stations, and wastewater lift stations in order to maintain operation of the system. The system does not currently have sufficient emergency generators installed in the system and should consider analyzing the appropriate sizing of equipment for future generator improvement projects. The City has submitted applications for funding through the TWDB to install emergency generators in the system.

Adequacy of the System to Meet Existing and Forecasted Needs

The water distribution currently meets regulatory requirements for current and forecasted water demands. The City continues to upgrade the water distribution system by replacing old, dilapidated water lines. Additional upgrades are planned for the WTP. While the City's EST's provide sufficient system pressure, a hydraulic model should be developed to analyze future growth and development, especially for areas on the fringes of the system.

Standards and Criteria:

Water storage facilities in a water system provide water for three principal purposes: (1) to meet hourly demands which are in excess of water supply facilities; (2) to meet the increase in demand created during fire event; and (3) to meet the system demands during short interruptions of water supply. The system is currently in compliance with the per service connection requirement of the TCEQ of 100 gallons per connection for elevated storage and 200 gallons per connection for total storage capacity. The TCEQ has set forth guidelines for the location, installation, and operation of water lines and all other water works utilities. These are the standards used for analysis of the water system and for recommended improvements in this plan.

Water Costs to Customers

Table 6.4: Water Storage Requirements

Water (City)	Inside City Limits	Outside City Limits
<i>Residential:</i>		
<i>1st 2,000 gallons (minimum)</i>	<i>\$42.72/2,000 gallons</i>	<i>\$65.43/2,000 gallons</i>
<i>Next 3,000 gallons</i>	<i>\$ 7.22/1,000 gallons</i>	<i>\$14.14/1,000 gallons</i>
<i>Next 5,000 gallons</i>	<i>\$ 7.68/1,000 gallons</i>	<i>\$15.04/1,000 gallons</i>
<i>Next 10,000 gallons</i>	<i>\$8.93/1,000 gallons</i>	<i>\$17.48/1,000 gallons</i>
<i>Over 10,000 gallons</i>	<i>\$10.24/1,000 gallons</i>	<i>\$20.06/1,000 gallons</i>
<i>Commercial and Apartments</i>		
<i>1st 2,000 gallons (minimum)</i>	<i>\$53.19/4,000 gallons</i>	<i>\$86.37/4,000 gallons</i>
<i>Next 3,000 gallons</i>	<i>\$ 7.22/1,000 gallons</i>	<i>\$14.14/1,000 gallons</i>
<i>Next 5,000 gallons</i>	<i>\$ 7.68/1,000 gallons</i>	<i>\$15.14/1,000 gallons</i>
<i>Next 10,000 gallons</i>	<i>\$8.93/1,000 gallons</i>	<i>\$17.48/1,000 gallons</i>
<i>Over 10,000 gallons</i>	<i>\$10.24/1,000 gallons</i>	<i>\$20.06/1,000 gallons</i>

Source: Texas Water Development Board (TWDB) Regional Water Plan

Water Costs to the City and Review of Current and Future Needs

Inflationary costs within the water industry have led to increased costs for material, equipment, treatment chemicals and other related water related costs. The City should carefully evaluate the overall cost of water treatment and delivery to identify appropriate ranges of water rates to adequately cover basic system costs. Sufficient revenue must be generated to exceed incurred costs and provide for repairs, maintenance and long-term capital improvements.

List and Rank of Problems Related to The System

1. Water lines replacement and fire hydrant installations needed
2. Rehabilitation of existing elevated and ground storage tanks
3. Water treatment plant upgrades
4. Galvanized and lead service line replacement
5. Emergency power

Water System (Goals & Objectives)

Goal: The City owns a substantial utility system that covers almost eight (8) square miles. The goal is to continually make improvements to the reliability of the system and install upgrades to sections that have exceeded the intended service life. In doing so, the City will continue to provide water service to customers in accordance with regulatory requirements while reducing water loss and increasing efficiency.

Much of the distribution water lines consist of aged, dilapidated cast iron. To reduce water loss and improve reliability, the City will continue to replace these lines as funding becomes available. In addition, continued improvements at the WTP will be needed to replace outdated equipment and to stay compliant with regulations.

To fund the maintenance and operation of the system, the City uses a Water/Wastewater Fund, which is collected as part of the water bills. It is an enterprise fund and is often referred to as a "Utility Fund" for local governments. The City evaluates the Fund on a regular basis to ensure the revenue from associated fees for water and wastewater matches the needs of the community, covers the operation and maintenance costs of the system, and plans for upgrades to the system. In addition, the City routinely applies for grants and loans to fund projects. Project objectives currently identified for the planning period include:

- Objective 1:** Replace water lines and upgrade WTP and intake structure.
 Currently funded by TWDB
 Probable Costs:\$3,600,000
 (Timeline 2024-2025)

Water System (Goals & Objectives)

- Objective 2:** Rehabilitate Storage Tanks
Funding likely thru USDA-RD / TWDB / TDA-CDBG
Probable Costs:\$1,200,000
(Timeline 2026-2028)
- Objective 3:** Replace galvanized and lead service lines
Funding will be available from TWDB (51% grant / 49% zero-percent loan)
Probable Costs:\$8,000,000
(Timeline 2025-2035)
- Objective 4:** Replace large diameter lines near EST
Funding likely thru USDA-RD or TWDB
Probable Costs:\$2,800,000
(Timeline 2028-2030)
- Objective 5:** Continue to replace cast iron distribution lines
Funding likely thru USDA-RD / TWDB / TDA-CDBG
Probable Costs:\$7,500,000
(Timeline 2028-2035)

Funding Sources

Possible funding sources for proposed improvements to the water system include:

- Texas Water Development Board (TWDB) – DWSRF Program
- Texas Department of Agriculture (TDA) – Community Development Block Grant Program (CDBG)
- EPA-Water Infrastructure Finance and Innovation Act (WIFIA) program
- USDA-Rural Development
- Loans from various banks
- Certificates of Obligation

Exhibit A EXISTING WATER SYSTEM

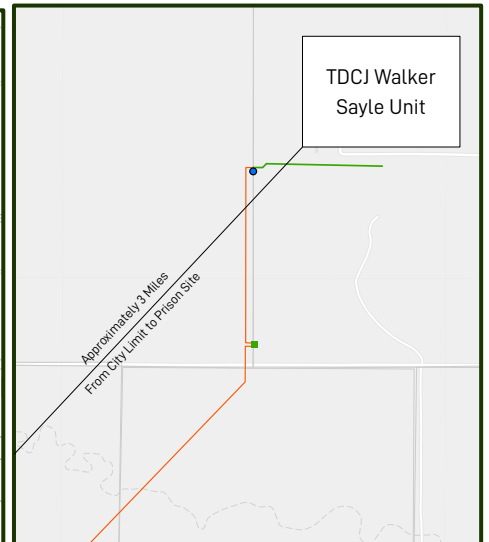
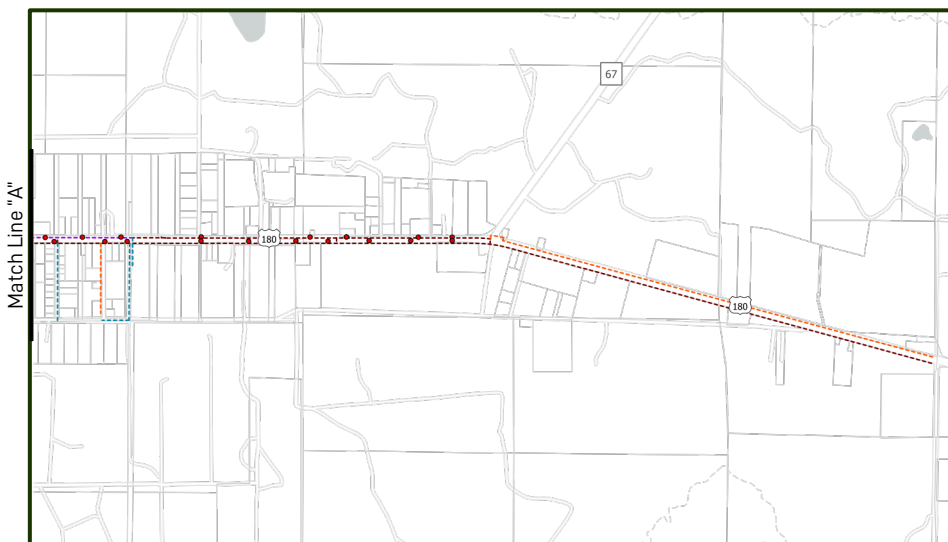
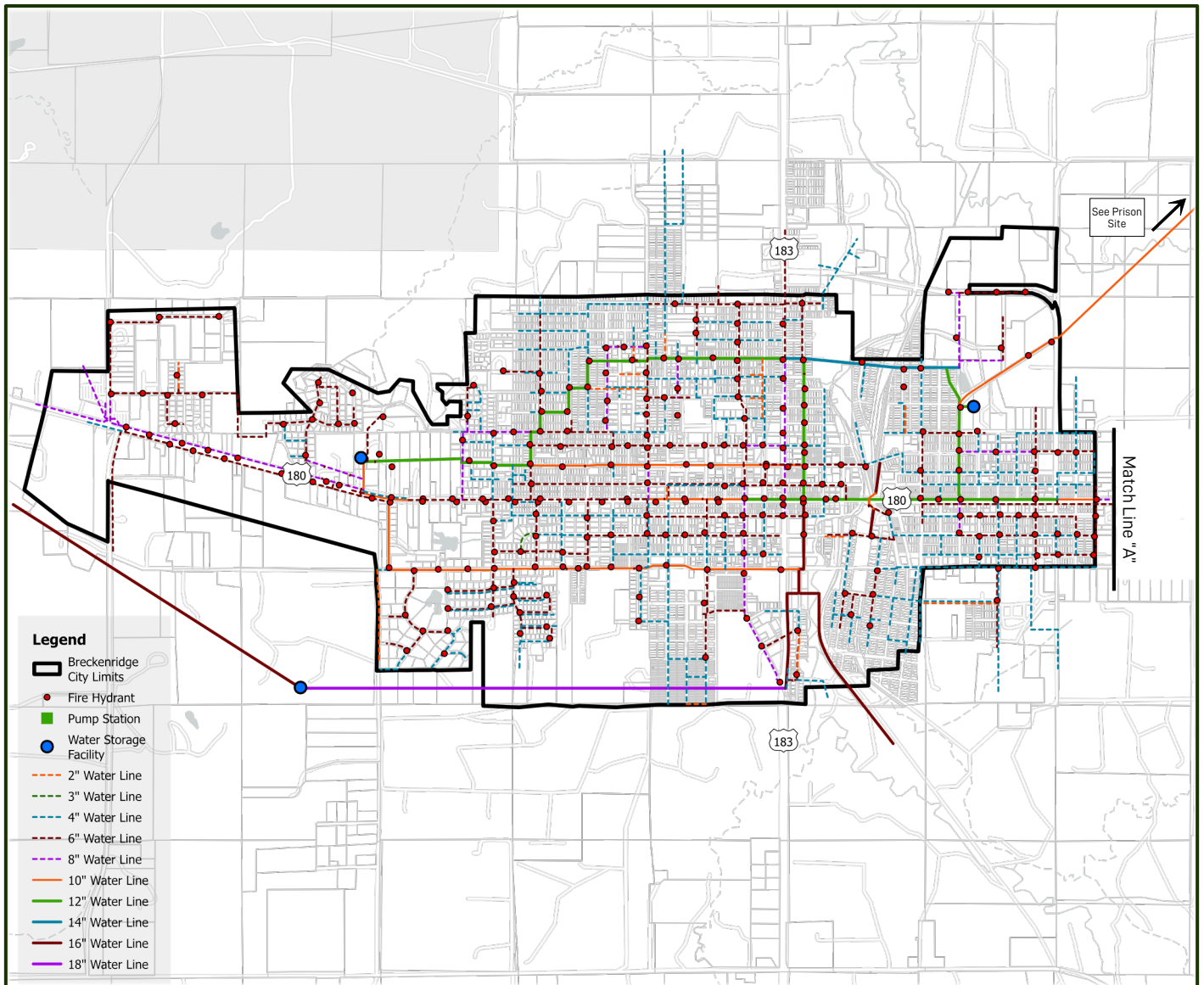
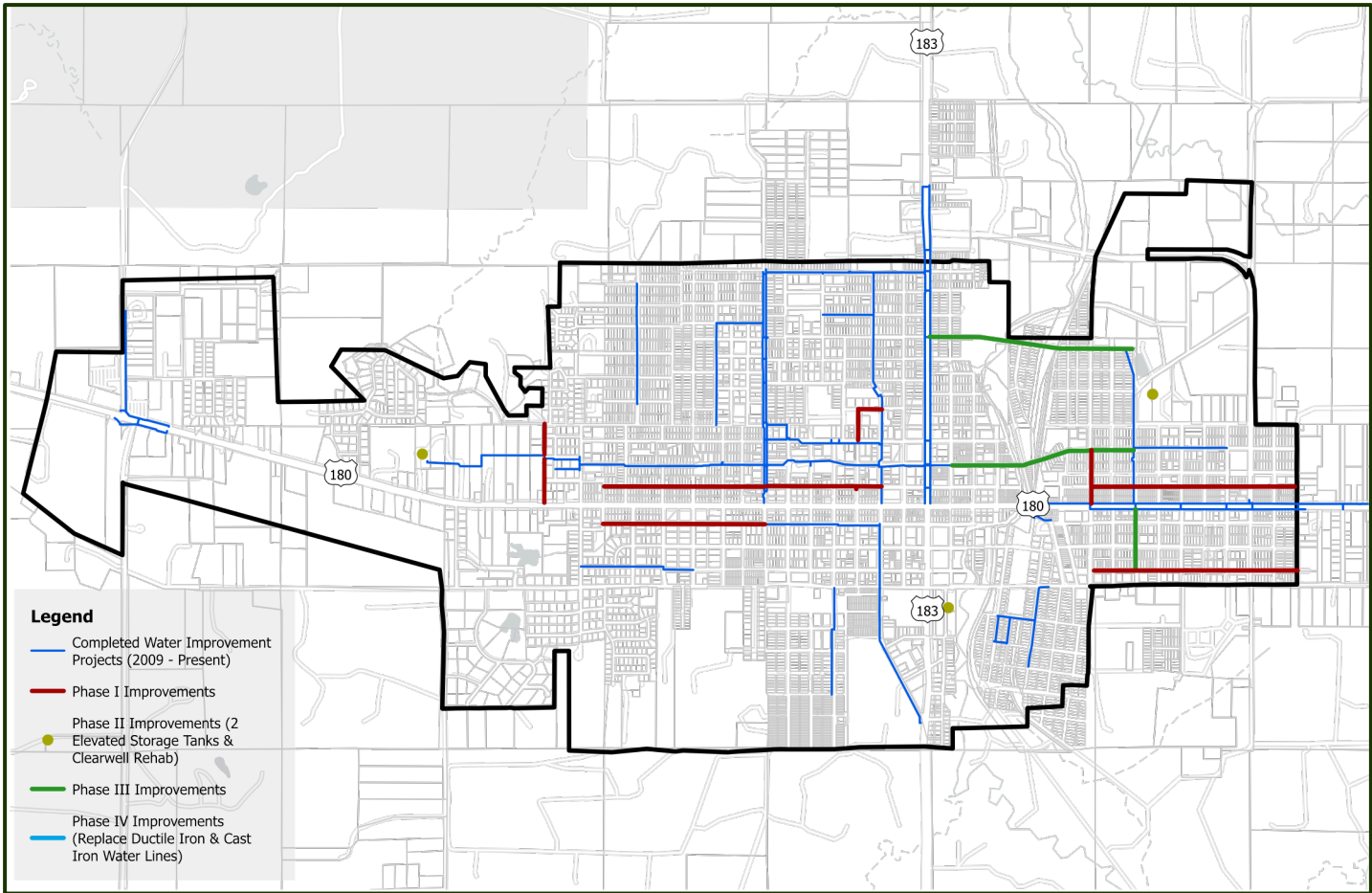


Exhibit B PROPOSED WATER SYSTEM IMPROVEMENTS





WASTEWATER SYSTEM

Inventory

Prior Studies

The system was studied as part of the overall comprehensive plan, utilizing funding from the Texas Community Development Program. The studies included an inventory of the existing system, current mapping, an analysis of the system to meet current and future demands, and a wastewater plan complete with goals, objectives, and implementation strategies. Information from past TCEQ and TWDB reports were referenced where existing City data was not available.

Location Map

Exhibit "C" illustrates the City's existing wastewater system, including the location of lines (sizes), lift stations, manholes and cleanouts.

Type of Treatment Facility and Operation Agreement

The City owns and operates the wastewater treatment plant (WWTP). The goal of this plan is to address the ability of the system to provide service, in the most cost-effective manner, throughout the planning period of 2023-2050, to areas both within the current corporate limits and the Extraterritorial Jurisdiction (ETJ).

Standards and Criteria

Standards and criteria used to determine wastewater system needs were taken from the Design Criteria for Sewage Systems (Chapter 217) as published by the TCEQ.

The following recommendations should be minimum standards for future upgrades of the collection system:

- Use of SDR 35 Polyvinyl Chloride (PVC) pipe to replace old lines.
- Manhole replacements/additions should be precast concrete or fiberglass and spacing of the manholes should be no more than 500 ft. All brick manholes should be replaced. Manholes in low lying areas should include water-tight lids to reduce/prevent stormwater inflow.
- Service lines to residences and businesses should be SDR 35 of minimum 4" diameter.
- All taps should be installed by City personnel or with the oversight of City personnel.

Additional Standards

All sewers should have sufficient slopes to maintain a velocity when flowing full of not less than two (2) feet per second. PVC sewer pipe is the most common material used for sanitary sewer systems today and most likely to be used throughout the planning period. All new construction shall utilize PVC pipe. Special provisions should be made for all collection lines located near low lying areas, creeks, and tributaries to reduce/prevent stormwater inflow.

Sanitary sewer force mains should maintain velocities in the range of two (2) to five (5) feet per second, include air relief valves and provisions to allow lines to be flushed. The City has standardized submersible, guide rail mounted pumps.

All commercial services should be connected to a manhole and be a minimum of six (6) inches in diameter. Single-family structures should be served with at least four (4) inch line and multi-family services should be a minimum of six (6) inches in diameter.

Sanitary sewer lift station sites should consider accessibility, potential nuisance aspects, and flooding. Stations should be located as remotely as possible from populated areas. All pumps should be of the non-clog design, be capable of passing 3-inch diameter spheres and have a minimum of 3-inch suction and discharge. The pump capacity should be capable of handling the peak flow (including stormwater inflow/infiltration flow) with the largest pump out of service. System curves should be developed to illustrate the performance of pumps operating alone or in combination. All lift stations should have existing electrical components evaluated for adequacy and compliance with current code requirements. New lift stations should have sufficient electrical redundancy and backup power to reduce outages.

Wastewater lines shall be designed for the projected population, plus an allowance for commercial and industrial users. Wastewater and water lines shall be installed no closer to each other than 9' between the outside diameters, per TCEQ Texas Administrative Code, Part I, Chapter 217.

Table 7.1 illustrates parameters generally accepted for the design of sewer systems.

Table 7.1 - Wastewater System Design Parameters

Source	Type of Use	Daily Water Flow Gallons Per Person
<i>Municipality</i>	<i>Residential</i>	<i>100</i>
<i>Subdivision</i>	<i>Residential</i>	<i>100</i>
<i>Trailer Park Transient</i>	<i>2 ½ Persons per Trailer</i>	<i>50</i>
<i>Mobile Home Park</i>	<i>3 Persons per Trailer</i>	<i>75</i>
<i>School with Cafeteria</i>	<i>With Showers</i>	<i>20</i>
	<i>Without Showers</i>	<i>15</i>
<i>Recreational Parks</i>	<i>Overnight User</i>	<i>30</i>
	<i>Day User</i>	<i>5</i>
<i>Restaurant</i>	<i>Per Meal</i>	<i>5</i>
<i>Hospital</i>	<i>Per Bed</i>	<i>200</i>
<i>Nursing Home</i>	<i>Per Bed</i>	<i>100</i>

Source: Texas Water Development Board (TWDB) Regional Water Plan

Analysis

Infiltration/Inflow

Infiltration is that part of the wastewater flow that comes from ground water and inflow is the part that comes from storm water runoff. This water enters the wastewater collection system by leakage through faulty pipe joints, manholes, cracked pipe and any connections that may not be watertight. All wastewater collection systems have some infiltration because it has not been found economically feasible to build and maintain a watertight sewer system, except in areas where the sewer mains are below the ground water table.

The existing collection system experiences infiltration problems throughout the City. The infiltration is most likely attributed to faulty collection lines, leaking yard lines, failing manholes, etc. During rainfall events, infiltration causes increased flow rates that taxes the entire system and the WWTP.

The majority of infiltration issues occur mainly in the older and low-lying areas of the City. These areas have older sewer pipes and faulty manholes. The pipes and manholes tend to collapse over time thus causing a break in the system where stormwater can infiltrate. It is also believed that some infiltration problems are the result of many smaller individual service lines to residences.

Industrial Waste and Special Treatment Facilities

This area of wastewater treatment is not applicable to the City's system at this time.

Operational Procedures

Operational and maintenance procedures on the wastewater collection system are performed on an as-needed basis. All routine system maintenance work is performed by City personnel. TCEQ standards state that a municipality must begin planning for treatment plant expansion when 75% permitted flow is exceeded during three consecutive months. At 90%, the City must begin the financial planning and construction phase of treatment expansion. It is not likely that the City will reach the 75% threshold before the end of the planning period.

Unserved Areas

There are not currently any unserved areas within the city limits in need of wastewater service. As development occurs within city limits, it is recommended to incorporate these developments into the existing system following design standards established in Design Criteria for Sewage Systems (Chapter 217) as published by the TCEQ and local City ordinances.

Characteristics of the Soil and Terrain Affecting Collection and Treatment

Currently, there are three (3) existing lift stations installed within the City's collection system and one (1) lift station near the prison. While a majority of the City collection system relies on gravity collection, future growth areas on the City fringes may require a new lift station for service. With proper construction of proposed improvements, the soils do not pose specific problems to collection and treatment.

Disaster Preparedness

Because the wastewater system is largely underground infrastructure, there are relatively few serious disaster threats from destructive natural events such as tornadoes. Floods do pose some threat due to the proximity of some parts of the system to flood hazard areas, but this risk is mitigated in other areas of town due to the topographical features of the City. However, the WWTP and lift stations are not currently equipped with backup generators, making them susceptible to loss of function in the case of any disaster resulting in a power outage.

List and Rank of Problems Related to The System

1. Lift Station Rehabilitation – the prison lift station has recently been rehabilitated, but the other three (3) lift stations have not. Lift station improvements are proposed in the current TWDB – CWSRF project in 2024/2025.
2. Wastewater Collection Main Replacement – much of the system remains clay tile pipe and brick manholes, which are the main contributors to the increased I/I experienced by the system during rainfall events. Wastewater main replacement improvements are proposed in the current TWDB – CWSRF project in 2024/2025.
3. Wastewater Treatment Plant Improvements – the WWTP requires consistent replacement and upgrade of equipment and processes. WWTP improvements are proposed in the current TWDB – CWSRF project in 2024/2025.
4. Emergency Generator Improvements.



Wastewater System (Goals & Objectives)

Goal: The goal of the City's wastewater system plan is to address aging infrastructure within the collection system, including manholes, collection lines and pump stations and to consistently make improvements to the WWTP in order to provide uninterrupted service and maintain compliance with regulatory requirements.

Objective 1: Rehabilitate lift stations and install improvements at WWTP – Refer to Phase 1 on Exhibit "D".

Currently funded by TWDB
Probable Costs:\$2,000,000
(Timeline 2024-2025)

Objective 2: Replace wastewater collection lines – the location of these replacements are currently under design.

Currently funded by TWDB
Probable Costs:\$1,000,000
(Timeline 2024-2025)

Objective 3: Replace wastewater collection lines – Refer to Phase 2 on Exhibit "D".

Likely to funded thru a combination of TWDB / USDA-RD / TDA-CDBG
Probable Costs:\$4,000,000
(Timeline 2026-2028)

Objective 4: Install improvements at WWTP.

Likely to funded thru TWDB or USDA-RD
Probable Costs:\$7,500,000
(Timeline 2029-2034)

Objective 5: Replace wastewater collection lines – Refer to Phase 3 on Exhibit "D".

Likely to funded thru TWDB or USDA-RD
Probable Costs:\$3,500,000
(Timeline 2030-2035)

Objective 6: Replace wastewater collection lines – Refer to Phase 4 on Exhibit "D".

Likely to funded thru TWDB or USDA-RD
Probable Costs:\$3,000,000
(Timeline 2035-2040)

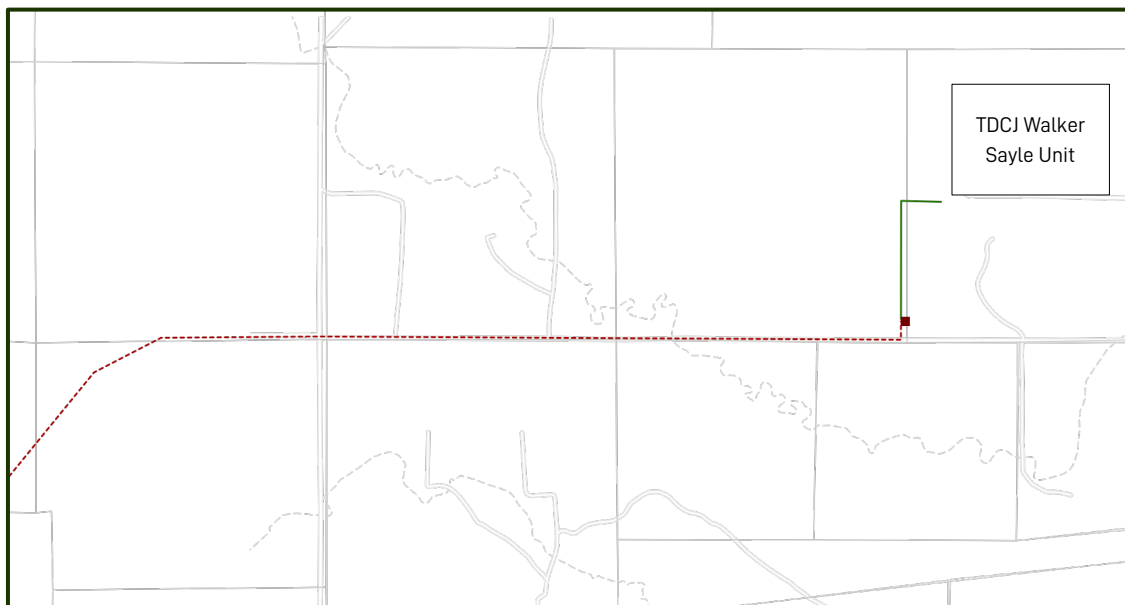
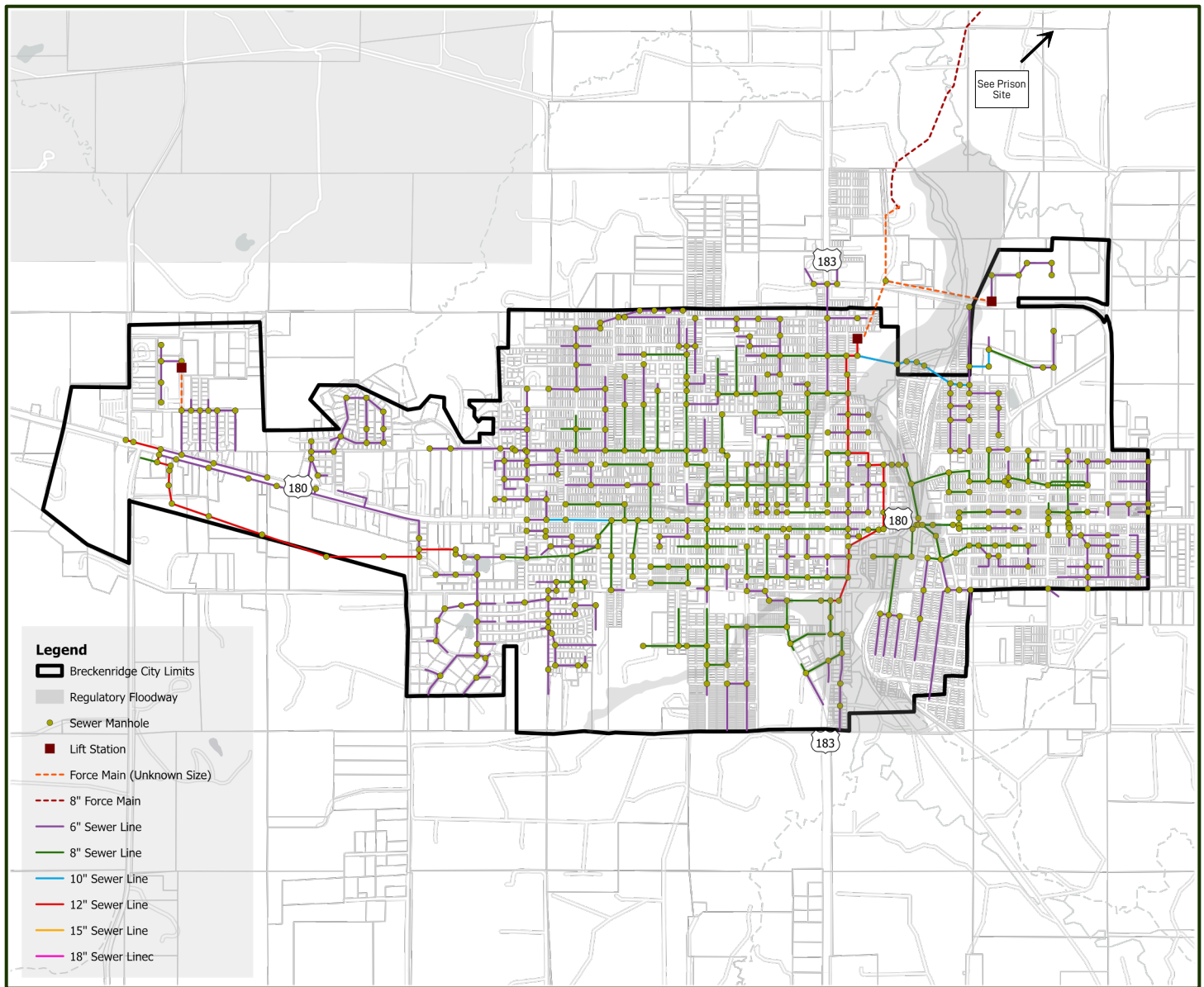
Wastewater System (Goals & Objectives)

Funding Sources

Possible funding sources for proposed improvements to the water system include:

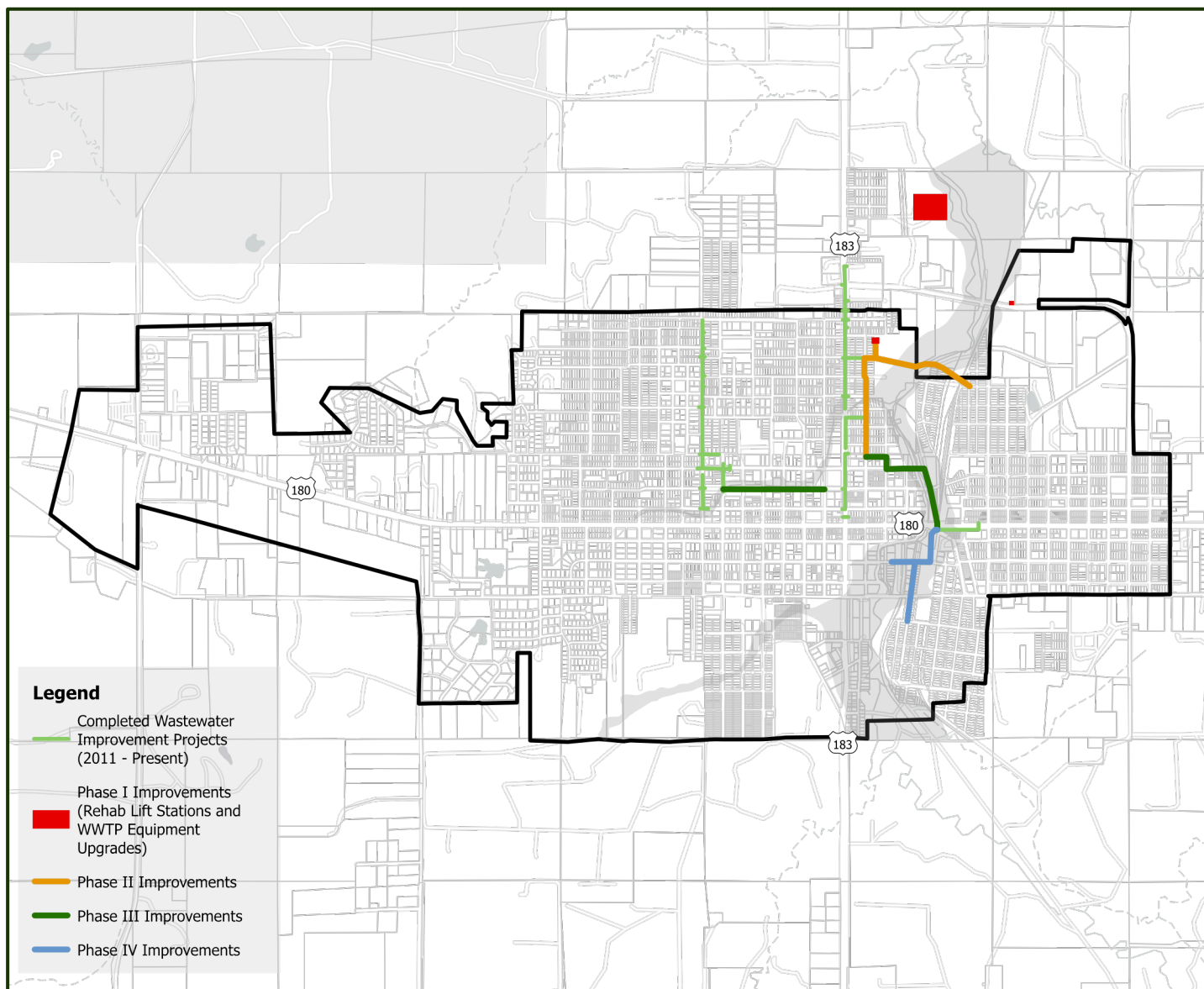
- Texas Water Development Board (TWDB) – CWSRF Program
- Texas Department of Agriculture (TDA) – Community Development Block Grant Program (CDBG)
- USDA-Rural Development
- Loans from various banks
- Certificates of Obligation

Exhibit C EXISTING WASTEWATER SYSTEM



Prison Site

Exhibit D PROPOSED WASTEWATER SYSTEM IMPROVEMENTS



An aerial photograph of a residential street that has been flooded. A large, white, rectangular tarp is laid out across the center of the road, extending from the foreground towards the background. The surrounding area is filled with houses and trees, many of which are partially submerged in floodwater. The sky is overcast and grey. The entire image has a green color overlay.

STORM DRAINAGE

Introduction

Prior Studies

Historical drainage evaluation reports could not be located nor inventories of the existing City drainage system, so a field survey was conducted to locate and identify existing drainage elements. The survey identified storm inlets, culverts and natural drainage courses. The primary drainage facilities consist of surface drainage structures including streets, open channels and ditches. Several culverts exist throughout the area at street crossings and low water crossings. There are also several storm drains installed in the drainage system that are intended to channel stormwater away from roadway and into drainage channels.

Exhibit A, Drainage System Inventory, shows the layout of the storm drainage system and the FEMA 100-year flood hazard map prepared by the National Flood Insurance Program. The map also indicates the storm drains and culverts in need of maintenance.

The City has experienced multiple flooding events over the last thirty (30) to forty (40) years. Newspaper articles mention specific events in 1981, 2016 and 2021. Each time, equipment at the City's WTP and WWTP were damaged due to flood waters. Numerous houses and infrastructure were impacted in both events, especially those located near Walker Branch and Gunsolus Creek.

For smaller storm events, the primary stormwater conveyance is through streets, either within curb and gutter sections or bar-ditches. There are numerous existing culverts located around the City that are identified in the inventory. Many of those culverts have silted in over time and are in need of maintenance. Also, there are storm inlets located in various locations, primarily in the downtown area and in areas close to the various creeks. In 2019, the City completed the Parks Street project that included a significant amount of underground storm sewer that drained intersections near the high school with the outfall located near Live Oak Street and Dyer Street. In addition, TXDOT has installed multiple sections of storm sewer on US180 and US183, near the City's downtown area.

Inventory

Relevant Climatologic Data

The City gets approximately 26 inches of rain per year. The U.S. average is 38. The City averages 2 inches of snowfall per year. The average U.S. city gets 28 inches of snow per year. On average, there are 248 sunny days per year for the City. The typical July high is around 96 degrees and the January low is 29 degrees.

The City gets approximately 26 inches of rain per year. The U.S. average is 38. The City averages 2 inches of snowfall per year. The average U.S. city gets 28 inches of snow per year. On average, there are 248 sunny days per year for the City. The typical July high is around 96 degrees and the January low is 29 degrees.

Previous Studies

Prior studies on the City's drainage system could not be located. The only known study conducted on the storm drainage system was prepared by the Federal Emergency Management Agency (FEMA) survey, as part of the National Flood Insurance Program. The effective date of the City FEMA map is January 2, 1991. The mapped area within the City limits include the following:

- Zone A (no base flood elevation determined)
- Zone AE (base flood elevations determined)
- Zone X (areas to be determined outside of the 500-year floodplain)

Generally, people with homes in special flood hazard areas are required to purchase flood insurance as a condition of financial assistance. The floodplain encompasses approximately 5-10% of the land area within the City.

Project Area Survey

The project area survey, illustrated on Exhibit "A", shows the location of the 100-year flood plain, drainage ways, culverts, and storm inlets. Gunsolus Creek flows through the City from south to north on the east side of US 183. The Walker Branch flows from west to east on the north side of US180. The two streams converge in the northeast quadrant of the City.

Existing Drainage Facilities

The City of Breckenridge is primarily drained by a street system which has open-ditch roadway cross sections. Storm sewers are mostly located in the downtown area and surrounding blocks, as well as along the state highways within the city. There are many concrete and metal culverts under roadways throughout the city where significant amounts of runoff would be expected. These facilities are illustrated on Exhibit "A".

Local Standards

The City's Code of Ordinances are listed on the Municode.com website. The codes outline requirements for development and provisions required for storm water management. Stormwater drainage provisions apply during the plat review and approval process, subdivision design plans, drainage easements and design of drainage facilities. As referenced in the codes, proposed design improvements must be submitted to the City Engineer for review and submitted to the appropriate City department for approval. The City Manager or their appointee serves as the floodplain administrator to administer and implement the provisions of 44 CFR (national flood insurance program regulations) pertaining to flood plain management.

Pertinent City codes related to floodplain management are provided by the following:

- Chapter 5 – Building & Structures: Article V – Flood Damage Prevention
- Chapter 18 – Subdivisions

Analysis

List and ranking of existing drainage system problems areas

1. Maintenance of creek channels (routine clearing of brush, silt, etc.).
2. Repair damaged culverts and remove silt.
3. Restore roadside ditches to proper slope, depth, and configuration.
4. Implement annual maintenance plan for roadside ditches and drainage channels.
5. Remove grass and silt from curb and gutter sections.
6. Identify any lacking drainage easements necessary to implement maintenance activities.

Historical Drainage Problem Areas

Problematic flooding has historically occurred during major events in areas along the creek channels through the City.

Policy-Related Improvements

Mitigation techniques include restrictions for development, retention ponds, detention ponds, and voluntary property buyout programs. The City is doing well to steer land intensive development away from flood prone areas and to mitigate additional stormwater runoff by implementing development standards.

Photo 2: Flooding on US183 North near Walker Branch (KTXS News Photo)



Photo 3: Flooding on Hullum Street East of US183 near Gunsolus Creek (KTXS News Photo)

Drainage System (Goals & Objectives)

Goal: The goal of the City Storm Drainage System Plan is to effectively convey runoff in a manner that prevents flooding and damage to property.

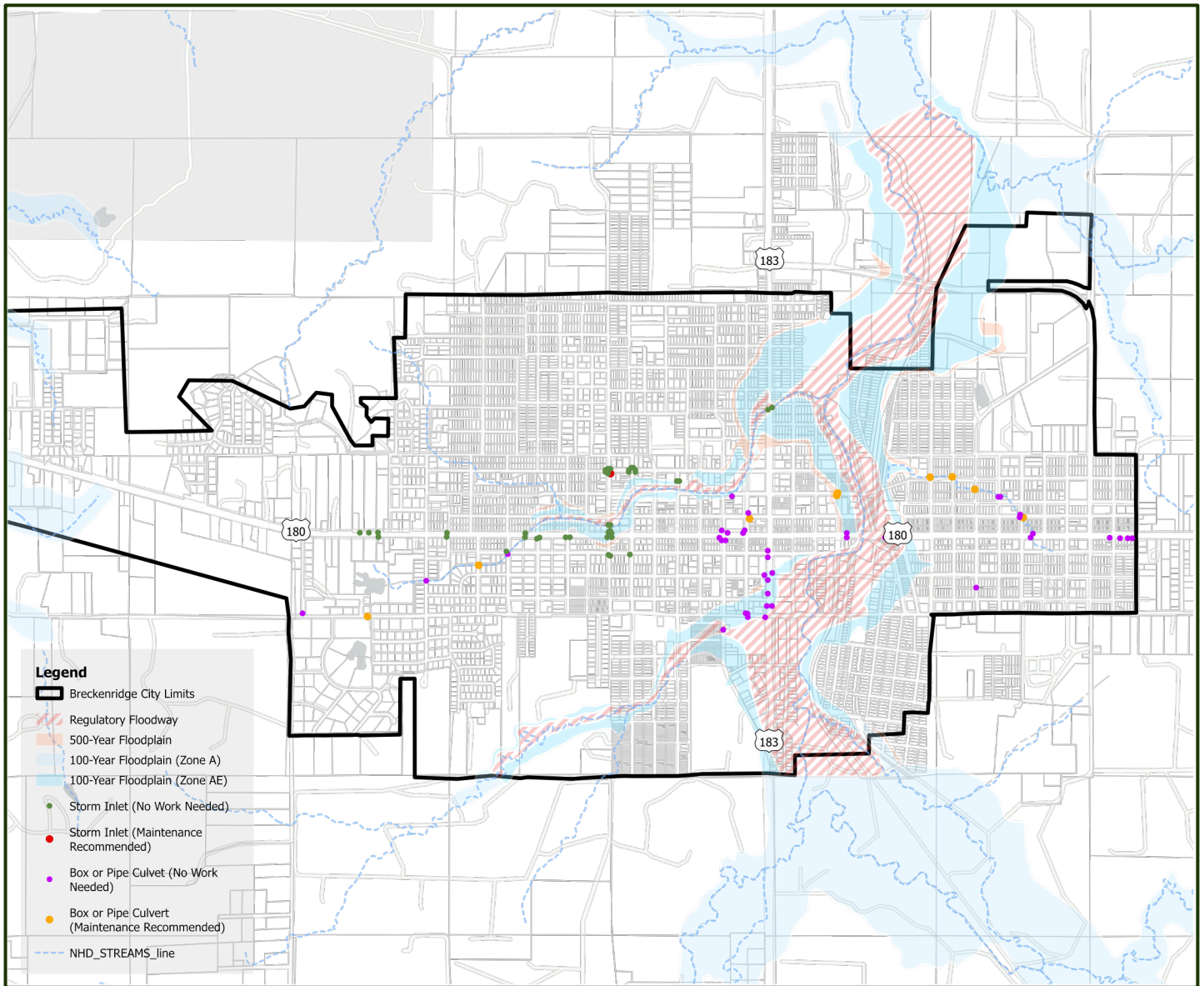
- Objective 1:** Phase I – Storm Drainage Improvements
(Clean culverts and storm inlets / Grade roadside ditches)
Probable Costs:\$50,000
(Timeline: 2024-2026 initial / on-going maintenance plan)
- Objective 2:** Phase II – Storm Drainage Improvements
(Remove silt and vegetation from curb and gutter sections)
Probable Costs:\$50,000
(Timeline: 2024-2026 initial / on-going maintenance plan)
- Objective 3:** Phase III – Storm Drainage Improvements
(Perform maintenance on creek sections through the City – Walker Branch)
Probable Costs:\$100,000
(Timeline: 2026-2028)
- Objective 4:** Phase IV – Storm Drainage Improvements
(Perform maintenance on creek sections through the City – Gunsolus Creek)
Probable Costs:\$100,000
(Timeline: 2028-2030)
- Objective 5:** Phase 5 – Develop a storm drainage maintenance program
(Plan to include routine ditch grading, silt removal, vegetation removal, etc.
Plan should include frequency of maintenance activities and annual cost estimate)
Probable Costs:Internal Activity
(Timeline: 2025-2026)

Funding Sources

Many of the identified improvements are maintenance related activities. While the improvements may be eligible in part by an outside funding source, the City will likely need to allocate budget funds to address the improvements over time. Opportunities for funding may be available through the following sources:

- | | |
|--|---|
| A. Texas Department of Agriculture (TDA) | E. FEMA – Flood Mitigation Assistance Program |
| B. TXDOT (maintenance near structures along US180 and US183) | F. TWDB – Flood Infrastructure Fund (FIF) |
| C. City general fund revenues | G. Texas General Land Office (GLO) |
| D. Certificates of Obligations and/or Bond Issuances | Texas Division of Emergency Management |

Exhibit A DRAINAGE SYSTEM ANALYSIS



An aerial photograph of a recreation facility, overlaid with a semi-transparent green filter. The facility includes a large rectangular swimming pool with a diving board, several buildings with green roofs, a playground, and a parking lot. The surrounding area is lush with green trees and grass. The text 'RECREATION & OPEN SPACE' is prominently displayed in white, bold, sans-serif font across the lower half of the image, with horizontal lines underlining the words.

RECREATION & OPEN SPACE

Introduction

Breckenridge, the county seat of Stephens County, is located at the intersection of U.S. highways 180 and 183, four miles east of Hubbard Creek Reservoir in west central Stephens County. The City originated about 1854 as Picketville, named either for the post and clay structure of the early homes or for early rancher Bill Picket. When the county was organized in 1876, the town was made county seat and renamed Breckenridge after John C. Breckinridge, United States senator from Kentucky and vice president, although the spelling of the name was altered.

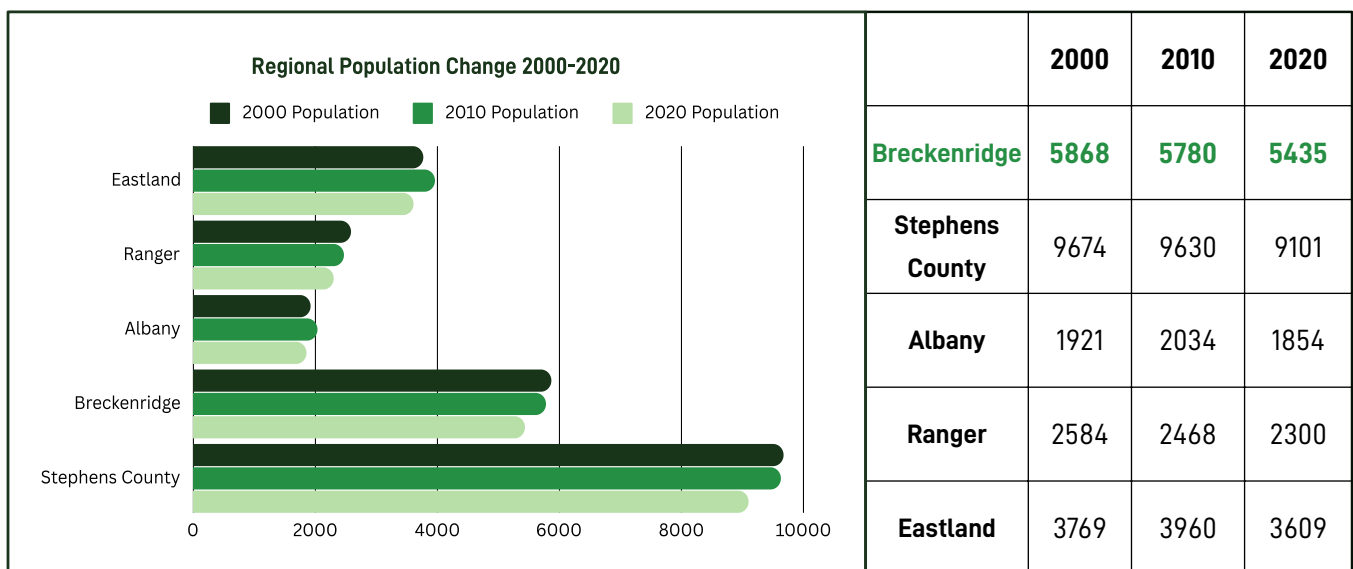
Breckenridge served as the court and local trading center for several quiet decades until 1916–17, when oil discoveries at Ranger occurred. Drilling started at the Breckenridge field in 1918, but the boom did not really get underway until 1920, when the town saw the arrival of thousands of workers and speculators. From a population estimated at 1,500 in January 1920 the town grew to 30,000 within a year. By July the

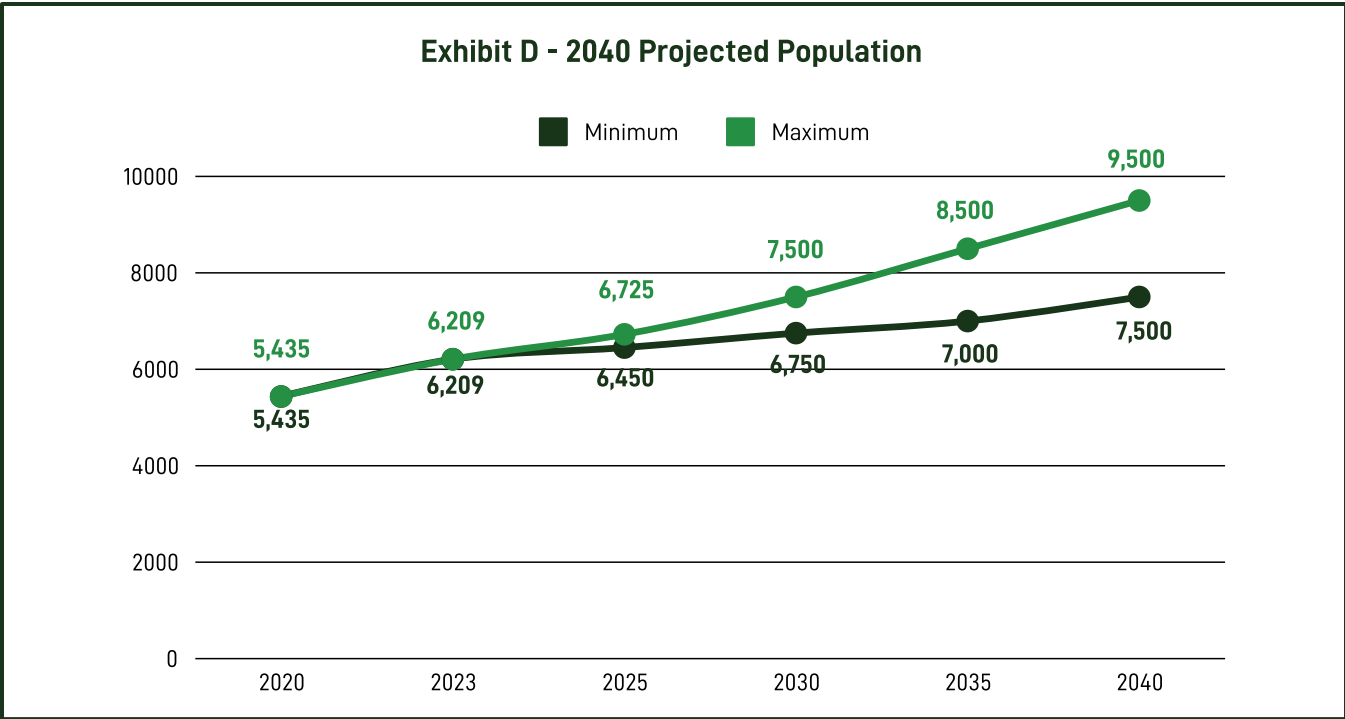
town acquired its first railroad, the Wichita Falls, Ranger and Fort Worth, which was soon joined by the Cisco and Northeastern. After three exciting years, oil production slowed, and the town lost much of its population, although it held its place as a commercial and oil production center. In the 1980s Breckenridge was still a center for petroleum-related industries and was a retail and shipping center for the county. The City is the home of the Swenson Memorial Museum and the Breckenridge Aviation Museum. Just northwest of the city is Hubbard Creek Reservoir, Lake Daniel is to the south, and Possum Kingdom Lake is to the east in Palo Pinto County.¹

As mentioned in the population study, Breckenridge had a population of 5,868 in 2000, 5,780 in 2010, and 5,435 in 2020. Current estimates show the City with 6,209 persons. It is likely that the City will start to see population increases during the planning period, due to growth in the region and State.

¹ Texas State Historical Association-The Handbook of Texas Online

Census Data & Population





Regional Recreation & Open Space

The City of Breckenridge stands as a gateway to a plethora of recreational adventures waiting to be explored. Surrounded by picturesque landscapes, the area boasts a myriad of outdoor opportunities, enticing both locals and visitors alike. With its proximity to sprawling state parks such as Possum Kingdom State Park and the soon to open Palo Pinto Mountains State Park, outdoor enthusiasts can immerse themselves in the beauty of nature through activities like hiking, camping, and bird watching. Moreover, recreational opportunities extend to its neighboring lakes, including Lake Daniel, Hubbard Creek Reservoir, and Possum Kingdom Lake, where fishing, boating, and water sports reign supreme.

Possum Kingdom State Park is a publicly-owned State of Texas facility, located approximately 35 miles northeast of the City of Breckenridge. The Park is home to many different activities. On water, you can

swim, boat, fish, ski, scuba dive and snorkel. On land, you can camp, picnic, hike, bike, geocache.



Possum Kingdom State Park - Cody Franklin (Unsplash Photos)

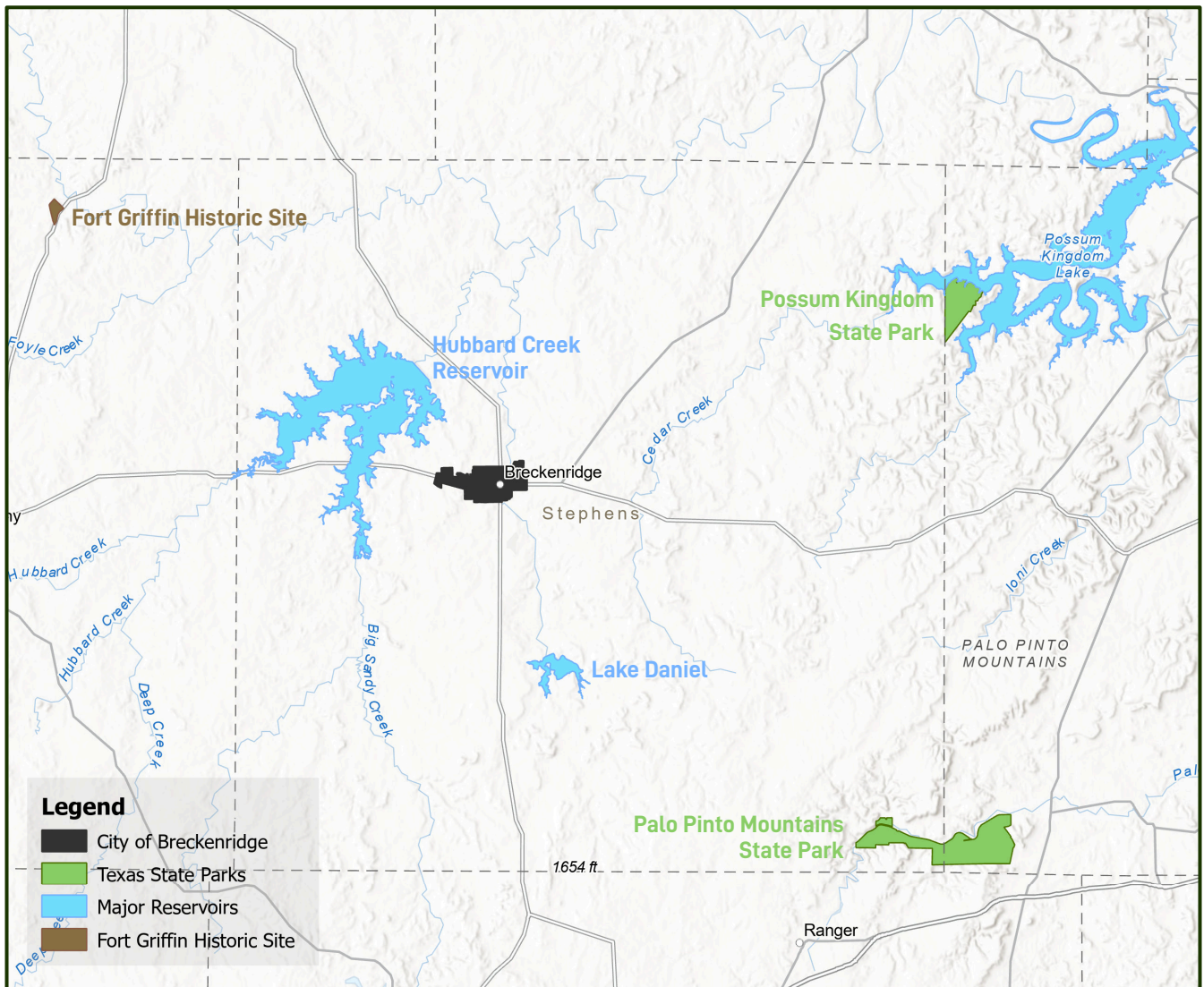
Palo Pinto Mountains State Park is a publicly-owned State of Texas facility, located approximately 45 miles southeast of the City of Breckenridge. While the park is not yet open, plans for the park include an extensive network of multi-use trails, water activities on Tucker Lake, and a multitude of RV, tent, and primitive camping opportunities.

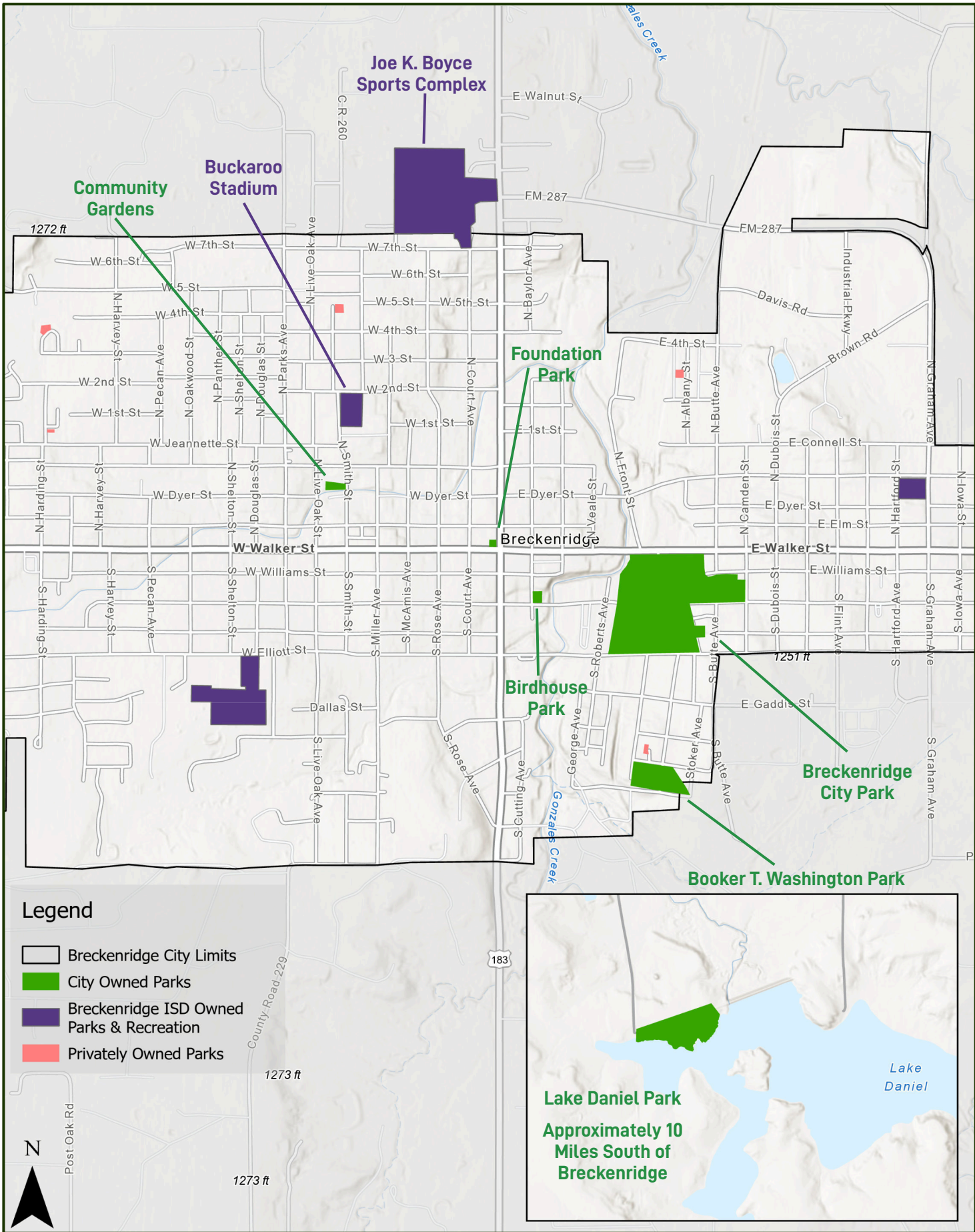
Hubbard Creek Reservoir is a publicly-owned State of Texas facility located approximately 5 miles west of the City of Breckenridge and is known for great fishing opportunities. When the reservoir is full, it is known for excellent white crappie and white bass fishing in Hubbard and Sandy Creeks in late fall and winter. It is also a popular lake for largemouth bass.

Lake Daniel is an approximately 950 acre reservoir that the City of Breckenridge has controlling authority over. Lake Daniel offers a variety of fishing cover including black willow trees, button brush, lily pads, floating-leaf pondweed, and rocky structure.

Angling opportunities are considered good for largemouth bass, catfish, and white crappie.

Fort Griffin State Historic Site is a publicly-owned State of Texas facility located approximately 25 miles northwest of the City of Breckenridge. Fort Griffin served as one in a line of western defensive forts from 1867 to 1881. Remnants of the fort remain today at Fort Griffin State Historic Site, which is also home to the Official State of Texas Longhorn Herd and offers camping, hiking, stargazing, and living history. Fort Griffin is a State Archaeological Landmark and listed in the National Register of Historic Places.





Existing Recreation & Open Space

City of Breckenridge Existing Parks and Recreational Facilities

	Swimming Pool	Playground Equipment	Swing Set	Slide	Disc Golf Course	Skate Park	Walking Trail	Exercise Stations	Basketball Goals	Baseball Field	Metal Playground Equipment	Soccer Fields	Large Pavilion	Small Pavilion	Picnic Tables	Park Benches	Trashcans	BBQ Grills	Restrooms	Fountain	Turf Area	Garden Beds	Community Gathering Area	Art Mural	Primitive Camping	Boat Ramp	Birdhouses/Bird Watching
Breckenridge City Park	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				●				
Booker T. Washington Park			●	●					●	●	●			●	●	●	●						●				
Birdhouse Park																●							●				●
Foundation Park																●				●	●		●	●			
Community Garden																						●	●				
Lake Daniel Park																							●		●	●	



Breckenridge ISD Existing Parks and Recreation Facilities

	Football Stadium	Football Field/Track	Baseball Fields	Softball Fields	Batting Cages	Basketball Goals	Soccer Field	Tennis Courts	Playground Equipment	Swing Set	Monkey Bars	Slide	Jungle Gym	Covered Benches	Picnic Tables	Restrooms	Concession Stand	BBQ Grill
Buckaroo Stadium	●																	
Joe K. Boyce Sports Complex			●	●	●										●	●	●	●
North Elementary School Park (Closed)						●			●	●	●	●	●					
South Elementary School		●				●	●	●	●	●		●	●		●			
East Elementary School								●	●	●			●	●	●			

Privately Owned Parks and Recreation Facilities

	Basketball Goals	Swing Set	Monkey Bars	Pull Up Bars	Balance Beam	Wooden Playground	Park Benches	Picnic Tables	Trashcans	BBQ Grills
Breckenridge Apartments Park	●									
North Albany Avenue Park	●	●	●	●	●		●			
East Power Street Park	●	●	●	●	●					
Mountain Heights Apartment Park	●	●				●	●			
North Payne Park	●	●	●	●	●		●	●	●	●

Recreation & Open Space Analysis

Level of Service Standards and Criteria

The level of service standards for this plan were determined based on standards set by the City of Breckenridge. These were adapted from standards set forth by the National Recreation and Park Association (NRPA). The City of Breckenridge has blended these two approaches in the development of these standards.

Needs Assessment and Identification

The City received public input through public meetings. A Community Event was held on February 27, 2023 and an online survey (survey monkey) was conducted from March 2, 2023 through March 19, 2023. The needs assessment for this particular plan was based on comments from the meeting and survey, accepted standards and the resources currently available to the city. The approaches used by the city are accepted by the Texas Parks and Wildlife Department as legitimate needs assessment techniques. The resources available to the city include municipal parks, sports fields, and natural resource areas.



Park Classification

The City of Breckenridge utilized the following Park Classification System to assist in the needs assessment.

Type	Description
Mini - Park	Addresses limited, isolated or unique recreational needs. May be either active or passive but speak to a specific need rather than a population density.
Neighborhood Park	The foundation of any park system because it is closest to the users. The park should be centrally located, served by residential, or collector streets, but the primary access should be pedestrian in nature.
Community Park	Larger than neighborhood parks and serve several neighborhoods. May include areas for intense recreation activity, such as competitive sports. Should also be areas for passive recreation, such as walking.
Sports Complex	Consolidates heavily programmed athletic fields and associated facilities to larger and fewer sites located throughout the community.
Special Use Area	Specialized or single use facilities
Greenway/Linear Parks	Can be built along creek corridors, easements, public rights-of-way and floodplains to effectively tie all of the parks together to form a system.
Natural Resource Area	Environmentally sensitive lands set aside for the preservation significant natural resources, and open space.

Source: -National Recreation and Park Association (NRPA) standards

Existing Park Facilities



Neighborhood Parks: The City has several neighborhood parks. These parks are typically utilized on a daily basis and improvements to these parks are considered a high priority. One of the City's long-range goals will be to establish neighborhood parks in all of the City's new subdivisions

Sports Complex: The City has one (1) sports complex in the park system. Joe K. Boyce Park is owned and operated by the Breckenridge ISD. The facilities include baseball and softball fields, batting cages, running, concession stand, bleachers, picnic benches, grill and restrooms.



Community Parks: The City of Breckenridge has one (1) Community Park within the park system. The size of these parks typically ranges from 5-5 acres. It is not likely that the City will build another park this size in the City of Breckenridge during the planning period.

Natural Resource Areas: The City has one natural resource area, Lake Daniel. Natural resource areas are defined as areas that protect natural habitats, promote conservation ideas, provide access to natural resources such as waterways, and provide pedestrian linkages to other community resources.

Level of Service

Current Level of Service - 2023 Population

Park Type	Standard	Current Level	Deficit/Surplus
Neighborhood Parks	2.0 acres/1,000 people	1.15 acres/1,000 people	-0.85 acres
Community Parks	8.0 acres/1,000 people	5.25 acres/1,000 people	-2.75 acres
Parks System	12 acres/1,000 people	10.30 acres/1,000 people	-1.75 acres
Trails	1 mile/2,000 people	0.85 miles/2,000 people	-0.15 miles

Source: 2023 Field Survey, Public Management, Inc.

Future Level of Service - 2040 Population Projection

Park Type	Standard	Current Level	Deficit/Surplus
Neighborhood Parks	2.0 acres/1,000 people	0.55 acres/1,000 people	-1.45 acres
Community Parks	8.0 acres/1,000 people	3.45 acres/1,000 people	-4.55 acres
Parks System	12 acres/1,000 people	6.75 acres/1,000 people	-5.25 acres
Trails	1 mile/2,000 people	0.10 miles/2,000 people	-0.9 miles

Source: City of Breckenridge TxCDBG Planning Study CPC21-0522, Exhibit D

Future Level of Service - 2040 Population Projection

Amenity	Number	LOS (Current Pop.)	Target LOS	Current Need	Future Need (2040)
Baseball Fields	4	1 per 1,500	1 per 1,500	0	0
Softball Fields	4	1 per 1,500	1 per 1,500	0	0
Soccer Fields	4	1 per 1,500	1 per 3,000	0	0
Trails	0.85 miles	1 per 7,000	1 per 2,000	2.5 miles	4.25 miles
Indoor Rec. Center	0	NA	1 per 20,000	0	1
Outdoor Basketball Goals	14	1 per 200	1 per 3,000	0	0

Source: City of Breckenridge TxCDBG Planning Study CPC21-0522, Exhibit D

Recreation & Open Space Goals & Objectives

The city intends to meet its parks, recreation and open space goals and objectives through budgetary responsiveness to this plan and the active search for additional funding options, such as grants. The following prioritizes the needs previously delineated with a specific plan of action and timetable. The priorities were determined based on the city's documented needs assessment.



Priority #1

Implement improvements to Breckenridge City Park

- Install new splash pad
- Replace outdated equipment
- Upgrade landscaping

Timetable: 2024 - 2027

Estimated Costs: \$800,000

Financial Resources: City funds, private donations, TPWD Non-Urban Outdoor Grant



Priority #2

Implement improvements to Lake Daniel Park

- Install two boat docks
- Construct Restrooms
- Construct RV spots with water/electric hook-ups
- Install playground

Timetable: 2025 - 2030

Estimated Costs: \$1,500,000

Financial Resources: City funds, private donations, TPWD Non-Urban Outdoor Grant.



Priority #3

Implement improvements to Booker T. Washington Park

- Replace outdated equipment
- Add small walking trail
- Add/replace park benches and picnic tables

Timetable: 2025 - 2028

Estimated Costs: \$250,000

Financial Resources: City funds, private donations, TPWD Small Communities Grant.



Priority #4

Implement improvements to Community Gardens Park

- Replace garden beds
- Install new gravel drive and walking paths
- Install greenhouse(s) for additional gardening opportunities

Timetable: 2026 - 2030

Estimated Costs: \$150,000

Financial Resources: City funds, private donations, gardening club volunteer labor.



Priority #5

Establish Neighborhood Parks in New Subdivisions

- Establish neighborhood parks in all new subdivisions through enforcement of the City's subdivision regulations.

Timetable: 2025 - 2040

Estimated Costs: \$100,000/park

Financial Resources: City funds, private donations, TPWD Small Communities Grant, development agreements.



Priority #6

Designate Natural Areas for Use as Nature Parks & Green Belts

- Designate natural areas for use as nature parks, plant and wildlife conservation areas, and greenbelts throughout the City.

Timetable: 2025 - 2040

Estimated Costs: \$100,000/site

Financial Resources: Land donations from Private Citizens, TPWD grant programs.

Recreation & Open Space (Goals & Objectives)



Goal 1: Implement improvements to Breckenridge City Park

Time period for meeting goal: 2024 - 2027

Objectives

- 1. Install new splash pad
- 2. Replace outdated equipment
- 3. Upgrade landscaping

Consider application in 2024 to the Texas Recreation Parks Account Outdoor Grant Program, from the Texas Parks and Wildlife Department. This program provides matching funds in the amount of 50% of the project.

Goal 3: Implement improvements to Booker T. Washington Park

Time period for meeting goal: 2025 - 2028

Objectives

- 1. Add covered bleachers to baseball field
- 2. Replace outdated equipment
- 3. Add small walking trail
- 4. Add/replace park benches and picnic tables

Goal 5: Establish neighborhood parks in all new subdivisions through enforcement of the City's subdivision ordinance.

Time period for meeting goal: 2025 - 2040

Goal 2: Implement improvements to Lake Daniel Park

Time period for meeting goal: 2025 - 2030

Objectives

- 1. Install two boat docks
- 2. Construct restrooms
- 3. Construct RV spots with water/electric hook-ups
- 4. Install playground

Goal 4: Implement improvements to Community Garden Park

Time period for meeting goal: 2026 - 2030

Objectives

- 1. Replace garden beds
- 2. Install new gravel drive and walking paths
- 3. Install new greenhouse(s) for additional gardening opportunities

Goal 6: Designate natural areas for use as nature parks, plant and wildlife conservation areas and greenbelts, through the City.

Time period for meeting goal: 2025 - 2040

