CITY OF NEW BRAUNFELS, TEXAS
CITY COUNCIL MEETING

CITY HALL - COUNCIL CHAMBERS
550 LANDA STREET

MONDAY, JULY 8, 2019 at 6:00 PM

Barron Casteel, Mayor
Shane Hines, Councilmember (District 1)
Justin Meadows, Councilmember (District 2)
Harry Bowers, Councilmember (District 3)
Matthew E. Hoyt, Councilmember (District 4)
Wayne Peters, Mayor Pro Tem (District 5)
Leah A. García, Councilmember (District 6)
Robert Camareno, City Manager

MISSION STATEMENT
The City of New Braunfels will add value to our community by planning for the future, providing quality services, encouraging community involvement and being responsive to those we serve.

AGENDA

CALL TO ORDER

CALL OF ROLL: City Secretary

INVOCATION: Councilmember Justin Meadows

PLEDGE OF ALLEGIANCE & SALUTE TO THE TEXAS FLAG

REQUEST ALL PHONES AND OTHER DEVICES BE TURNED OFF, EXCEPT EMERGENCY ON-CALL PERSONNEL.

PROCLAMATIONS:

A) Comal Springs

B) Parks and Recreation Month

PRESENTATIONS:

A) Comprehensive Solid Waste Management Plan
Michael Mundell, Solid Waste Manager

1. MINUTES

A) Discuss and consider approval of the minutes of the regular City Council meeting of June 24, 2019.
Patrick Aten, City Secretary

2. CITIZENS' COMMUNICATIONS

This time is for citizens to address the City Council on issues and items of concerns not on this agenda. There will be no City Council action at this time.

3. CONSENT AGENDA

All items listed below are considered to be routine and non-controversial by the City Council and will be approved by one motion. There will be no separate discussion of these items unless a Councilmember or citizen so requests, in which case the item will be removed from the consent agenda and considered as part of the normal order of business.

Resolutions & Action Items

A) Confirmation of the reappointment of one individual to the Civil Service Commission for a term ending August 10, 2022.
Robert Camareno, City Manager

B) Approval of extending the current terms of two positions on the Downtown Board by one year.
Patrick Aten, City Secretary, and Amy McWhorter, Downtown Development Coordinator

C) Approval of annual contracts with Kahlig Enterprises Inc. dba Bluebonnet Motors Inc. and Griffith Ford Seguin LLC, for the purchase of City vehicles, on an as-needed basis.
Deborah Kimball, Buyer

D) Approval to renew the following annual contracts, as allowed for by their contract language: Auditing Services; Golf Course Concessionaire; Cemetery Maintenance Services; Landscape Services-Flood Properties & Medians; Road Construction Work; Dental Healthcare Administrative Services; Medical and Pharmacy Administrative Services; HVAC Maintenance Services and Aviation Fuel Services for New Braunfels Regional Airport.
Debbie Kimball, Buyer

E) Approval of a contract with Myers Concrete for the construction of rain garden filtration systems and approval authority for the City Manager to approve any changes up to the contingency amount for project expenditures as part of the Panther Canyon Erosion Control Improvements Project included in the 2013 Bond Program.
Jennifer Cain, Capital Programs Manager

F) Approval of a contract increase with K Friese and Associates Inc. for professional engineering services to provide third party assistance for development plan review for the City.
Garry Ford, City Engineer

G) Approval of the issuance of invitations for Competitive Sealed Proposals for San Antonio Street from Krueger Avenue to Spur Street

as part of the 2019 Bond City-Wide Streets Program.
Jennifer Cain, Capital Programs Manager

H) Approval of the Comprehensive Solid Waste Management Plan.
Michael Mundell, Solid Waste Manager

Ordinances
(In accordance with Section 3.10 of the City Charter, a descriptive caption of each ordinance shall be read on two separate days.)

I) Approval of the first reading of an ordinance amending the Code of Ordinances Chapter 86-2 regarding refunds of reserved picnic area and individual picnic table usage fees in city parks.
Stacey Dicke, Parks and Recreation Director

J) Approval of the first reading of an ordinance Chapter 86-122 regarding fees for Das Rec Family Membership-Additional Family members.
Stacey Dicke, Parks and Recreation Director

K) Approval of the first reading of an ordinance amending Chapter 130-26 of the Code of Ordinances to change the criteria for members of the Board of Trustees of New Braunfels Utilities.
Barron Casteel, Mayor

4. INDIVIDUAL ITEMS FOR CONSIDERATION

A) Discuss and consider approval of a temporary road closure for the inaugural Downtown Harvest Dinner to be held on October 20, 2019.
Amy McWhorter, Downtown Development Coordinator

B) Discuss and consider approval of the first reading of an ordinance amending Chapter 126-355 of the City's Code of Ordinances to remove the prohibition of overnight parking in the Downtown Parking Zone and extend the limits of the Downtown Parking Zone to include both sides of East San Antonio Street from Market Avenue to Gilbert Avenue, and the southwest side of North Market Avenue from East Mill Street to East San Antonio Street.
Amy McWhorter, Downtown Development Coordinator

C) Public hearing and first reading of an ordinance disannexing approximately 62.4 acres of land out of the J. M. Veramendi Survey No. 2, Abstract 3, Comal County, Texas, located along the northwest right-of-way line of Loop 337 in the corporate limits of the City.
Christopher J. Looney, Planning and Community Development Director

D) Public hearing and first reading of an ordinance amending Section 126-354 of the City of New Braunfels Code of Ordinances to revise

Parking by Permit Area K.
Garry Ford, City Engineer

E) Discuss and consider approval of the first reading of an ordinance amending Sections 114-98, 114-99, and 118-46 of the Code of Ordinances regarding access on collector or major thoroughfare streets, turn lane and traffic impact analysis requirements, and removal of references to the sub-collector street section.
Garry Ford, City Engineer

5. EXECUTIVE SESSIONS

In accordance with Texas Government Code, Subchapter D, the City Council may convene in a closed session to discuss any of the following items; any final action or vote taken will be in public.

A) Deliberate issues regarding economic development negotiations in accordance with Section 551.087, of the Texas Government Code, including but not limited to:
- Project Nautilus

B) Deliberate the purchase, exchange, lease or value of real estate in accordance with Section 551.072 of the Texas Government Code
- Property for city facilities

NOTE: The City Council reserves the right to retire into executive session concerning any of the items listed on this Agenda whenever it is considered necessary and legally justified under the Open Meetings Act (Chapter 551 of the Texas Government Code).

6. RECONVENE INTO OPEN SESSION AND TAKE ANY NECESSARY ACTION RELATING TO THE EXECUTIVE SESSION AS DESCRIBED ABOVE.

7. ADJOURNMENT

CERTIFICATION

I hereby certify the above Notice of Meeting was posted on the bulletin board at the New Braunfels City Hall on July 3, 2019, at 3:00 p.m.

_____
Patrick Aten, City Secretary

NOTE: Persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services such as interpreters for persons who are deaf or hearing impaired, readers, or large print, are requested to contact the City Secretary's Office at 221-4010 at least two (2) work days prior to the meeting so that appropriate arrangements can be made.

City of New Braunfels

Proclamation

THE STATE OF TEXAS **§**

COUNTY OF COMAL **§**

CITY OF NEW BRAUNFELS **§**

WHEREAS, the Comal Springs, located in Landa Park, was listed June 7, 2019, on the National Register of Historic Places, designating the site to be a significant part of the history of New Braunfels, Comal County, Texas and the United States; and

WHEREAS, the National Register of Historic Places is the official list of the nation's historic places worthy of designation and preservation, and is sponsored by the National Park Service division of the United States Department of the Interior; and

WHEREAS, this nomination was prepared by the National Trails Intermountain Region of the National Park Service and is listed as Historical Resource of El Camino Real de los Tejas National Historic Trail; and

WHEREAS, the U. S. section of El Camino Real de los Tejas National Historic Trail was established in 2004 as part of the National Historic Trail System and is a series of corridors traversing Texas from the Rio Grande to the Red River Valley; and

WHEREAS, New Braunfels and the Comal Springs are significant sites located along the trail.

NOW, THEREFORE, I, WAYNE PETERS, Mayor Pro Tem of the City of New Braunfels, Texas, am pleased to publicly commend the preservation of the

COMAL SPRINGS

and recognize this site as being historically and culturally relevant to all who visit its banks in beautiful Landa Park.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the City of New Braunfels to be affixed this 8th day of July 2019.

CITY OF NEW BRAUNFELS

_____

WAYNE PETERS, Mayor Pro Tem

City of New Braunfels

Proclamation

THE STATE OF TEXAS §
COUNTY OF COMAL §
CITY OF NEW BRAUNFELS §

WHEREAS, parks and recreation programs are an integral part of communities throughout this country, including New Braunfels, Texas; and

WHEREAS, our parks and recreation are vitally important to establishing and maintaining the quality of life in our communities, ensuring the health of all citizens, and contributing to the economic and environmental well-being of a community and region; and

WHEREAS, parks and recreation programs build healthy, active communities that aid in the prevention of chronic disease, provide therapeutic recreation services for those who are mentally or physically disabled, and also improve the mental and emotional health of all citizens; and

WHEREAS, parks and recreation programs increase a community's economic prosperity through increased property values, expansion of the local tax base, increased tourism, the attraction and retention of businesses, and crime reduction; and

WHEREAS, parks and natural recreation areas improve water quality, protect groundwater, prevent flooding, improve the quality of the air we breathe, provide vegetative buffers to development, and produce habitat for wildlife; and

WHEREAS, our parks and natural recreation areas ensure the ecological beauty of our community and provide a place for children and adults to connect with nature and recreate outdoors; and

WHEREAS, the U.S. House of Representatives has designated July as Parks and Recreation Month; and

NOW, THEREFORE, I, Wayne Peters, Mayor Pro Tem of the City of New Braunfels, Texas, do hereby proclaim July 2019 as

PARKS AND RECREATION MONTH

in New Braunfels and encourage residents to take part in events and initiatives and to get your "Game On"!

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the City of New Braunfels to be affixed this 8th day of July 2019.

CITY OF NEW BRAUNFELS, TEXAS

BY:_____
WAYNE PETERS, Mayor Pro Tem

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. A)

Presenter/Contact
Michael Mundell, Solid Waste Manager
(830) 221-4040 - mmundell@nbtexas.org

SUBJECT:

Comprehensive Solid Waste Management Plan

DRAFT
Comprehensive Solid Waste Management Plan

City of New Braunfels
Solid Waste and Recycling Division
424 S. Castell Avenue
New Braunfels, TX 78130
830-221-4040

SCS ENGINEERS

01218067.00 | July 2019

425 S. Castell Ave.
New Braunfels, TX 78130
830-221-4040

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1.0 EXECUTIVE SUMMARY

1.1 OVERVIEW

The City of New Braunfels Solid Waste and Recycling Division's (SWRD's) vision for the Comprehensive Solid Waste Management Plan (Plan) is to:

- Evaluate and report on the effectiveness of the SWRD's current programs and operations.
- Address the City's constantly growing population and the resulting potential capacity issues at facilities to which it currently takes its municipal solid waste.
- Provide economically and technologically feasible management methods for solid waste, based on the hierarchy of: 1) waste reduction and minimization; 2) reuse and recycling; 3) waste treatment or reprocessing for energy or resource recovery and 4) land disposal.
- Recommend new strategies and goals that allow the City to make further progress in maximizing waste reduction, diversion, and resource recovery, and extending landfill life.
- Serve as a guide for the City to make fiscally responsible and environmentally focused budgeting, services, and planning decisions.

Using the Plan, the City intends to have a positive and lasting impact on all aspects of solid waste services provided to the residential, commercial, industrial, and institutional sectors. The SWRD contracted with SCS Engineers (SCS) to:

- Help identify Plan goals and objectives
- Establish a baseline
- Forecast waste streams
- Evaluate options to increase landfill diversion and manage future waste streams
- Assess financial requirements
- Prepare an implementation plan

1.2 PLAN GOALS AND OBJECTIVES

The Plan will establish the foundation for cost-effective, long-term management of solid waste by the city of New Braunfels for the 20-year planning horizon, 2020-2040. The fiscal year 2016-2017 is the Baseline Year for this Plan. The Plan's goals and objectives are described below:

Goal #1: Achieve further progress in waste reduction, minimization, and reuse

Objectives:

- Evaluate policies and programs that focus on preventing waste generation.
- Identify repair, re-manufacturing, and refurbishing businesses and opportunities in the region that support the reuse industry.

- Emphasize the value of materials and highlight the saving of natural resources.
- Consider incentives to residents and businesses to reduce waste, such as rate structures, rewards, or penalties.

Goal #2: Maximize resource recovery and diversion

Objectives:

- Evaluate options for commercial recycling.
- Evaluate potential incentives to encourage recycling by commercial businesses.
- Enhance recycling opportunities at the City Recycling Center (CRC).
- Evaluate new technologies and processes to improve current programs and services and enhance efficiency of solid waste operations.
- Ensure convenient access to collection or drop-off services for residences, businesses, and industry.
- Evaluate options for recovering and diverting Construction and Demolition (C&D) materials.

Goal #3: Ensure available capacity at solid waste facilities utilized by the City

Objectives:

- Assess alternatives for cost effective and convenient diversion of green waste.
- Identify facilities to optimize service levels and transportation efficiencies.
- Evaluate current disposal capacity and if necessary, develop alternatives for long-term disposal capacity.

Goal #4: Maintain sufficient funding mechanisms to support SWRD programs

Objectives:

- Evaluate existing revenue sufficiency and develop a long-term financial management plan, including recommendations for future funding strategies.
- Manage waste in a manner that promotes cost-effective collection, recycling, diversion, and ultimate disposal.
- Develop 20-year capital improvement plan, to include implementation goals.

Goal #5: Encourage and expand coordination and communications regarding solid waste issues among all agencies and private firms in the city of New Braunfels and the region

Objectives:

- Increase public awareness of solid waste issues by continuing and expanding educational opportunities within the city to promote waste reduction and recycling options.
- Encourage public involvement in the Plan's implementation process.
- Provide an on-going mechanism for evaluation and feedback of the City's solid waste management system.

1.3 PROCESS AND RESEARCH METHODS

The SWRD provides an integrated waste management system for city residents and businesses that is considered well received and respected by the community. The SWRD recognizes that increasing population, new single- and multi-family home developments, and growth in commercial establishments will require additional services, resources, and infrastructure to continue the same excellent level of service. To address the future waste management requirement, as well as optimize the performance and efficiency of existing waste management services and facilities, an assessment was performed of the City's waste management needs on a short, medium, and long-term basis.

The analysis consisted of inventorying the existing solid waste system and conducting research on local and regional solid waste services and facilities. Furthermore, projections were developed on the types and quantities of materials that will be generated over the planning period and relating that to the existing and future solid waste infrastructure. Finally, various options were identified to meet the City's future solid waste goals, the diversion potential and financial resources necessary to attain them.

1.4 PUBLIC INVOLVEMENT

The City convened a series of workshops to gather public input on the Plan development. The workshops were held at City Hall, and at the SWRD office. The workshops were held during the day and in the evening, to provide convenient access to businesses and residents. The initial workshops, held in September 2018, provided information on the Plan vision, goals, and objectives, as well as background information on the existing solid waste management system in the City. Data on waste generation projections was presented, and the results of the needs assessment were identified. The second series of workshops were held in December 2018. At these workshops, options were presented to address the solid waste management needs of the city in the short, medium, and long terms. The options were organized according to topics, including education and outreach, waste reduction, recycling, organics, and special wastes.

1.5 IMPLEMENTATION PLAN

The City's solid waste management system is operating effectively, but there are opportunities for improvement. Some components, such as capacity at the public works municipal service center, need to be addressed, to continue providing fundamental, public services.

As part of this planning process, numerous options to address various needs in the current waste management system were identified, and then evaluated based on the following criteria:

- Feasibility of implementing within New Braunfels or the AACOG region
- Infrastructure and staffing requirements
- Landfill diversion potential
- Cost
- Role in sustaining reliable public services
- Ability to monitor impact

Table 1 identifies the action items that will be implemented in the short term (1-5 years); medium term (6-10 years) and long term (10-20) years. Many of the short-term action items will focus on increasing the quantity that is diverted from the landfill. During the Baseline Year, the diversion rate in New Braunfels was 16 percent. These action items are projected to increase the landfill diversion rate to 29 percent by 2025 and 38 percent by 2030.

Table 1. Implementation Plan

Action Item	***Implementation Schedule (Short, Medium, Long-Term)***
EDUCATION AND OUTREACH	
Conduct Continuous Improvement Workshop	Short
Facilitate Focus Groups	Short
Collect Additional Data	Short
WASTE REDUCTION, REUSUE AND REPURPOSING	
Support Waste Reduction in Outdoor Recreational Areas	Short
Promote Backyard Composting	Short
Promote Reuse and Exchange Opportunities at Thrift Stores and Habitat for Humanity ReStore	Short
Promote RENEW to Businesses and all City Agencies	Medium
RESIDENTIAL RECYCLING	
Establish Recycling and Participation Goals	Short
Consider a Variable Rate Structure to Incentivize Recycling	Medium
Identify Areas of the City with Low Participation and/or High Contamination Rates for Targeted Outreach and Education	Short
Consider a Multi-Family Recycling Ordinance	Medium
COMMERCIAL RECYCLING	
Consider Contracting for Recycling Services for SWRD Commercial Customers	Medium
Modify Permit Process to Require Private Haulers to Report Waste and Recycling Data	Medium
Modify Permit Process to Require Private Haulers to Provide Recycling Service	Medium
Recognize Businesses that Recycle with Green Business Certification Program	Long
Promote Purchase of Recyclable and Products Made with Recycled Content	Medium

Action Item	Implementation Schedule (Short, Medium, Long-Term)
CONSTRUCTION AND DEMOLITION DEBRIS	
Increase the Delivery of Source-Separated Wood to the Beck Landfill	Medium
Establish C&D Diversion Specifications for City Construction Projects	Medium
Secure Long-Term C&D Disposal and Recovery Capacity	Long
ORGANICS	
Educate on Acceptable Materials for Mulching	Short
Explore Development of Compost Facility with Local Partners for Food Scraps and Biosolids	Short
Assess Capacity for Processing Pre-Consumer Produce and Biosolids at Existing Facilities	Medium
Assess Opportunities to Compost Green Waste On-Site at Large Generators	Medium
Evaluate Organics Collection from Large Commercial Generators	Medium
Increase Awareness about Wasted Food and Food Recovery	Short
Provide Outreach to Restaurants and Grocery stores on Food Waste Reduction	Short
Explore a Partnership with the New Braunfels Food Bank to enhance Infrastructure for Consumable Food Recovery	Short
Educate Residents on Alternatives to Household Products	Medium
SPECIAL WASTES	
Develop Permanent, Multi-Material Recovery Center	Short
Promote Reduction Strategies Through Community-Based Social Marketing	Long
Monitor Developments in Alternative Processing Technologies	Long
FLEET MAINTENANCE	
Develop New, Fleet Service Center	Short

2.0 NATURAL AND HUMAN ENVIRONMENT (CURRENT AND PROJECTED)

The natural and human environment can influence a solid waste system and the strategies a community considers to manage waste in an environmentally sustainable and socially acceptable manner. For example, changes in population and commercial development may affect the amount and type of waste a community generates and therefore, influence the type of waste facilities that are necessary. Local geographic conditions, such as aquifers and topography, can limit where solid waste facilities can be located. This section of the Plan describes the New Braunfels' current natural, land uses, demographic and economic characteristics, and future characteristics from the City of New Braunfels' Envision New Braunfels 2018 report (Envision Report).

2.1 NATURAL RESOURCES AND INFRASTRUCTURE

2.1.1 Current

New Braunfels is located in South Central Texas and is approximately 30 miles northeast of San Antonio and 50 miles southwest of Austin. The acreage of New Braunfels spans two counties, with 82.4 percent in Comal and 17.6 percent) and Guadalupe. It is the county seat of Comal County. New Braunfels is a principal city of the San Antonio-New Braunfels metropolitan statistical area. Interstate Highway 35 runs from the southwest corner to the Northeast corner of the city boundaries and within close proximity to the city's downtown. A major throughway, Loop 337 connects the upper and lower regions of the City.

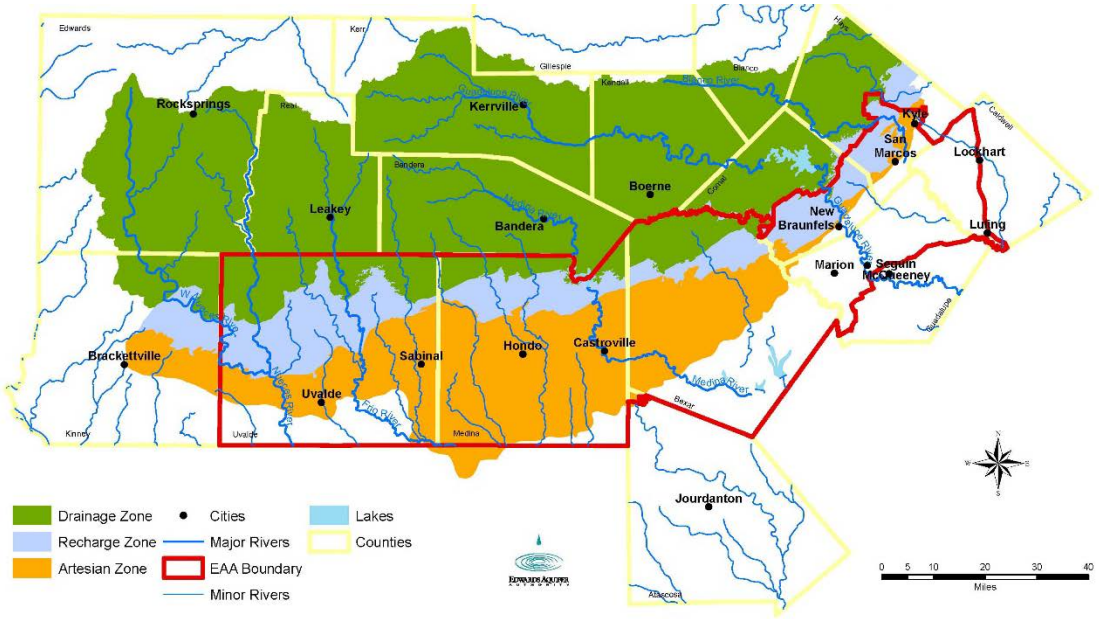
2.1.1.1 Hydrology

The city has a total land area of 43.87 square miles and 0.4 square miles of water. The city is situated along the Balcones Fault and intersected by the Comal River, which feeds into the Guadalupe River. The rivers are a vital component of the City's economy and heritage, but also present challenges.

Over 18 percent of the city limits (5,409 acres), including parts of downtown, occupy the 100-year flood zone. An additional 12 percent is within the 500-year flood zone, which includes the bulk of downtown. There are a series of dams for flood control within the watershed, including the Guadalupe Canyon Dam managed by the US Army Corps of Engineers.

Additionally, the city's western portion sits on the eastern edge of the Edwards Aquifer (**Figure 1**). This is one of the world's highest capacity artesian aquifers, and nearly two million people in south Central Texas depend on the aquifer for agricultural, industrial, recreational, and domestic purposes.

Figure 1. Edwards Aquifer



2.1.1.2 Habitat and Climate

The city's environment is a habitat for a wide array of birds, amphibians, and mammals. This includes the several endangered species: the Fountain Darter, Comal Springs Riffle Beetle, Comal Springs Dryopid Beetle, Peck's Cave Amphipod, Golden-Cheeked Warbler and Comal Springs Salamander.

In 2012, the Edwards Aquifer Recovery Implementation Program developed a Habitat Conservation Plan (HCP) for the protection of the endangered species in the watershed. This HCP recommended a range of habitat protection and flow protection projects, including the removal of non-native vegetation, restoration of native habitat, and limited channel modification in both the Comal and San Marcos Rivers.

New Braunfels experiences a humid, subtropical climate with hot summers and generally mild winters. Temperatures range from an average of 83 °F in the summer to 49 °F during winter. On average, the city receives approximately 36 inches of precipitation, with May and June being the wettest months.

2.1.2 Future

The Headwaters at the Comal is a habitat restoration project that will restore 16 acres of the New Braunfels Utilities' (NBU) Klingemann warehouse property at the headwaters of the Comal Springs to its natural environment. The ecological restoration will include:

- Removing 85 percent of the impervious cover currently on the property.
- Uncapping and restoring the spring.
- Restoring the natural riparian habitats for numerous endangered and threatened species.

- Restoring native plant communities.

Public amenities will consist of a central courtyard, event lawn, display gardens, walking trails, outdoor classrooms, natural spring overlooks, wastewater treatment wetlands, and composting facilities.

The Envision Report includes the following goals for natural resources and infrastructure:

- Protect natural riparian areas and tree canopies that provide resiliency against flooding or other risks.
- Implement storm water best management practices to improve water quality and reduce the demands on engineered storm water systems.
- Reduce solid waste through material recycling and reuse.
- Emphasize energy efficiency and innovation in homes, businesses, and equipment.
- Collaborate with surrounding water providers to preserve, conserve, and continue to diversify our water supply.
- Reduce and control air pollution.

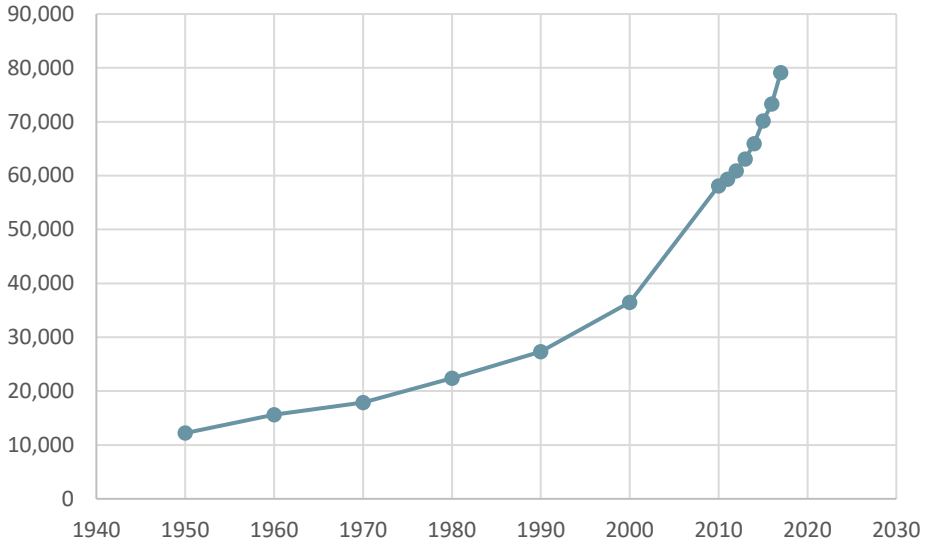
2.2 DEMOGRAPHIC CHARACTERISTICS

2.2.1 Current

2.2.1.1 Population

At the time of the 2010 U.S. Census, the official population in New Braunfels was 57,740. According to the U.S. Census Bureau, this number increased to 79,152 and New Braunfels ranked as the second-fastest growing city in the nation (population of 50,000 or more) during 2016-2017. The city has experienced substantial growth since the mid-20th century (**Figure 2**).

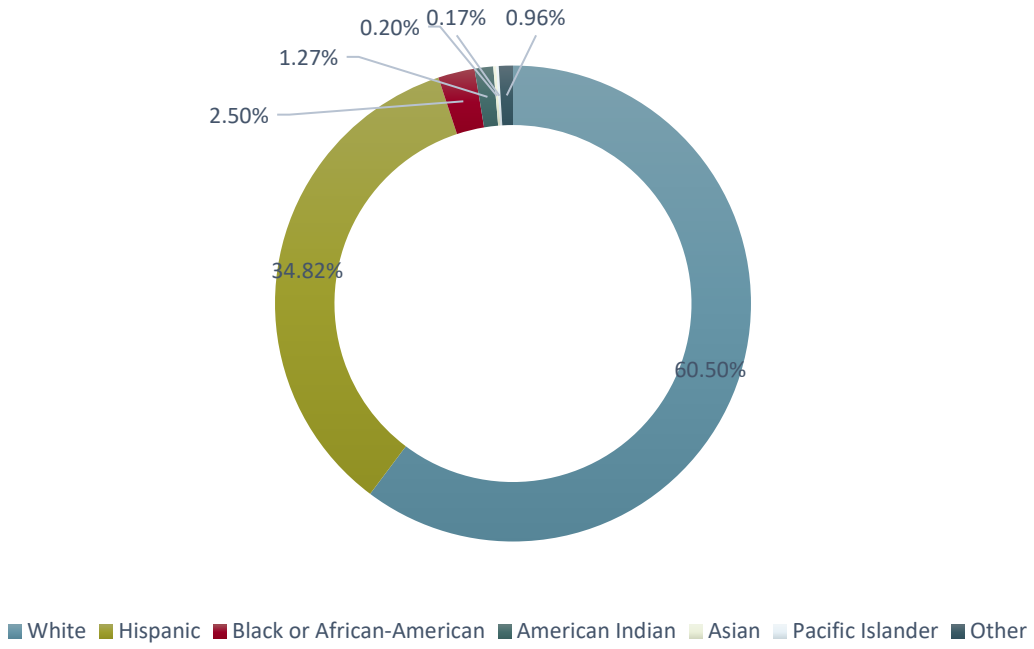
Figure 2. Historic Population Growth



The largest age segment of the city's population is the 35-54 age group. Currently, this age segment represents 26.3 percent of the population, which is slightly larger than the second most populous age segment (55+). The smallest is the 18-34 age group, which constitutes 22.1 percent of the population.

New Braunfels' population includes many households of German, Hispanic and Anglo descendants. **Figure 3** shows the 2016 population by race-ethnicity.

Figure 3. Population by Race-Ethnicity



2.2.1.2 Land Use

Land use in the city is predominantly low density residential, commercial, industrial, and open space. Commercial use occurs along key roadways, such as Interstate Highway 35, with pockets of commercial and industrial along the parkways of Loop 337, State Highway 46 and FM 306. Waterways together with open space blend together with residential and commercial spaces. Several mixed-use areas, such as Gruene and Creekside, represent a moderate amount of New Braunfels current overall land use. Schools, institutional and government establishments are located throughout the city.

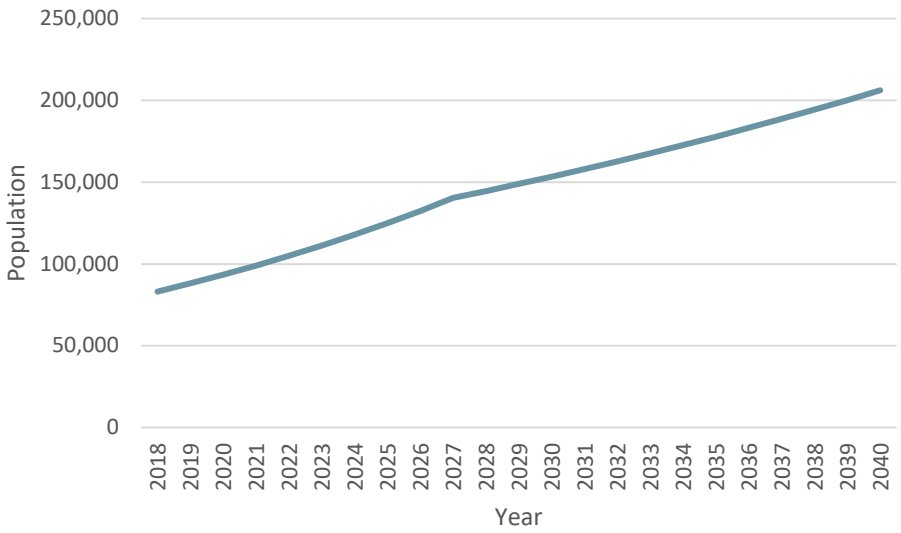
Neighborhoods vary in New Braunfels, ranging from subdivisions of detached single-family homes to multi-family complexes. Many homes are situated near the Comal and Guadalupe rivers. Rural residential communities, featuring larger homes, are typically found along the outskirts of the city.

Commercial land uses such as retail, office and industrial/warehouse are clustered in downtown, Gruene, New Braunfels Town Center and Creekside, and along the major regional highways including Interstate Highway 35, SH 46, Loop 337, FM 725 and FM 306. Commercial land uses range from general commercial to neighborhood commercial.

2.2.2 Future

The Envision Report projects a 6 percent annual growth rate in population for the next ten years, followed by a three percent annual growth rate for years 2027-2040. Based on these assumptions, it is projected the city's population will increase to 93,372 in 2020, 153,415 in 2030, and 206,177 in 2040 (**Figure 4**).

Figure 4. Population Projections



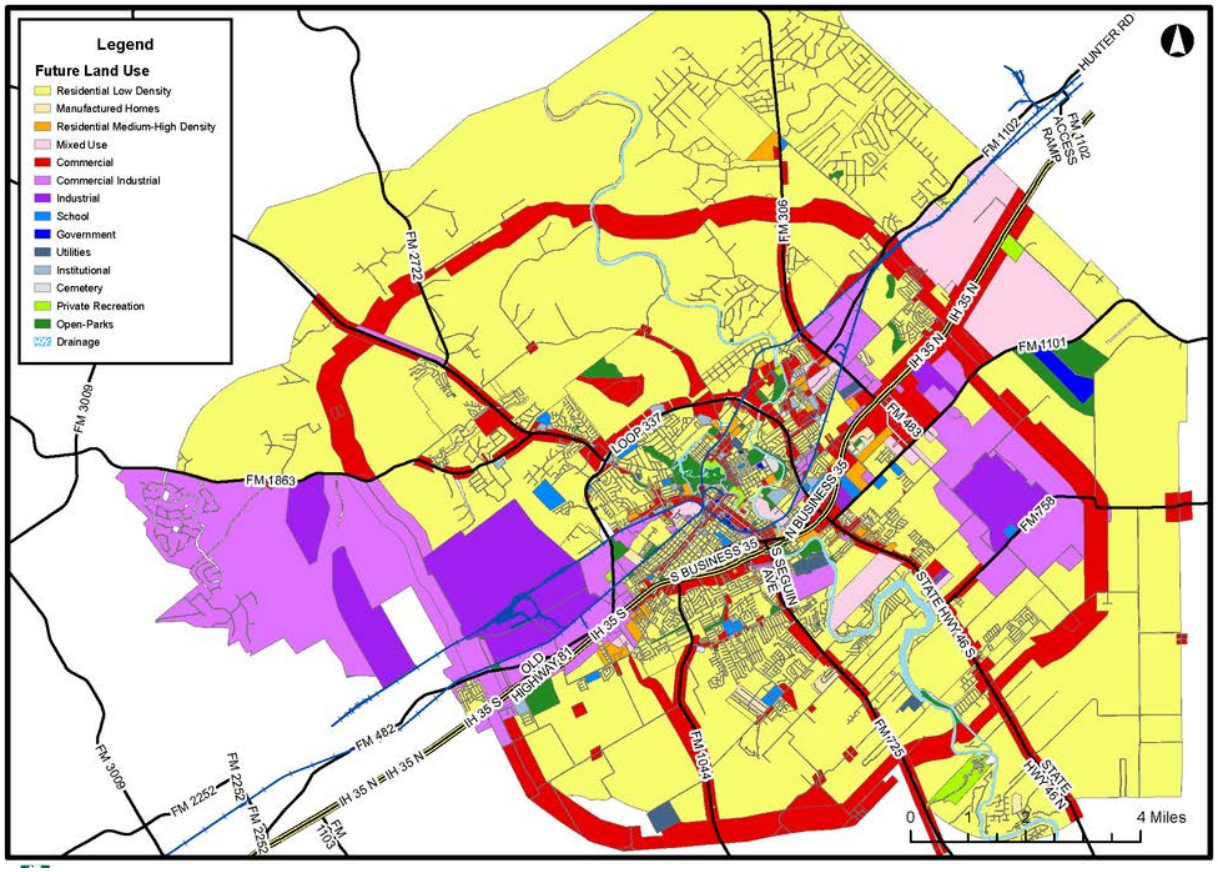
The 55+ age population is expected to see the most growth over the next 15 years; increasing to 28.2 percent by 2031. According the New Braunfels Chamber of Commerce, the city will become more diverse and multicultural in the future, as growing percentages of individuals moving to the area will be of Hispanic, Asian, Black, or African-American or mixed-race descent.

New Braunfels is not only expecting an increase in growth but also expects to be a more densified city becoming less rural and more urban. Veramendi Community will be adding 3,150 new dwellings, 480 acres of parkland, 380 acres of commercial space, a new elementary school, and is expecting to occupy 12,000 to 15,000 new residents. Howard Payne University is building a new campus at the Veramendi development.

The 2006 Future Land Use Plan proposed expanded commercial and industrial uses along Interstate Highway 35 and Loop 337 (**Figure 5**).

However, during the 2012 Regional Transportation Plan update, the community expressed support for focusing commercial uses at key exits/gateways along Loop 337 instead of continuously along the entire loop. Residents desired more preserved greenspace and views to nature and neighborhoods along the Loop 337 Parkway, while the trends of commercial development remained along Interstate Highway 35.

Figure 5. 2006 Land Use Plan



The Envision Report includes the following goals for land uses in the city:

- Protect the character, integrity and stability of neighborhoods where families can live.
- Encourage mixed-use centers that allow people to work and play near where they live.
- Create a clear approach to annexation that allows for strategic and efficient growth.

2.3 ECONOMIC CHARACTERISTICS

2.3.1 Current

New Braunfels is part of the San Antonio- New Braunfels (SANB) metropolitan area, as defined by the U.S. Census Bureau. The SANB metro spans across the following counties: Atascosa County, Bandera County, Bexar County, Comal County, Guadalupe County, Kendall County, Medina County and Wilson County. According to the U.S. Census, in 2015 the SANB metro ranked 25th in the nation by population (2,384,075), and 1st in the nation in terms of economic growth according to the U.S. Department of Commerce.

According to the 2014 US Census, 68 percent of the city's residents work outside the city limits, while approximately 20,000 of 30,000 (or 70 percent) of jobs within New Braunfels are filled by

people living outside of the city limits[1]. The economy of New Braunfels employs 32,157 people. The largest industries in the city are retail trade, (4,454), healthcare and social assistance (3,683), and accommodation and foodservices (3,089).

Tourism/hospitality is also one of New Braunfels' largest industries and provides both direct employment opportunities and indirect employment potential from auxiliary industries such as lodging.[2] In 2017, the New Braunfels' tourism/hospitality industry contributed over $700 million to the region's economy. New Braunfels tourist attractions promote its natural resources, such as the Guadalupe and Comal Rivers, as well as festivals such as Wurstfest, Wassailfest and the Gruene Wine and Music Festival.

2.3.2 Future

The New Braunfels' Chamber of Commerce is targeting growth in aviation, manufacturing, healthcare and medical technologies, IT and data centers, warehouse and distribution, telecom information, specialty food, automotive suppliers, and the music industry. The City plans to invest in the development of housing within the business district that will spur the construction of new restaurants, bars, grocery stores to support these residents. New commercial developments in Westpointe Village and Creekside Town Center and Village will yield 3.5 million square feet additional retail space. In addition, the Solms Landing/New Braunfels Co-Op Public Improvement District (Solms Landing) will be located on 98 acres east of I-35 in the Creekside area near Resolute Health Hospital and Bucees. Solms Landing will offer 675 multifamily and single-family units, 200 hotel rooms, 500,000 square feet of mixed-use space and 150,000 square feet of office space

The Envision Report identifies the following goals for economic competitiveness:

- Create an environment that incentivizes jobs and live/work/play destinations that leverage talent and expands industries.
- Facilitate the creation of new destinations for lodging, recreation, neighborhood goods and services in underutilized neighborhoods and along corridors.
- Create policies and programs that attract families and talented residents.
- Continue to diversify the economy to ensure adaptability and resiliency
- Cultivate a free enterprise approach to growing an economy where the public and private sectors collaborate.
- Continue to be a year-round destination in Central Texas, leveraging target markets via attractions and multi-day festivals.
- Improve existing and create new facilities that encourage tourism and generate revenue through performing arts, conventions, sports events, festivals, and other destination events.
- Enhance existing resources for tourism.
- Create connections and ease of access to tourism destinations via multi-modal transportation.
- Ensure adequate parking for all tourist destinations via public/private partnerships.
- Increase arts/cultural/heritage tourism.

[1] Economic Development Strategic Plan, New Braunfels, TX, Final Report, February 2017, Pegasus Planning and Development.
[2] As of November 2016, New Braunfels has 147 hotels, lodgings or short-term rental facilities.

3.0 WASTE GENERATION AND COMPOSITION

New Braunfels' solid waste management planning requires the collection and analysis of information on the quantities, composition, and projected changes to the city's waste stream. This information helps identify waste diversion and recycling potential, measure existing program and policy effectiveness, highlight market needs, and estimate capacity for current and future processing and disposal infrastructure.

3.1 EXISTING WASTE GENERATION

Waste generation is defined as the sum of the quantity of materials disposed and diverted (reused, recycled, and composted). Based on the available data, estimated waste generation was calculated for 2010 through 2017, as shown in **Table 2**. Total waste generation increased an average of 4 percent per year from 2010 to 2017, for a total increase of 28 percent over the seven-year period.

Table 2. Waste Generation (tons)

Year	Disposal	Diversion	Generated
2010	44,878	2,695	47,573
2011	38,967	6,613	45,580
2012	42,975	6,989	49,965
2013	46,433	7,786	54,218
2014	47,646	8,032	55,678
2015	52,092	8,638	60,730
2016	54,692	9,606	64,298
2017	57,333	10,549	67,882

3.1.1 Per Capita Waste Generation

Per capita waste generation measures the population's effect on waste generation, creating a normalized comparison. The equation below shows how per capita waste generation is calculated.

$$\frac{\textit{waste generated (tons)}}{\textit{population}} \times \frac{365}{\textit{days}} = \textit{per capita waste generation (lbs./pp/day)}$$

Based on the available data, it is estimated the per capita waste generation for New Braunfels in 2017 was 4.7 pounds per person per day. The per capita waste generation for the US averages approximately 4.4 pounds per person per day (2014)[3]. Texas does not calculate a per capita waste generation rate.

[3] Advancing Sustainable Materials Management: 2014 Fact Sheet, USEPA; November 2016.

3.1.2 Disposal

The City tracks disposal by residential, commercial, and special programs. A breakdown of disposal from these three programs for the period 2010 to 2017 is shown in **Table 2**. Using disposal and population data, the per capita waste disposal rate for New Braunfels was 4.0 pounds per person per day in 2017. In 2016, the per capita disposal rate was 4.1 pounds per person per day. In contrast, the State per capita disposal rate for 2016 was 6.8 pounds per person per day. It should be noted this figure only includes waste collected by municipal crews. Whereas the state per capita disposal rate includes commercial waste collected by private waste haulers, construction and demolition (C&D) debris and wastewater sludge.

Table 3. Disposal Data, 2010 to 2017 (tons per year)

Year	Residential	Commercial	Special Programs	Total
2010	21,049	23,645	183	44,878
2011	15,290	23,500	177	38,967
2012	17,259	25,435	280	42,975
2013	17,737	27,266	1,430	46,433
2014	18,382	27,898	1,365	47,646
2015	19,604	31,163	1,325	52,092
2016	21,131	31,858	1,703	54,692
2017	22,133	33,620	1,580	57,333

In addition to City-collected waste, New Braunfels Utilities' (NBU) waste water treatment plants disposed 616 tons of sludge at Mesquite Creek landfill during the Baseline Year.

3.1.3 Diversion

Diversion in New Braunfels consists of recycling, green waste, and brush pickup programs, including residential curbside recycling and green waste collection, weekly brush pick-up, cardboard, scrap metal, Styrofoam, and material collected at the City's recycling center. A breakdown of the diversion data for the period from 2010 to 2017 is shown in **Table 4**. The city's overall diversion tonnage has increased an average of 28 percent per year between 2011 and 2017. Recycling has increased an average of 14 percent per year, and green waste an average of 13 percent per year during the same period.

Table 4. Diversion Data, 2010 through 2017 (tons)

Year	Recyclables	Green Waste, Brush	Total
2010	2,695	0	2,695
2011	4,376	2,237	6,613
2012	5,015	1,975	6,989
2013	5,192	2,593	7,786
2014	5,423	2,609	8,032
2015	5,920	2,718	8,638
2016	6,260	3,346	9,606
2017	6,223	4,326	10,549

A diversion rate indicates the quantity of generated waste that is being reused, recycled, composted, or otherwise diverted from the landfill. For this study, data was not available on reuse and therefore was not included in the calculations of the diversion rate. Based on available data, it is estimated the New Braunfels' diversion rates for 2015, 2016 and 2017 were 14 percent, 15 percent, and 16 percent, respectively. According to the Texas Recycling Data Initiative (TRDI), in 2015, the Texas recycling rate (recycling tons/ disposal tons + recycling tons) was 18.9 percent. According to the 2017 "Study on the Economic Impacts of Recycling" prepared for the Texas Commission on Environmental Quality (TCEQ), the 2015 recycling rate for Texas was 22.7 percent.[4]

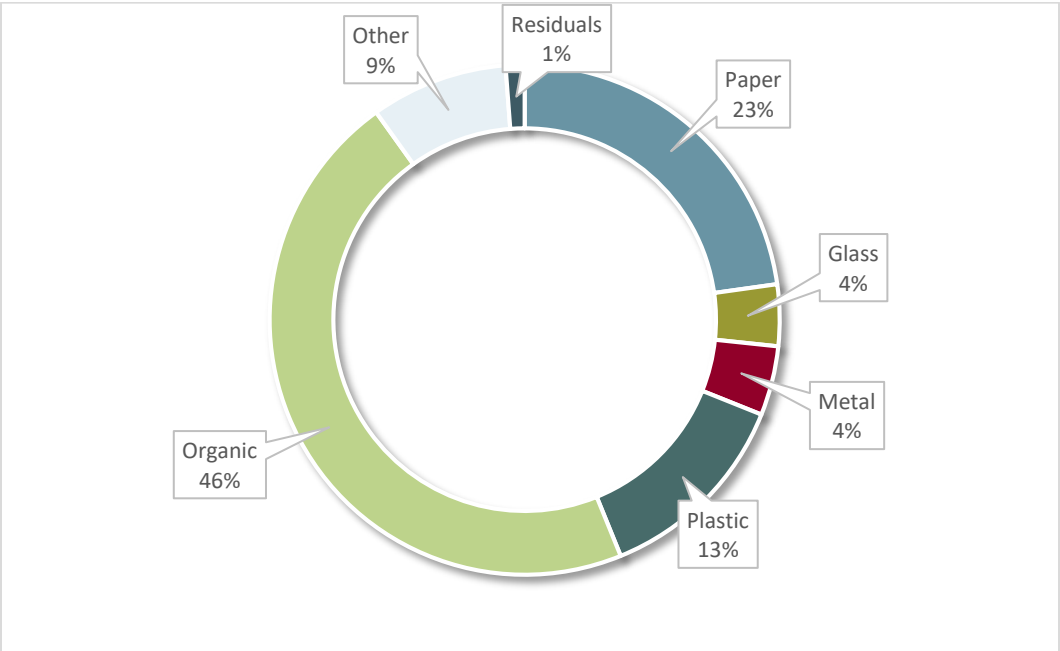
3.2 WASTE COMPOSITION

Waste composition information provides useful data for the City to evaluate existing diversion programs and policies, develop new waste diversion and recycling programs, and evaluate the potential to reduce costs and increase revenues.

To provide perspective on the waste composition in New Braunfels, SCS reviewed recent waste composition studies prepared in Texas. The composition of the New Braunfels' waste stream is estimated based on data from waste characterization studies conducted in Austin, Dallas, and Ft. Worth.[5] The overall waste composition is shown in **Figure 6.**

Using the average waste composition data, combined with the disposal data from New Braunfels, the estimated types and quantities of waste disposed in New Braunfels are presented in **Table 5**.

Figure 6. Overall Waste Composition



[4] The Study On The Economic Impacts Of Recycling, TCEQ, Final Report July 2017.
[5] Data was obtained from 2017 TCEQ Study on the Economic Impacts of Recycling; City of Ft. Worth 2017 Solid Waste Management Plan; City of Dallas 2013 Solid Waste Management Plan.

Table 5. Waste Composition and Disposal Estimates, 2017

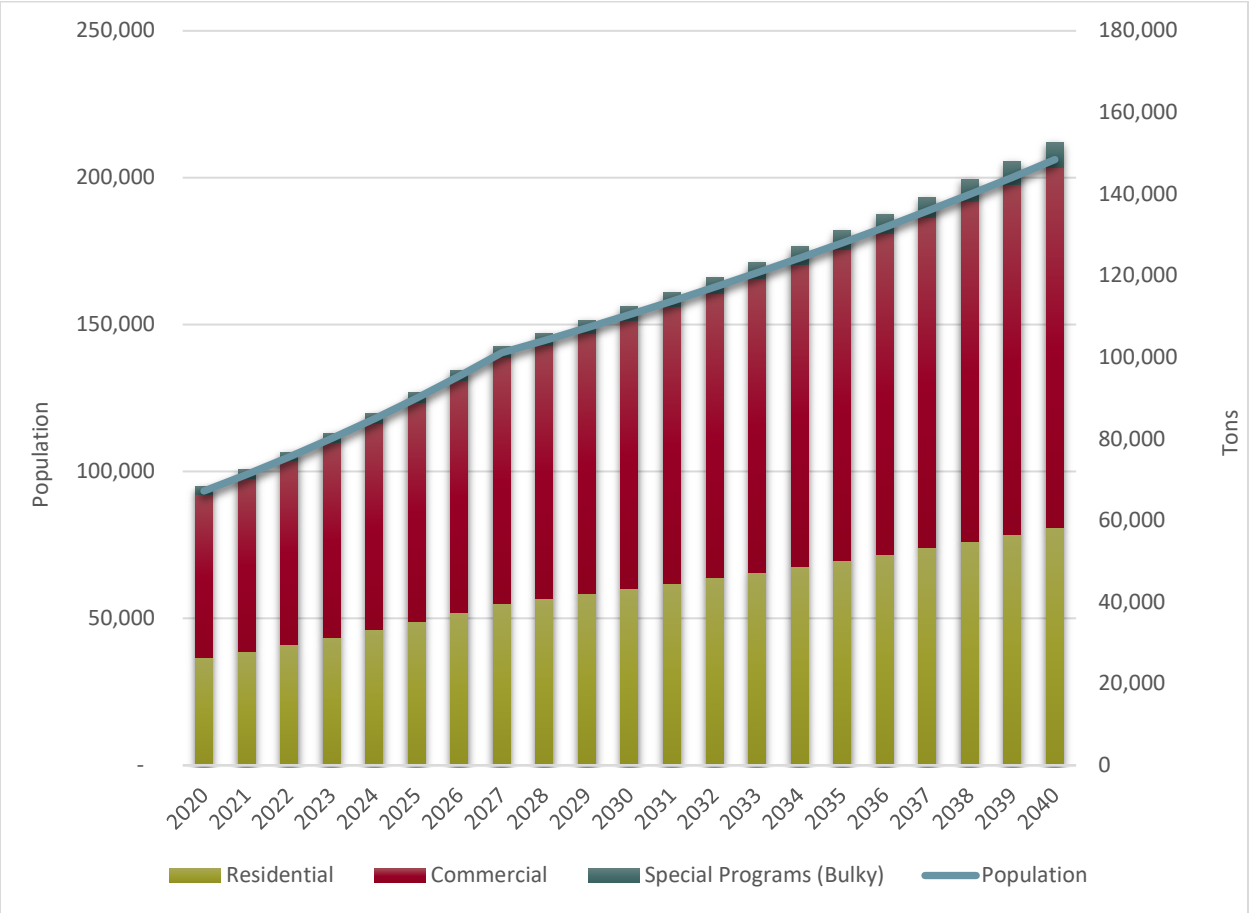
Material Type	Waste Composition	Tons
Paper	27%	15,595
Plastics	11%	6,383
Metals	4%	2,293
Glass	4%	2,121
Organics	36%	20,449
C&D	5%	2,580
Other	14%	7,931
TOTAL	100%	57,352

3.3 WASTE STREAM PROJECTIONS

This section presents waste generation projections until 20 years. Waste stream projections were based on growth assumptions included in the Envision Report. The growth assumptions project a 6 percent annual growth rate in population for the next ten years, followed by a three percent annual growth rate for years 2027-2040. Based on these assumptions, it is projected the City's population will increase to 93,372 in 2020, 153,415 in 2030, and 206,177 in 2040.

As indicated in **Table 2**, the total amount generated during the Baseline Year was approximately 68,000 tons. Using the projected population growth, an increase of 6 percent annually for 10 years followed by 3 percent for the subsequent 10 years, the total tons generated in the city are estimated for the 20-year planning period, 2020 to 2040 (**Figure 7**). As indicated, the city's total waste generation is projected to increase from approximately 80,000 tons in 2020, to nearly 153,000 tons by 2040.

Figure 7. Waste Generation Projections, 2020-2040



4.0 EXISTING POLICIES, PROGRAMS, AND FACILITIES

4.1 GOVERNANCE, POLICIES, AND REGULATIONS

4.1.1 Governance

The City of New Braunfels was founded in 1845 under German charter, and is a home-rule city under Texas State Law. This means it has the right to perform an act without having received that right from the Texas constitution or the state legislature.

A seven-member council governs New Braunfels and has over 500 employees under a city manager. The City has several local advisory committees, boards and commissions who make recommendations to the City Council regarding policies and the operation of several City departments. Fifteen departments operate within the City, including Public Works that reports directly to the assistant city manager.

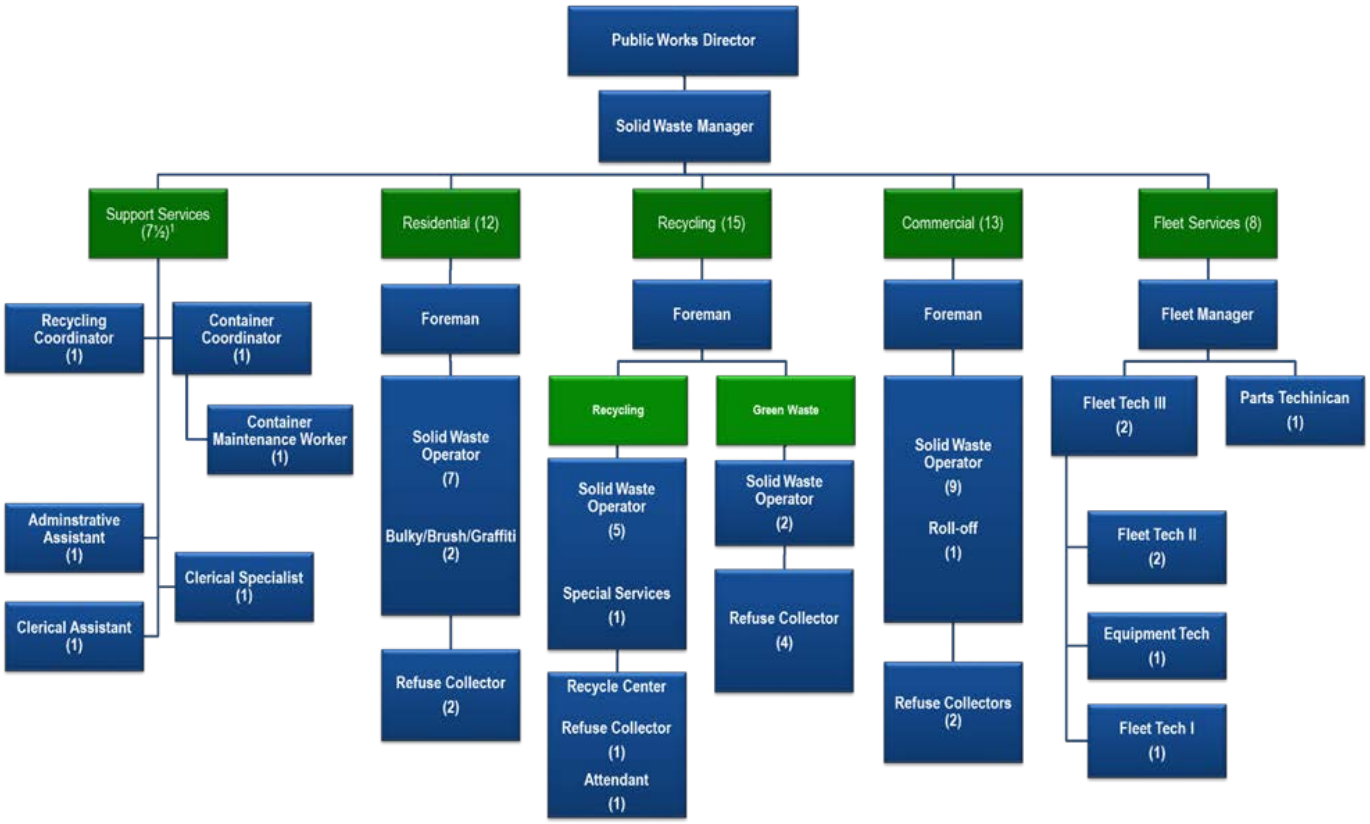
The SWRD is part of the Public Works Department. Public Works is also responsible for the following City services:

- City streets
- Drainage
- Pavement markings
- Signs
- Storm water management
- Traffic signals

The SWRD manages the City's municipal solid waste (MSW) system. As shown in **Figure 8**, the SWRD as five core services and employed 55.5 full-time employees during the Baseline Year.

- Support services
- Residential
- Recycling and green waste
- Commercial
- Fleet services

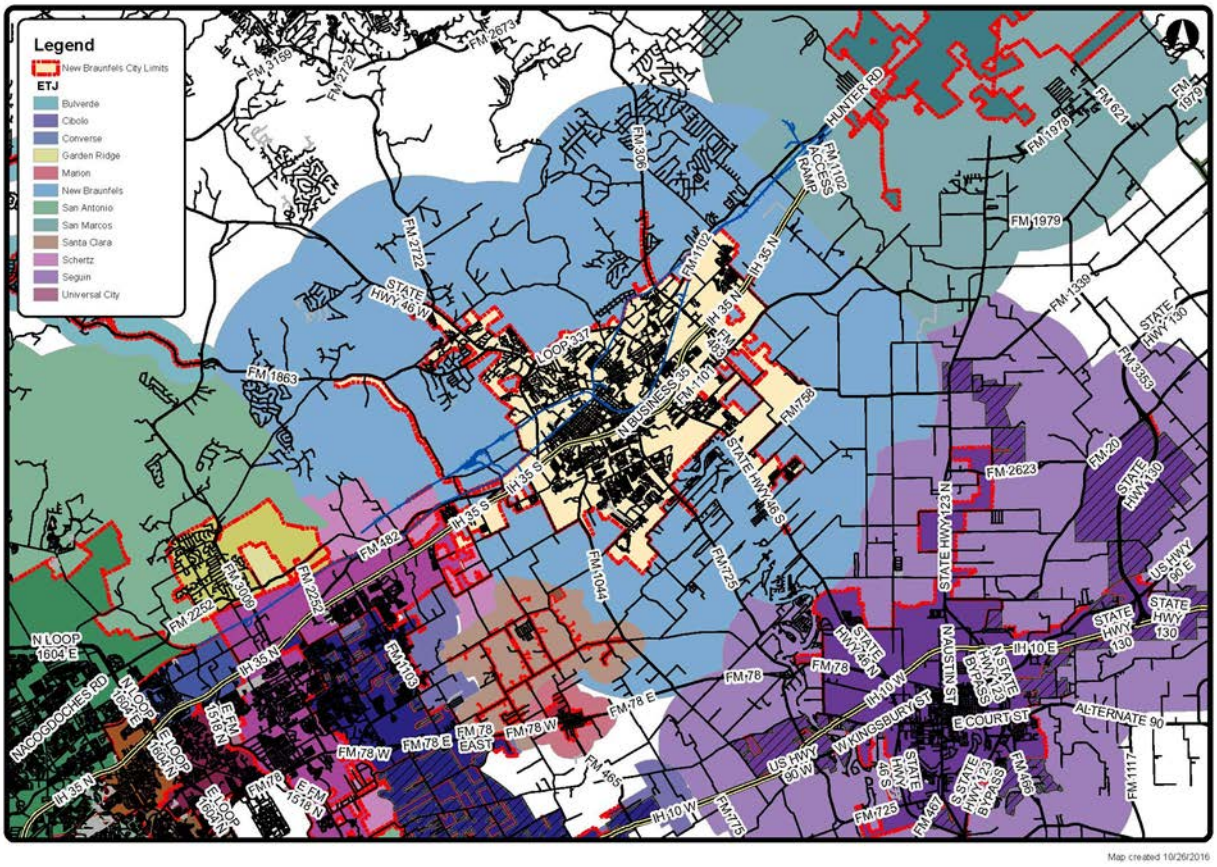
Figure 8. SWRD Organizational Structure



New Braunfels has a 3.5-mile Extraterritorial Jurisdiction (ETJ), which means the City has the legal capability to exercise authority beyond the boundaries of its incorporated area. The State of Texas

has granted such review authority to cities to facilitate alignment of services and policies between incorporated city limits and areas that could one day be part of the incorporated city limits. The City has adopted ordinances establishing regulations for subdivision review and off-premise signage in the ETJ. **Figure 9** shows the 2016 ETJ boundaries.

Figure 9. 2016 ETJ Boundaries



The City is a member of the Alamo Area Council of Governments (AACOG), which was established in 1967 under Chapter 391 of the Local Government Code. AACOG is a voluntary association of local governments and organizations that serves its members through planning, information, and coordination activities. AACOG serves the Alamo Area/State Planning Region 18, which covers 13 counties and 12,582 square miles. The AACOG region is comprised of Atascosa, Bandera, Bexar, Comal, Frio, Gillespie, Guadalupe, Karnes, Kendall, Kerr, Medina, McMullen, and Wilson counties and the governmental units within these counties.

4.1.2 Regulations and Policies

The City's rules, regulations, policies, and rate provisions affecting solid waste within the city limits are contained in Chapter 110 of the City of New Braunfels Code of Ordinances (the Solid Waste Code). The Solid Waste Code establishes regulations governing the accumulation, storage, and disposal of waste for residential and commercial, industrial and institutional users, and establishes

the solid waste rate model that is used to monitor and make recommendations on changing or amending solid waste rates. The existing Solid Waste Code was adopted on March 12, 2018, when the City amended the Solid Waste Code in its entirety. Formerly, the Solid Waste Code addressed similar subject matter, and was derived from Ordinance Number 2010-41, § 2 that was adopted June 28, 2010, and Ordinance Number 2017-07, § 1 that was adopted January 23, 2017.

4.2 EDUCATION AND OUTREACH

The SWRD employs a variety of ongoing, annual and periodic outreach and education methods to educate and encourage compliance with program participants.

4.2.1 Ongoing

Ongoing education and outreach activities and services offered by the SWRD include:

- The City's website is updated on a regular basis with the most current program information and the main site for SWRD is at www.nbtexas.org/swrd. The website also has digital versions of most printed materials, event information, and informational videos about services. Since 2013, almost all SWRD's printed materials for outreach and education have been in both English and Spanish. The website also has a calendar, where all events are posted. Through the website, http://www.nbtexas.org/1769/Stay-Informed, residents can sign up to be directly notified of events, media releases, and changes via the website's "Notify Me" feature.

- For every event and change to service (i.e. collection holidays), the SWRD runs advertisements in the local newspaper, the Herald-Zeitung, and sends a media release to local media outlets. The SWRD also runs ads about program compliance – what is and is not recyclable, "Don't trash your Green Waste," etc.

- On the collections side, drivers in all divisions carry door hangers, called "tags," which are left for a customer when an issue needs to be addressed. Once three tags are left within a 60-day time frame, the address is sent a letter asking they correct the issue to continue to receive service.

- SWRD service information runs 24/7 on cable PEG channel for Government Access.

- The SWRD has a mascot, named Scout the Green Raccoon that goes to presentations to talk about recycling and waste reduction. Scout has a local origin story, which on his website: http://www.nbtexas.org/1808/Scout-the-Green-Raccoon. Scout has an activity book that is custom-created for New Braunfels residents, encouraging young children to pick up litter, reuse, and recycle. He usually makes about 10 public appearances a year.

- Each year, the SWRD has direct interaction with more than 2,200 people via events and presentations.

- The SWRD distributes promotional items made from recycled materials: tire jar openers; shirts, bags, rulers, and pens with recycled plastic; pencils with recycled newspaper.

- The SWRD posts videos to encourage recycling and program compliance in New Braunfels: http://www.nbtexas.org/CivicMedia?VID=382 *and more recently:*

http://www.nbtexas.org/CivicMedia?VID=401. Both of these videos have played in the local movie theater and on the PEG channel.

4.2.2 Annual

Each year, the SWRD conducts the following education and outreach activities:

- Direct mails every household that it services information about curbside services;
- Shows a 30-second video applauding recycling efforts in New Braunfels in a local movie theater. In 2017, there were approximately 82,000 views of this video;
- Makes about 20 presentations to various school classes on recycling, waste reduction, and environmental impacts, including the award-winning two-day 6th grade curriculum on the 3Rs: Reduce, Reuse, and Recycle given to every NBISD 6th grader. Students often play a game that requires them to choose between recyclable and non-recyclable items;
- Participates in story time at the Public library around Earth Day, reading stories and conducting activities about recycling;
- Staffs a table at the City's Community Arbor Day and gives away promotional materials to approximately 75 people;
- Participates in Earth Day events where there are from 75 to 400 attendees;
- Conducts six to eight presentations for City employees on recycling at work and at home, including at the New Hire Orientation and the Employee Health & Wellness Expo;
- Makes presentation at City University to about 25 residents; and,
- Distributes four, environmentally-oriented newsletters. These newsletters include articles from City departments (Environmental Health, Watershed Management, Parks and Recreation) and New Braunfels Utilities (NBU), as well as SWRD information and current issues in the solid waste industry. These are handed out at events and quarterly, 10,000 are inserted into a Sunday edition of the Herald-Zeitung.

4.2.3 Other Presentations/ General Outreach

The SWRD also:

- Made at least one presentation at the local children's museum (McKenna), for garden clubs and church groups, camps, career day, student groups (Lego league, Girl Scouts, Boy Scouts), private schools, and other local organizations (Council of Realtors, Farmer's Market, Kops N Kids); and,
- Hosts tours at the CRC to students, organizations, and residents.

4.3 SWRD SERVICES, PROGRAMS, AND FACILITIES

The following provides an overview of each SWRD service center, which includes the quantity of MSW that each service center managed during the Baseline Year and the governing provisions of the Solid Waste Code.

4.3.1 Support Services

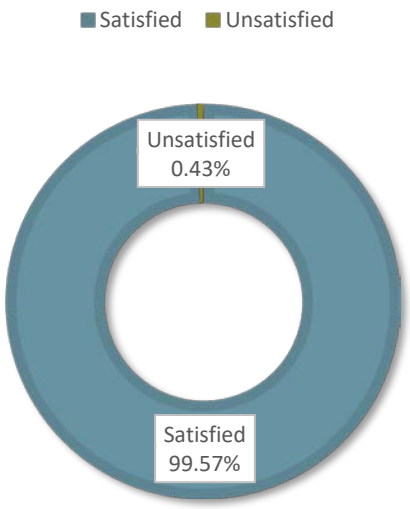
The Support Services section of SWRD includes 7.5 positions, because the solid waste fund partially funds the position of Public Works Director. Most of these positions handle the administrative responsibilities associated with the management of solid waste and recycling services.

In Support Services, staff members take calls from residential and commercial customers regarding services, as well assist residents in-person. Many calls result in a service request, or a work order, being created to ensure that the service is completed. Service requests are tracked by a software program that the City utilizes, called Accela Automation. During the Baseline year, Support Services received and average of 4,795 calls per month that initiated on average 631 work orders each month. The average amount of time spent on the phone in Support Services is 101 hours per month.

The container maintenance part of Support Services is responsible for the delivery, maintenance, and repair of carts and dumpsters that are used for collection. During the Baseline Year, 1,076 residential garbage and 340 recycling cart maintenance work orders were completed. 1,214 new service delivery work orders, meaning initiating service for a new construction home, were requested for residential. With respect to commercial, Support services received approximately 394 work orders for maintenance of commercial containers (carts and dumpsters combined) during the Baseline Year. For commercial new service, approximately 84 work orders were requested.

In 2013, the City began surveying customers who contact Support Services to gage their level of satisfaction. On average, approximately 1,300 customers participate in the survey each year and as shown in **Figure 10**, over 99 percent of the participants were satisfied with the service they received.

Figure 10. Average Customer Satisfaction Since 2013



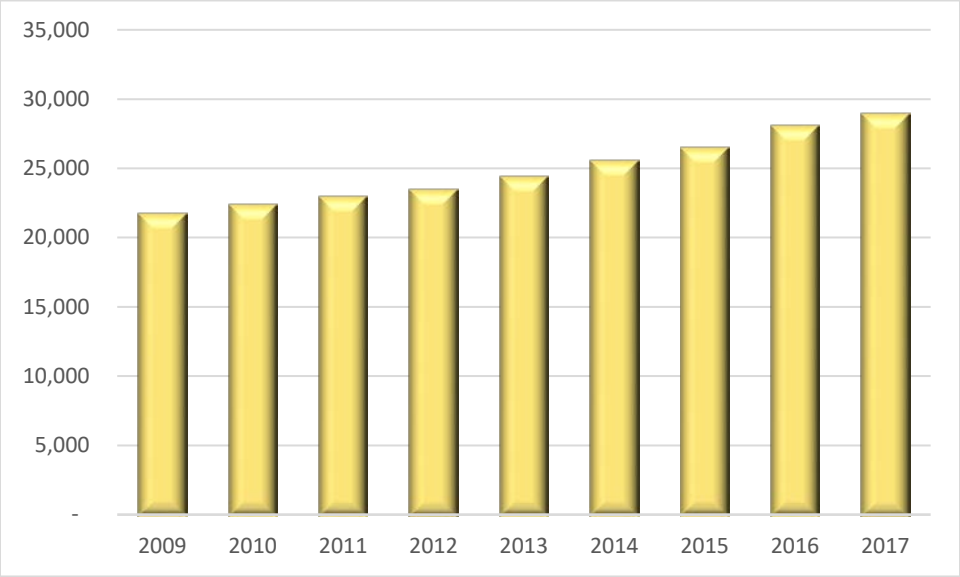
4.3.2 Residential Waste

4.3.2.1 Curbside Waste Collection

The SWRD is the exclusive waste hauler for residential customers in the city. During the Baseline Year, the SWRD collected 34,216 tons of waste from 28,899 residential customers. According to the Solid Waste Code, "any person making application for water and/or electric service inside the City limits shall be deemed to have applied for garbage and recycling services and shall be considered a customer of the Solid Waste and Recycling Division of the City until such time as water and/or electric service to such person has been discontinued."

The number of residential waste customers has been steadily increasing at an average of 3 percent per year over the past eight years. This is indicative of the growth the city has experienced over this period, and the SWRD has added new collection routes to meet the demand. **Figure 11** provides a historic overview of residential waste customers.

Figure 11. Historic Residential Waste Customers



Residential customers receive weekly waste collection and the SWRD provides them with a 96-gallon cart. Residential customers pay a monthly fee of $13.40 for this service. A 48-gallon cart is also available, but the monthly fee is the same. During the Baseline Year, less than 3 percent of customers requested a 48-gallon cart. If the residential customer requests a return service, meaning the SWRD needs to return and service a cart outside of the normal route or business day, the SWRD will charge them a fee of $15.00.

Residential customers can request additional carts for a fee of $6.50 per month. The residential customer must keep the cart for a minimum of four consecutive months before they can return or exchange the cart. Residential customers may also purchase tags from the SWRD in increments of five for $10 when waste exceeds cart capacity. Tags are available at the following locations:

- City Municipal Building 424 S Castell Avenue
- New Braunfels Utilities 263 Main Plaza

Based on 2017 expenditures, the SWRD sold 45 packs of tags. The SWRD prohibits residential customers from putting the following materials in waste carts or tagging them for waste collection:

- Bricks and rocks
- Bulky appliances
- Construction debris
- Dirt
- Flammable or combustible liquids or gases
- Green waste
- Hot ashes or coal
- Tires
- Televisions and electronics

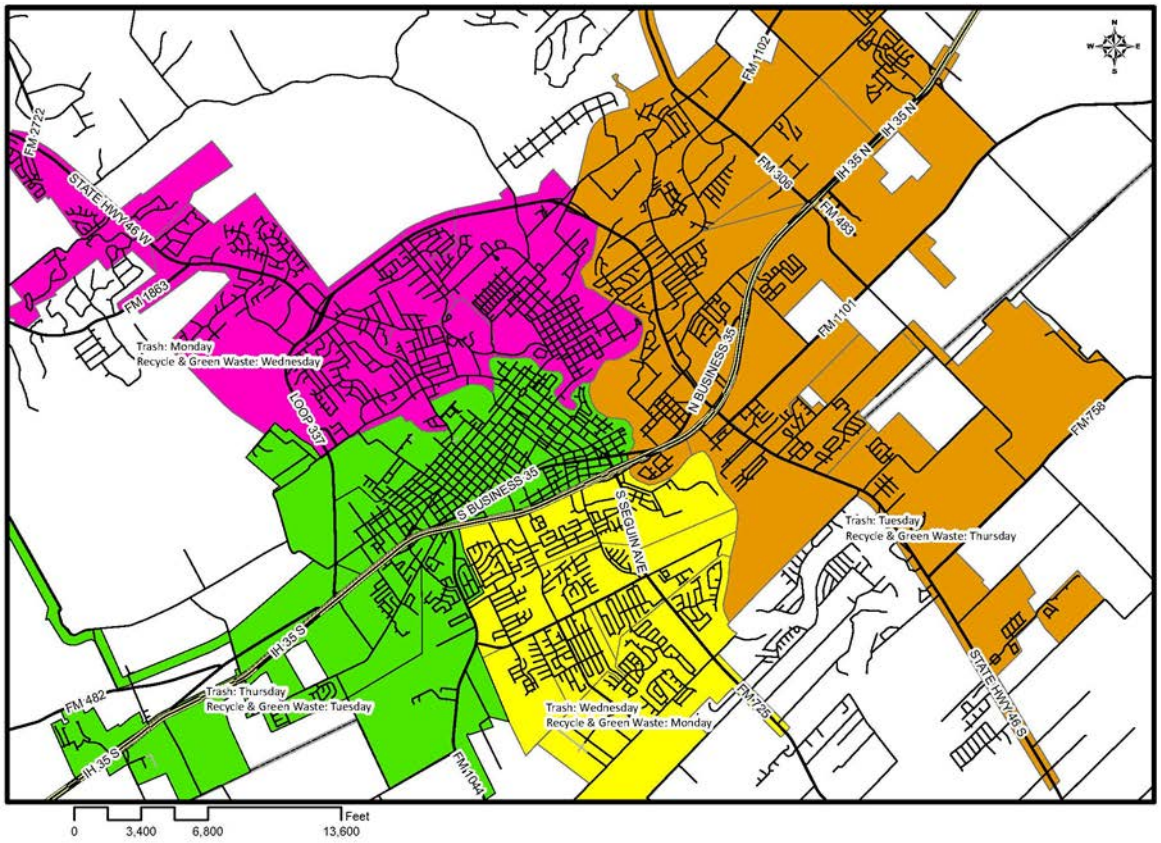
The SWRD permits residential customers to put household medical and infectious waste into carts, including lancets, syringes, and hypodermic needles. However, residential customers must put lancets, syringes, and hypodermic needles in a rigid, leak-proof and puncture resistant container with a secured and taped lid that has a label identifying the contents.

The SWRD began collecting waste with an automated collection system in 2005. In an automated collection system, the driver positions the collection vehicle beside the cart. Using controls inside the cab of the vehicle, the driver maneuvers a hydraulic arm to pick up the cart and tip its contents into the vehicle. The driver then uses the arm to return the cart to its original location. To optimize the performance of an automated collection system, the Solid Waste Code includes the following provisions:

- All carts must be placed on the addressed side of the structure or designated point of collection approximately five feet laterally from any obstacle.
- Carts must be placed at the street's edge with the wheels against the curb. If curbs do not exist, wheels must face away from main street section.
- No carts can be placed in an alleyway, under any overhead lines of any type or low overhanging branches and must be placed five feet from any obstacle or structure. Exceptions to this shall only be given by the Solid Waste Manager or designee.
- It is unlawful to park, place, allow, permit or cause to be parked, place any motor vehicle, trailers, boats, or similar obstruction within five feet of, or obstruct in any manner the collection of waste.

The SWRD divides residential waste collection into four zones (**Figure 12**), and services customers four days per week using 10-hour shifts.

Figure 12. Residential Waste Collection Zones



4.3.2.2 Bulky Goods

The SWRD does not collect bulky goods, such as furniture and appliances, curbside unless a residential customer has scheduled a pick-up for these items for a fee. The SWRD charges a minimum fee of $25.00 for the first one-half hour and $25.00 for each additional one-half hour. During the Baseline Year, the SWRD responded to 212 requests for bulky good service requests and collected 1,064 tons of bulky goods.

The SWRD offers Bulky Goods Drop-Off events (BGD) to residents at no additional charge. Residents must bring a current New Braunfels Utilities (NBU) or Guadalupe Valley Electric Cooperative (GVEC), bill and a photo identification. The SWRD conducts the BGD several times a year at multiple locations, including the Mesquite Creek Landfill, operated by Waste Management.

Residents can bring the following materials to the BGD:

- Non-metal oversized trash items
- Furniture
- Mattresses
- Up to four, whole passenger tires per resident. Rims must be removed.

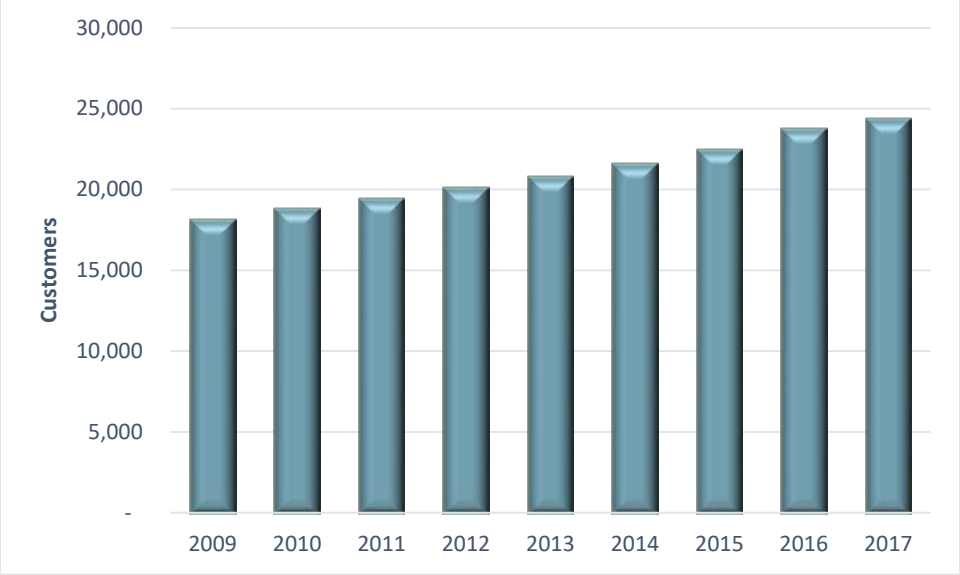
During the Baseline Year, 2,114 residents participated in the BGD and the SWRD received 175 tons of material at BGD and 39 tons of scrap metal[6]. The SWRD disposed the waste at the Mesquite Creek Landfill and sold the scrap metal to Comal Iron & Metal, a local scrap metal recycler.

4.3.3 Recycling and Green Waste

4.3.3.1 Curbside Recycling

The SWRD began operation of a residential curbside recycling service in 1995. In October 2010, the program was upgraded to provide increased container capacity of 96-gallons per customer, and once-a-week collection of single-stream recyclables via automated collection. Presently, the SWRD provides curbside recycling services to all single-family and some, smaller multi-family homes. The SWRD curbside recycling customers pay a monthly fee for this service, whether or not they participate. Data on the number of residential recycling customers from 2009 to 2017 is shown in **Figure 13**.

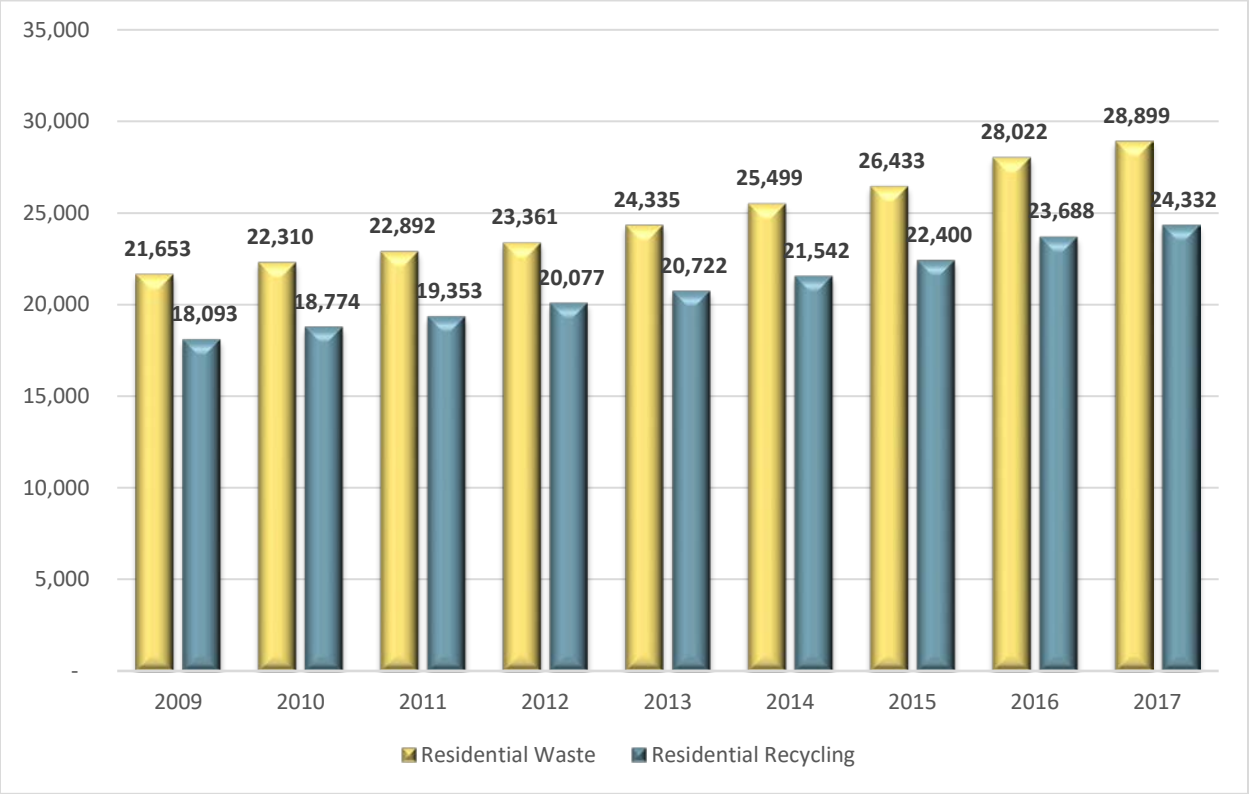
Figure 13. Historic Curbside Recycling Customers



As shown in **Figure 14**, the City has fewer curbside recycling customers than waste even though the Solid Waste Code requires all residential customers to subscribe for both services. This is because some multi-family complexes are charged the residential waste rate but are not currently serviced under the City's curbside residential recycling program. Therefore, they are not billed for curbside recycling services.

[6] Due to high participation at events, scrap metal stopped being accepted at BGD sites beginning in September 2018. Operationally, it was more efficient to direct residents to the CRC year-round, rather than at quarterly BGD

Figure 14. Historic Residential Waste and Recycling Customers



The monthly fee for curbside recycling service is $4.26. Residential customers can obtain an additional recycling cart at no charge. During the Baseline Year, 5,740 tons of recyclables were collected curbside, which included:

- Plastic containers #1-7, less than 5 gallons in volume with lids on.
- Clean, dry mixed paper including:
  Newspaper, magazines, junk mail, catalogues, cereal boxes, phone books, envelopes, and printer paper

  Shredded paper in a shut and stapled, paper bag

  Cardboard: no larger than 18 inches by 18 inches and must be flattened
- Steel and tin: food cans and beverage containers
- Food-grade glass bottles and jars
- Aluminum cans and bottles
- Food and beverage cartons

Pursuant to the Solid Waste Code, "Only residential recycling is to be placed in carts. Garbage, refuse, yard waste, brush and limbs, construction debris, tires, dead animals, lancets, syringes, hypodermic needles, hazardous substances, diapers, hot ashes/coals and stable matter such as

dirt, brick and rock will not be accepted." The SWRD will not service the cart if it contains any prohibited items. The residential customer must remove all unauthorized items before the SWRD will service it. If the residential customer requests a return service for recyclables, as well as waste, the SWRD will charge them a fee of $15.00.

The SWRD provides residential recycling customers with 96-gallon carts, and 48-gallon carts are available upon request. However, the monthly fee is the same. The SWRD collects recyclables weekly on the same day as green waste, but not on the same day as waste collection. Similar to waste collection, the SWRD uses automated vehicles to collect recyclables and the same Solid Waste Code requirements apply to recycling cart placement. During the Baseline Year, 56 percent of residential customers set out recyclables on a regular basis.

4.3.3.2 Multi-Material Drop-Off Recycling

The SWRD provides an opportunity for all residents, businesses, and visitors to recycle at the CRC, which is located at 488 S. Castell Avenue in New Braunfels. During the Baseline Year, the CRC serviced 36,889 visitors with an average of 146 visitors per day. The CRC is open Tuesday through Saturday, from 8:00 am to noon and 12:30 pm to 4:00 pm. The CRC accepts the following materials:

- Plastic containers #1-7
- Paper
- Newspaper, junk mail, magazines, catalogs, paperboard
- Cardboard
- Food and beverage cartons
- Glass bottles and jars
- Aluminum cans
- Steel cans
- Tin cans
- Hangers
- Chains
- Scrap metal
- Appliances, without Freon
- Lawn mowers, without fluids
- BBQ grills, without coals or propane
- Bicycles

During the Baseline Year, the CRC recovered 214 tons of commingled recyclables, 74 tons of cardboard and 111 tons of scrap metal.

In addition, the CRC accepts expanded polystyrene (EPS), commonly identified with the #6 code and referred to as Styrofoam. The SWRD requires that all EPS is free of food residue, tape, labels, and any other items that might be attached to the EPS. In addition, the EPS must be contained in a bag or container that the SWRD can empty easily and quickly.

When the CRC receives EPS, an onsite machine cuts the material into small pieces, heats it, and densifies it. Once densified, manufacturers can use the recycled foam to create new products, such as picture frames and crown molding. The SWRD delivered one load of densified foam to a manufacturer during the Baseline Year.

4.3.3.3 Household Hazardous Waste (HHW)

The SWRD conducts collection events to encourage proper disposal of HHW and recycling non-hazardous household chemical-based products several times each year. Residents of the City and Comal County can deliver the following materials to these events at no charge:

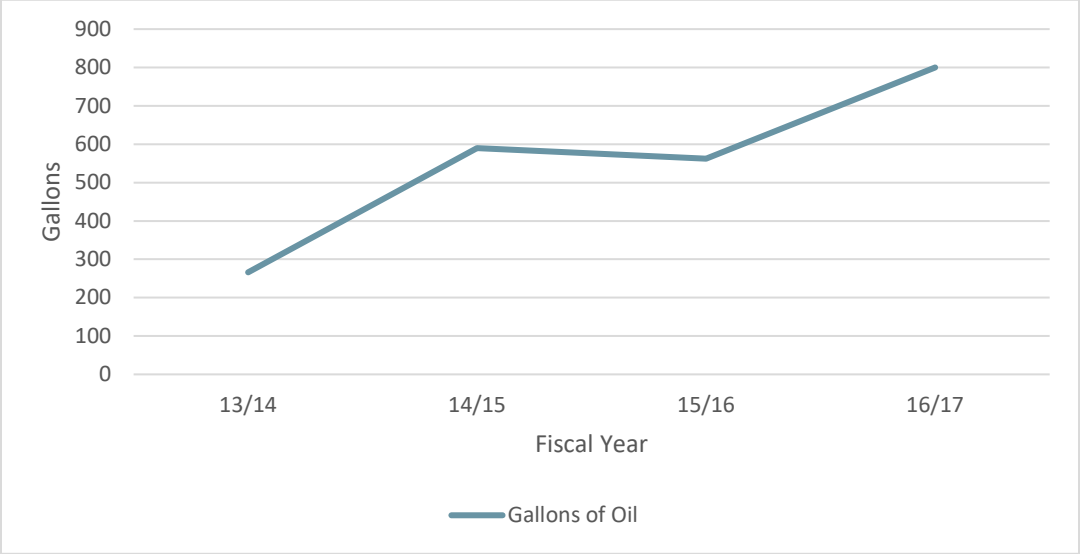
- Auto batteries
- Antifreeze
- Brake fluid
- Herbicides, pesticides, poisons
- Gasoline
- Cleaning products
- Motor oil
- Oil and fuel filters
- Paint, paint thinner, stains
- Pool chemicals

To assure that the HHW events run safely and efficiently, the SWRD requires the following:

- Participants cannot mix products.
- Participants must transport products in their car's trunk or truck bed.
- Products must be in the original containers and labeled if possible. Containers of liquid waste must be five gallons or less.
- The City will not accept trailer loads.
- Participants must bring a picture ID for proof of residency.

During the Baseline Year, the SWRD conducted three HHW collection events, where 1,006 City and County residents brought HHW and the events recovered 800 gallons of used oil. As shown in **Figure 15**, the quantity of used oil delivered to HHW collection events continues to increase.

Figure 15. Used Oil Delivered to HHW Events



In 2014, the SWRD began crushing fuel and oil filters were crushed, so that the metal could be recycled with scrap metal and the oil and fuel could be blended for recycling by a vendor. Table 6 shows the quantity of filters crushed and gallons of oil and fuel recovered from crushed filters since 2014.

Table 6. Filter and Oil Recovery

Year	Filters	Gallons
2014	80	3.75
2015	225	2.5
2016	683	6.5
2017	180	2.5

The SWRD contracts with Clean Harbors Environmental to operate the HHW collection events, as well as to prepare and transport the materials to final management facilities. Final management facilities can include recycling, incineration, blending into fuel and landfilling. Clean Harbors charges the SWRD different rates for each type of HHW received. The City and Comal County share the cost of the HHW events. During the Baseline Year, Clean Harbors processed 188 tons of HHW from the collection events.

The SWRD also educates residents on how to manage HHW throughout the year, including how to dispose of materials properly, such as latex paint. The SWRD also provides the location of stores that will take HHW materials, such as antifreeze and car batteries, on the City's website.

4.3.3.4 Electronics Recycling

To recover used electronics, the SWRD annually conducts an Electronics Recycling Event where the following materials are accepted:

- Cables/ cable boxes
- Cellular phones
- Computers monitors
- Fax machines
- Hubs
- Ink jet cartridges
- Laptops
- Mice
- Keyboards
- Power cords
- Printers
- Servers
- Switches
- Routers
- Telephones
- Toner cartridges
- Televisions
- UPS

During the Baseline Year, 228 participants delivered approximately 14 tons of electronics. As shown in Table 7, televisions comprised the vast majority of electronics delivered to the event.

Table 7. Electronic Waste Composition

Item	Percentage
Televisions	76.00%
Printers	8.22%
Computer Scrap	7.49%
Cable Mix	0.72%
Power Supplies	0.04%
Modems	0.17%
Speakers	1.87%
Household Electronics	2.85%
Keyboards	0.88%
Mice	0.07%
Hard Drives	0.13%
Remotes	0.09%
A/C Adaptors	0.64%
Cell Phones with Battery	0.09%
Phones- House/Office	0.20%
Cameras	0.10%
CD Roms- Floppies	0.10%
Circuit Boards	0.11%
UPS	0.22%

4.3.3.5 Green Waste

The SWRD provides weekly collection of green waste on the same day as recyclables. The Solid Waste Code defines green waste as, "leaves, grass clippings, yard and garden trimmings, brush, including clean woody vegetative material measuring six inches or less in diameter that results from homeowner landscaping maintenance and not commercial land clearing operations. This term does not include stumps, roots, yucca, cactus, palm debris, soil or rocks." Residential customers can also bundle branches with rope or twine, but they must be cut into 4-foot lengths.

The SWRD offers City-purchased, green waste paper bags to residential customers at no charge. The bags are available at the following locations:

- City Recycle Center 488 S Castell Avenue
- City Library 700 E. Common Street
- Landa Recreation Center 164 Landa Park Drive
- City Hall 550 Landa Street

Residential customers do not pay an additional fee for green waste collection or green waste paper bags. The collection of green waste and green waste paper bags are funded through the $4.26 per month recycling fee.

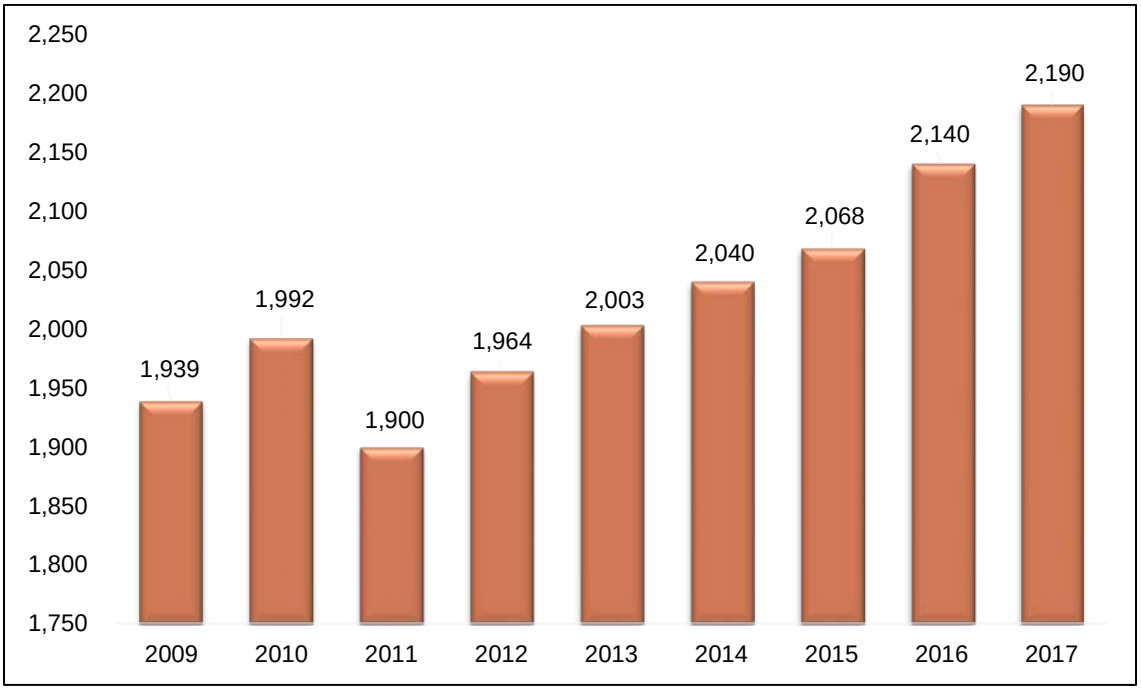
However, the SWRD does charge an additional fee for large-quantity, curbside brush collection: $25 minimum for the first one-half hour and $25 for each additional one-half hour. During 2017, the SWRD collected 4,085 tons of green waste during regular weekly collection, and an additional 241 tons of brush through separate brush collection.

4.3.4 Commercial Waste

The SWRD provides waste collection to the majority of commercial establishments in New Braunfels. The Solid Waste Code defines commercial customers as "any enterprise or establishment whose main purpose is to carry on a commercial activity whether for profit or not. Typically includes, but not limited to, such enterprises as; hotels, motels, restaurants, fast food establishments, retail stores, schools, offices, shopping centers/malls/plazas, factories/manufacturing facilities, warehouses, and high density occupied dwellings such as apartment/condominium complexes and mobile home parks."

The SWRD has four categories of commercial customers, which are based on the type of waste receptacle they use. These categories include: 96-gallon carts; dumpsters; compactors; and roll-off containers. During the Baseline Year, the SWRD collected 37,691 tons of waste from 2,190 commercial customers. **Figure 16** presents the growth in commercial customers since 2009, which shows a decrease in commercial customers from 2010 to 2011. This is due to an internal billing audit, removing customers that were no longer active accounts and consolidating commercial customer.

Figure 16. Historic Commercial Customers



During the Baseline Year, the SWRD collected 35,459 tons of waste from dumpster customers. Compactor customers accounted for 14 tons and roll-off customers generated 1,131 tons of waste. The SWRD also collected approximately 15 tons of animal waste.

4.3.5 Fleet Services

Fleet Services provides maintenance and repair services for City vehicles. The past four years, employees have earned the Blue Seal of Excellence from the National Institute for Automotive Service Excellence (ASE) by having employees pass ASE-certification tests in both the Automotive & Light Truck and Medium-Heavy Truck categories. All employees have taken and passed at least two certification tests. Three are even considered an ASE-Certified Master in their category. There are 62 heavy vehicles and 305 light vehicles in the City's fleet. During the Baseline Year, Fleet Services completed 4,117 work orders, which is an average of 343 per month. Of the maintenance work orders, 655 were solely for oil changes. That averages out to about 54 oil changes per month.

Fleet Services crushes fuel and oil filters so that the metal can be recycled with scrap metal and the oil and fuel can be blended for recycling by a vendor. **Table 8** shows the quantity of filters crushed and gallons of oil recovered from crushed filters since 2014.

Table 8. Filter and Oil Recovery by Fleet Services

Year	Filters	Gallons
2014	781	29.5
2015	644	14.65
2016	579	5.75

4.4 ADDITIONAL SOLID WASTE SERVICES, PROGRAMS, AND FACILITIES

4.4.1 Other Government Agencies

4.4.1.1 Comal County

The SWRD transports green waste to the Comal County Rural Recycling and Chipping Facility, which is located at 281 Resource Drive in New Braunfels. Comal County permits vehicles operated by municipalities, public utilities, school districts, and political subdivisions to drop off brush and green waste at the Comal County Rural Recycling and Chipping Facility at no charge. This brush and green waste must come from properties located within Comal County.

Comal County Rural Recycling and Chipping Facility offers free wood chips to the public, but their vehicle must have a tarp. This facility is open during the following hours:

- Sunday and Monday- Closed
- Tuesday thru Friday- 7am-3pm
- Saturday- 8am-noon

In addition to collecting green waste, the SWRD promotes backyard composting, and encourages residents to use mulching mowers. The City's website provides information on reducing and recovering green waste.

4.4.1.2 NBU and GVEC

The SWRD does not issue bills for solid waste and recycling services, but instead relies on the two utility providers in the area, NBU, the main utility provider in the New Braunfels area; and GVEC, an electric provider in Guadalupe County and other nearby counties. Customers in the city and the ETJ areas of New Braunfels are billed by NBU, and customers in the Guadalupe County area of New Braunfels are billed by GVEC. Because of this arrangement, the City has limited access to data regarding existing customer service levels and charges.

4.4.1.3 New Braunfels River Activity Fund

For the past several years, the SWRD has funded the expenses associated with litter pickup along and in the Comal River. During the Baseline Year, the SWRD allocated $145,000 to garbage collection and disposal of litter around the Comal River. In addition, funding litter removal expenses, the City passed a series of ordinances many years ago prohibiting the use certain drink coolers and containers while floating down the river.

4.4.1.4 New Braunfels General Fund

The SWRD annually pays $300,000 to the City's General Fund to help offset the cost of street maintenance and repair from mainly refuse collection vehicles. The SWRD also contributes funding to the General Fund for administrative support including accounting and budgeting, information technology services, purchasing, human resources, attorney support and facilities maintenance. During the Baseline Year this contribution totaled $421,636.

4.4.2 Private Sector

4.4.2.1 Commercial Collection

According to the Solid Waste Code, "Business establishments shall be serviced by the City's Solid Waste and Recycling Division. If service is not available or furnished by the City or it is not in the best interest of the City to provide said service as determined by the Solid Waste Manager or designee, (i.e. businesses require containers larger than the City can provide, or containers in which materials would be placed that the City will not accept, such as building materials), service may be provided by a commercial hauler permitted to operate in the New Braunfels. Every business establishment must contract with either the City or an approved commercial hauler, if the City is unable to provide the required level of service, for weekly waste disposal service for their business."

It is unlawful to operate a solid waste vehicle in the New Braunfels without a permit. To obtain a waste hauling permit, a company or individual must submit an application to the SWRD that includes the following information:

- Company name, location, contact and ownership structure.
- Any record of criminal felony convictions against applicant or employees resulting from the unlawful operation of a vehicle used to haul waste.

- The source and the types of waste the applicant intends to collect and transport.
- The estimated annual tonnages of waste to be collected.
- Location(s) where applicant intends to dispose of the waste collected including name, address, and telephone number of the operator of each location.
- A certified list of vehicles that the applicant will use to collect and transport commercial solid waste.
- A certificate of insurance evidencing that applicant has obtained and filed with the City the required commercial general (public) liability and vehicle insurance policy in an amount of not less than $500,000.

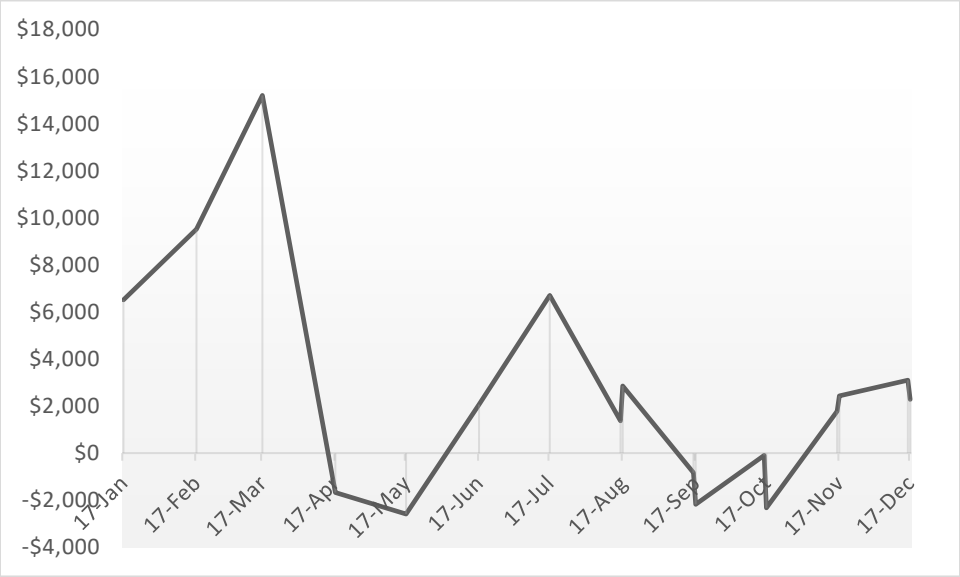
There are six permitted waste haulers in the City. However, only two of these haulers are permitted to collect solid waste. The other four can only collect C&D debris.

4.4.2.2 Recycling Processing

The SWRD transports recyclables to a Material Recovery Facility (MRF) located at 1947 Hormel Drive in San Antonio, Texas, which is owned and operated by Republic Services. In 2016, the SWRD awarded a three-year contract to ReCommunity to process City-collected recyclables that included two, one-year renewals. Republic Services acquired ReCommunity in 2017 and the contract was transferred to Republic Services.

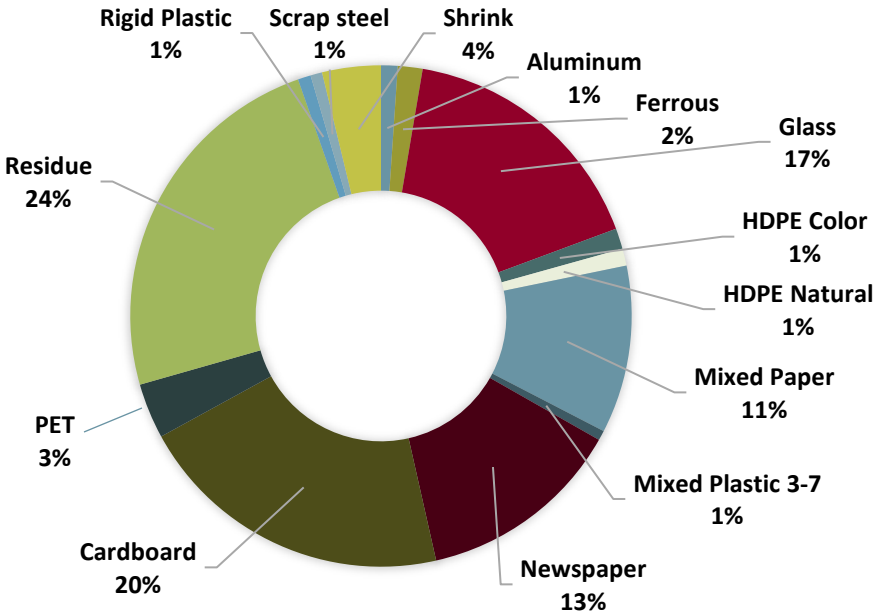
During the Baseline Year, the MRF charged the SWRD a $57.00 per ton processing fee. The SWRD is eligible to receive 85 percent of the average, commodity sale revenue based on the actual composition of New Braunfels' recyclables. The administration, collection and processing of the residential recycling program is approximately $1.9 million during the Baseline Year while the 2017 revenue was $44,142. **Figure 17** shows the net revenue the City received from commodity sales from the ReCommunity contract (commodity revenue minus processing fee costs) fluctuated significantly during 2017.

Figure 17. 2017 Monthly Recycling Revenue



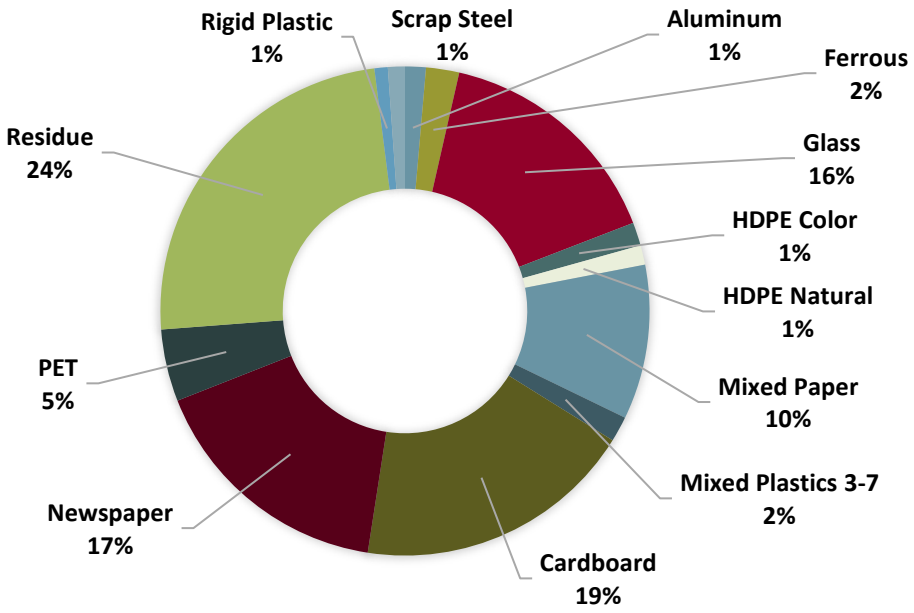
During the Baseline Year, the SWRD transported 5,740 tons of commingled recyclables from the residential curbside program to the MRF, and the MRF operator conducted two audits of the City's recyclables to determine the composition. ReCommunity conducted the first audit on April 5, 2017 and it consisted of a 108-ton sample. **Figure 18** shows the composition of City recyclables based on this audit.

Figure 18. April 2017 Composition of New Braunfels' Recyclables



Republic Services conducted the second audit on October 25, which included a 109-ton sample. **Figure 19** presents the results of this audit.

Figure 19. October 2017 Composition of New Braunfels' Recyclables



As shown in **Table 9**, both audits identified residue as the most prevalent component of the City's recyclables, with cardboard being the next most dominant material. Newspaper and glass were the next highest materials delivered to the MRF, but their ranking differed. **Table 9** shows the percent of each component from highest to lowest.

Table 9. Recycling Composition Comparison

April 2017 Audit			October 2017 Audit	
Material	Percent		Material	Percent
Residue	24.05%		Residue	24.20%
Cardboard	20.55%		Cardboard	18.57%
Glass	16.68%		Newspaper	16.59%
Newspaper	13.24%		Glass	15.57%
Mixed Paper	10.82%		Mixed Paper	10.23%
Shrink*	3.78%		PET	4.77%
PET	3.56%		Ferrous	2.19%
Ferrous	1.60%		Mixed Plastics 3-7	1.68%
HDPE Color	1.33%		HDPE Color	1.54%

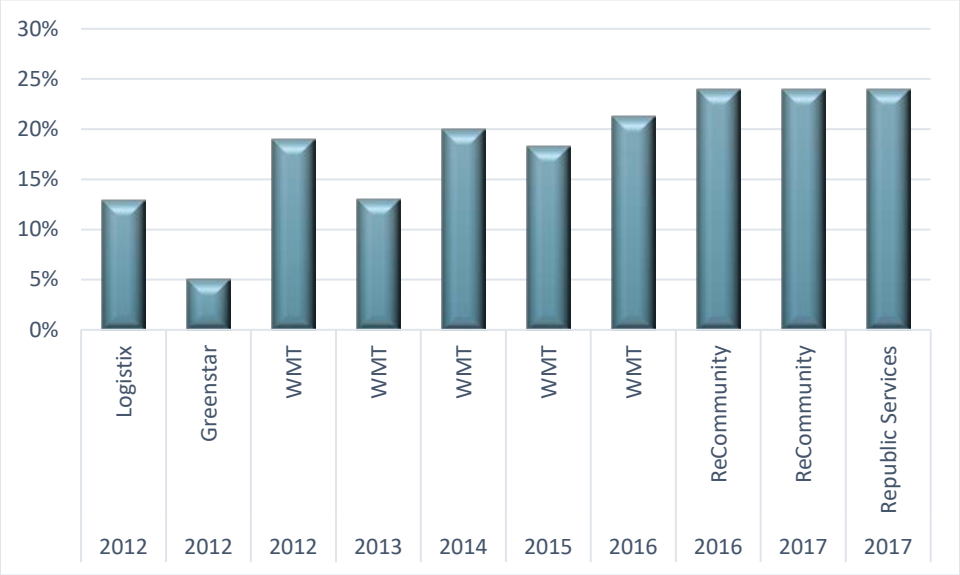
April 2017 Audit			October 2017 Audit	
Material	Percent		Material	Percent
HDPE Natural	1.10%		Aluminum	1.38%
Aluminum	1.07%		HDPE Natural	1.29%
Rigid Plastic	0.84%		Scrap Steel	1.12%
Scrap steel	0.75%		Rigid Plastic	0.88%
Mixed Plastic 3-7	0.63%			

* Was not included in October 2017 Audit; Shrink is wet material that adds weight but not value.

Because international markets have become extremely stringent about the amount of residue in recyclables, SCS assessed the residue rate in the City's recyclables for each audit conducted since 2012 (**Figure 20**). During that timeframe, the following companies processed City recyclables:

- Logistix
- Greenstar
- Waste Management Texas (WMT)
- ReCommunity
- Republic Services

Figure 20. Historical Recycling Residue Rates



As shown in **Figure 20**, the residue rate has fluctuated between 2012 and 2016, but has been constant at approximately 24 percent for the last three years.

4.4.2.3 Landfill Disposal

The SWRD contracts WMT to receive and dispose New Braunfels' waste at the Mesquite Creek Landfill, which WMT owns and operates. The Mesquite Creek Landfill is located at 1700 Kohlenberg Road, in New Braunfels. During the Baseline Year, the SWRD delivered 57,333 tons of waste to the Mesquite Landfill.

- The City executed the contract with WMT in 2009, which both parties amended in 2012, 2013, and 2018.
- The term of the 2018 amendment is for an additional five-year term beginning on October l, 2018 and ending on September 30, 2023. The 2018 amendment may be renewed for up to two, additional three- year terms by mutual written agreement of the parties, which renewal may require the inclusion of new or additional 2018 amendment terms.
- In 2018, the SWRD negotiated the following base rates that WMT will charge the City for receiving and disposing of City waste:
  - Year 1 through 9/30/19: $27.60 per ton
  - Year 2 (10/1/19to 9/30/20): $28.60 per ton
  - Year 3 (10/1/20 to 9/30/21): $29.60 per ton
  - Year 4 (10/1/21 to 9/30/22): $30.60 per ton
  - Year 5 (10/1/22 to 9/30/23): $31.60 per ton
- The City agrees to deliver at least 40,000 tons of waste to the landfill during each year of the Agreement in exchange for receiving the preferred base rate pricing contained in the Agreement.

According to the October 2017 Texas Commission on Environmental Quality Report, *Municipal Solid Waste in Texas: A Year in Review FY 2016 Data Summary and Analysis*, the Mesquite Creek Landfill received a total of 457,219 tons of waste in 2016 and at that time, had 20 years of remaining capacity. In 2017, this landfill received approximately 1,800 tons per day.

This landfill is open six days per week (Monday through Saturday), and is a Type I landfill. This means the facility is permitted to accept MSW, C&D, special waste, auto fluff, and biosolids. The Mesquite Creek Landfill has an active landfill gas-to-energy plant, which generates three MW of power that the landfill sells to NBU.

The Mesquite Creek Landfill is one of seven MSW landfills in the Alamo Area Council of Governments (AACOG) region. During 2016, these seven landfills received a total of 2,875,505 tons of waste and in aggregate, had 167,819,522 tons of permitted capacity. Based on the 2016 tonnage and remaining capacity, the AACOG has over 58 years of permitted capacity.

In addition, a new landfill (the Post Oak Clean Green Landfill) is being developed in Guadalupe County, and will be sited approximately 12 miles east of Seguin. The Post Oak Clean Green Landfill will have the capacity to accept an estimated 52 million tons of MSW.

4.5 NEEDS ASSESSMENT

The SWRD provides an integrated waste management system for City residents and businesses, where 89 percent of City residents feel that waste collection services are good or excellent[7]. However, the SWRD recognizes that increasing population, new single- and multi-family home developments, and growth in commercial establishments will require additional services, resources, and infrastructure to continue the same excellent level of service. To address the future waste management requirement, as well as optimize the performance and efficiency of existing waste management services and facilities, SCS assessed the City's waste management needs on a short, medium, and long-term basis.

4.5.1 Short Term (1-5 years)

- Increase diversion – Currently, the City of New Braunfels does not have a specific goal for diversion, and the State of Texas does not mandate diversion goals for cities or counties to achieve. The City's diversion rate is 16 percent including residuals and 14 percent excluding residuals. In 2013, the State of Texas diversion rate averaged 23 percent excluding residuals.[8] The City needs to establish short-term, medium-term, and long-term diversion goals that are appropriate, achievable, and sustainable.

- Increase recycling set out – During the Baseline Year, 56 percent of residential customers set out recyclables at the curb. The City should strive to increase this rate as there are costs to drive by houses that have not set out recyclables, when program economics are evaluated on cost per ton recovery basis. In addition, higher participation will yield increased waste diversion.

- Increase capture rate – Even though SWRD provides opportunities to recycle plastics and cardboard, only 42 percent of plastics were captured during the Baseline Year and less than 30 percent of cardboard was recovered during that time frame. An increasing number of municipalities are instituting mandates to increase recovery of certain recyclable commodities, such as requiring businesses over a certain size to recycle cardboard. The SWRD needs to evaluate options for increasing the capture rate of materials.

- Reduce residue rate in recyclables - The residue rate in the City's curbside recyclables has fluctuated between a low of 5 percent in 2012 to a high of 24 percent for the last three years. In 2013, the State of Texas average was 13 percent.[9] During 2018, numerous recycling processors have increased tipping fees, reduced the type of recyclables accepted, or stopped accepting commingled recyclables, due to China's new policies on contamination in imported recyclables. Therefore, it will be highly valuable if not essential for the City to significantly reduce their residue rate when evaluating proposals for new recyclable processing.

- Improve quality of green waste - Many compost facilities express concerns about the quality of incoming materials. Some residents believe that green waste includes any waste that comes from the yard, which can even include old lawn mowers, barbecue

[7] 2017 New Braunfels Community Livability Report
[8] 2017 Study on Economic Impacts of Recycling
[9] I.B.I.D.

grills, and children's playground sets. Mulch and compost facilities cannot process plastic, metal, glass, trash, rock, gravel, dirt, sod, wire, rope, or lumber without damaging the equipment.

- **Analyze impact of education and outreach initiatives –** The SWRD has innovative and comprehensive education and outreach initiatives. However, only 56 percent of residents set out recyclables on a regular basis, and the City's landfill diversion rate is less than 16 percent. Thus, the SWRD needs to analyze if the message is reaching their intended target audiences and if the message is catalyzing proper participation in recycling. In addition, the SWRD should monitor the number and demographics of visitors accessing the City's digital platforms.

- **Secure processing contract for recyclables** – The City's contract with Republic Services for processing of recyclables concludes in 2019. The City issued a request for proposals (RFP) for MRF processing and selected Republic Services. Under the new contract, Republic Services will process the City's recyclables for three years, beginning August 1, 2019 through July 31, 2022, with two, one-year options to renew.

- **Enhance reduction and recycling opportunities in recreational areas** – Certain recyclables, such as single serve containers, paper serving products, and polystyrene (Styrofoam) carryout boxes, create litter in New Braunfels and especially in recreational areas. For the past several years, the SWRD has funded the expenses associated with litter pickup along and in the Comal River, and passed ordinances prohibiting the use certain drink coolers and containers while they float down the river. Despite this ordinance, SWRD funded $145,000 in garbage collection and disposal of litter from the Comal River in FY 2016-2017. To reduce the environmental impact of litter in this vital recreation area and decrease costs, SWRD needs to enhance waste reduction and recycling opportunities for single-serve containers, target restaurants in these areas for recycling, and work with establishments in recreational areas to reduce the use of straws, plastic bags, and polystyrene carryout boxes.

- **Establish commercial recycling opportunities** - The SWRD did not collect any recyclables from commercial accounts during the Baseline Year, and not all private waste haulers offer this service to their commercial customers. Approximately 71 percent of SWRD's commercial customers would recycle paper or cardboard if the cost of recycling was offset by the size of their trash container or frequency of collection[10]. Due to the interest of their commercial customers in recycling, the SWRD evaluated providing recycling service to their customers. However, it may not be financially feasible at this time. The City needs to continue to re-evaluate the opportunities for commercial recycling programs, either through in-kind services, contracting with private collectors, establishing public-private partnerships, or utilizing rate structure mechanisms.

- **Reduce the need for HHW external processing** – During the Baseline Year, 188 tons of HHW were collected through the drop-off events, and the majority was processed by an external contractor, Clean Harbors. The total cost of these events was $109,110, or $580 per ton. Programs across the country are developing or have developed reuse programs to save money and to return perfectly usable materials back to residents. In Stearns County, Minnesota, an HHW Reuse Store was created to encourage residents to

[10] Commercial Recycling Feasibility Study; February 2015

reuse materials that come into the HHW facility to save money and to use the materials for their intended purpose. In 2016, this program diverted 31 percent of the HHW materials delivered to their permanent facility and saved more than $53,000. The SWRD should consider a permanent HHW facility and reuse center to reduce costs and save resources.

- **Improve data gathering and information exchange** - NBU and GVEC currently administer billing to SWRD customers, and accurate information on the number of customers and level of service is not available real-time to the SWRD. This lack of access to data makes it challenging for SWRD to respond to customer requests and assess needs in a timely manner. A system needs to be established where the NBU and GVEC provide SWRD access to accurate customer data on demand.

  In addition, the Division does not currently have information on the quantity of waste and recyclables collected by private haulers. Understanding the total quantity of waste that is generated within the city will be important for evaluating the cost, design and operating parameters of future solid waste facilities.

- **Develop a new fleet maintenance service center** – As discussed, the City's population is projected to increase from 79,152 in the Baseline Year to 93,372 in 2020 and to 153,415 by 2030. During the Baseline Year, the SWRD serviced 4,117 City vehicles. These vehicles included police and fire, as well as public works vehicles. Based on a population of 79,152 and 4,117 service requests, the per capita vehicle service request rate is 0.05. If the per capita vehicle service request rate remains constant, the SWRD will service 4,857 vehicles in 2020 and 7,980 vehicles in 2030. The current public works municipal service center is close to capacity, with respect to the number of vehicles that can be stored and serviced at the same time, and the current location is not conducive to expansion. Therefore, the SWRD needs to begin identifying a location for a new service center, and secure funds for constructing this new facility within the next five years.

4.5.2 Medium Term (6-10 years)

- **Monitor disposal capacity within the AACOG region based on population growth and landfill closures** – At the present time, the AACOG region has 167,819,522 tons of permitted airspace, which could provide enough permitted capacity for 58 years. In addition, the new Post Oak Clean Green Landfill could yield another 52 million tons of airspace. Although the current landfill infrastructure provides enough disposal capacity through the 20-year planning period, this should be revaluated every five years as population growth, economic development, decreases in landfill diversion and landfill closures could significantly impact disposal capacity.

- **Reduce wasted food** – Food waste accounts for almost 18 percent of the disposed waste stream, which means approximately 10,000 tons were disposed during the Baseline Year. At the same time, almost 15 percent of residents in Comal County live in food insecure homes.[11] The U.S. Department of Agriculture defines food insecurity as a lack of consistent access to enough food for an active, healthy life. The City needs to increase awareness about food waste, educate grocery stores and restaurants with food inventory

[11] FeedingTexas.org

practices, and partner with the New Braunfels Food Bank to develop strategies to enhance the infrastructure for food waste recovery.

- **Expand organic waste infrastructure** – Currently, the Comal County Rural Recycling and Chipping facility accepts and mulches yard waste. Due to its limited acreage and proximity to the Edwards Aquifer, the site manager of this facility does not consider the site suitable for processing food scraps or liquid sludge and does not believe the facility could receive notification status from TCEQ to accept these organics. Compost operations that receive notification status from TCEQ are permitted to accept source-separated meat, fish, dead animal carcasses, oils, grease or dairy materials, and source-separated yard trimmings, clean wood material, vegetative material or manure. To process sludge, a facility must be registered with TCEQ. One facility in the AACOG region accepts food waste, the New Earth Compost Facility in San Antonio.

- **Facilitate the development of additional C&D infrastructure** – The City is projecting significant economic development and new construction during the next ten years. However, there is only one C&D landfill in the AACOG region; the Beck Landfill in Guadalupe County, and no C&D recycling centers in the region[12]. The SWRD should collaborate with other counties and municipalities in the AACOG region to facilitate the development of additional C&D infrastructure.

4.5.3 Long Term (11-20 years)

- **Develop access to regional disposal capacity** – The Mesquite Landfill has less than 20 years of permitted, disposal capacity, but the AACOG region currently has over 58 years of disposal capacity. This regional capacity will increase when the Post Oak Landfill begins operating. However, accessing these landfills could be expensive to the SWRD if they direct-haul waste. Therefore, the SWRD may want to conduct a cost/benefit analysis on developing a transfer station to decrease the cost of accessing these landfills approximately five to seven years before the Mesquite Landfill reaches capacity.

  Although cost-effectiveness will vary, transfer stations generally become economically viable when the hauling distance to the disposal facility is greater than 15 to 20 miles[13]. As shown below, all of the landfills in the AACOG region exceed this parameter.

Post Oak Landfill[14]	54 miles roundtrip
BFI Tessman Road	58 miles roundtrip
Texas Disposal Systems Landfill	78 miles roundtrip
Waste Management Covel Gardens	95 miles roundtrip
City of Fredericksburg	142 miles roundtrip
Kerrville Landfill	170 miles roundtrip

[12] TCEQ Municipal Solid Waste in Review; FY 2016 Year in Review
[13] USEPA Waste Transfer Stations: A Manual for Decision Making
[14] The Post Oak Landfill permit was approved by TCEQ on August 8, 2018. It could be operational by 2025.

- **Reduce greenhouse gas emissions** – Conversion technologies, such as anaerobic digestion, can reduce greenhouse gas emissions through creation of a fuel that is not carbon based and reducing the release of methane from decomposing organics. Although conversion technologies are not common in the Southwest, it is possible that they could serve as a final waste management option for New Braunfels or the AACOG region at some point in the future. Currently, the largest barriers to conversion technology facilities in the Southwest are the relatively low tipping fees charged by landfills, and the low price of energy available to consumers. However, the paradigm of inexpensive landfills and energy may one day shift, increasing the viability of conversion technologies as a final waste management option. Thus, the SWRD should periodically re-evaluate the financial feasibility of conversion technologies as market conditions change.

5.0 IDENTIFICATION AND EVALUATION OF ACTION ITEMS

As discussed in Section 4.5 Needs Assessment, the City's solid waste management system is operating effectively, but there are opportunities for improvement. Some components, such as capacity at the public works municipal service center, need to be addressed to continue providing fundamental public services.

As part of this planning process, numerous options to address various needs in the current waste management system were identified, and then evaluated based on the following criteria:

- Feasibility of implementing within New Braunfels or the AACOG region
- Infrastructure and staffing requirements
- Landfill diversion potential
- Cost
- Role in sustaining reliable public services
- Ability to monitor impact

Based on these evaluation criteria, as well as communication with internal and external stakeholders, the SWRD shortlisted the action items and organized them according to the following waste management service categories (Service Categories):

- Education and outreach
- Waste reduction, reuse, and repurposing
- Residential recycling
- Commercial recycling
- Organics recovery
- Special waste management

For the selected action items, the following implementation consideration information is provided, as available and relevant:

- Opportunities and obstacles for implementation; management needs of the City
- Landfill diversion potential
- Waste sector or source affected
- Estimated costs and benefits of implementation, as available
- Potential conflicts with adopted land use plans, if applicable
- Schedule for implementation

Table 10 identifies all the selected action items and summarizes the diversion potential, affected waste sector or source, financial requirements, land use plan conflicts, and implementation schedule considerations. Details on these considerations are provided in the narrative. With respect to financial requirements, Table 10 shows operations and maintenance (O&M) expenditures, as well as capital expenditures (CAPEX).

Many of these action items will require an additional communication specialist. Therefore, the SWRD plans to hire one new communication specialist, and estimates the cost (salary and benefits) to be approximately $45,000 in YR 1. Table 10 allocates the cost of this new position over the 14 options that include a communication component.

For some action items, the SWRD could not estimate diversion potential because either data was not available, or the option would increase the performance of a program but not necessarily yield an increase in the tons of waste diverted from the landfill. The lack of data was of particular significance when designing commercial action items, because private waste haulers do not provide the SWRD with disposal or recycling data from their commercial customers. For these action items, **Table 10** indicates that the SWRD was **Not Able to Estimate (NATE)** the recovery potential.

Table 10. Action Item Implementation Considerations

Action Item	YR 1 of Implementation Diversion Potential in Tons Per Year (TPY)	Affected Waste Sector or Source	Incremental Financial Requirements ($ in YR 1 of Implementation)	Conflicts with Land Use Plans (Yes/No)	Implementation Schedule (Short, Medium, Long-Term)
EDUCATION AND OUTREACH					
Conduct Continuous Improvement Workshop	NATE	Residential and Commercial	$3,000	No	Short
Facilitate Focus Groups	NATE	Residential and Commercial	$3,000	No	Short
Collect Additional Data	NATE	Residential and Commercial	$0	No	Short
WASTE REDUCTION, REUSE AND REPURPOSING					
Support Waste Reduction in Outdoor Recreational Areas	1.7	Residential and Tourism	$150,000	No	Short
Promote Backyard Composting	2,840 - 4,300	Residential	$3,000	No	Short
Promote Reuse and Exchange Opportunities at Thrift Stores and Habitat for Humanity ReStore	NATE	Residential and Commercial	$3,000	No	Short
Promote RENEW to Businesses and all City Agencies	NATE	Commercial	$3,000	No	Medium

Action Item	YR 1 of Implementation Diversion Potential in Tons Per Year (TPY)	Affected Waste Sector or Source	Incremental Financial Requirements ($ in YR 1 of Implementation)	Conflicts with Land Use Plans (Yes/No)	Implementation Schedule (Short, Medium, Long-Term)
RESIDENTIAL RECYCLING					
Establish Recycling and Participation Goals	3,000	Residential	$65,000 - $75,000	No	Short
Consider a Variable Rate Structure to Incentivize Recycling	2,240	Residential	$290,000 (CAPEX)	No	Medium
Identify Areas of the City with Low Participation and/or High Contamination Rates for Targeted Outreach and Education	1,000	Residential	$48,000 $1.6 million (CAPEX)	No	Short
Consider a Multi-Family Recycling Ordinance	264	Residential and Commercial	$0	No	Medium
COMMERCIAL RECYCLING					
Consider Contracting for Recycling Services for SWRD Commercial Customers	4,770	Commercial	$0	No	Medium
Modify Permit Process to Require Private Haulers to Report Waste and Recycling Data	NATE	Commercial	$0	No	Medium
Modify Permit Process to Require Private Haulers to	NATE	Commercial	$0	No	Medium

Action Item	YR 1 of Implementation Diversion Potential in Tons Per Year (TPY)	Affected Waste Sector or Source	Incremental Financial Requirements ($ in YR 1 of Implementation)	Conflicts with Land Use Plans (Yes/No)	Implementation Schedule (Short, Medium, Long-Term)
Provide Recycling Service					
Recognize Businesses that Recycle with Green Business Certification Program	NATE	Commercial	$3,000	No	Long
Promote Purchase of Recyclable Products and Products Made with Recycled Content	106	Commercial and Residential	$3,000	No	Medium
CONSTRUCTION AND DEMOLITION DEBRIS					
Increase the Delivery of Source-Separated Wood to the Beck Landfill	934	Commercial and Residential	$3,000	No	Medium
Establish C&D Diversion Specifications for City Construction Projects	NATE	Commercial	$0	No	Medium
Secure Long-Term C&D Disposal and Recovery Capacity	NATE	Residential and Commercial	$0	No	Long
ORGANICS					
Educate on Acceptable Materials for Mulching	205	Residential	$3,000	No	Short
Explore Establishing a Partnership to Develop	5,300	Residential and Commercial	$80,000 to $100,000	Possibly	Short

Action Item	YR 1 of Implementation Diversion Potential in Tons Per Year (TPY)	Affected Waste Sector or Source	Incremental Financial Requirements ($ in YR 1 of Implementation)	Conflicts with Land Use Plans (Yes/No)	Implementation Schedule (Short, Medium, Long-Term)
Compost Facility with for Food Scraps and Biosolids			$1.5 million to $15 million (CAPEX)		
Assess Capacity for Processing Pre-Consumer Produce and Biosolids at Existing Facilities	6,60[15]	Residential and Commercial	$0	No	Medium
Assess Opportunities to Compost Green Waste On-Site at Large Generators	2,300	Commercial	$0	No	Medium
Evaluate Organics Collection from Large Commercial Generators	NATE	Commercial	$0	No	Medium
Increase Awareness about Wasted Food and Food Recovery	470	Residential and Commercial	$3,000	No	Short
Provide Outreach to Restaurants and Grocery stores on Food Waste Reduction	204	Commercial	$3,000	No	Short
Explore a Partnership with the New	95	Residential and Commercial		No	Short

[15] This only includes biosolids. Data is not available on pre-consumer produce

Action Item	YR 1 of Implementation Diversion Potential in Tons Per Year (TPY)	Affected Waste Sector or Source	Incremental Financial Requirements ($ in YR 1 of Implementation)	Conflicts with Land Use Plans (Yes/No)	Implementation Schedule (Short, Medium, Long-Term)
Braunfels Food Bank to Enhance Infrastructure for Consumable Food Recovery					
SPECIAL WASTES					
Educate Residents on Alternatives to Household Products	9	Residential	$4,000	No	Medium
Develop Permanent, Multi-Material Recovery Center	824	Residential and Commercial	$600,000 $2.5 million (CAPEX)	Yes	Short
Promote Reduction Strategies Through Community-Based Social Marketing	NATE	Residential and Commercial	$3,000	No	Long
ALTERNATIVE TECHNOLOGIES					
Monitor Developments in Alternative Processing Technologies	Anaerobic Digestion (AD) – 21,109	Residential and Commercial	$950,000	Yes	Long
	Thermal- 38,968	Residential and Commercial	$4.2 million	Yes	Long
FLEET MANAGEMENT					
Develop new Public Works Municipal Service Center	NATE	City Fleet	$550,000	Yes	Short

5.1 EDUCATION AND OUTREACH

The SWRD has an established and effective education and outreach program to encourage waste reduction and recovery and promote participation in SWRD programs. However, like many communities, New Braunfels is at a juncture where existing education and outreach initiatives may require modification to optimize their impact on increasing waste reduction, reuse, recycling and composting, as well as improving the quality of the recyclables and yard waste recovered. One of the values of a strategic planning process is that it provides opportunities to reflect on existing initiatives and reposition for the future.

Options to improve the effectiveness of education and outreach initiatives may include:

- Continuous Improvement work session – The SWRD may conduct an internal "Continuous Improvement" work session to identify the goals for each education and outreach initiative, target audiences, resource requirements and implementation mechanisms. At the end of each year, the SWRD would evaluate whether goals, target audiences and resource requirement estimates were achieved, or if modifications are required.

- Facilitate focus groups – The SWRD may facilitate focus groups for specific target audiences that are designed to understand what motivates or discourages these audiences to participate in SWRD programs. The SWRD would conduct informal focus groups and more formally organized focus groups through New Braunfels' civic organizations or public institutions, such as schools and the New Braunfels Chamber of Commerce.

- Collect additional data – The SWRD may work with the Information Technology Department to query customers about where they learn about SWRD services and what materials they should recycle. In addition, the SWRD will survey participants at events where they have a booth and/or are making a presentation to gather data to help target outreach messages. This data could include demographics and media choices.

5.2 WASTE REDUCTION, REUSE, REPURPOSING

Reducing, reusing and repurposing waste can be environmentally preferable over recycling, because collecting, processing and transporting recyclables requires resources and can generate CO_2 emissions. In addition, reducing, reusing and repurposing waste is not typically affected by international commodity markets. To promote the concept of reducing, reusing and repurposing waste in New Braunfels, the SWRD may implement the following options:

- Support waste reduction in outdoor recreational areas – As previously discussed, the Comal and Guadalupe Rivers are unique and treasured outdoor recreation areas in New Braunfels. To protect the environmental integrity of these natural resources, the City passed ordinances prohibiting the use of certain ice chests and container types while floating down the river. Specifically, the ordinance prohibits disposable snack containers, cans, bags, cups and bottles. In addition, there is a limit of one cooler per person and it must be 16 quarts or less.

  To promote the ordinance and keeping the rivers clean, the New Braunfels Parks and Recreation Department distributed over 30,000 hotel room key cards to educate guests

on what is and is not allowed on the rivers, placed 275 posters throughout the City, provided artwork to river outfitters and consumer touchpoints, placed pop-up banners at libraries, the visitor center and city hall, and set-up a-frame informational boards near the rivers.

In addition to education, the police department, rangers, outfitters, and convention and visitors' bureau assisted with enforcing the ordinance. These enforcement efforts yielded 430 citations for disposable containers offenses and 45 were for oversized coolers in fiscal year 2017/2018.

Through these education and enforcement efforts, the amount of waste pulled out of the river, as well as from the banks and parks along the river, decreased from approximately 18 tons during the Baseline Year to approximately 8 tons during fiscal year 2017/2018. In addition, the amount of waste retrieved from the bottom of the river decreased from approximately 1.5 tons in 2017 to approximately 0.5 tons during fiscal year 2017/2018.

The SWRD plans to continue supporting the Parks and Recreation Department with efforts to decrease the illegal disposal of waste in the rivers and fund the remediation of waste in the rivers. Typically, the SWRD allocates $150,000 to fund waste remediation from the rivers. In fiscal year 2017/2018, waste remediation only cost $139,701. The SWRD will collaborate with Parks and Recreation to determine the role they can play in reducing the amount of waste that is illegally disposed in the rivers and the amount of funds required to remediate river waste.

Due to high levels of contamination, the waste retrieved from the rivers may not be able to be recycled. However, based on the positive effect of education and enforcement efforts, the SWRD estimates an additional reduction of 20 percent or approximately 1.7 tons in waste that is illegally dumped in the rivers and along their banks.

- Promote backyard composting – Backyard composting is an attractive, simple method of managing organic waste at home. It adapts to fit individual lifestyles, incomes, yard sizes, and ambitions. Therefore, the SWRD may offer a *Master Composter* program. The *Master Composter* training would include classroom sessions or field trips, as well as practical education through volunteering in the community. In the classes, trained *Master Composters* or experts will provide in-depth instruction about various aspects of composting and the importance of composting in waste management. Additionally, trainees receive instruction on how to be effective educators for a variety of age groups and in a range of settings.

  If funds are available, the SWRD may sell backyard compost bins at a subsidized rate. The bins would be sold several times a year and residents would register for them in advance to assure that the SWRD only orders the number of bins that could be sold. The SWRD would promote the backyard compost bins at local garden stores.

  To estimate potential quantities of organics that could be reduced through backyard composting, the 2010 study on the Langley Township in British Columbia, Canada was used as a resource. The Township of Langley undertook a study to develop and test strategies to enhance the township's backyard composting program for green waste and food scraps.

Langley Township employed two different strategies that were piloted over a seven-week period. One strategy used a high intensity approach, including a personal level of coaching, and the other strategy used a medium level of intensity without personal coaching. For both strategies, all participants were exposed to a comprehensive outreach campaign that included backyard composting in schools and other public areas, commitment by public officials and neighborhood backyard composting champions. The findings for each strategy are summarized in **Table 11**.

Table 11. Langley Township Pilot Program Results

Measure	Medium Intensity Strategy	High Intensity Strategy
Participation Rate	45%	51%
Waste Reduction	12-18%	31%
Organics Composted	8.4 lbs./household/week	11.24 lbs./household/week

Based on the Langley Township results, between 12 and 31 percent of the SWRD's 28,899 residential customers would participate in a backyard composting program or between 13,005 and 14,733 customers, and between 2,840 and 4,306 tons of organics could be reduced.

- **Promote reuse and exchange opportunities at thrift stores and Habitat for Humanity ReStore**– Multiple thrift stores and a Habitat for Humanity ReStore are located in New Braunfels. To help increase awareness about these venues that reuse domestic and building products, the SWRD may coordinate an annual event that showcases these reusable products to the community. These events could be fashion shows or product displays at events hosted or attended by SWRD staff.

- **Promote RENEW to businesses and all City agencies** - The Resource Exchange Network for Eliminating Waste (RENEW) is a free materials-exchange network established by the Texas Legislature in 1987 to promote the reuse or recycling of business waste. The network is a marketing channel for industries, businesses, and governmental units who wish to sell surplus materials, by-products, and wastes to those who will reclaim or reuse them. Since 1989, more than 500 exchanges have resulted in over 1 billion pounds of material for reuse or recycling. These efforts also saved facilities more than $27 million dollars in disposal costs and earned over $15 million dollars from the sale of recyclable materials.

  If the option is pursued, the SWRD would encourage commercial businesses and manufacturing industries to post on RENEW and connect with businesses in the region that are currently disposing products that they want. For example, a company in Texas is currently looking for solvent with contamination of ink, paint, or oil. North American Industry Classification System (NAICS) code 323111 represents commercial printing and there are several printing companies in New Braunfels. Thus, the SWRD could reach out to these printing companies and help them access the RENEW database. The SWRD could work with RENEW participants to estimate potential savings and share these success stories with similar types of businesses.

Because data on what commercial businesses and City departments dispose of is not available, it is not possible to estimate the potential quantity of waste that could be reduced through promoting RENEW.

5.3 RECYCLING

5.3.1 Residential

In New Braunfels, all single-family and some smaller, multi-family dwellings have access to curbside recycling, however the average set out rate was 56 percent during the Baseline Year. Approximately 24 percent of what residents set out in their recycling carts during the Baseline Year was contamination. As previously discussed, domestic recycling processors have implemented new requirements regarding the quality of recyclables they receive, due to China's new policies on contamination in imported recyclables. Some processors have even stopped accepting commingled recyclables or significantly increased processing fees.

The City's 24 percent contamination rate is higher than the state average, even though the City's Solid Waste Code specifies that only residential recyclables can be placed in carts and that the SWRD will not service the cart if it contains anything else. The Solid Waste Code further states that "the residential customer must remove all unauthorized items before the SWRD will service it. If the residential customer requests a return service for recyclables, as well as waste, the SWRD will charge them a fee of $15.00."

The following are potential options to increase the quantity and quality of residential recyclables. None of these options will create a conflict with adopted land use plans:

- **Establish recycling and participation goals** - A national survey of 264 communities found that those who set a recycling goal were more successful[16]. Why? Goals give residents a target to strive for. Therefore, the SWRD may establish recycling and participation goals, which will be promoted in SWRD materials and at public events, as well as civic, business, and educational organizations. Continual promotion of the goals would serve as a reminder to participate in recycling and motivate the community to achieve the goal.

  As detailed in Section 8, the New Braunfels' landfill diversion rate could increase from 16 percent to 38 percent during the first 10 years of the Plan's implementation. However, before the City can commit to recycling goals, the SWRD needs to characterize the composition of waste disposed at Waste Management's Mesquite Creek Landfill (Composition Study). The Composition Study would identify the recyclables and organics in both residential and commercial waste streams that could be reduced, reused, recycled or composted, based on local market conditions, facilities and programs. The Composition Study would also be designed to align with this Plan's options. For example, estimating the amount of pre-consumer food scraps generated by commercial establishments to support the food waste recovery option in this Plan. If the SWRD conducts the Composition Study, the data would be used to establish short, medium, and long-term goals for residential and commercial generators.

  The most significant obstacle about introducing recycling goals is making them relevant to the community and continually motivating people to recycle. Therefore, the SWRD

[16] David H. Folz; *Public Administration Review* (1991)

would use the website, newsletters, and community outreach activities to raise awareness about the goals and why they are relevant to New Braunfels, as well as report the City's progress in achieving the goals. The SWRD would also highly promote each time the City increases recycling by each percentage point when progressing from 16 to 20 percent, and every five percent thereafter.

Similar to the education and outreach initiatives, the SWRD would annually evaluate whether residential recycling and participation goals are being achieved. If goals are not being achieved, the SWRD would assess if existing strategies to achieve them need to be modified, or if the goals need to be reconsidered.

The SWRD estimates that increasing the City's overall diversion rate from 16 to 20 percent could recover approximately 3,000 additional tons of waste from the landfill each year. The SWRD estimates the Composition Study for residential and commercial waste would cost between $65,000 and $75,000. The SWRD does not foresee any conflicts with approved land use plans from this option.

- **Consider a variable rate structure to incentivize recycling** - The SWRD offers residential customers both 48 and 96-gallon waste carts, but the monthly fee is the same for both. Therefore, one of the options the SWRD is considering to help increase recycling volume is establishing a variable rate system, where residents pay a higher monthly fee for the larger cart. Cities throughout the United States have increased recycling rates when waste collection fees align with the quantity of waste customers set out.

  This relationship between fees and recycling rates is reinforced by a 2018 study conducted by WasteZero.[17] This study analyzed the impact of unit-based pricing, also known as variable rate or pay-as-you-throw (PAYT) programs, on residential trash[18]. WasteZero conducted head-to-head comparisons of municipalities in southern Maine with and without unit-based pricing. The study revealed that, on average, municipalities with unit-based pricing annually generate 44.8 percent less trash per capita and have 62.3 percent higher recycling rates than municipalities that do not.

  The SWRD identified three municipalities in the region that have a variable rate structure: Denton, Killeen, and San Antonio. **Table 12** shows the rate structure for each one of these cities.

[17] WasteZero is a Raleigh, North Carolina-based company that designs and operates PAYT programs
[18] In general, the term variable rate is used when the collection system uses carts and the term PAYT is used with bags, tags and/or stickers.

Table 12. Variable Rate Monthly Rate Structures

Municipality	Small Cart	Medium Cart	Large Cart
Denton	Not available	60 Gallon - $24.51	90 Gallon- $29.96
Killeen	31 Gallon - $16.25	64 Gallon - $17.63	96 Gallon- $19.78
San Antonio	48 Gallon - $19.00	64 Gallon - $21.00	96 Gallon - $29.00

If the City of New Braunfels pursues a variable rate system, there would be policy, financial, and operational considerations. Also, most communities throughout the United States with variable rate structures offer medium-sized carts of approximately 60 to 65-gallons, and as shown in **Table 12**, communities in the region offer a medium-sized cart. If New Braunfels opts to provide a medium-sized cart, this would be a capital cost to the SWRD. On average, 20 percent of households select the mid-sized cart if the larger cart is the default size. Based on a cost of $50 per cart and 20 percent of the SWRD's 28,899 customers selecting this cart size, offering a medium-sized cart would require a capital investment of almost $290,000. Due to the cost of purchasing carts, the variable rate program may be implemented in phases or the cost of purchasing/distributing new carts may be shared with customers.

Finally, a variable rate program would most likely increase the number of residential customers that participate in curbside recycling and the volume of recyclables recovered. Since the City crews currently transport recyclables to San Antonio for processing, higher set out rates could decrease the number of households that collection crews can service in a day and therefore, recycling routes may need to be reconfigured to facilitate efficient operations.

With respect to diversion potential, a variable rate program combined with additional education and outreach could significantly increase the amount of waste that is diverted. During the Baseline Year, 21,509 tons of residential waste was disposed, and 10,549 tons of waste was recycled or mulched, which yields a residential waste generation quantity of 32,058 tons. It should be noted that these recycling/mulching quantities include material delivered to the CRC, and a portion of this could be generated by businesses or tourists. However, data is not available to itemize residential, business and tourist recyclables delivered to the CRC.

Based on residential generation quantity of 32,058 tons and the SWRD collecting 5,740 tons of residential recyclables through the curbside recycling program, approximately 18 percent of waste generated by residential customers was recovered through the residential curbside recycling program during the Baseline Year. If a variable rate program increased this recovery rate to 25 percent, an additional 2,244 tons of residential recyclables would be diverted from the landfill.

- **Identify areas of the City with low participation and/or high contamination rates for targeted outreach** – In most cities, recycling participation and contamination rates vary substantially from neighborhood to neighborhood, and even by street. Therefore, SWRD may work with drivers to determine if there are certain routes where less than 50 percent of households set out recyclables on a regular basis or contamination is a persistent

problem. As part of an effort to stave off contamination and reduce the contamination in the curbside carts, a program compliance technician would assist with ensuring carts that are serviced are prepared correctly.

The SWRD may also evaluate installing radio frequency identification (RFID) tags on recycle carts to track recycling habits. Each ID tag would be linked to an address, which would allow the SWRD to keep track of residents who recycle and those who do not. This would allow SWRD to target their outreach specifically to those who do not participate, rather than wasting effort on those who already do, which could save money and improve recycling rates. To monitor contamination, the RFID chips could be combined with an on-board, camera tracking system.

The SWRD could use this data to focus on those customers and neighborhoods for additional outreach to increase participation and reduce contamination. The SWRD could also meet with leaders in these communities to further understand potential barriers to recycling and obtain their endorsement of recycling.

While tracking chip/camera systems can be an effective tool to increase recycling and decrease contamination, they would require the SWRD to replace their existing recycling carts with chipped carts and install scanning devices in trucks and more. In 2017, Richland County, Texas implemented a fully integrated system of garbage haulers, county waste inspectors' trucks and route management software that electronically interacts with the 160,000 chipped carts. Excluding the price of the chipped carts (the County had previously purchased these), the entire system cost the county $1 million, or $6.25 per cart.

To implement a tracking chip/camera system, the SWRD would need to purchase new, chipped carts and these typically cost approximately $50 each. Thus, the entire new cart system could require a capital investment of approximately $56.25 per cart or $1.6 million for all 28,899 customers.

As discussed, 56 percent or 16,309 households set out recyclables during the Baseline Year, and 5,740 tons of recyclables were collected curbside. This yields a contribution of 0.35 tons per year (TPY) per household. If this option increases the number of households that set out recyclables by 10 percent, the weight of recyclables recovered will increase by almost 1,000 TPY.

- **Consider ordinance to provide on-site access to recycling for multi-family complexes** - Currently, the SWRD does not collect recyclables from multi-family complexes, and private waste haulers are not required to provide this service. Thus, the only opportunity for these residents to recycle is at the CRC. To increase recycling and waste diversion in the City, and make recycling more convenient for multi-family residents, the SWRD may consider introducing an ordinance that requires all apartment complexes in New Braunfels to provide recycling to their occupants.

  San Antonio's city council passed an ordinance in 2010 to implement a multi-family recycling program. The multi-family recycling program/ordinance was a strategy from San Antonio's 2010 solid waste management plan. The San Antonio ordinance requires owners/managers of multi-family properties to prepare a recycling plan and arrange for on-site collection of recyclables. Owners/managers of properties with less than eight

units can contract with the San Antonio waste management department, all others must use a private hauler. Although owners/managers of multi-family properties must provide on-site recycling, private waste haulers are not required to collect recyclables at multi-family properties. The ordinance allows owners/managers to self-haul recyclables, but they must submit an annual report that includes the quantity of recyclables transported and where they were delivered. The recycling facility must certify the quantity of recyclables received.

The San Antonio multi-family recycling program was fully implemented by 2012 and has consistently exceeded the 97 percent compliance goal. The San Antonio waste management department has two full-time inspectors dedicated to the multi-family recycling program. If an owner/manager is not in compliance, they could be fined up to $2,000 per each day they are not in compliance. However, the compliance officers provide extensive support to establish a recycling program before issuing a fine.

If the City of New Braunfels pursues the development of a multi-family recycling ordinance, the SWRD would need to create an inventory of the multi-family properties in the City, as well as create a data base of the owners/mangers and number of units. After this database is created, the SWRD would need to survey multi-family occupants to assess their desire to have on-site recycling, especially if it increases the rent or home-owner fees. The SWRD would also conduct workshops with owners/managers.

Currently, there are 5,361 multi-family units in New Braunfels, and a 2001 USEPA study estimates that approximately 14 percent of multi-family residents actively participate in on-site recycling programs. For New Braunfels, that would be equivalent to 751 units. On average, households that actively participate in the curbside recycling program annually contribute 0.35 tons of recyclables. If this participation rate is applied to the 751 multi-family units that may participate in an on-site recycling program, approximately 264 tons of recyclables would be recovered annually.

- **Promote purchase of products made with recycled content and that can be recycled** – According to the TCEQ "*Buying products with recycled content makes the recycling process sustainable. When you purchase recycled-content products, you increase the demand for recycled materials. As a result, manufacturers continue to use recycled materials in their products, and recyclers continue to have a market for their materials.*" To encourage people to buy more recycled-content products, the SWRD may conduct an annual, month-long *Get in the Loop* campaign that reminds shoppers to buy recycled through in-store promotional materials and identifies specific recycled-product choices right on the store shelf. This would be supported by a print and radio advertising campaign conducted cooperatively with product manufacturers and local retailers. The campaign would be designed to do one of three things: show consumers the importance of buying recycled; tell them where they could buy recycled content products; and show them actual product choices. During that month, the SWRD would make the theme *Close the Loop* for all presentations.

  If the SWRD pursues this option, they would work with retailers to establish a baseline for the number of recycled products sold before and after the campaign. The quantity of recycled products sold would also be measured six months after the campaign to assess its impact on consumer purchasing practices.

The campaign materials would include shelf talkers, and self-stick door decals announcing that the store is committed to sustainable recycling. If funds are available, the in-store materials would be supplemented with paid advertising. It is not possible to estimate the cost of a *Close the Loop* campaign until the number of stores participating is confirmed. However, the cost per store would be approximately $100 for materials.

A *Close the Loop* campaign may not directly increase recycling in New Braunfels but could significantly contribute to the sustainability of recycling. In addition, a *Close the Loop* campaign could increase awareness about recycling, and it may yield an increase in the number of residents who set out recyclables for collection and/or deliver recyclables to the CRC.

5.3.2 Commercial

The SWRD does not collect recyclables from their commercial customers, but all businesses in New Braunfels do have access to the CRC at no cost. The SWRD previously evaluated collecting recyclables from their commercial customers, but determined it was cost prohibitive. Several of the private waste haulers do offer recycling services to their commercial trash customers, however, they do not provide the SWRD with any data on the number of customers they serve, or quantities of recyclables they collect.

There are also private recycling companies in the region that have the capacity to collect and process commercial recyclables. Because private haulers do not share data on the sources and tonnages of commercial waste currently collected and disposed, the SWRD cannot estimate the quantity of commercial recyclables that could be recovered from their customers.

The SWRD may consider the following options to provide commercial customers with the opportunity to recycle, obtain data from private waste haulers, and foster recycling within the New Braunfels business community.

- Consider a franchise agreement for recycling services for SWRD commercial customers - To provide SWRD commercial customers with the opportunity to recycle at their establishment, the SWRD may award a franchise agreement to a private company to offer this service. The franchisee would be responsible for establishing individual contracts with each business, as well as billing customers. The SWRD franchise agreement would be the legal instrument to allow one company to provide recycling services for SWRD commercial customers. The SWRD has several thousand customers, and most are within a small geographic area. Thus, an exclusive franchise agreement for the entire city would probably yield the most affordable rates for SWRD commercial customers.

  To increase interest from service providers to bid on collection services and potentially decrease costs, the SWRD may work with businesses to assess the economics and benefits associated with implementing a recycling program at their establishment. In addition, the SWRD may help interested businesses determine the number of trash and recycling containers they will require if they implement a recycling program. Participating in the SWRD assessment would not be a commitment by the business to participate in the recycling program. However, more recycling companies may consider commercial recycling a viable opportunity if the request for proposals (RFP) demonstrates that the SWRD and businesses have assessed if the service is financially feasible.

Data is available to estimate the potential quantity of recyclables that could be recovered from SWRD customers. In 2015, the SWRD conducted a *Commercial Recycling Feasibility Study*, which estimated that 20.7 percent of commercial waste was recyclable, and of that, 31.1 percent was cardboard and paper. During the Baseline Year, the SWRD collected 32,459 tons of waste from their commercial customers. Using the percentages from the *Commercial Recycling Feasibility Study*, 6,719 tons of waste from SWRD commercial customers is recyclable, and 2,089 tons of those recyclables are cardboard and paper.

The *Commercial Recycling Feasibility Study* also estimated that 71 percent of SWRD commercial customers would pay to recycle cardboard and paper if those costs were offset by a reduction in their trash collection bill. The *Commercial Recycling Feasibility Study* did not ask survey respondents if they would participate in a program for all recyclables if recycling costs were offset by trash collection savings. For planning purposes, the SWRD projects that 71 percent of SWRD commercial customers would participate in a program to recover all targeted commercial recyclables if it is cost neutral. Therefore, the SWRD estimates that approximately 4,770 tons of recyclables could be recovered from SWRD commercial customers, of which 1,485 tons are cardboard and paper.

Under the franchise agreement, the service provider would directly bill the commercial establishment for service. Thus, this option would not represent an incremental cost for the SWRD.

- **Modify permit process to require private haulers to report waste and recycling data** – The Solid Waste Code prohibits the operation of a solid waste vehicle in the City without a permit. The applicant does have to estimate the annual tonnages of waste to be collected and provide the sources and types of waste they intend to collect. However, they do not need to validate waste tonnage estimates at the end of the year. In addition, they do not have to estimate annual tonnages of recyclables, indicate the types of recyclables they collect, or report which businesses participate in recycling. Both the waste and recyclable tonnages are important for determining disposal and processing capacity requirements, as well as whether the City is achieving waste diversion goals. Therefore, the SWRD might amend the Solid Waste Code to require this information to receive a permit.

  This option may not necessarily increase the amount of commercial waste that is recovered but will increase the City's overall recycling rate if commercial quantities are included. Also, this information could provide the SWRD with insight on the types of businesses and materials currently being recycled, which could be useful when approaching new businesses about recycling.

- **Modify permit process to require private haulers to provide recycling** - After private waste haulers begin providing data on the quantity of waste that their commercial customers disposed, the SWRD may modify the permit process to require them to provide the opportunity for their customers to recycle. This requirement may be limited to a certain size or type of business. The SWRD will work with the private haulers and their commercial customers to determine the financial impact of implementing an on-site recycling program.

- **Consider ordinance to encourage commercial recycling** – After an infrastructure is established that assures all businesses in New Braunfels have access to onsite recycling, the SWRD may consider modifying the Solid Waste Code to require businesses to implement recycling programs. This ordinance could be structured to target certain types of business that generate materials that have the greatest potential to be recycled. Prior to designing a commercial recycling ordinance, the SWRD would work extensively with the business community to design its structure and implementation.

- **Recognize businesses that recycle with green business certification program** – The SWRD will consider implementing a program like San Antonio's ReWorksSA, where businesses are recognized for their commitment to waste reduction and recycling through recycling certification. For a business to be eligible for recycling certification, they would need to have a recycling program in place. The SWRD would identify a series of waste reduction and recycling best practices that the business can choose from. For each best practice the business implements, they receive points. The more points a business earns, the higher level of certification they could receive.

  San Antonio has 27 elective best practices and the highest certification is a gold level. Certifications are valid for two years. **Table 13** shows the awards associated with each tier in San Antonio.

Table 13. San Antonio Certification Level Awards

	Bronze	Silver	Gold
Official Certificate	⚙	⚙	⚙
Certification Window Decal	⚙	⚙	⚙
Digital Logo Package	⚙	⚙	⚙
Recognition on ReWorksSA.org	⚙	⚙	⚙
Framed Official Certificate		⚙	⚙
Thank You Letter From City Leadership		⚙	⚙
Certification Plaque			⚙
Dedicated Spotlight page on ReWorksSA.org			⚙

- **Promote environmentally preferable products** - The SWRD may promote the US Environmental Protection Agency's (USEPA) Comprehensive Procurement Guideline program for environmentally preferable products (EPP) with other City agencies and encourage the purchase of materials recovered from solid waste to contribute to the demand of recycled-content products. Categories include the following products or City services: construction; landscaping; office supplies; parks and recreation; and transportation and maintenance. The SWRD may also work with City agencies to develop a list of specifications for procuring "green products." The SWRD may also research

other cities that have developed capital improvement projects that use recycled-content materials; minimize or contain environmental impacts; avoid disturbance to natural resources; and make maximum use of sound environmental management practices.

Promoting environmentally preferable products will not directly increase the quantity of waste that is reduced or recovered for recycling or composting. However, it will increase awareness of waste reduction amongst City employees. Therefore, the SWRD conservatively projects a 1 percent increase in the quantity of material annually recovered, or approximately 106 tons.

5.4 CONSTRUCTION AND DEMOLITION (C&D) DEBRIS

Comal County and New Braunfels are "ranked as the ninth fastest-growing county and second fastest-growing city in the nation and are experiencing an unprecedented growth rate—growing at an average of four to five percent per year, or a 77 percent increase in the last decade[19]." This population growth will yield an increase in C&D debris.

There is only one C&D landfill in the AACOG region: the Beck Landfill in Guadalupe County. The Beck Landfill accepts non-putrescible, C&D debris. This includes wood waste, asphalt, concrete, brush, roofing material, scrap metal, clean soil, and inert debris and rubbish. Hazardous, putrescible, regular household and liquid wastes, paint, chemicals, batteries, tires and Class I industrial wastes are not accepted.

The Beck Landfill also accepts separated loads of uncontaminated wood waste (fencing, lumber, brush, etc.) for processing and recycling. Wood waste is sorted for re-use or processing by grinding to various sizes. The processed wood waste is recycled into bio-fuel (used in cement kilns), landscaping mulch, erosion control, and wet weather road traction. The Beck Landfill also recovers scrap metal and appliances from the landfill face, which they take to an off-site metal recycling facility.

To increase the recovery of C&D debris, the SWRD will consider the following options:

- Increase the delivery of source-separated wood to the Beck Landfill -The Beck Landfill estimates that 50 percent of the material received is wood waste, but only 10 percent of the lumber is source-separated. The Beck Landfill evaluated installing a processing line to extract wood waste from the incoming loads of C&D debris, however, they could not make the economics work. To help the Beck Landfill increase the amount of source-separated wood waste delivered, the SWRD may work with other solid waste and recycling divisions in the AACOG region to develop promotional materials to encourage builders, remodelers, and construction companies to source-separate wood waste. The SWRD may also work with C&D haulers to evaluate the costs associated with hauling dedicated loads of source-separated wood waste to the Beck Landfill. Finally, the SWRD may work with the Beck Landfill to determine if charging a lower tipping fee for source-separated wood waste is economically viable.

  During the Baseline Year, 395,000 tons of C&D debris waste was disposed at the Beck Landfill, of which 50 percent or 197,500 tons was wood waste. If the amount of source-separated wood waste increases from 10 to 25 percent, almost 30,000 tons of wood waste could be recovered from the AACOG region. The AACOG region had a population of

[19] New Braunfels 2017 Demographic Profile

2,542,648[20] during the Baseline Year, which means the potential per capital diversion rate for source-separated wood waste is 0.012 TPY. When this diversion rate is applied to the New Braunfels Baseline Year population of 79,152, approximately 934 tons of source-separated wood waste could be recovered from implementing this option.

- **Establish C&D diversion specifications for City construction projects** – To increase C&D debris recovery, the SWRD may facilitate the development of C&D diversion specifications for City construction projects. Initially, the specifications would be limited to source-separated wood waste, as that is what the current infrastructure in the region has the resources to process. The SWRD will consider increasing the materials they target for recycling in City construction project specifications as capacity to recycle C&D materials comes on-line.

  The most significant barrier to establishing C&D debris diversion specifications for City construction projects is that they may increase the cost of the project and reduce the number of companies that are willing to bid on them. Therefore, the Capital Programs Department will help the affected City divisions conduct a cost benefit analysis and identify construction firms that are willing to source separate wood waste.

  Because the C&D material diversion specifications will initially be limited to source-separated wood waste, the SWRD is not projecting additional quantities from the 934 tons of wood waste that could be recovered through partnering with other recycling divisions in the AACOG region.

- **Secure long-term C&D debris disposal capacity** - The Beck Landfill has a remaining capacity of approximately 2.8 million tons, or 14 years[21]. Increasing the quantity of wood waste recovered will increase the life of this facility. However, the SWRD may need to begin actively monitoring C&D material disposal capacity in the region in approximately five to eight years and evaluate the need for a new facility or a dedicated C&D debris transfer station. If a new C&D facility is developed, the SWRD will evaluate the feasibility of co-locating a C&D material recycling facility.

5.5 ORGANICS

The SWRD has an integrated system to collect and mulch yard waste, but no programs exist to recover organics such as food scraps and biosolids. In addition, the green waste collected at the curb contains contaminants. Thus, to increase the types of organics recovered, and to improve the quality of yard waste collected, the SWRD will consider the following options.

- **Provide education on acceptable materials for mulching** –SWRD would develop a multi-faceted campaign to educate residents on what materials are acceptable for green waste collection, and emphasize that not all products found in the yard (i.e. plastic mulch bags) comply with the City's definition of Green Waste. The campaign might include placing posters where yard products and bagged mulch is sold. If funds are available, the SWRD may advertise on cable channels that feature home improvement and gardening shows. The campaign would be designed to increase the quality of green waste

[20] AACOG Economic Development District Comprehensive Economic Development Strategy
[21] Municipal Solid Waste in Texas: A Year in Review 2017 Data Summary and Analysis

recovered rather than the quantity. By increasing awareness about green waste recovery, more residents may participate. Thus, the SWRD is projecting a five percent increase in the amount of green waste diverted from the landfill because of this campaign. This five percent increase is equivalent to approximately 205 tons. If the campaign is limited to posters, the SWRD is estimating the cost to be approximately $500 per year.

- **Begin discussions with or explore the development of a compost facility with local partners for food scraps and biosolids** – The Comal County Rural Recycling and Chipping Facility does not have sufficient acreage to process biosolids or food scraps, and according to the site manager, it probably would not receive notification status from TCEQ to accept these organics. The New Earth Composting Facility in San Antonio does accept these organics, but the cost to transport organics to this site may reduce the viability of this option. In addition, the New Earth Composting Facility will only consider accepting municipal biosolids if there was extensive data demonstrating that it will comply with TCEQ requirements.

  The SWRD may work with local partners, such as NBU and Comal County, to evaluate the feasibility of developing a facility within Comal County to compost biosolids and food scraps. A significant obstacle will be siting the facility, due to the amount of land required, odor concerns, and regulatory/zoning requirements. Therefore, the potential compost system should consider aerated static piles (ASP) or in-vessel compost technology, rather than open windrow composting, as these technologies require less land, and odors are minimized.

  ASP is a composting method that uses a specialized fabric to cover compost windrows. The entire system includes fabric covers, in-floor aeration, blowers, oxygen and temperature sensors, controllers, computers, software, cover handling systems, installation, training and engineering support. The specialized laminate fabric is waterproof and windproof, shielding the windrows from weather, but it allows water vapor and CO_2, by-products of composting, to evaporate through it.

  In-vessel composting involves placing all the raw materials into an enclosed vessel, adding moisture and oxygen to the vessel as needed, and turning or rotating the vessel to mix the material as the decomposition proceeds. In-vessel systems control odors by retaining them.

  The composting process can be greatly accelerated by ASP and vessels, as the material can be manipulated as much as desired to add mixing, air and moisture. Compared to open windrows, these technologies require less land, can minimize odors, and produce compost more quickly, but the capital costs are significantly higher. These higher capital costs could translate into processing fees that are substantially greater than landfill tipping fees, which will decrease the economic viability of diverting organics from the landfill.

  Although economics may be a barrier, there is significant diversion potential from targeting biosolids and food scraps for recovery. During the Baseline Year, over 10,000 tons of food and 600 tons of biosolids were disposed. If 50 percent of these organics were captured through a composting system, the City's overall diversion rate would increase from 16 to 22 percent. As previously discussed, this type of system will require

a significant capital investment. Equipment for a windrow composting system with aerated static piles will cost approximately $1.5 million and require approximately 10 acres of land. An in-vessel system would require less than an acre but could cost up to $15 million to develop. For both types of technologies, the facility would need to be sited in a location that complies with TCEQ environmental regulations and local zoning requirements.

If the SWRD, in partnership with Comal County and NBU, pursue the development of a compost facility for biosolids and food scraps, they will first assess the technical and financial feasibility of an organics recovery system. This type of feasibility study typically costs between $80,000 and $100,000 and includes the following components:

- Evaluate compost technologies:
  - Operating description
  - Processing capacity
  - Infrastructure requirements
  - Compost production
  - Capital costs
  - Operating and maintenance expenditures
- Review regulatory requirements
- Assess ability to secure feedstock
- Evaluate potential to market compost
- Develop financial pro forma

- **Assess the capacity for processing food and biosolids at existing facilities** – As discussed, the New Earth Composting Facility in San Antonio accepts pre-consumer produce waste, as well as biosolids from San Antonio. However, this does not necessarily mean that New Earth has the capacity to process pre-consumer produce waste from New Braunfels or if the NBU biosolids will meet their feedstock specifications. If this option is progressed, the SWRD would meet with New Earth to assess if diverting these organics to their facility is a viable option. The SWRD would also meet with the private waste haulers that are permitted to collect MSW in the City to assess their desire to collect pre-consumer vegetable waste from their commercial accounts, requirements for providing this service, and potential collection fees.

  The SWRD does not foresee any obstacles for implementing this option or potential conflicts with adopted land use plans. With respect to diversion potential, it is only possible to estimate the amount of biosolids that could be annually recovered (approximately 660 tons). Data is not available on the amount of pre-consumer produce waste that is annually generated in the city; only the total amount of pre- and post-consumer food waste disposed.

- **Assess opportunities to compost Green Waste on-site at large generators** – Large generators of green waste sometimes have enough land to compost green waste on their property. Large green waste generators often include parks, golf courses, and landscapers. If the SWRD pursues this option, they will survey these institutions and businesses to identify how they currently manage their green waste, and if they would be interested in learning how to compost it on site. For those institutions and businesses

that express an interest in on-site composting, the SWRD will provide technical assistance, employee training, and guidance on regulatory and zoning considerations.

One of the barriers to implementing this option is training employees. Many of these establishments use seasonal employees for yard maintenance, and there is a high turn-over rate with permanent employees. Consequently, they are reluctant to require employees to participate in training outside of their core business or service. In addition, the SWRD could invest significant time training and providing guidance without any guarantees that the establishment will implement a composting program.

Estimating the quantity of green waste that would be composted on-site by large generators is not possible to project, as the data on the amount of green waste they currently dispose is not available. However, green waste comprises almost 11,500 tons of the landfilled waste stream and, consequently, on-site composting could divert almost 2,300 tons of green waste if just 20 percent originates from these sources.

The SWRD does not envision any additional costs if existing staff are used to implement this option. In addition, there should not be any conflicts with adopted land use plans if the green waste is composted on the generator's property.

- **Evaluate organics collection from large commercial generators –** If New Earth San Antonio has the capacity to process pre-consumer produce from New Braunfels or a composting facility for organic material is developed in Comal County, the SWRD may help large commercial generators prepare business case analyses (BCA) to determine the viability of recovering pre-consumer food scraps. The BCA would consist of quantifying the pre-consumer produce and/or food scraps available for recovery, evaluating storage capacity, assessing the potential for employees to source-separate organics, working with the facility's waste hauler, and estimating costs. These businesses and institutions could include:

  - Grocery stores, such as the three H-E-Bs and the Walmart Supercenter;
  - Institutions with cafeterias, such as New Braunfels Independent School District and the New Braunfels Regional Rehabilitation Hospital; and,
  - Event venues, such as Schlitterbahn water-park, the Civic/Convention Center, and Landa Haus.

  If this option is implemented, the SWRD would also work with large green waste generators who aren't interested in on-site composting to explore the possibility of requiring their landscapers to deliver green waste to the compost facility. This option is viable for large generators of green waste because they often produce enough material to fill an entire vehicle. If a vehicle makes multiple stops before it is full, it is difficult for one customer to direct where the landscaper deposits green waste.

  The SWRD does not foresee any obstacles for implementing this option, incremental costs if existing staff is used, or potential conflicts with adopted land use plans. It is not possible to estimate the volume of organics that this option could divert, as data on the amount of food scraps or green waste currently disposed by large generators is not available.

- **Increase awareness about wasted food and food recovery** - As previously discussed, food waste accounts for almost 18 percent of the disposed waste stream, which means approximately 10,626 tons were disposed during the Baseline Year. At the same time, almost 15 percent of residents in Comal County live in food insecure homes. To increase awareness about waste food and food recovery, the SWRD is considering the following options:

    - **Promote the USEPA "Food Recovery Challenge"** - The "Food Recovery Challenge" encourages universities, businesses, and other community organizations to make their food management systems more sustainable. Participants are required to set baseline goals, and annually report the amount of food waste diverted into the EPA's data management system. The EPA then takes the amount of food that has been saved and translates that into measures such as "cars off the road" or reductions in greenhouse gas. This helps participants share what they have accomplished and encourages others to get involved. Each year the EPA awards participating organizations in the categories of source reduction, leadership, innovation, education, and outreach. Winners of the "Food Recovery Challenge" awards are recognized on the EPA's various social media platforms.

    - **Link the SWRD website to the "I Value Food" website page** - The "I Value Food" campaign aims to raise awareness about food waste in the United States. The campaign's website offers tools and tips on how to help end food waste and features useful articles such as "Creative Ways to Use Leftovers," or "Cooking for One with Zero Waste." The campaign's website also offers a quiz to help see how much food individuals and families really waste every day. "I Value Food" will soon launch an online challenge and toolkit for reducing food waste at home, adapted from the EPA's "Food Too Good to Waste" program. Through various social media platforms, "I Value Food" shares ways to reduce food waste

    - **Incorporate "Save the Food" into classroom presentations** - The Food and Agricultural Organization of the United Nations developed "Save the Food," which is designed to raise awareness among school children, teachers, staff and their related families on food loss and waste issues and introduce good practices conducive to food waste reduction. An education package named "Do Good: Save Food!" consists of different modules that can be used by SWRD or teachers to plan lessons and activities on the issue. The content is adaptable and interactively designed to enable educators to select and implement components they consider to be most pertinent to the cause, depending on the needs related to time availability, knowledge and age of the students, curriculum context, etc.

    The SWRD does not foresee any obstacles, incremental costs, or conflicts with adopted land use plans to implement these options. With respect to diversion, the Natural Resources Defense Council (NRDC) estimates the average American annually throws away 240 pounds of food. This translates into approximately 9,500 tons of food waste in New Braunfels. The NRDC also estimates 20 percent of purchased food is never eaten. The SWRD is hoping to decrease the amount of food never eaten by 5 percent, which would reduce the amount of food never eaten by over 470 tons.

- **Provide outreach to restaurants and grocery stores on food waste reduction -** To identify options to help grocery stores and restaurants reduce food waste and recover food, ReFED was used as a resource to identify potential options for this Plan. ReFED is a multi-stakeholder nonprofit, comprised of a network of the nation's leading business, nonprofit, foundation, and government leaders committed to reducing U.S. food waste. ReFED takes a data-driven approach to move the food system from acting on instinct to insights that solve the national food waste problem. ReFED has identified 27 of the best opportunities to reduce food waste through a detailed economic analysis. The solutions were analyzed using the EPA Food Recovery Hierarchy. Below are ReFED strategies to reduce food waste in restaurants and grocery stores that the SWRD could encourage local businesses to implement:

    - **Smaller plates** - Using smaller-sized plates in all-you-can-eat dining establishments can minimize consumer food waste. Cornell Professor Brian Wansink's research on food psychology found that consumers given larger bowls took (and consumed) 16 percent more cereal than those with smaller bowls. Consumers generally find a 70 percent fill rate to be visually pleasing, so smaller plates reduce the amount of food consumers serve themselves[22]. New Braunfels has several buffet restaurants, and the SWRD may meet with them about converting to smaller plates. Obstacles that the SWRD may encounter is these restaurants will incur upfront costs to purchase new plates, and they may be concerned that smaller plates will impact customer satisfaction by requiring more frequent trips for refills.

    - **Standardize date labelling** - Current date labeling practices on food packaging cause confusion with "sell-by," "best-by," "use-by," and "best before" dates, leading up to 90 percent of Americans to occasionally throw out still-fresh food. Confusion over the meaning of date labels is estimated to account for 20 percent of consumer waste of safe, edible food. This equates to approximately $29 billion of wasted consumer spending each year in the United States; 5 to 10 percent of this is expected to be impacted by standardized date labels. One of the most significant challenges to standardized date labelling is there is no comprehensive national regulation or government agency with the direct mandate to regulate food date labelling for safety and perishability. In addition, food manufacturers have little incentive to change their practices, because date label standardization would do little to lower costs and increase revenues, as incremental savings and revenues would be incurred by the retailer.

      Although there are obstacles, H-E-B has several stores in New Braunfels and is also a food manufacturer headquartered in San Antonio. Therefore, there may be an opportunity for SWRD to work with other solid waste and recycling divisions in the AACOG region to progress the concept of standardized dates on products manufactured by H-E-B, and design educational materials on what the dates mean. The SWRD and other solid waste and recycling divisions could also work with H-E-B to monitor the reduction in disposal of products manufactured by H-E-B.

    - **Embrace imperfect produce** – Over the years, supermarkets have promoted high cosmetic standards for fruits and vegetables, leading them to reject even marginally imperfect-looking food (e.g., too short, long, big, small or uneven in shape,

[22] ReFED

too red or not red enough, and so on). If this option is selected, the SWRD would work with local stores and restaurants to accept and integrate the sale of off-grade produce (short shelf life, different size/shape/color), also known as "imperfect produce", into food business menu planning and product lines. In addition, the SWRD could include activities to educate students that the way a fruit or vegetable looks does not necessarily impact its taste.

On a national basis, ReFED estimates the annual reduction in food waste for these options: smaller plates - 178,000 tons; standardized date labelling – 398,000 tons; and embrace imperfect produce – 266,000 tons. Based on a U.S. population of 3.27 million, these three options could yield reduction rates of approximately 0.003 tons per capita. When this per capita rate is applied to the New Braunfels' Baseline Year population of 79,152, an estimated 204 tons of food waste could be reduced. The SWRD does not envision incremental costs associated with these activities if existing staff is used.

- **Explore a partnership with the New Braunfels Food Bank to enhance infrastructure for consumable food recovery** - The New Braunfels Food Bank was founded in 2010 and is a branch facility of the San Antonio Food Bank. Their mission is that no child should go to bed hungry, adults should not have to choose between a hot meal and utilities, nor a senior sacrifice medical care for the sake of a meal. To help the New Braunfels' Food Bank succeed in its mission and foster food recovery, the SWRD may periodically host food drives at the CRC to recover the "twelve most wanted" food items that the New Braunfels' Food Bank needs, such as canned soups and boxed dinner meals. In addition, the SWRD will explore the possibility of co-hosting a fundraiser with the New Braunfels Food Bank, where a movie about food waste in the United States is shown, such as "Wasted! The Story of Food Waste," and local chefs make food from recovered food and imperfect produce.

  There is little data on the effectiveness of this type of activity, so it is estimated that there will be a 1 percent or 95-ton reduction in the amount of consumable food that is thrown away by raising awareness about food waste and the New Braunfels' Food Bank.

5.6 SPECIAL WASTES

For this Plan, "Special Wastes" are Electronics and HHW. Options that SWRD will consider to reduce and recycle Special Wastes include:

- **Promote reduction strategies through community-based social marketing** - A community-based social marketing program could be implemented to help promote special waste reduction and recycling, with different messages targeted to different demographics using a wide assortment of tools now available. SWRD would work with community partners to further develop a special waste reduction and recycling public education and outreach program that targets specific audiences (e.g. language-specific and/or culturally competent mailings, brochures, or community meetings). General education brochures, utility bill inserts, newspaper articles, media ads, new program kick-off events, webpage, etc. should reflect the needs of the City's various ethnic and social communities. Funding programs on an on-going basis to educate target audiences about the new rules and

changes is an important part of maintaining positive community relations and engagement.

- **Provide outreach and education on alternative products** - The SWRD may provide outreach and education to residents to reduce the amount of HHW generated. The program will provide information on less toxic, alternative products residents can use to substitute for hazardous materials that are often difficult and/or expensive to dispose, and on reducing and properly managing HHW. Training would be provided via media and/or in a workshop open for residents to attend.

  During the Baseline Year, 188 tons of HHW were delivered to the special collection events. Through promoting the use of alternatives and only purchasing quantities that will be used, the SWRD estimates a 5 percent reduction in the amount of HHW generated. This is equivalent to approximately 9 tons. The SWRD estimates that the workshop could cost approximately $1,000 to conduct.

- **Build a permanent, multi-material drop-off center** – As previously discussed, the SWRD operates the CRC that is the primary outlet for local businesses, multi-family residents, and tourists to recycle, and provides SWRD residential customers with an opportunity to recycle on a daily basis. In addition, it is the only public outlet to recycle plastic foam #6 (also called Styrofoam) in the vicinity. Currently, the CRC does not accept Special Wastes, and these materials are recovered through collection events that are only available several times a year.

  Periodic collection events for Special Wastes are typically more expensive than a permanent facility due to contractor mobilization fees. In addition, a permanent facility can increase the recovery of Special Wastes and provide opportunities to locally reuse Special Wastes, which could significantly reduce contactor fees.

  When Olathe, Kansas transitioned from collection events to a permanent facility, materials recovered increased by 315 percent and $/ton costs decreased from $1,795 to $703. Most of this $/ton decrease was because only 41 percent of the material received required final management by the contractor. The remaining 59 percent was reused within the community.

  Therefore, the SWRD plans to develop a permanent, multi-material waste facility that would accept Special Wastes throughout the year. This facility would include a reuse center for HHW. The facility would also accept single-stream recyclables, scrap metal, plastic foam #6, flattened cardboard, bulky goods, green waste and oversized brush. The facility may also accept source-separated lumber that could be recovered at the Beck Landfill.

  The new facility would accept single-stream recyclables, scrap metal, plastic foam #6, and flattened cardboard year-round during the same hours the CRC currently operates. Those hours are Tuesday – Saturday, 8am to 12pm and 12:30pm to 4pm. With respect to all other items, the facility would initially be open two days per month throughout the year. The facility would be closed Sundays, Mondays and City holidays.

As previously discussed, the multi-material, drop-off center will replace the CRC and special collection events that diverted the following tonnage of materials from the landfill during the Baseline Year:

- Commingled recyclables 214 tons
- Latex Paint/Alkaline Batteries 18 tons
- Scrap metal 111 tons
- Cardboard 74 tons
- Electronics 14 tons
- Used oil 3 tons
- Batteries 2 tons

TOTAL 436 tons

Special events also accepted bulk goods and HHW, however the vast of these materials were landfill disposed. **Table 14** shows the incremental amount of material that could be landfill diverted in Year 1 due to the development of the new facility.

Table 14. Multi-Material Drop-Off Center Year 1 Estimates

Material	Tons
Cardboard	212
Scrap Metal	38
Commingled Recyclables	111
Brush and Green Waste	437
Styrofoam	2
Latex Paint/Alkaline Batteries	18
Electronics	5
Used Oil[23]	1
TOTAL	**824**

Source: Feasibility Study: Multi-Stream Waste Collection Center

The Feasibility Study for the Multi-Stream Waste Collection Center estimated that the facility could cost approximately $2.5 million in capital expenditures (CAPEX) to develop, and YR 1 O&M expenditures may be approximately $487,000. O&M includes hiring one foreman and four attendants. In addition, the facility could incur approximately $114,000 in contractor expenditures during YR 1 to manage tires, E-waste and HHW. During YR 1, all preparation and packaging of HHW will be conducted by the contractor. During YR 2, facility staff will be trained to complete these activities and by YR 3, HHW contractor costs should be reduced.

The SWRD plans to assess gate fees on materials delivered by any commercial customers and individuals that reside outside City limits and for all large brush and bulky goods. To support the initial construction of this facility, the SWRD anticipates there may be a residential rate increase.

[23] Based on 7 pounds per gallon

As this will be a new facility, land use plans will need to be considered when identifying a location. The facility will most likely be sited in a business district.

5.7 ALTERNATIVE TECHNOLOGIES

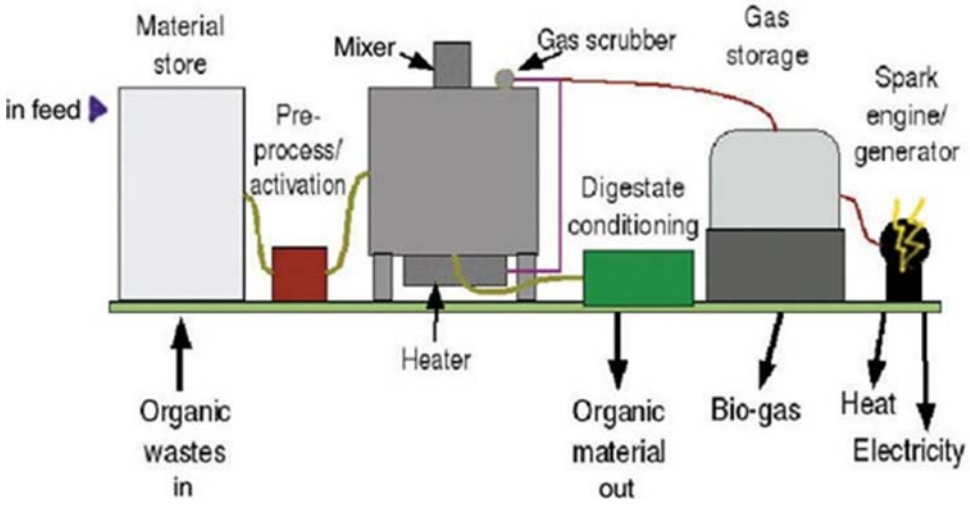
Although alternative technologies, such as waste conversion facilities, are not common in the Southwest, it is possible at some long-range future point for a facility of this type to serve as a final waste management option for the AACOG region. Currently, the largest barriers to alternative technologies are the relatively low tipping fees charged by landfills and the low price of energy available to consumers. However, the paradigm of inexpensive landfills and energy may one day shift, increasing the viability of alternative technologies in the region.

Multiple types of alternative technologies are used throughout the world and include anaerobic digestion (AD), thermal waste-to-energy (WTE), gasification/pyrolysis, plasma arc, and plastics-to-fuel. However, AD and thermal WTE are the two that are currently used to process MSW at multiple facilities in the United States and are the alternative technologies considered to be viable options for the AACOG region. Both evaluated WTE technologies can be complemented by upstream recycling.

5.7.1 Anaerobic Digestion (AD)

AD is a biochemical process, which breaks down organic waste in the absence of oxygen and produces biogas and digestate. Biogas produced is approximately 50 to 60 percent methane, and can be used to generate energy, either as a direct replacement for natural gas, in a combined heat and power system, in internal combustion engines, or converted to compressed natural gas (CNG) or liquefied natural gas (LNG). Digestate is defined as the remaining undigested solid and liquid fractions of the input feedstock material after the AD process. Digestate can be land applied or composted to produce a high-quality soil amendment. AD is typically undertaken using one of two distinct technologies: wet or dry digestion. Determining which technology is best depends on the quality, composition, and/or pre-treatment of the feedstock. Dry AD technologies typically process feedstocks with total solids content greater than or equal to 15 percent. Wet AD systems process feedstock with total solids content less than 15 percent (**Figure 20**).

Figure 21. AD Schematic

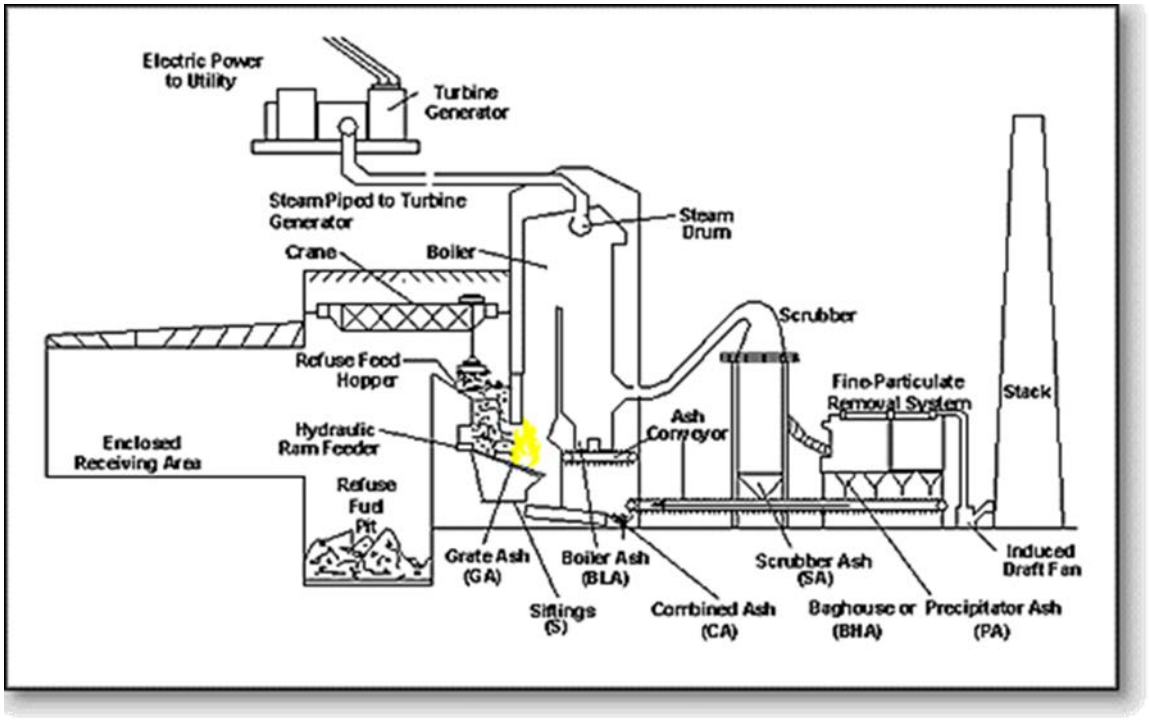


5.7.2 Thermal Combustion

Thermal combustion, also known as controlled combustion or thermal WTE, is one of the most widely adopted WTE technologies, with hundreds of active installations worldwide and dozens in North America. Thermal WTE usually involves the combustion of MSW and converts the combustible fraction of the solid waste stream into fuel for energy production, cleaning any flue gases that are produced through the process. In order for combustion to take place, a sufficient quantity of oxygen is required to fully oxidize the fuel. Typically, thermal WTE combustion (flame) temperatures are in excess of 850 degrees Celsius, and the waste is converted into carbon dioxide, water, and heat. Thermal WTE produces steam that can be used to generate thermal energy or electricity.

Bottom ash and fly ash are additional byproducts of the thermal WTE process and may require landfill disposal. Whereas fly ash from a coal-fired power plant is categorically exempt from Subtitle C and regulated under EPA's Coal Combustion Residuals (CCR) rules (40 CFR Parts 257 and 261), fly ash from a MSW WTE plant is not exempt and, as such would require testing to determine if it is hazardous. If testing demonstrates the fly ash to be non-hazardous, it could be approved at a Type I MSW landfill for disposal as a special waste with the landfill operator's approval. If testing shows that the waste is hazardous, the WTE plant operator would have to find a hazardous waste landfill to dispose of it OR develop a plan for excluding components of the waste stream that contributed to the failed TCLP test. There are two key types of thermal combustion technologies: controlled mass-burn and refuse derived fuel (RDF). In mass-burn systems, MSW is combusted with little or no pre-processing other than the removal of bulky or hazardous items. In RDF systems, the MSW is shredded into "fluff", or produced into a densified form, such as pellets (Figure 21).

Figure 22. Thermal Combustion Schematic



As discussed in Section 4.4.2.3, the AACOG region has over 58 years of permitted disposal or until 2077. However, the process to develop new final management capacity may need to begin by 2057. In addition to capacity, other variables may impact the City's decision to explore a new final management option that include:

- Additional landfill capacity is not secured within the region by 2057.
- Tipping fees at regional landfill facilities increase significantly (greater than historical increases, out of line with other utilities being provided by City).
- The energy market changes such that revenues from the sale of electricity from WTE increase significantly.
- Disposal tonnages in the AACOG region increase, causing landfill airspace to be consumed more quickly than anticipated, triggering earlier discussion of new final management options.

During the Baseline Year, the SWRD collected and disposed 54,692 tons of waste, of which 36 percent or 20,449 tons was organics, and NBU disposed 660 tons of biosolids. Theoretically, all these materials could be processed in an AD plant; however, not all AD technologies can co-digest multiple organic waste streams. For planning purposes, the SWRD estimates that all organics and biosolids, or 21,109 tons could be processed by an AD plant.

With respect to thermal WTE plants, most have the potential to process 95 percent of the waste stream. This means that 51,957 tons of waste collected by SWRD can be processed at a thermal

WTE plant. However, thermal WTE plants also generate both bottom and fly ash that often requires landfill disposal. For planning purposes, the SWRD estimates that 75 percent of material delivered to a thermal WTE plant, or 38,968 tons would be converted to electricity.

If either an AD or thermal WTE plant is developed in the AACOG region, it will most likely be accomplished by the private sector or through a public-private-partnership. Thus, it will not impact the SWRD Capital Improvement Plan (CIP). Based on data from other communities, tipping fees at AD facilities are approximately $45-$65/ton, and $80-$100/ton at thermal WTE plants. Thus, if SWRD sends 21,109 tons of organics to an AD plant, the YR 1 costs could be approximately $950,000. For a thermal WTE plant that processes 51,957 tons of City waste at $80/ton, YR 1 costs would be approximately $4.2 million. Depending on where these facilities are located, the City's Land Use Plan may need to be considered.

5.8 FLEET SERVICES

As previously discussed, the SWRD serviced 4,117 City vehicles during the Baseline Year. Service requests are projected to increase to 4,857 in 2020 and 7,980 by 2030. These vehicles include police and emergency, as well as public works. The current public works municipal service center is close to capacity with respect to the number of vehicles that can be stored and serviced at the same time, and the current location is not conducive to expansion.

Having enough staffing and floor capacity is essential to keeping the City's fleet consistently and reliably operating. Without a fully operating fleet, the City will incur overtime expenses and may not be able to provide fundamental services. Therefore, the SWRD will begin identifying a location for a new service center and secure funds for constructing this new facility within the next five years.

In addition to a new building, extra staffing will be required to service the expanding City fleet. The SWRD believes that one additional fleet manager; three heavy technicians; and one parts technician could be required over time. The YR 1 costs for these new employees are estimated to be approximately $215,000. Two new vehicles may also be necessary and could cost approximately $340,000. The vehicles will be funded through the annual operating budget rather than the CIP.

While this new service center will not directly increase the quantity of recyclables and green waste that is recovered in the City, consistent service is essential to encouraging residential customers to participate in these programs. The new service center location will need to be assessed to assure it conforms to the City's land use plans.

6.0 PUBLIC ENGAGEMENT METHODS FOR PLAN DEVELOPMENT

6.1 OUTREACH AND EDUCATION

The SWRD convened a series of workshops to gather public input on the Plan development. The workshops were held at City Hall, and at the Solid Waste and Recycling Division offices. The workshops were held during the day and in the evening, to provide convenient access to businesses and residents.

The initial workshops, held in September 2018, provided information on the Plan vision, goals, and objectives, as well as background information on the existing solid waste management system in the City. Data on waste generation projections was presented, and the results of the needs assessment were identified. The second series of workshops were held in December 2018. At these workshops, options were presented to address the solid waste management needs of the city in the short, medium, and long terms. The options were organized according to topics, including education and outreach, waste reduction, recycling, organics, and special wastes.

7.0 FUNDING STRATEGIES AND ANALYSIS

7.1 BUDGET

During the Baseline Year, the SWRD had a revenue budget of approximately $8.59 million from the following sources:

- Residential waste fees $4.65 million
- Residential recycling fees $1.21 million
- Commercial waste fees $2.39 million
- Miscellaneous $169,750[24]
- Garbage penalties $110,000
- Brush removal $30,000

The SWRD expenditure budget during the Baseline Year was approximately $8.90 million, which was allocated to the following cost centers:

- Residential waste collection $2.26 million
- Residential recycling $2.25 million
- Commercial waste collection $2.27 million
- Administration $1.61 million
- Public works service center $505,000

7.2 FEES

7.2.1 Residential

During the Baseline Year, New Braunfels residents were assessed a monthly fee of $13.40 for the collection and disposal of waste. The fee includes weekly service of one, 96- or 48-gallon waste cart and residential customers can request additional waste carts for a fee of $6.50 per month. Residential customers may also purchase tags from the SWRD in increments of five for $10 when waste exceeds cart capacity. If the residential customer requests a return service for waste, green waste or recyclables, they are charged a fee of $15.00

For bulk collection, the SWRD charges a minimum fee of $25.00 for the first one-half hour and $25.00 for each additional one-half hour. Residents also have access to free, BGD events.

Residents with access to curbside recycling are charged $4.26 per month. Revenues from these fees funded slightly more than 50 percent of the cost to collect and process recyclables during the Baseline Year. Due to this deficit, revenue from residential waste collection subsidizes this service.

Revenue from residential fees also helps fund HHW, Electronics and BGD collection events, as well as the operation of the CRC and the river clean up. In addition, revenue from residential fees partially pay for the administration of the SWRD, including the operation of fleet services.

[24] Includes return pick-ups, sale of recyclables, roll-off tonnage charges,

7.2.2 Commercial

Upon request for collection service, the SWRD determines the service level requirements for that location. The SWRD determines the type and number of solid waste containers (dumpsters, roll-off, or compactor) and frequency of collection based on the type of commercial activity at the location, and the size of the development itself. The SWRD provides businesses that generate a small amount of waste with two, 96-gallon carts that are collected once a week. **Tables 15 through 18** provide 2018 commercial rates.

Table 15. Dumpster Rates

Container Size	Collections per Week						Call-in per pick up
(Cubic Yards)	1	2	3	4	5	6	
3	$97.71	$112.18	$123.95	$184.22	$185.08	$185.92	**$123.88**
4	$123.02	$138.33	$153.04	$187.49	$232.50	$247.22	**$152.75**
6	$174.82	$191.30	$208.37	$265.61	$317.84	$320.79	**$211.25**
8	$226.03	$249.99	$263.70	$343.74	$374.94	$411.33	**$276.07**
10	$277.83	$312.51	$319.03	$421.82	$446.76	$467.36	**$345.11**
96-gal (2 carts)	$29.32						
Addt'l cart (limit 2)	$14.66			**Each**			
Admin fee	$10.00			**per request**			

Table 16. Compacting Dumpster Rates

Container Size (Cubic Yards)	Collections per Week						Call-in per pick up
	1	**2**	**3**	**4**	**5**	**6**	
3	$108.57	$133.88	$156.50	$227.62	$239.33	$251.03	**$133.06**
4	$139.29	$165.45	$196.44	$241.74	$303.03	$334.02	**$170.75**
6	$196.52	$234.70	$273.47	$352.41	$420.91	$445.57	**$240.39**
8	**$253.15**	**$304.24**	**$350.50**	**$452.24**	**$515.99**	**$579.51**	**$310.32**

Table 17. Compacting Roll-Off Rates

Container Size (Cubic Yards)	Collection per Month				Call-in per pick up
	1	2	3	4	
20	$393.86	$786.63	$1,180.48	$1,575.44	**$482.79**
30	$508.87	$1,017.73	$1,526.60	$2,035.48	**$623.77**
40	$623.88	$1,247.75	$1,871.63	$2,495.52	**$764.75**

Table 18. Open Top Roll-Off Rates (20, 30, 40 cy containers)

Minimum one-month rental	**$150.00**
Delivery/setup fee	**$150.00**
Service fee	**$150.00**
	plus disposal fee for weight of contents

During the Baseline Year, the commercial waste collection program generated approximately $2.39 million in fees and cost approximately $2.27 million. The surplus funds were used in conjunction with residential waste revenues to fund the administration of SWRD and operate the City's fleet service center.

7.3 REVENUE SUFFICIENCY ANALYSIS

Expenditures exceeded revenues by approximately $310,000 during the Baseline Year, which required the SWRD to draw down its working capital reserves fund. During the Baseline Year, the SWRD had a working capital reserve of $2.90 million, which is equivalent to 4-5 months of SWRD's O&M expenses. Many utilities have policies to maintain approximately 3-6 months of O&M expenses as a working capital reserve. Without generating additional revenue, the working capital reserves would be depleted to less than three months of O&M expenses by 2023, and the reserves could be completely depleted by 2025.

Consequently, as part of the planning process, the SWRD collaborated with SCS Engineers to conduct a revenue sufficiency analysis (RSA) to ensure that it can meet its operating cost requirements while maintaining adequate reserves. The RSA will also serve as the foundation for a ten-year financial plan to satisfy operating and capital requirements, maintain adequate reserves, and minimize rate increases to customers.

As part of the RSA process, the following SWRD data was analyzed:

- Historical and budgeted financial information
- Historical and future customer counts and tonnage data
- Multi-year capital improvement programs
- Current financial and debt policies.

The RSA indicated that the growth in residential customers will increase annual revenues but will not eliminate the need for the SWRD to transfer funds from their working capital reserves to fund annual expenditures and scheduled, capital improvement projects[25]. Based on the RSA, the SWRD needs to increase annual revenue by approximately 1.5 percent to meet financial obligations.

7.4 OPTIONAL FUNDING STRATEGIES

Refuse and recycling collection fees account for approximately 96 percent of SWRD's annual revenues. Therefore, collection fees will need to be adjusted for the SWRD to meet financial obligations. While collection fees will continue to serve as the primary funding mechanism for the SWRD, other funding sources are available to diversify the SWRD revenue portfolio.

- Environmental Fees - The collection fees currently fund several programs that contribute to decreasing the City's dependency on landfills and its carbon footprint, but do not require curbside collection. These programs include the CRC and special collection days for HHW, Electronics and bulky goods. In addition, collection fees fund river clean-ups. Some programs, such as the CRC, are available to businesses that are not SWRD customers, as well as tourists. However, these businesses and tourists do not financially contribute to SWRD expenditures. Therefore, to generate additional revenues and to recover costs from all recipients of SWRD programs, the City could establish an environmental fee that is assessed on all residents, businesses and hotel stays. As previously discussed, SWRD revenue generated by residential customers currently subsidizes the programs that could be funded by an environmental fee. Consequently, if the SWRD assesses an environmental fee, residential collection fees would be reduced.

  The San Antonio municipal code (Chapter 14, Article III, Section 14-30 (b) states that all properties in San Antonio, residential and nonresidential, pay a monthly environmental services fee of three dollars and twenty-four cents ($3.24) per each electrical meter account. Out of the $3.24 fee, solid waste receives $2.24, and parks receives $1.00. This fee is intended to defray municipal expenses necessary for cleaning up illegally dumped waste, collecting and disposing of dead animals, performing regulatory maintenance on closed landfills, providing environmental services to the city's park system, and equitably sharing costs for neighborhood clean-ups benefiting residents and businesses that do not pay a monthly solid waste processing fee. At locations where the electrical meter does not accurately reflect the number of units, an environmental fee applies to each residential and non-residential unit.

- User fees - Currently, the SWRD does not charge participants for the materials they bring to special collection days for HHW, Electronics and bulky goods, or recyclables they deliver to the CRC. When the permanent facility for Special Wastes and recyclables is constructed, the SWRD may charge a fee to use the facility. It is unlikely that fee will be high enough to generate all the revenue required to operate the facility, as the SWRD does not want to discourage participation. In addition, the SWRD may not charge New Braunfels' residents to us the facility.

[25] The CIP currently includes two projects: a permanent facility for Special Waste and recyclables; and a new, public works service center.

- **Franchise fees** - Some cities assess franchise fees or taxes on gross receipts upon solid waste collection companies for the privilege of entering into a contract with or doing business within a city. These fees sometimes fund solid waste-related activities.

- **Grants**

  - **State/Local** - In accordance with Texas Health and Safety Code, the TCEQ awards grants to regional and local governments for MSW management projects through the state's regional solid waste grants program. The TCEQ is directed by the Legislature to dedicate one-third of the revenue generated by state fees on MSW disposed of at landfills to grants for regional and local MSW projects.

    The TCEQ allocates the funds to the state's 24 councils of governments (COGs), based on a formula that considers population, area, solid waste fee generation, and public health needs. The COGs use the funds to develop and maintain an inventory of closed MSW landfills, conduct regional coordination and planning activities, maintain a regional solid waste management plan, and administer pass-through grant programs to provide funding for regional and local MSW projects.

    Typically, the AACOG region begins the pass-through grant application process in the fall and has a biennial grant cycle. This means that AACOG region will begin promoting the available grants in the fall of 2019, for grants that will be awarded in 2020 and 2021. The types of projects that may be funded with these grants vary from region to region, depending on the priorities identified in the regional plans. Prior to developing the grant priorities, each COG is required to hold public meetings to receive input on the proposed grant categories.

    All projects must be consistent with the regional solid waste management plans prepared by the COGs and approved by the TCEQ. Also, projects funded with these grants must promote cooperation between public and private entities and may not be otherwise readily available or create a competitive advantage over a private industry that provides recycling or solid waste services.

    SWRD consistently participates and is awarded grants from this program. However, in recent years, the funding available has been minimal and only funded small equipment purchases or projects.

  - **National** - *The Recycling Partnership* offers technical and financial assistance to communities when implementing a cart-based collection system. Currently, grant funding is not available to replace existing carts, to support the purchase of carts for waste or organics collection, or to support the collection of recyclables from businesses, schools, or institutions. However, the SWRD will continue to monitor *The Recycling Partnership,* as grant application criteria may change.

    While not a grant, the *Closed Loop Partners' Closed Loop Fund* provides financial backing to municipalities developing systems and facilities to decrease dependency on landfills. The *Closed Loop Fund* is backed by Walmart and several other large corporations. Launched in the spring of 2014, the group provides zero interest loans to spur recycling growth throughout the United States. If the feasibility study on a

composting facility for food scraps and biosolids shows that it is technically viable and financially feasible, the *Closed Loop Fund* could be a source of capital.

The SWRD is currently conducting a cost of service study that will allocate all direct and indirect costs to each SWRD program and service. This information will be used to estimate the billing rates required to fund those programs and how those rates would be influenced if collection fees were supplemented with these alternative funding structures.

7.5 RECOMMENDED FUNDING STRATEGIES

The SWRD is interested in the adoption on some type of environmental fee. Therefore, the SWRD will meet with the City of San Antonio to understand how the fee was adopted, supported by customers, and the rate of $3.34 was established. The SWRD will also actively monitor changes in the AACOG solid waste management plan to assure that City grant applications align with AACOG solid waste management goals. The SWRD will also annually review the grant application criteria for The Recycling Partnership to see if replacing existing recycling carts with carts containing RFID chips could be eligible.

8.0 20-YEAR IMPLEMENTATION PLAN

8.1 ACTION ITEMS

At the outset of the planning process, the SWRD identified the following goals for solid waste management in the City:

Goal #1: Achieve further progress in waste reduction, minimization, and reuse.

Goal #2: Maximize resource recovery and diversion.

Goal #3: Ensure available capacity at solid waste facilities utilized by the City.

Goal #4: Maintain sufficient funding mechanisms to support SWRD programs.

Goal #5: Encourage and expand coordination and communications regarding solid waste issues among all agencies and private firms in New Braunfels and the region.

Figure 23 presents how the actions in the solid waste management plan will help the City realize these goals.

Figure 23. Goals and Action Items

Achieve Further Progress In Waste Reduction, Minimization, And Reuse

- Conduct focus groups
- Facilitate continuous improvement workshops
- Support waste reduction in outdoor recreational areas
- Promote backyard composting
- Promote reuse and exchange opportunities at thrift stores and Habitat for Humanity ReStore
- Encourage businesses and City agencies to participate in RENEW
- Implement a variable rate structure
- Increase awareness about food waste
- Provide guidance to restaurants and grocery stores on food waste reduction
- Develop a multi-material recovery center
- Educate residents on alternatives to household hazadous products through community-based, social marketing

Maximize Resource Recovery And Diversion

- Facilitate focus groups
- Conduct continuous improvement workshops
- Establish recycling and participation goals
- Collect additional data
- Implement a variable rate structure
- Target education/outreach efforts
- Enact a multi-family recycling ordinance
- Contract for recycling services on behalf of SWRD commercial customers
- Require private haulers to provide recycling data
- Recognize businesses that reduce, reuse and recycle
- Encourage the purchase of recyclable and recycled-content products
- Increase delivery of source-separated wood to Beck Landfill
- Establish C&D diversion specifications for City projects
- Educate on acceptable materials for mulching
- Explore the development of a food scraps and biosolids compost facility
- Increase awareness of food waste and food recovery
- Explore a partnership with the New Braunfels food bank
- Develop a multi-material recovery center
- Monitor developments in alternative processing technologies

Assure Adequate Capacity At Facilities Serving The City

- Annually monitor disposal capacity
- Secure long-term C&D disposal and recovery capacity
- Assess capacity for processing pre-consumer produce at existing facilities
- Consider developing a transfer station to access regional disposal capacity
- Develop a multi-material recovery center
- Monitor developments in alternative processing technologies

Maintain Sufficient Funding Mechanisms To Support SWRD Programs

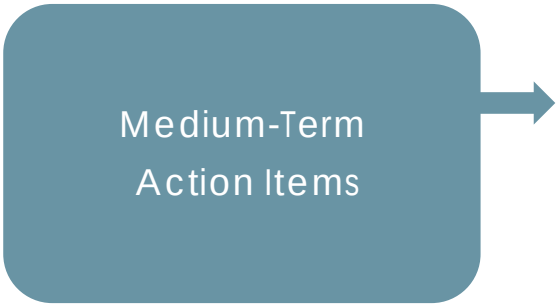
- Implement recommendations from the revenue sufficiency analysis
- Prepare a cost of service study
- Develop a rate analysis
- Evaluate alternative funding sources

Coordinate With Other City Agencies, Government Departments And Private Organizations

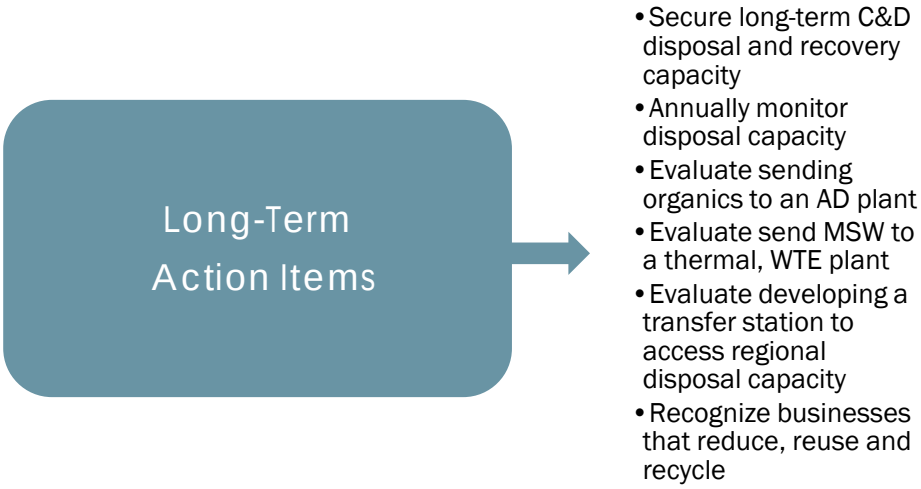
- Facilitate focus groups
- Conduct continuous improvement workshops
- Promote RENEW to City agencies
- Recognize businesses that reduce, reuse and recycle
- Explore the possibility of a food scraps and biosolids compost facility with NBU and Comal County
- Establish C&D diversion specifications for City projects
- Assess opportunities to compost green waste on-site at large, private businesses
- Evalutate organics collection from large generators
- Explore a partnership with the New Braunfels food bank
- Develop new public works municipal service center

As shown in **Figure 23**, many of the actions will help the City achieve multiple solid waste management goals. **Figure 24** shows the schedule for when the SWRD will implement these action items in the short-term, medium-term and/or long-term.

Figure 24. Implementation Schedule



- Promote RENEW to businesses and City agencies
- Implement a variable rate structure
- Enact a multi-family recycling ordinance
- Require private haulers to provide recycling data
- Contract for recycling services on behalf of SWRD commercial customers
- Assess opportunities to compost green waste on-site at large generators
- Evalutate organics collection from large generators
- Assess capacity for processing pre-consumer produce at existing facilities
- Encourage the purchase of recyclable and recycled-content products
- Establish C&D diversion specifications for City projects
- Increase delivery of source-separated wood waste to Beck Landfill
- Educate residents on alternatives to household hazardous products through community-based, social marketing



8.2 DIVERSION

8.2.1 Quantities

During the Baseline Year, 67,822 tons of waste were generated and 10,549 tons were diverted from the landfill, yielding a landfill diversion rate of 16 percent. As part of the planning process, the SWRD and SCS used case studies and previous experience with reduction, reuse, repurposing, recycling, and composting programs to estimate the incremental quantity of waste that could be diverted from landfilling through the selected action items. As discussed in Section 5 of this Plan, it was not possible to estimate diversion quantities for every action item. Table 19 summarizes the landfill diversion quantities that could be estimated. In instances where a diversion quantity range was estimated, Table 19 provides an average of the range.

Table 19. Action Item Diversion Potential

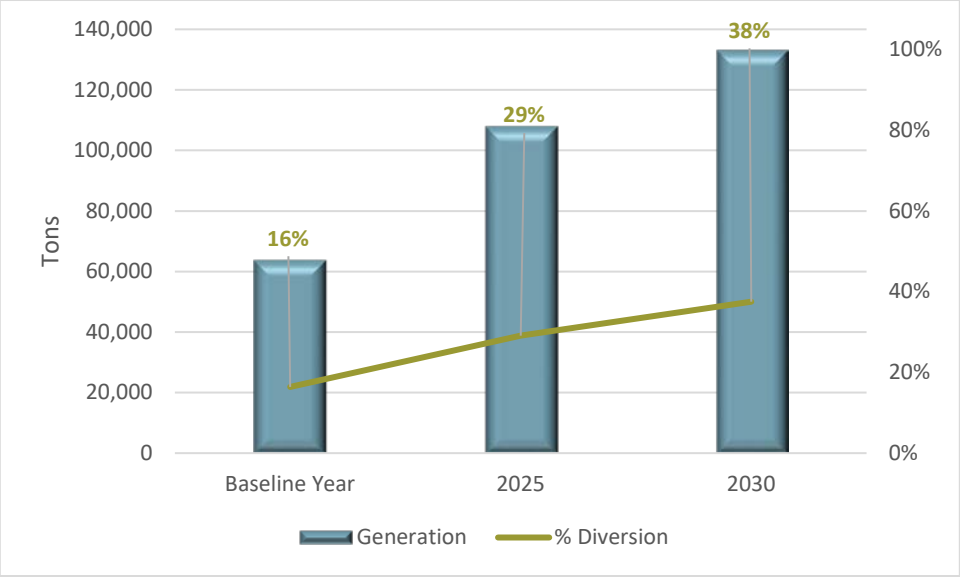
Implementation Term	Action Item	Incremental Diversion Potential (TPY)
Short-Term	Support waste reduction in outdoor recreation areas	1.7
	Promote backyard composting	3,573
	Establish recycling and participation goals	3,000
	Target education/ outreach/enforcement efforts	1,000
	Educate on acceptable materials for mulching	205
	Explore developing a biosolids and food scrap composting facility with local partners	5,300
	Increase awareness about food waste recovery	470
	Provide guidance to restaurants and grocery stores on food waste reduction	204
	Explore partnership with New Braunfels food bank	95
	Develop a multi-material, drop-off center	824
Short-Term Total		*14,672*
Medium-Term	Educate residents on alternatives to household hazardous products through community-based, social marketing	9
	Implement a variable rate structure	2,240
	Enact a multi-family recycling ordinance	264
	Contract for recycling services on behalf of SWRD commercial customers	4,770
	Encourage the purchase of recyclable and recycled-content products	106
	Increase delivery of source-separated wood waste to Beck Landfill	934

Implementation Term	Action Item	Incremental Diversion Potential (TPY)
	Assess capacity for processing pre-consumer produce at existing facilities	660
	Assess opportunities to compost green waste on site at large generators	2,300
Medium-Term Total		***11,283***
Long-Term	Evaluate sending organics to an AD plant	21,109
	Evaluate send MSW to a thermal WTE plant	38,968
Long-Term Total		***60,077***

8.2.2 Diversion Rates

During the Baseline Year, 10,549 tons of waste were diverted, which provided New Braunfels with a 16 percent diversion rate. As discussed on Sections 8.2.1, the quantity of waste that will be diverted is projected to increase substantially over the next 20 years. **Figure 25** shows that adding the short-term action items to the Baseline Year activities will divert over 31,000 TPY of waste from the landfill by 2025, and adding the medium-term action items divert a total of almost 50,000 tons by 2030. **Figure 25** also indicates that these increased tonnages will yield a landfill diversion rate of 29 percent in 2025 and 38 percent in 2030. .

Figure 25. Projected Diversion (TPY)



The long-term action items that will increase landfill diversion include the development of an AD and/or a thermal WTE plant. Combined, these two facilities could divert an estimated 60,777 tons of waste from the landfill by 2030. However, some of this material is most likely already being diverted through Baseline Year initiatives and will be diverted through short- and medium-term action items. In addition, these facilities will only be developed if they are economically viable. Therefore, the SWRD is not including them in the diversion rate analysis because the incremental amount of was these facilities would divert could not be estimated. In addition, when and if they would be developed is uncertain.

8.3 FINANCIAL

8.3.1 Operations and Maintenance (O&M)

As discussed in Section 7.3, the SWRD had a revenue budget of approximately $8.59 million during the Baseline Year. **Table 20** shows the incremental O&M associated with implementing this plan's action items. Fourteen of these action items include a communication component that will require the SWRD to create a new position for communication and outreach. The budget for this position is $45,000. **Table 20** allocates the cost of this new position over the 14 options that include a communication component.

Table 20. Action Item O&M Budget

Implementation Term	*Action Item*	*Estimated Budget*
Short-Term	Conduct Continuous Improvement workshops	$3,000
	Facilitate focus groups	$3,000
	Support waste reduction in outdoor recreational areas	$150,000
	Promote backyard composting	$3,000
	Promote reuse and exchange opportunities at thrift stores and Habitat for Humanity ReStore	$3,000
	Establish recycling and participation goals	$65,000 to $ 75,000
	Target education/outreach efforts	$48,000
	Educate on acceptable materials for mulching	$3,000
	Develop a special waste, multi-material recovery center	$601,000
	Explore development of a food scraps and biosolids compost facility with local partners	$80,000 to $100,000
	Increase awareness about food waste	$3,000
	Provide guidance to restaurants and grocery stores on food waste reduction	$3,000
	Develop new Public Works Municipal Center	$550,000
Medium-Term	Educate residents on alternatives to household hazardous products through community-based, social marketing	$4,000
	Promote RENEW to businesses and all City agencies	$4,000
Long-Term	Evaluate sending organics to an AD plant	$950,000
	Evaluate sending MSW to a thermal WTE plant	$4.2 million

8.3.2 Capital Expenditures (CAPEX)

Currently, the SWRD has two planned projects that will require CAPEX. The first is the development of a special waste, multi-material recovery center that will require $2.5 million in capital. The other is the public works municipal service center, which the SWRD has the capacity to issue debt for, but the CAPEX is yet to be determined.

Both facilities with be funded through a combination of capital reserves and debt. For planning purposes, any debt that is required is assumed to have the following terms:

- Long-Term Debt (Revenue Bond or Bank Loan)
- Term: 20 years
- Interest Rate: 4.00%
- Cost of Issuance: 2.00% of par
- Debt Service Reserve: No debt service reserve

Table 21 shows the additional action items that could require a capital investment.

Table 21. Potential Capital Requirements

Action Item	Estimated Capital Requirement	Implementation Term
Target education/outreach efforts	$1.6 million	Short
Explore developing a biosolids and food scrap composting facility with local partners	$1.5 to $15 million	Short
Implement a variable rate structure	$290,000	Medium

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. A)

Presenter/Contact
Patrick Aten, City Secretary
(830) 221-4010 - paten@nbtexas.org

SUBJECT:
Discuss and consider approval of the minutes of the regular City Council meeting of June 24, 2019.

MINUTES
OF THE NEW BRAUNFELS CITY COUNCIL
REGULAR MEETING OF MONDAY, JUNE 24, 2019

The City Council of the City of New Braunfels, Texas, met in a Regular Session on June 24, 2019, at 6:00 p.m.

City Councilmembers present were:

Present: 7 - Mayor Barron Casteel, Councilmember Shane Hines, Councilmember Justin Meadows, Councilmember Harry Bowers, Councilmember Matthew E. Hoyt, Mayor Pro Tem Wayne Peters, and Councilmember Leah García

The meeting was called to order by Mayor Casteel in the New Braunfels City Hall Council Chambers at 6:00 p.m. Councilmember Hines gave the invocation and Mayor Casteel led the Pledge of Allegiance and Salute to the Texas Flag.

PROCLAMATIONS:

A) Pride Month

Mayor Casteel proclaimed June as Pride Month.

PRESENTATIONS:

A) Presentation and update on the Bond and TIRZ Capital Projects.

Mayor Casteel read the aforementioned caption.

Jennifer Cain presented the item.

David Warmke spoke on the item.

1. MINUTES

A) Discuss and consider approval of the minutes of the regular City Council meeting of June 10, 2019.

Mayor Casteel read the aforementioned caption.

Councilmember Garcia moved to approve the item. Mayor Pro Tem Peters seconded the motion which passed unanimously.

2. CITIZENS' COMMUNICATIONS

This time is for citizens to address the City Council on issues and items of concerns not on this agenda. There will be no City Council action at this time.

Mayor Casteel read the aforementioned caption.

David Warmke and Craig O'Shea spoke.

3. CONSENT AGENDA

All items listed below are considered to be routine and non-controversial by the City Council and will be approved by one motion. There will be no separate discussion of these items unless a Councilmember or citizen so requests, in which case the item will be removed from the consent agenda and considered as part of the normal order of business.

Resolutions & Action Items

A) Approval of a contract amendment for Pape Dawson Engineers, Inc in the amount of $41,000 regarding the re-bid and construction services of San Antonio Street from Krueger Lane to Spur as part of the 2019 City Wide Streets Bond Program.

B) Approval of a contract modification with Brown, Reynolds, and Watford Architects to provide final design, bid phase, and construction phase services under the existing Fire Stations #2 and #3 design contracts and approval of the issuance of an invitation for competitive sealed proposals since the City Council finds that this delivery method will provide the best value to the City.

C) Approval of a contract with Brown, Reynolds, and Watford Architects to provide final design, bid phase, and construction phase services for Fire Station #7, including a Fire Training Facility; approval of an issuance of an invitation for competitive sealed proposals as the procurement method for construction of this project; and approval of a purchase of an ambulance from Frazer, and the purchase of an aerial ladder truck from Siddons Martin to be housed at Fire Station #7.

D) Approval of a contract with Freese & Nichols, Inc. for final design, bidding, and construction phase services for the Comal Cemetery Guadalupe River bank stabilization project and as part of the 2019 Bond Program and approval of the issuance of an invitation for competitive sealed proposals since the City Council finds that this delivery method will provide the best value to the City.

E) Approval of the issuance of an invitation for competitive sealed proposals as the project delivery method and approval for a contract modification with Pape-Dawson Engineers, Inc. for final design, bidding and construction administration for Klein Road Phase II as part of the 2019 Bond Program.

F) Approval of the issuance of an invitation for competitive sealed proposal as the project delivery method and approval of a contract amendment with Norris Design for final design services, bidding and construction administration for the Sports Complex as part of the 2019 Bond Program.

G) Approval of the issuance of an invitation for competitive sealed proposals for Kerlick Lane, California Boulevard, and Oak Run Sidewalk Projects since the City Council finds that this delivery method will provide the best value to the City.

I) Approval of the issuance of an invitation for competitive sealed proposals for San Antonio Street from Academy Street to Walnut Avenue as part of the 2013 Bond Program since the City Council finds that this delivery method will provide the best value to the City.

J) Approval of the Mayoral appointment of four individuals to the New Braunfels Partnership Committee for terms ending August 1, 2022.

K) Approval of the appointment of one individual to the Animal Services Advisory Board.

L) Approval of a resolution recommended by the New Braunfels Economic Development Corporation to approve a project expenditure for engineering work and closing costs associated to acquire an approximate 60-acre tract of land located at Kohlenberg Lane, said land being acquired for an economic development project authorized by Local Government Code, Chapters 501 and 505, as amended.

M) Approval of an amendment to the authorized position listing in the FY 2018-19 Development Services Fund.

N) Approval of multiple professional services contracts with pre-qualified firms to provide construction material testing and inspection services, on an as-needed basis.

O) Approval of a professional services contract with Pape-Dawson

Engineers, Inc. for the evaluation and development of an Accessibility Transition Plan on the City's programs, buildings, parks and public right-of-way facilities, resulting in a report of deficiencies and needed improvements for compliance with Americans with Disabilities Act.

P) Approval of a contract with Pape-Dawson Engineers, Inc. to provide civil engineering services to develop a workplan for an update to the City's Drainage Area Master Plan.

Q) Approval of a contract with the National Development Council and authorize the City Manager to execute all necessary documents.

R) Approval of a five-year renewal of the current agreement beginning October 1, 2019 until September 30, 2024, between the City of New Braunfels and the Greater New Braunfels Chamber of Commerce Inc. concerning the use of Hotel Occupancy Tax.

S) Approval of a purchase with Austin Turf and Tractor for a John Deere 2500B Precision Cut Diesel Greens Mower for the Landa Park Golf Course through Buy Board Contract at a cost of $38,675 and the appropriate budget amendment.

Ordinances

(In accordance with Section 3.10 of the City Charter, a descriptive caption of each ordinance shall be read on two separate days.)

T) Approval of the second and final reading of an ordinance amending Appendix D-Fee Schedule in the City's Code of Ordinances to change residential fees from valuation-based calculations to per square-foot calculations and flat fees.

Mayor Casteel read the aforementioned captions, except Item H which was pulled from the Consent Agenda by a citizen for discussion.

Councilmember Garcia moved to approve the Consent Agenda except Item H. Councilmember Hoyt seconded the motion which passed unanimously via roll call vote.

H) Approval of a resolution recommended by the New Braunfels Economic Development Corporation to approve a project expenditure of $15,000,000 to the City for the construction of the Sports Field Complex, an economic development project authorized by Local Government Code, Chapters 501 and 505, as amended.

Mayor Casteel read the aforementioned caption.

Jordan Matney presented the item.

No one spoke on the item.

Councilmember Hines moved to approve the item. Councilmember Garcia seconded the motion which passed unanimously.

4. INDIVIDUAL ITEMS FOR CONSIDERATION

A) Discuss and consider approval of the appointment of two individuals to the Downtown Board for terms ending May 31, 2021, and May 31, 2022.

Mayor Casteel read the aforementioned caption.

Patrick Aten presented the item.

Councilmember Hoyt moved to appoint Pat Butler and Jenny Wilson to the Downtown Board. Councilmember Meadows seconded the motion which passed unanimously.

B) Discuss and consider approval of a resolution in support of a countywide polling place program within Comal County.

Mayor Casteel read the aforementioned caption.

Patrick Aten presented the item.

Councilmember Hines moved to approve the item. Councilmember Meadows seconded the motion which passed unanimously.

C) Discuss and consider approval of a contract with BFI Waste Services of Texas, LP dba Republic Services of San Antonio to provide processing services for the City of New Braunfels' Recycling Program.

Mayor Casteel read the aforementioned caption.

Mike Mundell presented the item.

David Warmke and Wilton Warnecke spoke on the item.

Councilmember Hines moved to approve the item. Councilmember Meadows seconded the motion which passed unanimously.

D) Public hearing and possible direction to staff regarding the U.S. Department of Housing and Urban Development Community Development Block Grant Annual Action Plan and funding recommendations for Program Year 2019.

Mayor Casteel read the aforementioned caption.

Jennifer Gates presented the item.

Tricia Schneider, David Warmke, Mario Obledo, and Kay Scott spoke during the public hearing.

No action was taken.

<City Council took a break.>

E) Public hearing and first reading of an ordinance regarding the proposed rezoning to apply a Type 2 Special Use Permit to allow a bed and breakfast in the “R-2” Single-Family and Two-Family District on Lot 4, City Block 5021, addressed at 555 South Union Avenue.

Mayor Casteel read the aforementioned caption.

Chris Looney presented the item.

No one spoke during the public hearing.

The item failed due to a lack of a motion.

F) Public hearing and first reading of an ordinance regarding the proposed rezoning of a 0.25 acre tract out of the J Noyes Survey 259, Abstract 430, addressed at 471 Engel Road and a 2.0 acre tract out of the J Noyes Survey 259, Abstract 430 and a 3.0 acre tract out of the J Thompson Survey 21, Abstract 608, addressed at 491 Engel Road, from “APD” Agricultural/Pre-Development District to “C-1B” General Business District.

Mayor Casteel read the aforementioned caption.

Chris Looney presented the item.

Brandon Boyd and Rene de la Cruz spoke on the item.

Councilmember Hines moved to postpone the item to July 22. Councilmember Meadows seconded the motion which passed unanimously.

G) Public hearing and consideration of a proposed amendment to the Veramendi Development Design & Control Document (DDCD).

Mayor Casteel read the aforementioned caption.

Chris Looney presented the item.

Chris O'Conner spoke on the item.

Councilmember Hines moved to approve the item. Councilmember Bowers seconded the motion which passed unanimously.

H) Discuss and reconsider approval of the second and final reading of an ordinance regarding a proposed rezoning to amend a Special Use Permit to include a utility shed in the “C-2” Central Business District on Lot 32R, New City Block 2016, addressed at 468, 476, and 486 N. Market Avenue.

This item was pulled from consideration.

I) Discuss and consider approval of the creation of the Affordable Housing Advisory Taskforce.

Mayor Casteel read the aforementioned caption.

Robert Camareno presented the item.

David Warmke and Kandace Tornquist spoke on the item.

Mayor Pro Tem Peters moved to create the Workforce Housing Advisory Committee to be comprised of 15 members with representatives from Community Development Advisory Committee, Four Rivers Association of Realtors, GNB Home Builders Association, local banking or mortgage lending industry, McKenna Foundation, GNB Chamber of Commerce, NBEDC, NB Housing Authority, NBU, Planning

Commission, NB Housing Partnership, Habitat for Humanity, and three at-large members. Councilmember Hines seconded the motion which passed unanimously.

J) Discuss and consider approval to authorize the City Manager to enter into a license agreement between the City of New Braunfels and Angel Brothers Enterprises, Ltd for encroachments in the public right-of-way on Krueger Canyon.

Mayor Casteel read the aforementioned caption.

Garry Ford presented the item.

Councilmember Garcia moved to approve the item. Councilmember Bowers seconded the motion which passed unanimously.

5. EXECUTIVE SESSIONS

In accordance with Texas Government Code, Subchapter D, the City Council may convene in a closed session to discuss any of the following items; any final action or vote taken will be in public.

A) Deliberate the purchase, exchange, lease or value of real estate in accordance with Section 551.072 of the Texas Government Code
- Property for city facilities

B) Deliberate issues regarding economic development negotiations in accordance with Section 551.087, of the Texas Government Code, including but not limited to:
- Project Nautilus

Mayor Casteel read the aforementioned captions.

City Council reconvened into Executive Session from 8:07 p.m. - 8:16 p.m.

No vote or action was taken.

NOTE: The City Council reserves the right to retire into executive session concerning any of the items listed on this Agenda whenever it is considered necessary and legally justified under the Open Meetings Act (Chapter 551 of the Texas Government Code).

6. RECONVENE INTO OPEN SESSION AND TAKE ANY NECESSARY ACTION RELATING TO THE EXECUTIVE SESSION AS DESCRIBED ABOVE.

The City Council reconvened into Open Session. No vote or action was taken.

7. ADJOURNMENT

The meeting adjourned at 8:17 p.m.

Date Approved: July 8, 2019

_____
Barron Casteel, Mayor

Attest:

_____
Patrick Aten, City Secretary

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. A)

Presenter/Contact
Robert Camareno, City Manager
(830) 221-4287 - rcamareno@nbtexas.org

SUBJECT:
Confirmation of the reappointment of one individual to the Civil Service Commission for a term ending August 10, 2022.

BACKGROUND / RATIONALE:
The Civil Service Commission is governed by Texas Local Government Code, Chapter 143, which states that the members are appointed by the City Manager and confirmed by the City Council.

The City Manager has reappointed Cesar Castilleja to the City's Civil Service Commission for a term ending August 10, 2022.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:
N/A

FISCAL IMPACT:
N/A

COMMITTEE RECOMMENDATION:
N/A

STAFF RECOMMENDATION:
Staff recommends the confirmation of the reappointment of Cesar Castilleja to the Civil Service Commission for a term ending August 10, 2022.

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. B)

Presenter/Contact

Patrick Aten, City Secretary, and Amy McWhorter, Downtown Development Coordinator
(830) 221-4006 - paten@nbtexas.org

SUBJECT:

Approval of extending the current terms of two positions on the Downtown Board by one year.

BACKGROUND / RATIONALE:

The Downtown Board was once two separate boards (Downtown Development Board and the Main Street Advisory Board). When the boards merged into one board in 2011 to form the Downtown Board, there were 21 members, with the understanding that the board would eventually become 17 members as terms expired or were vacated. It became difficult to maintain a quorum with a total of 17 members, so the Downtown Board's bylaws were amended in 2015 which reduced the total members to 11.

Through that multiyear process, the terms of the board members became unbalanced. Currently there are 11 members (each with three-year terms) with 6 positions that expire in 2022, 3 that expire in 2021, and 2 that expire in 2020 (see below).

In lieu of an ordinance amendment, staff recommends a simpler process to amend the uneven board terms by adding one year to 2 of the terms that end in 2022 (thus making them expire in 2023). This change will result in: 2 positions that expire in 2020 (which will then move to the 2023 rotation), 2 positions that expire in 2021, 4 positions that expire in 2022, and two that expire in 2023 (along with the two positions from 2020). This recommendation will allow for further balance between the groups that comprise the makeup of the board.

Current terms:

A1 - Comal County	5/31/2022
A2 - DTA	5/31/2022
A3 - Schlitterbahn	5/31/2022
A4 - Chamber of Commerce	5/31/2022
B1 - DT Business Owner	5/31/2021
B2 - DT Resident	5/31/2022
B3 - DT Business Owner	5/31/2021
B4 - DT Resident	5/31/2020
B5 - DT Business Owner	5/31/2020
C1 - At-Large	5/31/2021
C2 - At-Large	5/31/2022

Recommended terms:

A1 - Comal County	5/31/2022
A2 - DTA	5/31/2022
A3 - Schlitterbahn	**5/31/2023**
A4 - Chamber of Commerce	**5/31/2023**
B1 - DT Business Owner	5/31/2021
B2 - DT Resident	5/31/2022
B3 - DT Business Owner	5/31/2021
B4 - DT Resident	5/31/2020
B5 - DT Business Owner	5/31/2020
C1 - At-Large	5/31/2021
C2 - At-Large	5/31/2022

Moving forward, all terms will continue to be three-year terms.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:
N/A

FISCAL IMPACT:
None.

COMMITTEE RECOMMENDATION:
The Downtown Board discussed the recommendation on June 18 and unanimously recommended approval.

STAFF RECOMMENDATION:
Staff recommends approval.

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. C)

Presenter/Contact
Deborah Kimball, Buyer
(830) 221-4081 - DKimball@nbtexas.org

SUBJECT:
Approval of annual contracts with Kahlig Enterprises Inc. dba Bluebonnet Motors Inc. and Griffith Ford Seguin LLC, for the purchase of City vehicles, on an as-needed basis.

BACKGROUND / RATIONALE:
The City's fleet is currently standardized to Ford vehicles; Chevrolet and Dodge vehicles may only be purchased with the prior approval of the Fleet Manager and the Finance Department in accordance with the Adopted Budget.

The City of New Braunfels solicited a Competitive Sealed Proposal in May 2019 to secure multiple non-exclusive annual contracts with manufacturer-authorized dealers for Chevrolet, Dodge and Ford vehicles to support vehicle purchases on an as-needed basis throughout the City. Proposals were opened on June 6, 2019, and two (2) responses were received. The proposals were evaluated on the basis of determining best value to the City, with the intent to award to multiple vendors if possible. Several criteria were considered such as, pricing, location of dealership and reputation.

Based on review and evaluation, the recommended dealerships for contract award are Bluebonnet Motors Inc. (Ford and Dodge authorized-dealer) and Griffith Ford Seguin LLC (Ford authorized-dealer). Although pricing was not received for the manufacturer Chevrolet, Chevrolet manufacturer-authorized dealer contracts are available on approved cooperative contracts, if needed.

Awarded contracts will be non-exclusive, so City personnel are encouraged to check pricing on cooperative contracts that have been competitively-vetted such as BuyBoard, TXMAS and HGAC, for price comparison to ensure the City is receiving best value pricing. Many vehicles may require ancillary equipment prior to being operational in the field. For example, all police pursuit vehicles will require radars, cameras and light bars, among other equipment. Once finalized costs have been verified, the entire vehicle and ancillary equipment purchase will be brought before City Council for approval, if over $25,000.

The contracts will begin upon receipt of Council approval through August 31, 2020. Additionally, there are two (2), one-year options to renew for a combined total of approximately three (3) years.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

Yes	**Strategic Priorities 9**: Maintain fiscal stability of City operations.

FISCAL IMPACT:
The action above does not have any direct fiscal impact. Finance staff will ensure that there are

allocated funds for any expenditure made against these contracts. All purchases that exceed $25,000 will be brought before City Council for approval.

COMMITTEE RECOMMENDATION:
N/A

STAFF RECOMMENDATION:
Staff recommends the approval of annual contracts with Kahlig Enterprises Inc. dba Bluebonnet Motors Inc. and Griffith Ford Seguin LLC, for the purchase of City vehicles, on an as-needed basis.

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. D)

Presenter/Contact
Debbie Kimball, Buyer
(830) 221-4081 - DKimball@nbtexas.org

SUBJECT:
Approval to renew the following annual contracts, as allowed for by their contract language: Auditing Services; Golf Course Concessionaire; Cemetery Maintenance Services; Landscape Services-Flood Properties & Medians; Road Construction Work; Dental Healthcare Administrative Services; Medical and Pharmacy Administrative Services; HVAC Maintenance Services and Aviation Fuel Services for New Braunfels Regional Airport.

BACKGROUND / RATIONALE:
On November 14, 2016, the City Council provided consent for a quarterly review and approval of renewals for various annual contracts that occur throughout the course of a fiscal year which are routine in nature and in accordance with the terms and conditions of the associated awarded contracts (which were originally approved by City Council). Quarterly approvals manage staff resources more efficiently as well as ensure compliance with the contracts' terms and conditions. Contract renewals that have any requested modifications, such as a significant increase or decrease in services or costs, will continue to be presented to City Council for individual consideration as needed.

The City Council has previously reviewed and approved the following annual contracts for various goods and services utilized for City operations; the contracts described below require Council authorization for contract renewal. All goods and services have been competitively vetted, and contracts have subsequently been executed on various dates in previous years. All awarded contractors have provided satisfactory performance during the term of their associated contract.

Renewal of Annual Contract for Auditing Services:

- Goods/Services Provided: Independent auditing services for the performance of the City's annual financial audit.
- City Department: Finance Department
- Solicitation Method: Competitive Sealed Proposal
- Contract Award Date: August 14, 2017
- Awarded Contractors: Belt Harris Pechacek, LLLP
- Modified Contract Expiration Date: September 30, 2020; with 1-year renewal option remaining
- Approximate Annual Cost of Services During Renewal Period: $66,566, factors such as additional audit requests may affect the total cost, but subsequent cost to the City is itemized in contract language.

Renewal of Annual Contract for Golf Course Concessionaire:

- Goods/Services Provided: Operation of a food and beverage service located at Landa Park Golf Course
- City Department: Parks and Recreation Department
- Solicitation Method: Competitive Sealed Proposal
- Contract Award Date: September 1, 2016
- Awarded Contractor(s): River Hofbrau NB LLC
- Modified Contract Expiration Date: July 31, 2021; with no renewal options remaining
- Annual Cost of Services During Renewal Period: This is a revenue generating contract. Revenue will be based on 8% of actual gross sales, or $38,000 whichever is greater, payable monthly.

Renewal of Annual Contract for Cemetery Maintenance Services:

- Goods/Services Provided: General caretaker and landscape maintenance services for Comal Cemetery and New Braunfels Cemetery.
- City Department: Parks and Recreation Department
- Solicitation Method: Request for Proposal
- Contract Award Date: September 12, 2011
- Awarded Contractors: Maintenance Management
- Modified Contract Expiration Date: September 30, 2020; with no renewal options remaining
- Approximate Annual Cost of Services During Renewal Period: $135,415

Renewal of Annual Contract for Landscape Services - Underdeveloped Flood Properties & ROW:

- Goods/Services Provided: Landscape services consisting of mowing, trimming, edging, shredding, herbicide and fertilizer application, mulch and flower bed maintenance as well as weed control. Services associated with this contract are limited to City owned undeveloped flood properties, roadways and medians.
- City Department: Parks and Recreation Department
- Solicitation Method: Invitation for Bid
- Contract Award Date: October 13, 2015
- Awarded Contractors: Landscape Commander, LLC
- Modified Contract Expiration Date: September 30, 2020; with no renewal options remaining
- Approximate Annual Cost of Services During Renewal Period: Approximately $183,270*;* factors such as weather may affect the frequency of services and subsequent cost to the City.

Renewal of Annual Contract for Road Construction Work:

- Goods/Services Provided: Road construction work including, but not limited to, asphalt paving, mill and overlay, concrete work such as curbs, sidewalks and culverts, base road work, and grading.
- City Department: Public Works
- Solicitation Method: Invitation for Bid
- Contract Award Date: September 15, 2015
- Awarded Contractors: Austin Materials, LLC d/b/a Ramming Paving Company, D and D Contractors, Inc., D & M Owens, Inc., Dirt Boys, Inc., Double S Paving, Inc., Fischer Construction Company, Inc. and Lone Star Paving

- Modified Contract Expiration Date: September 30, 2020; with no renewal option remaining
- Approximate Annual Cost of Services During Renewal Period: Services occur on an as-needed basis; therefore, the cost is incorporated into Streets Division overall budget of $1,000,000 for construction work.

Renewal of Annual Contract for Dental Healthcare Administrative Services:

- Goods/services provided: Administration of Dental Benefit Plan for employees of the City of New Braunfels
- City Department: Finance Department
- Solicitation Method: Competitive Sealed Proposals
- Contract Award Date: October 1, 2018
- Awarded Contractor: Cigna Dental Health of Texas, Inc.
- Modified Contract Expiration Date: September 30, 2020; with 3, 1-year renewal options remaining
- Annual Cost of Services During Renewal Period: There is no administrative costs associated with Cigna Dental as this is a voluntary, fully insured product supported by employees.

Renewal of Annual Contract for Medical and Pharmacy Administrative Services:

- Goods/services provided: Administration of Medical and Pharmacy Benefits Plan for employees of the City of New Braunfels
- City Department: Finance Department
- Solicitation Method: Competitive Sealed Proposal
- Contract Award Date: October 1, 2018
- Awarded Contractor: UnitedHealthcare
- Modified Contract Expiration Date: September 30, 2020; with 3, 1-year renewal options remaining
- Annual Cost of Services During Renewal Period: The administrative fee cost was negotiated downward from $27.37 to $20.41 per employee. Annual spend will be dynamic each month based on the total number of employees enrolled in the plan. Anticipated annual cost to range between $166,000-$185,000.

Renewal of Annual Contract for HVAC Maintenance Services:

- Goods/services provided: Annual scheduled preventative maintenance services on HVAC equipment at various City buildings. Westside Community Center is being added to the buildings being served during the renewal term.
- City Department: Public Works
- Solicitation Method: Quotes for professional services
- Contract Award Date: February 1, 2019
- Awarded Contractor: Team Mechanical of Texas, Inc.
- Modified Contract Expiration Date: September 30, 2020; with annual renewals options available
- Annual Cost of Services During Renewal Period: $16,040

Renewal of Annual Contract for Aviation Fuel Services for NB Regional Airport:

- Goods/services provided: Aviation Fuel Services - provides bulk aviation fuel (Type 100LL and Jet A) for retail fuel sales at the Airport and leases two (2) refueler trucks for use by Airport personnel to provide fueling services to based and transient aircraft.
- City Department: NB Regional Airport
- Solicitation Method: Request for Proposals
- Contract Award Date: October 27, 2014
- Awarded Contractor: Epic Aviation LLC
- Modified Contract Expiration Date: October 26, 2021; with 1, 2-year renewal option remaining
- Annual Cost of Services During Renewal Period: Based on historical spend, the projected expenditure will be $1,701,000.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

X	YES	**Strategic Priorities:**	9. Maintain fiscal stability of City operations

FISCAL IMPACT:
Many of these contracts affect both FY 2018-19 and FY 2019-20. These costs have been incorporated into the projections for FY 2018-19 year end expenditures as well as the FY 2019-20 Proposed Budget, which is currently in development.

COMMITTEE RECOMMENDATION:
N/A

STAFF RECOMMENDATION:
Staff recommends the approval to renew the following annual contracts, as allowed for by their contract language: Auditing Services; Golf Course Concessionaire; Cemetery Maintenance Services; Landscape Services-Flood Properties & Medians; Road Construction Work; Administrative Services for Healthcare-Dental; Administrative Services for Healthcare-Medical and Pharmacy; HVAC Maintenance Services and Aviation Fuel Services for New Braunfels Regional Airport.

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. E)

Presenter/Contact
Jennifer Cain, Capital Programs Manager
(830) 221-4646 - jcain@nbtexas.org

SUBJECT:

Approval of a contract with Myers Concrete for the construction of rain garden filtration systems and approval authority for the City Manager to approve any changes up to the contingency amount for project expenditures as part of the Panther Canyon Erosion Control Improvements Project included in the 2013 Bond Program.

BACKGROUND / RATIONALE:

The Panther Canyon Erosion Control Improvements project is one of the approved Proposition Two projects included in the 2013 Bond Program, which will improve water quality and reduce erosion sediments entering the Comal River. The project includes 1) seeding, planting and trimming trees to promote native vegetation, 2) the installation of rain gardens adjacent to Ohio Avenue as a filtration system to improve storm water quality and 3) providing defined pedestrian crossings within the canyon.

On June 11, 2018 City Council approved the issuance of an invitation for a Competitive Sealed Proposal (CSP) as the procurement method for the contract to construct the rain garden filtration system for this project. The City received two proposals on April 22, 2019. Staff has reviewed the proposals and negotiated a contract amount of $144,246 with Myers Concrete. Staff recommends the addition of a 10% construction contingency for this project for a total construction budget of $158,670.

The first segment of the Panther Canyon Erosion Control Project including selective clearing of juniper trees and seeding native grass in the upper portions of the Canyon to promote the growth of native vegetation has been complete at a cost of $24,708. The remaining aspect of the Panther Canyon Erosion Control project includes the installation of defined pedestrian crossings within the Canyon. These additional project elements are under review by City staff and will be modified to fit within the overall project budget upon completion of the rain garden filtration systems.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

X	Yes	City Plan/Council Priority	**Strategic Priorities**: Continue an ongoing program of infrastructure construction and maintenance.

FISCAL IMPACT:

The 2013 Bond Program allocated $424,000 to this project . The amount allocated for professional services is $54,000 and the first segment of the project has been completed at a cost of $24,708. Therefore, there are sufficient funds remaining in this project for the proposed rain garden filtration

system.

COMMITTEE RECOMMENDATION:

N/A

STAFF RECOMMENDATION:

Staff recommends approval of a contract with Myers Concrete for the construction of the rain garden filtration systems as part of the Panther Canyon Erosion Control Improvements Project and approval authority for the City Manager to approve any changes up the contingency amount for project expenditures.

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. F)

Presenter/Contact
Garry Ford, City Engineer
(830) 221-4645 - gford@nbtexas.org

SUBJECT:

Approval of a contract increase with K Friese and Associates Inc. for professional engineering services to provide third party assistance for development plan review for the City.

BACKGROUND / RATIONALE:

The City Council approved an amendment to the Code of Ordinances regarding development-related fees on March 26, 2018. The fee changes identified the support for the growing needs in the development process, which included contractual assistance to provide technical review of development applications.

The City Council approved a contract with K Friese and Associates on October 23, 2018 for development review assistance up to $130,000. K Friese and Associates meets the proposal requirements and is qualified to complete this project. K Friese and Associates pre-qualified on the City's IDIQ for professional services and fulfills the procurement requirements.

Staff is requesting a contract increase of $80,000 for a total of $210,000, to provide continued support of plan reviews for the remainder of FY 2018-19.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

Yes	**City Plan/Council Priority:**	Strategic Priorities: 9. Maintain fiscal stability of City operations.

FISCAL IMPACT:

Funding to support the initiative and expenditures described above are incorporated into the FY 2018 -19 Development Services Fund Budget, which is supported with the newly collected development-related fees. Therefore, sufficient funds are available.

COMMITTEE RECOMMENDATION:

N/A

STAFF RECOMMENDATION:

Staff recommends approval of a contract increase with K Friese and Associates Inc. to provide third party assistance for development plan reviews for the City.

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. G)

Presenter/Contact
Jennifer Cain, Capital Programs Manager
(830) 221-4646 - jcain@nbtexas.org

SUBJECT:
Approval of the issuance of invitations for Competitive Sealed Proposals for San Antonio Street from Krueger Avenue to Spur Street as part of the 2019 Bond City-Wide Streets Program.

BACKGROUND / RATIONALE:
San Antonio Street was designed by Pape Dawson engineers and will be part of a joint-bid with New Braunfels Utilities. This road portion of the project was voted-on and passed by the residents of New Braunfels in May 2019 as part of Proposition 1.

The Competitive Sealed Proposal (CSP) method allows the City to evaluate the most qualified contractors and the best value for the project. The evaluation of the proposals received by City staff will be presented to City Council for direction regarding the approval of a contract for construction.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

X	Yes	City Plan / Council Priority	Continue an ongoing program of infrastructure construction and maintenance

FISCAL IMPACT:
There are sufficient funds in Proposition 1 of the 2019 Bond Program for this project.

COMMITTEE RECOMMENDATION:
N/A

STAFF RECOMMENDATION:
Staff recommends approval of issuance of invitations for Competitive Sealed Proposals for San Antonio Street from Krueger Avenue to Spur Street as part of the 2019 Bond City-Wide Streets Program.

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. H)

Presenter/Contact
Michael Mundell, Solid Waste Manager
(830) 221-4040 - mmundell@nbtexas.org

SUBJECT:
Approval of the Comprehensive Solid Waste Management Plan.

BACKGROUND / RATIONALE:
The Solid Waste and Recycling Division (SWRD) has experienced an increased demand on its services over the last several years and recognizes that there needs to be a plan to address those demands. So, in January of 2018 a Request for Proposals (RFP) was issued for the development of the City's first ever Comprehensive Solid Waste Management Plan (CSWMP). In March of 2018 Council approved the award of the project to SCS Engineers. In September of 2018 SCS gave a presentation to Council and hosted two public meetings and two more public meetings in November of the same year that brought everyone up to speed on where we were in the Plan process as well as to receive input from the public.

The vision for the CSWMP is to

- evaluate the effectiveness of the SWRD's current programs and operations.
- address the constantly growing population and the resulting potential capacity issues at facilities to which we currently take municipal solid waste.
- Provide economically and technologically feasible management methods for solid waste, based on the hierarchy of: 1) waste reduction and minimization; 2) reuse and recycling; 3) waste treatment or reprocessing for energy or resource recovery and 4) land disposal.
- Recommend new strategies and goals that allow the City to make further progress in maximizing waste reduction, diversion, resource recovery, and extending landfill life.
- Serve as a guide for the City to make fiscally responsible and environmentally focused budgeting, services, and planning decisions.

The Plans Goals are:

- #1: Achieve further progress in waste reduction, minimization, and reuse
- #2: Maximize resource recovery and diversion
- #3: Ensure available capacity at solid waste facilities utilized by the City

- #4: Maintain sufficient funding mechanisms to support SWRD programs

- #5: Encourage and expand coordination and communications regarding solid waste issues among all agencies and private firms in the city of new Braunfels and region

Utilizing the objectives that support these goals will establish the foundation for the cost-effective, long-term management of solid waste by the City of New Braunfels for a 20-year planning horizon, 2020-2040.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

X	Yes	**Strategy 8**	Cultivate Local and Regional Partnerships

FISCAL IMPACT:
The cost for the CSWMP was $114,929, the project spanned two fiscal years so $60,041 was expensed in FY 2018 and $40,231 to date in FY 2019. There was a change order of $30,000 to add a new Cost of Service Rate Model Study in November of 2018 and to date $25,500 has been expensed.

COMMITTEE RECOMMENDATION:
N/A

STAFF RECOMMENDATION:
Staff recommends approval of the Comprehensive Solid Waste Management Plan.

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. I)

Presenter/Contact
Stacey Dicke, Parks and Recreation Director
(830) 221-4350 - sdicke@nbtexas.org

SUBJECT:
Approval of the first reading of an ordinance amending the Code of Ordinances Chapter 86-2 regarding refunds of reserved picnic area and individual picnic table usage fees in city parks.

BACKGROUND / RATIONALE:
Staff recently reviewed the refund policies for both program registrations and park reservations. To insure a consistent procedure throughout the department, a Parks and Recreation Refund Policy was written.

Staff is recommending the following changes in regard to refunds of reservation areas. The change is proposed in order to better accommodate customers. The handling fee is proposed to be eliminated due to the majority of customers receiving refunds on credit cards vs. paper checks. The $7 fee was originally set to cover costs associated with check refunds.

Chapter 86-2

c) The reservation fee, as set forth in this section, may be refunded under the following conditions:
~~(1) A $7.00 handling fee will be assessed to any patron requested refund.~~
~~(2) Full refund of the reservation fee in those cases where the director of parks and recreation is notified in writing of cancellation of reservation not less than 14 days prior to the date of use of the reserved area less the $7.00 handling fee.~~
~~(3) Refund of one-half of the reservation payment may be authorized if cancellation is received by the director of parks and recreation in writing between 14 days and the day prior to the date of use of the reserved area, less the $7.00 handling fee.~~
~~(4) The only exception to the refund provisions as set forth in this subsection shall be with the approval of the parks and recreation advisory board.~~

1. Inclement Weather (rain out): Inclement weather rain outs will be determined by the Parks and Recreation Director or designee. Reservation holders may reschedule based on availability and within 90 days from the original reservation date. Customers must notify the Parks Administration Office (830) 221-4350 within the first three working days of the rain out date in order to reschedule.

2. Cancellations by Customer

    a. Peak season is defined as March - September. During peak season, if cancellation is received less than two weeks prior to the reservation date, customer will be issued a

50% refund or account credit. Outside of peak season, customer will be issued a full refund when reservation is cancelled independent of cancellation date.

3. No Refund: If customer fails to show up or no cancellation notice is received prior to the date of the reservation, no refund will be issued.

4. Special Circumstances: Special circumstances related to cancelation requests not specifically covered within this policy will be determined at the discretion of the Parks and Recreation Director or designee.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

X	Yes	**Core Values**	Fiscal Responsibility: Our decisions reflect sound fiscal management and prudence.

FISCAL IMPACT:
N/A

COMMITTEE RECOMMENDATION:
The Parks and Recreation Board approved these changes at their meeting on June 18, 2019 by a 6-0 vote.

STAFF RECOMMENDATION:
Staff recommends approval to the change of Code of Ordinances for park reservation refunds.

City of New Braunfels Parks and Recreation Department
110 Golf Course Road, New Braunfels, TX 78130
830-221-4350 www.nbtexas.org/parks

TITLE: Refund Policy

EFFECTIVE DATE: **REFERENCE NUMBER: AD008**

CAPRA STANDARD(S):

NEXT REVIEW DATE:

RESPONSIBLE AUTHORITY: Director **PAGES: 3**

Purpose

To communicate a fair and equitable credit and refund policy for all fee-based classes, programs, and leagues and facility reservations. And, to effectively manage customer accounts and general fund budgets in a fiscally responsible and timely manner.

Policy

I. Program Registrations

1. Cancellation by NB Parks and Recreation Department (NB PARD)

There may be occasions when cancellations are made by NB PARD for facility reservations or programs due to the failure of a class or program to meet a minimum participation requirement, an instructor vacancy, facility conflict or safety issue, or other unforeseen event.

In the case that NB PARD cancels a facility reservation, program, class, or league, in its entirety, registered participants will receive a 100% refund or account credit, at the discretion of the participant.

2. General Participant Withdrawal

A participant wishing to withdraw from a class, program or league that has not been canceled by NB PARD must request to be withdrawn at least five working days before the scheduled start of a class, program or league's first practice. The participant will receive, at the discretion of the participant, either a 100% account credit or a refund. Exception: Adult sports team registration fees are not refundable unless the league is cancelled by NB PARD.

3. Medical/Hardship Withdrawal

A participant may request a withdrawal due to an unforeseen medical or hardship condition within five working days prior to the class, program, or league or during the course of the activity. The request must be made in writing or via email. The participant may be considered to receive a full or prorated refund or account credit based on a case by case review.

4. Satisfaction Guarantee

NB PARD continually strives to provide quality programs and offers a Satisfaction Guarantee. In the event that the participant is not satisfied with a class or program, the participant may either repeat the program at no cost, or receive a 100% refund or account credit, at the discretion of the participant.

Requests stating the reason must be made in writing or via email within 5 days of the completion of the class or program. NB PARD reserves the right to limit use of this Guarantee by an individual or group on a case-by-case basis after thorough review of circumstances and/or history.

5. Special Circumstances

Special circumstances related to withdrawal requests not specifically covered within this policy will be determined at the discretion of the NB PARD Director or designee.

6. Account Credit Option

When a program participant or reservation holder opts for an account credit, rather than a refund. The account credit is valid for one year. At the one-year anniversary of the purchase amount being applied as an account credit, the customer will be contacted by email to confirm that they would like to receive their refund or if they would like to donate all or a portion of their credit to the Scholarship Fund. If a response is not received within thirty days, the funds will be transferred to the NB PARD Department Scholarship Fund without further contact from the City of New Braunfels.

II. Facility Reservations

1. Inclement Weather (Rain Outs)

Inclement weather rain outs will be determined by NB PARD staff. Reservation holders may reschedule based on availability and within 90 days from the original reservation date. Customers must notify the Parks Administration Office (830) 221-4350 within the first three working days of the rain out date.

2. Cancellations by Customer
   A. Full Refund: If cancellation is received two weeks or more prior to the reservation date, customer will be issued a full refund or account credit.
   B. Half Refund: Peak season is defined as March – September. During peak season, if cancellation is received less than two weeks prior to the reservation date, customer will be issued a 50% refund or account credit. Outside of peak season, customer will be issued a full refund.

   C. No Refund: If customer fails to show up or no cancellation notice is received prior to the date of the reservation, no refund will be issued.

3. Special Circumstances

Special circumstances related to cancelation requests not specifically covered within this policy will be determined at the discretion of the NB PARD Director or designee.

ORDINANCE NO. 2019 - ___

AMENDING THE CODE OF ORDINANCES OF THE CITY OF NEW BRAUNFELS, TEXAS, CHAPTER 86, SECTION 86-2 REGARDING REFUNDS OF RESERVED PICNIC AREAS AND PICNIC TABLE USAGE FEES IN CITY PARKS; REPEALING ALL ORDINANCES IN CONFLICT; CONTAINING A SAVINGS CLAUSE; AND DECLARING AN EFFECTIVE DATE.

WHEREAS, the Parks and Recreation Department recently reviewed refund policies for both program registrations and park reservations and developed the Parks and Recreation Refund Policy to ensure uniformity; and

WHEREAS, the current ordinance in 86-2 sets a handling fee of $7.00 for processing refunds that covered the costs associated with check refunds; and

WHEREAS, the majority of customers pay with credit cards so that refunds can be credited back to the customer's credit card thereby eliminating the need to issue refund checks; and

WHEREAS, due to the popularity of these park amenities that are limited in quantity and availability, additional costs are associated with providing and maintaining these amenities for the benefit of the public; and

WHEREAS, staff recommends a new refund structure for peak season, off season, inclement weather related cancellations, and special circumstances; and

WHEREAS, the City Council intends that the revenue shall not materially exceed the cost associated with providing these amenities.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS, THAT:

SECTION 1: Amendment.

The City of New Braunfels Code of Ordinances is hereby amended in the following sections with deleted language indicated using strikethrough font and new language indicated using underlined font:

Sec. 86-2. - Reserved picnic areas and individual picnic table usage fees in city parks.

c) The reservation fee, as set forth in this section, may be refunded under the following conditions:

~~(1) A $7.00 handling fee will be assessed to any patron requested refund.~~
~~(2) Full refund of the reservation fee in those cases where the director of parks and recreation is notified in writing of cancellation of reservation not less than 14 days prior to the date of use of the reserved area less the $7.00 handling fee.~~
~~(3) Refund of one-half of the reservation payment may be authorized if cancellation~~

~~is received by the director of parks and recreation in writing between 14 days and the day prior to the date of use of the reserved area, less the $7.00 handling fee.~~
~~(4) The only exception to the refund provisions as set forth in this subsection shall be with the approval of the parks and recreation advisory board.~~

1. Inclement Weather (rain out): Inclement weather rain outs will be determined by the Parks and Recreation Director or designee. Reservation holders may reschedule based on availability and within 90 days from the original reservation date. Customers must notify the Parks Administration Office (830) 221-4350 within the first three working days of the rain out date in order to reschedule.

2. Cancellations by Customer:

    a. Peak season is defined as March – September. During peak season, if cancellation is received less than two weeks prior to the reservation date, customer will be issued a 50% refund or account credit. Outside of peak season, customer will be issued a full refund when reservation is cancelled independent of cancellation date.

3. No Refund: If customer fails to show up or no cancellation notice is received prior to the date of the reservation, no refund will be issued.

4. Special Circumstances: Special circumstances related to cancellation requests not specifically covered within this policy will be determined at the discretion of the Parks and Recreation Director or designee.

SECTION 2: All Ordinances or parts thereof in conflict herewith are repealed to the extent of such conflict only.

SECTION 3: If any provisions of this Ordinance shall be held void, illegal, or unconstitutional, it is hereby provided that all other parts of the same which are not held void, illegal or unconstitutional shall remain in full force and effect.

SECTION 4: This ordinance shall become effective upon its passage by City Council. This Ordinance has been publicly available in the office of the City Secretary prior to its adoption.

PASSED AND APPROVED: First reading this the ____ day of _____, 2019.

PASSED AND APPROVED: Second reading this the ____ day of _____, 2019.

CITY OF NEW BRAUNFELS, TEXAS

_____
BARRON CASTEEL, Mayor

ATTEST:

_____
Patrick D. Aten, City Secretary

APPROVED AS TO FORM:

_____
Valeria M. Acevedo, City Attorney

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. J)

Presenter/Contact
Stacey Dicke, Parks and Recreation Director
(830) 221-4350 - sdicke@nbtexas.org

SUBJECT:
Approval of the first reading of an ordinance Chapter 86-122 regarding fees for Das Rec Family Membership-Additional Family members.

BACKGROUND / RATIONALE:
Fees for memberships at Das Rec were approved by City Council on February 12, 2018. Only one fee was inadvertently not included in the ordinance: the addition of a family member to a Family Pass. A family pass membership at Das Rec includes four individuals living in the same household. Additional members can be added for a fee.

The fee that was approved by Council for additional family members was equal to 50% of the actual fee for an individual member, or:

- Adult: $17.50 (Resident), $21 (Non-Resident)
- Youth/Senior: $12 (Resident), $13.50 (Non-Resident)

Our software program, RecTrac, is not able to distinguish the four family members included in the set fee and those who would be the additional members. For example: if you wanted to add someone age 10 to your account as an additional member, she would be considered a youth and be an additional $12 a month. Most members want a youth to be the additional family members because they are a lower fee. Our software system does not automatically choose the lowest priced fee for the additional member.

To correct this, we have had to recreate numerous family memberships to force the additional person to be the youth rate. This takes time, leaves room for error and is not a best practice.

To rectify the situation, staff recommends making one fee for all additional members regardless of age. The recommended fee is $12 for residents and $13.50 for non-residents. There currently just over 600 “additional” members at the facility, and only 60 of these are adults. By approving just one rate there will be minimal revenue loss and a gain in staff efficiency.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

X	Yes	**Core Values**	Fiscal Responsibility: Our decisions reflect sound fiscal management and prudence.

FISCAL IMPACT:

Due to the low number of adult additional family members, it is anticipated that the fee change will result in less than $4,000 revenue reduction. As a result of increased membership overall, this change will not jeopardize the current cost recovery goals of Das Rec.

COMMITTEE RECOMMENDATION:

The Parks and Recreation Advisory Board approved this rate change at their meeting on June 18, 2019, by a 6-0 vote.

STAFF RECOMMENDATION:

Staff recommends changing the additional family member rate to a single rate, regardless of age, at $12 for residents and $13.50 for non-residents.

ORDINANCE NO. 2019 - ____

AN ORDINANCE AMENDING CHAPTER 86 PARKS AND RECREATION SECTIONS 86-122 OF THE CODE OF ORDINANCES OF THE CITY OF NEW BRAUNFELS, TEXAS REGARDING DAS REC, NEW BRAUNFELS RECREATION CENTER RENTAL AND USE FEES; REPEALING ALL ORDINANCE IN CONFLICT; CONTAINING A SAVINGS CLAUSE; AND DECLARING AN EFFECTIVE DATE.

WHEREAS, the existing fees, charges, and rates for memberships at Das Rec were originally approved in February 2018; and

WHEREAS, certain membership rates are recommended to be adjusted.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS:

SECTION 1: That the findings and recitations set out in the preamble to this Ordinance are found to be true and correct and are hereby adopted by the City Council and made a part hereof for all purposes.

SECTION 2: That Section 86-122 "Das Rec, New Braunfels Recreation Center rental and use fees" shall be amended to hereinafter read as follows:

(c) The following schedule of fees shall be paid by users of the Das Rec, New Braunfels Recreation Center for memberships:

	Annual Fee	**Daily Fee**
Member Type – Resident		
Youth/Senior	$288.00 ($24.00/month)	$10.00
Adult	$420.00 ($35.00/month)	$12.00
Family	$684.00 ($57.00/month)	$24.00
Additional Family Members-Adult	~~$220 ($17.50/month~~) *$144 ($12.00/month)*	n/a
Additional Family Members-Youth/Senior	$144 ($12.00/month)	n/a
Member Type – Non-Resident		
Youth/Senior	$324.00 ($27.00/month)	$10.00
Adult	$504.00 ($42.00/month)	$15.00
Family	$828.00 ($69.00/month)	n/a
Additional Family Members-Adult	~~$252.00 ($21.00/month)~~ *$144 ($12.00/month)*	n/a
Additional Family Members-Youth/Senior	~~$162.00 ($13.50/month)~~ *$144 ($12.00/month)*	n/a

SECTION 3: It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this Ordinance are severable and, if any phrase, clause, sentence, paragraph or section of this Ordinance should be declared invalid by the final

judgment or decree of any court of competent jurisdiction, such invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Ordinance.

SECTION 4: All provisions of the Code of Ordinances of the City of New Braunfels not herein amended or repealed shall remain in full force and effect.

SECTION 5: All Ordinances or parts thereof in conflict herewith are repealed to the extent of such conflict only.

SECTION 6: In accordance with the provisions of the City Charter, this Ordinance may be read and published by descriptive caption only. This Ordinance has been publicly available in the office of the City Secretary prior to its adoption.

SECTION 7: This Ordinance shall become adopted upon its second reading, signature required by City Charter, filing with the City Secretary's Office. This Ordinance must also be published in a newspaper of general circulation at least one time within ten (10) days after its final passage, as required by the City Charter of the City of New Braunfels.

PASSED AND APPROVED: First reading this_____day of _____, 2019.
PASSED AND APPROVED: Second reading this _____ day of _____, 2019.

CITY OF NEW BRAUNFELS, TEXAS

By: _____
Barron Casteel, Mayor

ATTEST:

_____
Patrick D. Aten, City Secretary

APPROVED AS TO FORM:

_____
Valeria M. Acevedo, City Attorney

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. K)

Presenter/Contact
Barron Casteel, Mayor
(830) 221-4507 - bcasteel@nbtexas.org

SUBJECT:
Approval of the first reading of an ordinance amending Chapter 130-26 of the Code of Ordinances to change the criteria for members of the Board of Trustees of New Braunfels Utilities.

BACKGROUND / RATIONALE:
Currently, the ordinance containing the eligibility criteria to sit on the NBU Board of Trustees allows a trustee to be an employee or board member of another utility in the areal however, this presents a conflict that needs to be resolved. This amendment will disqualify an applicant who is employed by or serves as a board member for a utility, another governmental body, or agency that regulates NBU, thereby resolving this conflict.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:
N/A

FISCAL IMPACT:
N/A

COMMITTEE RECOMMENDATION:
N/A

STAFF RECOMMENDATION:
N/A

ORDINANCE NO. 2019-

AMENDING THE CITY OF NEW BRAUNFELS, TEXAS, CODE OF ORDINANCES CHAPTER 130-26; REPEALING ALL ORDINANCES IN CONFLICT; CONTAINING A SAVINGS CLAUSE AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, the current criteria to sit on the NBU Board of Trustees allows a trustee to be an employee or board member of another utility in the area; and

WHEREAS, this presents a conflict of interests and loyalties that needs to be remedied; and

WHEREAS, this amendment will disqualify an applicant who is employed by or serves as a board member for a utility, another governmental body, or agency that regulates NBU, thereby resolving this conflict.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS, THAT:

Section 1

The findings and recitations set out in the preamble to this Ordinance are found to be true and correct and are hereby adopted by the City Council and made a part hereof for all purposes.

Section 2

That Chapter 130-26 (c) is amended to read as follows:

Sec. 130-26. - Composition and term of office.

(a) Pursuant to authority contained in V.T.C.A., Government Code, §1502.070, and by the Charter of the city, the complete management and control of the city's waterworks, sanitary sewer and electric light systems shall be through a board of trustees, to consist of five citizens, one of whom shall be the mayor, permanently residing in New Braunfels, Comal County, Texas, to be known as the board of trustees of the New Braunfels Waterworks, Sanitary Sewer and Electric Light Systems, and referred to as the board of trustees, New Braunfels Utilities, in which name such board of trustees shall act and transact business, and referred to in this chapter as the "board of trustees" or "board."

(b) All members of the board of trustees, except the mayor, shall be appointed by the city council to serve for five-year terms of office; with such term of office to commence on November 1;

provided that vacancies in office for any reason other than the expiration of a trustee's term of office shall be filled only for the unexpired term of the office vacant.

(c) Any member of the board of trustees whose term of office has expired shall continue to serve as a member of the board until their successor in office has been appointed. Appointments to the board of trustees resulting from the expiration of a member's term of office shall be made by the city council at its first regular meeting in October each year in which the term of office to be filled shall expire, or as soon as possible thereafter. All vacancies in membership on the board of trustees, other than the mayor, whether occasioned by failure or refusal of any person named to such board to accept appointment, or by expiration of the term of office or otherwise, shall be filled by the majority vote of the city council. No person who is related within the second degree of consanguinity or affinity to any member of the city council shall be eligible to membership on the board. No person who is employed by or serves as a board member for a utility, a governmental body other than the New Braunfels City Council, or an agency that regulates NBU shall be eligible to serve on the NBU Board of Trustees. The term "employed" includes part-time and full-time employees, as well as someone who serves under contract as an attorney, consultant, engineer, manager, architect, or in some other professional capacity for the utility.

Section 3. Severability

It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this Ordinance are severable and, if any phrase, clause, sentence, paragraph or section of this Ordinance should be declared invalid by the final judgment or decree of any court of competent jurisdiction, such invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Ordinance.

Section 4. Repealer

All provisions of the Code of Ordinances of the City of New Braunfels not herein amended or repealed shall remain in full force and effect and all ordinances or parts thereof in conflict herewith are repealed to the extent of such conflict only.

Section 5. Effective Date

This Ordinance shall become adopted and effective upon its second reading, signature required by City Charter, filing with the City Secretary's Office.

PASSED AND APPROVED: First reading this_____day of _____, 2019

PASSED AND APPROVED: Second reading this _____ day of _____, 2019.

CITY OF NEW BRAUNFELS, TEXAS

By: _____

Barron Casteel, Mayor

ATTEST:

_____

Patrick D. Aten, City Secretary

APPROVED AS TO FORM:

_____

Valeria M. Acevedo, City Attorney

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. A)

Presenter/Contact
Amy McWhorter, Downtown Development Coordinator
(830) 221-4057 - amcwhorter@nbtexas.org

SUBJECT:

Discuss and consider approval of a temporary road closure for the inaugural Downtown Harvest Dinner to be held on October 20, 2019.

BACKGROUND / RATIONALE:

Applicant: New Braunfels Downtown Association (DTA)
Heidi Aleman - 830.237.1075
heidi@corridortitleco.com
Pat Butler - 512.923.3454
pbutler0724@gmail.com

The New Braunfels Downtown Association has submitted an application to close W. San Antonio Street from Hill Avenue to Castell Avenue on October 20, 2019 from 4:00 p.m. until 10:00 p.m. The event is slated to run from 6:00 p.m. until 8:00 p.m.

Chapter 126.41 of the City Code allows the Chief of Police the authority to close streets; however, traditionally this has been for public safety considerations or small events such as neighborhood block parties (as an example). Additionally, the “Street Closure Request” process outlined in Chapter 126.41 does not include requirements for City services such as trash clean up and street sweeping, or associated costs.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

City Plan/Council Priority: Envision New Braunfels Comprehensive Plan	**Action 2.21:** Support multicultural, diverse events on- and off-season and during the weekend/weekday. **Action 2.24:** Support new and evolving holiday installations/events. **Action 8.4:** Cultivate opportunities for growth in heritage tourism, including successful local tours.

FISCAL IMPACT:

The New Braunfels Downtown Association plans to use the funds raised from this event to undertake landscaping and beautification projects in the Downtown area. There is no direct fiscal impact to the City except for the proposed in-kind sponsorship of the event as follows:

- Police overtime, estimated at $1,200.00
- Waived food permit fee: $25.00
- City-developed traffic control plan: $100.00 (estimated labor value)

- Barricade loan and delivery/pick-up: $340.00 (estimated labor value)

STAFF RECOMMENDATION:
Staff recommends approval.

City of New Braunfels

ROAD CLOSURE APPLICATION

SEC. 126-41 OF THE CODE OF ORDINANCES REQUIRES THAT THIS APPLICATION BE FILED WITH THE CITY SECRETARY AT LEAST THIRTY-FIVE (35) DAYS BEFORE THE REQUESTED STREET CLOSURE IS TO TAKE PLACE

DATE OF APPLICATION: 5-10-19 DATE OF EVENT: 10-20-19 START TIME OF EVENT: 6 AM☐ PM☑
END TIME OF EVENT: 8 AM☐ PM☑

NAME OF EVENT: New Braunfels Farm to Table ?

NAME OF ORGANIZATION: New Braunfels Downtown Association

ADDRESS: on San Antonio Street (near 265 W. San Antonio St.)

CONTACT PERSON: Heidi Aleman PHONE: 830-237-1075 EMAIL: Heidi@corridortitleco.com

CONTACT PERSON: Pat Butler PHONE: 512-923-3454 EMAIL: pbutler0724@gmail.com
(ONLY ONE REQUIRED)

STARTING POINT: San Antonio St. @ Rail Road (near Hill St.) ENDING POINT: San Antonio @ Castell Ave.

TYPE/NUMBER OF ENTRIES: ☐ WALKERS: _____ ☐ RUNNERS: _____ ☐ VEHICLES: _____
☐ BIKES: _____ ☐ ANIMALS: _____ ☑ OTHER: Table seating 120 guests

OTHER PROVISIONS REQUESTED:
STREET BARRICADES/NUMBER: 2 SECURITY: 1-2 ? TRAFFIC CONTROL: n/a recommend 2 officer to shut down

(THE NEW BRAUNFELS POLICE DEPARTMENT DETERMINES WHETHER BARRICADES, SECURITY OR OTHER TRAFFIC CONTROL MEASURES ARE REQUIRED. IT IS THE RESPONSIBILITY OF THE REQUESTING ORGANIZATION TO PAY FOR SUCH SERVICES.)

ROUTE OR LOCATION INFORMATION: *(ATTACH A LEGIBLE MAP OR DRAWING)*

LIABILITY INSURANCE: *(ALL EVENTS MUST FURNISH LIABILITY INSURANCE PRIOR TO ANY APPROVAL, INSURING THE CITY OF NEW BRAUNFELS FOR ANY PROPERTY DAMAGE OR PERSONAL INJURY RESULTING FROM THIS EVENT.)*

OFFICE USE ONLY

DEPARTMENTAL REVIEW: (POLICE, FIRE, PARKS, STREETS, CIVIC CENTER): Police

APPROVED: ☒ DISAPPROVED: ☐ DATE: 6-13-2019 SIGNATURE: Lt Z Lankford

COMMENTS: 2 officers for traffic control.

ADDITIONAL REVIEW:
TEXAS DEPARTMENT OF TRANSPORTATION AUTHORIZATION REQUIRED: YES: ☐ NO: ☒ APPROVED: ☐ DISAPPROVED: ☐

CITY COUNCIL ACTION REQUIRED: YES: ☒ NO: ☐ APPROVED: ☐ DISAPPROVED: ☐

7-8-19

DTA Street Closure for Fall Event

Google Maps [redacted]

Hill @ Railroad Crossing to S. Castell on San Antonio St.

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. B)

Presenter/Contact
Amy McWhorter, Downtown Development Coordinator
amcwhorter@nbtexas.org

SUBJECT:
Discuss and consider approval of the first reading of an ordinance amending Chapter 126-355 of the City's Code of Ordinances to remove the prohibition of overnight parking in the Downtown Parking Zone and extend the limits of the Downtown Parking Zone to include both sides of East San Antonio Street from Market Avenue to Gilbert Avenue, and the southwest side of North Market Avenue from East Mill Street to East San Antonio Street.

BACKGROUND / RATIONALE:
The existing Downtown Parking Zone is defined to include the area comprised of the following public streets:

(1) Main Plaza (with the exception of the Comal County Courthouse);
(2) Seguin Avenue from Mill Street to Coll Street;
(3) San Antonio Street from Market Avenue to Academy Avenue (with the exception of the Comal County Courthouse);
(4) Castell Avenue from Mill Street to Coll Street.

Recent increases in river recreation tourist parking between Market Avenue and the Comal River, coupled with the proliferation of parking-by-permit-only areas in adjacent residential neighborhoods, has concentrated parking demand in the remaining unrestricted, on-street parking along East San Antonio Street and Market Avenue. This phenomenon is limiting parking availability for patrons of commercial uses in the area.

Additionally, there is currently a prohibition of on-street parking in the Downtown Parking Zone overnight. Overnight is defined as the hours between 1:00 a.m. and 4:00 a.m. This prohibition is problematic for Downtown residents (residential living in Downtown was not as prevalent when the overnight parking prohibition was adopted). The prohibition is also cumbersome for employees of Downtown nightlife establishments who often use on-street parking due to high weekend and evening occupancy rates in Downtown parking lots. This prohibition could also discourage Downtown patrons from using safe transportation to return home from Downtown dining and entertaining establishments.

Staff engaged stakeholders by sending notices to property and business owners of the 11 parcels directly adjacent to the proposed additional 2-Hour time limited parking areas to informing them of the proposed changes and provided them an opportunity to comment. Staff has received one response in favor and none in opposition. Additionally, one business owner attended the May 21, 2019 Downtown Board Meeting and expressed support for the recommendation.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

Envision New Braunfels Comprehensive Plan	**Action 1.11:** Update policies and codes to achieve development patterns that implement the goals of this plan. **Action 2.26:** Achieve and update Downtown Implementation Plan goals for quality places downtown…
Downtown Implementation Plan	**Critical Success Factor P1**

FISCAL IMPACT:
N/A

COMMITTEE RECOMMENDATION:
The **Transportation and Traffic Advisory Board** reviewed and recommended approval of the extension of the 2-Hour time limited parking area at their June 13, 2019 meeting, and recommended approval of the removal of the prohibition of overnight on-street parking in the Downtown Parking Zone at their April 11, 2019 meeting.

The **Downtown Board** reviewed and recommended approval of the extension of the 2-Hour time limited parking area at their May 21, 2019 meeting, and recommended approval of the removal of the prohibition of overnight on-street parking in the Downtown Parking Zone at their February 19, 2019 meeting.

STAFF RECOMMENDATION:
Staff recommends approval of both items.

Sec. 126-355. - Downtown parking zone.

(a) *Definitions.* The following terms, as used in this section, have the following definitions:

Chief of police shall mean the chief of police of the City of New Braunfels, Texas or his designee.

Director of planning shall mean the director of planning and community development of the City of New Braunfels, Texas or his designee.

Downtown parking zone shall mean the area comprised of the following public streets as identified in appendix A:

(1) Main Plaza (with the exception of the Comal County Courthouse);

(2) Seguin Avenue from Mill Street to Coll Street;

(3) San Antonio Street from ~~Market Avenue~~ Gilbert Street to Academy Avenue (with the exception of the Comal County Courthouse);

(4) Castell Avenue from Mill Street to Coll Street;

(5) The south/west side of Market Street from E. Mill Street to E. San Antonio Street

Motor vehicle shall mean any mechanically or electrically powered device not operated on rails, upon which or by which any person or property may be transported upon a land highway. The load on a motor vehicle or trailer attached to it, is considered part of the vehicle. Tractors and motorized machinery are included while self-propelled in transit or used for transportation.

~~*Overnight parking* is defined as from 1:00 a.m. to 4:00 a.m. of any day.~~

Temporary visitors permit shall be issued, free of charge, for persons visiting from out of town, at the written request of any person residing within the downtown parking zone or any owner/operator of a "hotel" located within the downtown parking zone. (For the purposes of this section, the term "hotel" shall have the same meaning as set forth in V.T.C.A., Tax Code § 156.001.) These temporary visitor permits shall be valid only on the date(s) noted on the permit.

The chief of police has authority to enforce this section as described below.

(b) *Offenses.*

(1) Except as provided in subsection (d), no person shall park any motor vehicle on any public street in the downtown parking zone for more than two consecutive hours between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday, without displaying a temporary visitor permit.

~~(2) Except as provided in subsection (d), no person shall park any motor vehicle on any public street in the downtown parking zone overnight.~~

(~~3~~ 2) An individual commits an offense if he displays a permit issued pursuant to this section on a motor vehicle other than the motor vehicle for which the permit was issued.

(~~4~~ 3) An individual commits an offense if he displays a permit issued pursuant to this section on a motor vehicle on a day other than the day issued.

(~~5~~ 4) A person commits an offense if he falsely represents himself as being eligible for a temporary visitors permit, submits false documents, or otherwise makes a false statement of material fact on an application for a permit.

(c) *Penalties.*

(1) Any vehicle parked for more than two consecutive hours in the downtown parking zone, during times when parking is restricted and without displaying a valid permit issued under this section, will be subject to:

a. A warning for the first offense;

b. A fine not to exceed $50.00 for the second offense plus court costs;

c. A fine not to exceed $200.00 for the third offense plus court costs; and

d. A fine not to exceed $500.00 for the fourth and any subsequent offenses plus court costs.

(2) A person who commits any other violation against the provisions of this section is subject to the penalties provided for in this Code.

(3) For purposes of this subsection, counting of repeat offenses shall commence on January 1st and end on December 31st of each calendar year. Offenses committed in prior calendar years shall not be counted in determining the level of penalty applied for offenses committed in subsequent calendar years.

(d) *Exceptions.* The terms of this section shall not apply in the following instances:

(1) Motor vehicles that are used in individuals to carry equipment and goods necessary for making improvements and repairs, providing actual labor, and performing other related services at any location within the downtown parking zone. Not including employees of the business.

(2) The provisions of this section shall not apply to vehicles that display a valid temporary visitors permit.

(e) *Temporary visitor parking zone permits.* Temporary visitor permits shall be issued, free of charge, for persons visiting in the area from out of town, at the written request of any person residing within the downtown parking zone or any owner/operator of a "hotel" located within the downtown parking zone. (For the purposes of this section, the term "hotel" shall have the same meaning as set forth in V.T.C.A., Tax Code § 156.001.) These temporary visitor permits shall be valid only on the date(s) noted on the permit and only two permits per business will be issued daily. Permits will be issued by the director of planning and community development.

(f) *Miscellaneous.*

(1) A permit issued pursuant to this section, and properly displayed, authorizes the visitor's motor vehicle to be parked in the downtown parking zone for more than two consecutive hours when otherwise prohibited by this section. A permit does not authorize the visitor's motor vehicle to be parked in a manner or location that is prohibited or otherwise governed by regulations, ordinances, statutes, or laws other than provided for in this section.

(2) A permit is not transferable from one motor vehicle to another.

(3) A lost or stolen permit may be replaced. The visitor must submit a signed affidavit stating that the permit was lost or stolen and not transferred to another vehicle, nor given or conveyed to another individual.

(Ord. No. 2009-50, § I, 7-27-09; Ord. No. 2011-14, § I, 1-24-11)

ORDINANCE NO. 2019-

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS, AMENDING CHAPTER 126 OF THE CITY'S CODE OF ORDINANCES BY REMOVING THE PROHIBITION OF OVERNIGHT ON-STREET PARKING IN THE DOWNTOWN PARKING ZONE AND EXTENDING THE DOWNTOWN PARKING ZONE TO INCLUDE BOTH SIDES OF EAST SAN ANTONIO STREET BETWEEN MARKET AND GILBERT STREETS, AND THE SOUTH/WEST SIDE OF EAST MARKET STREET BETWEEN EAST MILL STREET AND EAST SAN ANTONIO STREET; PROVIDING A SAVINGS CLAUSE AND AN EFFECTIVE DATE.

WHEREAS, the City of New Braunfels, Texas, regulates parking in the Downtown parking zone to promote an active pedestrian environment and robust commercial activity; and

WHEREAS, the New Braunfels Downtown Board recommended approval of the amendments to Chapter 126 at their regular meetings in February and May of 2019;

WHEREAS, the New Braunfels Transportation and Traffic Advisory Board recommended approval of the amendments to Chapter 126 at their regular meetings in April and June of 2019;

WHEREAS, New Braunfels' City Council finds that the attached code amendment regulating the use of on-street parking is reasonable and prudent in light of the desire to ensure adequate available parking for Downtown businesses, visitors, residents, and employees throughout the Downtown area;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS:

Section 1. Findings of Fact

The foregoing recitals are incorporated into this Ordinance by reference as findings of fact are found to be true and correct and that they are hereby adopted by the City Council and made a part hereof for all purposes. The City Council hereby finds and determines that the rules, regulations, terms, conditions, provisions, and requirements are reasonable and necessary to protect the public health, safety, and quality of life.

Section 2. Amendment to Chapter 126.

Chapter 114 of City of New Braunfels Code of Ordinances is hereby amended so as Section 126-355 to read as follows:

Sec. 126-355. - Downtown parking zone.

(a) Definitions. The following terms, as used in this section, have the following definitions:

Chief of police shall mean the chief of police of the City of New Braunfels, Texas or his designee.

Director of planning shall mean the director of planning and community development of the City of New Braunfels, Texas or their designee.

Downtown parking zone shall mean the area comprised of the following public streets as identified in appendix A:

(1) Main Plaza (with the exception of the Comal County Courthouse);

(2) Seguin Avenue from Mill Street to Coll Street;

(3) San Antonio Street from Gilbert Street to Academy Avenue (with the exception of the Comal County Courthouse);

(4) Castell Avenue from Mill Street to Coll Street;

(5) The south/west side of Market Street from E. Mill Street to E. San Antonio Street

Motor vehicle shall mean any mechanically or electrically powered device not operated on rails, upon which or by which any person or property may be transported upon a land highway. The load on a motor vehicle or trailer attached to it, is considered part of the vehicle. Tractors and motorized machinery are included while self-propelled in transit or used for transportation.

Temporary visitors permit shall be issued, free of charge, for persons visiting from out of town, at the written request of any person residing within the downtown parking zone or any owner/operator of a "hotel" located within the downtown parking zone. (For the purposes of this section, the term "hotel" shall have the same meaning as set forth in V.T.C.A., Tax Code §

156.001.) These temporary visitor permits shall be valid only on the date(s) noted on the permit.

The chief of police has authority to enforce this section as described below.

(b) Offenses.

(1) Except as provided in subsection (d), no person shall park any motor vehicle on any public street in the downtown parking zone for more than two consecutive hours between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday, without displaying a temporary visitor permit.

(2) An individual commits an offense if he displays a permit issued pursuant to this section on a motor vehicle other than the motor vehicle for which the permit was issued.

(3) An individual commits an offense if he displays a permit issued pursuant to this section on a motor vehicle on a day other than the day issued.

(4) A person commits an offense if he falsely represents himself as being eligible for a temporary visitors permit, submits false documents, or otherwise makes a false statement of material fact on an application for a permit.

(c) Penalties.

(1) Any vehicle parked for more than two consecutive hours in the downtown parking zone, during times when parking is restricted and without displaying a valid permit issued under this section, will be subject to:

a. A warning for the first offense;

b. A fine not to exceed $50.00 for the second offense plus court costs;

c. A fine not to exceed $200.00 for the third offense plus court costs; and

d. A fine not to exceed $500.00 for the fourth and any subsequent offenses plus court costs.

(2) A person who commits any other violation against the provisions of this section is subject to the penalties provided for in this Code.

(3) For purposes of this subsection, counting of repeat offenses shall commence on January 1st and end on December 31st of each calendar year. Offenses committed in prior calendar years shall not be counted in determining the level of penalty applied for offenses committed in subsequent calendar years.

(d) Exceptions. The terms of this section shall not apply in the following instances:

(1) Motor vehicles that are used in individuals to carry equipment and goods necessary for making improvements and repairs, providing actual labor, and performing other related services at any location within the downtown parking zone. Not including employees of the business.

(2) The provisions of this section shall not apply to vehicles that display a valid temporary visitors permit.

(e) Temporary visitor parking zone permits. Temporary visitor permits shall be issued, free of charge, for persons visiting in the area from out of town, at the written request of any person residing within the downtown parking zone or any owner/operator of a "hotel" located within the downtown parking zone. (For the purposes of this section, the term "hotel" shall have the same meaning as set forth in V.T.C.A., Tax Code § 156.001.) These temporary visitor permits shall be valid only on the date(s) noted on the permit and only two permits per business will be issued daily. Permits will be issued by the director of planning and community development.

(f) Miscellaneous.

(1) A permit issued pursuant to this section, and properly displayed, authorizes the visitor's motor vehicle to be parked in the downtown parking zone for more than two consecutive hours when otherwise prohibited by this section. A permit does not authorize the visitor's motor vehicle to be parked in a manner or location that is prohibited or otherwise governed by regulations, ordinances, statutes, or laws other than provided for in this section.

(2) A permit is not transferable from one motor vehicle to another.

(3) A lost or stolen permit may be replaced. The visitor must submit a signed affidavit stating that the permit was lost or stolen and not transferred to another vehicle, nor given or conveyed to another individual.

Section 5. Severability

THAT it is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this Ordinance are severable and, if any phrase, clause, sentence, paragraph or section of this Ordinance should be declared invalid by the final judgment or decree of any court of competent jurisdiction, such invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Ordinance.

Section 6. Repealer

THAT all provisions of the Code of Ordinances of the City of New Braunfels not herein amended or repealed shall remain in full force and effect and all Ordinances or parts thereof in conflict herewith are repealed to the extent of such conflict only.

Section 7. Effective Date and Publication.

THIS ordinance shall become adopted and effective on July 22, 2019. This Ordinance must also be **published** in a newspaper of general circulation at least one time within ten (10) days after its final passage, as required by the City Charter of the City of New Braunfels.

PASSED AND APPROVED: First reading this 8th day of July 2019.

PASSED AND APPROVED: Second reading this 22nd day of July 2019.

CITY OF NEW BRAUNFELS

_____

BARRON CASTEEL, Mayor

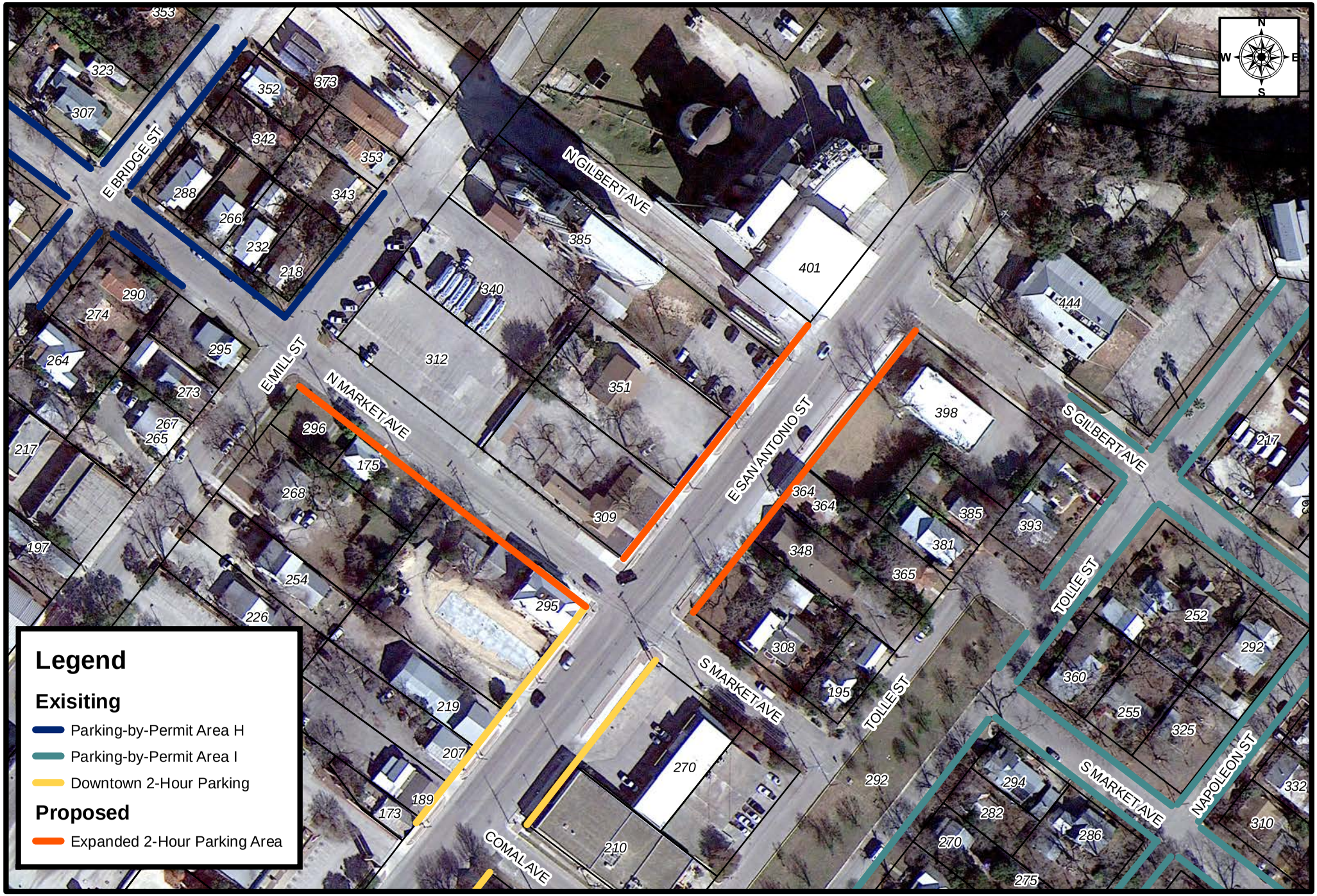
APPROVED AS TO FORM:

_____

VALERIA M. ACEVEDO, City Attorney

ATTEST

PATRICK D. ATEN, City Secretary



City of New Braunfels

Potential Expanded 2-Hour Parking Area
New Braunfels Downtown

Map Created: 5/15/2019

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. C)

Presenter
Christopher J. Looney, Planning and Community Development Director
clooney@nbtexas.org

SUBJECT:

Public hearing and first reading of an ordinance disannexing approximately 62.4 acres of land out of the J. M. Veramendi Survey No. 2, Abstract 3, Comal County, Texas, located along the northwest right-of-way line of Loop 337 in the corporate limits of the City.

BACKGROUND / RATIONALE:

Council Districts: 3 & 4

Applicant/Owner: Veramendi/ASA Properties (Peter James)
387 West Mill Street, Suite 108
New Braunfels, TX 78130
(830) 643-1338

Staff Contact: Holly Mullins
(830) 221-4054
hmullins@nbtexas.org

In 2013, the City of New Braunfels entered into a Development Agreement with Word-Borchers Ranch Joint Venture regarding the development of approximately 2,400 acres of land known as Veramendi. Approximately 62.4 acres of the Veramendi project is located within the City of New Braunfels city limits. As stipulated in the Development Agreement, when a sector plan that includes property located within the city limits is approved, the City would disannex said property within 180 days of the sector plan approval.

Sector Plan 2, which contains all 62.4 acres, was approved by City Council on February 25, 2019. A formal request for disannexation from Veramendi Development Company, LLC is attached.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:

CITY PLAN/COUNCIL PRIORITY: Veramendi Development Agreement Envision New Braunfels Comprehensive Plan	To implement the adopted agreement. **Strategy 8:** Cultivate local and regional partnerships. **Regional Planning:** Special Districts

FISCAL IMPACT:
Portions of the subject property will be part of a future limited purpose annexation as specified within the Development Agreement.

COMMITTEE RECOMMENDATION:
N/A

STAFF RECOMMENDATION:
Approval.

Attachments:

1. Disannexation Request
2. Ordinance

VERAMENDI
DEVELOPMENT COMPANY

April 18, 2019

The City Manager
City of New Braunfels
550 Landa Street
New Braunfels, TX 78130

Attn: Robert Camareno
RE: Veramendi Disannexation

Dear Sir,

In progressing the disannexation of property on the Veramendi Development from the City in accordance with the provisions of the Development Agreement and in consultation with the New Braunfels City Staff, it has come to our attention that there is a discrepancy in the property area being disannexed.

To confirm, the total area for disanexation is 62.4 acres, which is as described in the attached metes and bounds descriptions and depicted on the attached illustration. We formally request the City proceed with the dissanexation of the 62.4 acres. These 62.4 acres are the same as depicted in the diagram attached as Exhibit C to the Development Agreement, which we believe eliminates the need for a formal amendment to the Development Agreement to correct the metes and bounds description. This request is made in accordance with the requirements of the City of New Braunfels Charter, the Texas Local Government Code and the Development Agreement between the City of New Braunfels and Veramendi Development Company, LLC , as successor to the Word-Borchers Ranch Joint Venture, signed February 25, 2013.

Yours sincerely,
Veramendi Development Company, LLC
By: ASA Properties, LLC
Its: Sole Manager

Peter James
CEO

ORDINANCE NO. 2019-____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS, DISANNEXING APPROXIMATELY 62.4 ACRES OF LAND OUT OF THE J.M. VERAMENDI SURVEY NO. 2, ABSTRACT 3, COMAL COUNTY, TEXAS, LOCATED ALONG THE NORTHWEST RIGHT-OF-WAY LINE OF LOOP 337 IN THE CORPORATE LIMITS OF THE CITY; REPEALING ALL ORDINANCES IN CONFLICT; CONTAINING A SAVINGS CLAUSE; AND DECLARING AN EFFECTIVE DATE.

WHEREAS, the city is authorized to disannex territory in accordance with the Texas Local Government Code, Chapter 43 and the City of New Braunfels, Texas home-rule charter, Section 1.04 and by other statutory authority; and

WHEREAS, said territory proposed to be disannexed is subject to the Development Agreement between the City of New Braunfels, Texas and Word-Borchers Ranch Joint Venture for a proposed Mixed Use Development ("Agreement") which was fully executed on February 25, 2013; and was effective when filed of record on July 24, 2015.

WHEREAS, Section 3.6 of the Agreement provides for disannexation of certain real property within the City limits when a sector plan covering that certain real property is approved by City Council**.**

WHEREAS, the Veramendi Sector Plan 2 which includes the certain property for disannexation was approved by the City Council on February 25, 2019; and

WHEREAS, the owner of the property additionally requested that the 62.4-acre tract be disannexed by the City for subsequent inclusion into the boundaries of the Comal County Water Improvement District No. 1 which is also known as the Veramendi Development; and

WHEREAS, it is the desire of the City of New Braunfels to disannex this 62.4-acre tract of land and the City Council finds said territory is not necessary for City purposes; **now, therefore:**

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS:

SECTION 1

THAT the following described territory is hereby disannexed from the corporate limits of the city and shall be subsequently included into the boundaries of the Comal County Water Improvement District No. 1 :

62.4 acres of land out of the J.M. Veramendi Survey No. 2, Abstract 3, Comal County, Texas, located along the northwest right-of-way line of Loop 337, as delineated on Exhibit "A" and described in Exhibit "B" attached.

SECTION 2

THAT the official map and boundaries of the city are hereby amended and revised so as to exclude the area disannexed.

SECTION 3

THAT a**s** the disannexation is requested pursuant to the Agreement and by the property owner on the unimproved and uninhabited 62.4-acre tract, no refund of fees or taxes are owed under Texas Local Government Code Section 43.143.

SECTION 4

THAT the City Secretary is hereby directed to file with the County Clerk and other appropriate officials and agencies, as required by state and federal law and city annexation procedures, a certified copy of this ordinance.

SECTION 5

THAT all other ordinances or parts of ordinances in conflict herewith are hereby repealed to the extent that they are in conflict.

SECTION 6

THAT if any provisions of this ordinance shall be held void or unconstitutional, it is hereby provided that all other parts of the same which are not held void or unconstitutional shall remain in full force and effect.

SECTION 7

THIS ordinance will take effect upon the second and final reading of same.

PASSED AND APPROVED: First Reading this the 8th day of July, 2019.
PASSED AND APPROVED: Second and Final Reading this the 22nd day of July, 2019.

CITY OF NEW BRAUNFELS, TEXAS

BY: _____
BARRON CASTEEL, Mayor

ATTEST:

_____
PATRICK D. ATEN, City Secretary

APPROVED AS TO FORM:

_____
VALERIA M. ACEVEDO, City Attorney

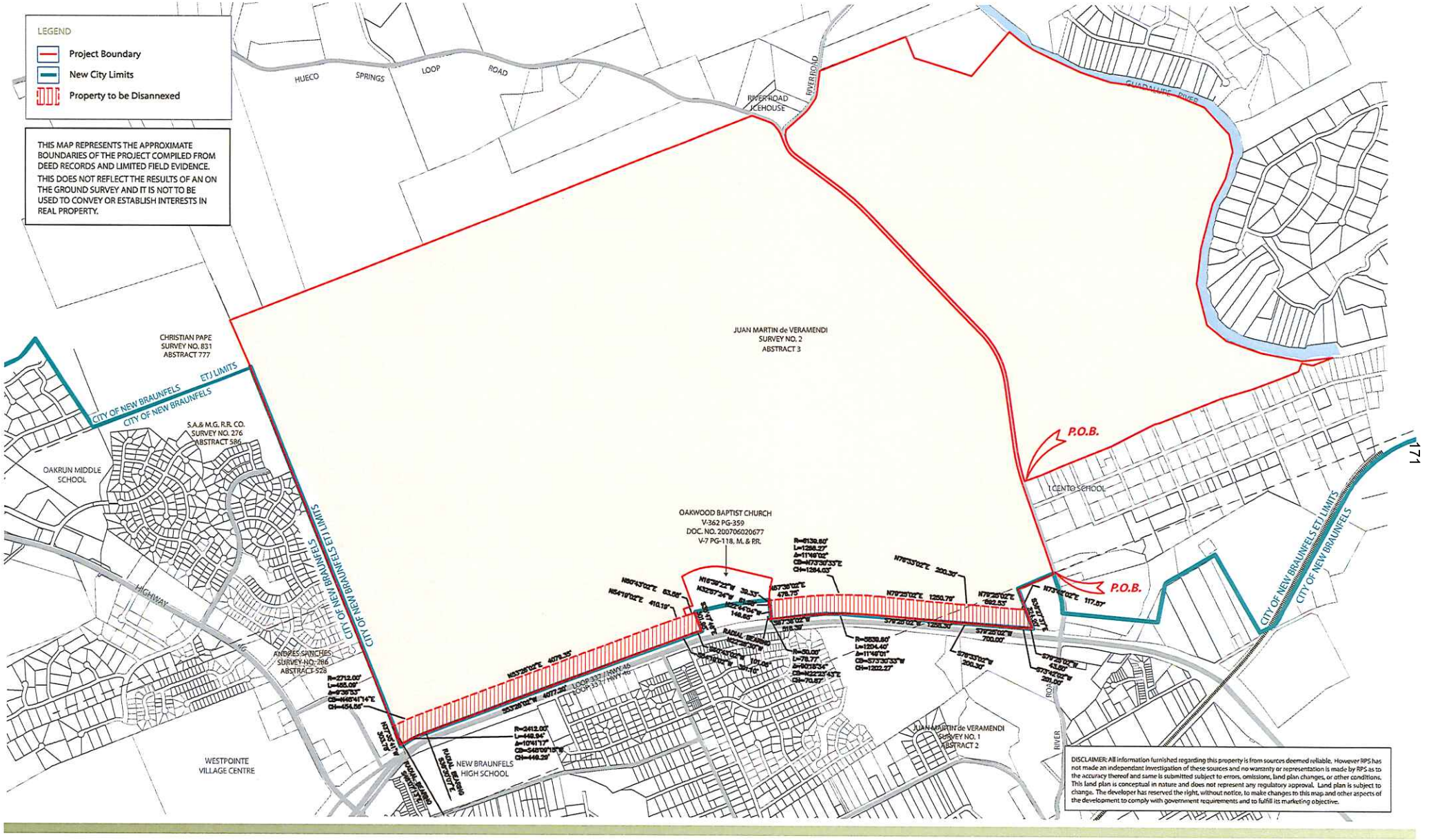


Exhibit C
Disannexed Property

February 2013 I Project No 21983-105b

RPS

PAPE-DAWSON ENGINEERS

LAND DEVELOPMENT ENVIRONMENTAL TRANSPORTATION WATER RESOURCES SURVEYING

FIELD NOTES
FOR A
DE-ANEXATION TRACT
CITY OF NEW BRAUNFELS, TEXAS

Being 27.8 acres, more or less, out of the J.M. Veramendi Survey No. 2, Abstract 3, Comal County, Texas. Said 27.8 acres also being a portion of a 2086 acre tract of land described as First Tract in Deed recorded in Volume 167, Pages 80-92 of the Deed Records of Comal County, Texas. Said 27.8 acre tract being more fully described as follows;

BEGINNING: At a point on the northwest right-of-way line of State Highway Loop 337, the southeast corner of the called 17.089 acre tract of land conveyed to Oakwood Baptist Church of New Braunfels, Texas, by Deed Recorded in Document No. 200706020677, of the Official Records of Comal County, Texas;

THENCE: departing the northwest right-of-way line of State Highway Loop 337 and along the common line between said 17.089 acres and the herein described tract, the following bearings and distances:

along a non-tangent curve to the left, said curve having a radial bearing of North 22°28'30" West, a radius of 50.00 feet, a central angle of 90°15'34", a chord bearing and distance of North 22°23'43" East, 70.87 feet, for an arc length of 78.77 feet to a point,

North 22°44'04" West a distance of 149.65 feet to a point,

North 32°57'24" West a distance of 61.98 feet to a point,

North 16°39'22" West a distance of 39.33 feet to a point of intersection with the New Braunfels City Limits line,

THENCE: departing said common line, over and across said 2086 acre tract, along and with the New Braunfels City Limits line, said City Limits line being parallel to and offset 300' from said northwest right-of-way line of State Highway Loop 337 the following bearings and distances:

North 67°36'02" East a distance of 476.75 feet to a point,

Along a tangent curve to the right, said curve having a radius of 6139.60 feet, a central angle of 11°49'02", a chord bearing and distance of North 73°30'33" East, 1264.03 feet, for an arc length of 1266.27 feet to a point,

North 79°25'02" East a distance of 1250.79 feet to a point,

North 76°33'02" East a distance of 200.30 feet to a point,

North 79°25'02" East a distance of 692.53 feet to a point,

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North 73°42'02" East a distance of 117.57 feet to a point on the southwest line of a 9.839 acre tract described in Document Number 200406026508 of the Official Records of Comal County, Texas;

THENCE: departing the New Braunfels City Limits line, along and with the common line of said 9.839 acre tract and said 2086 acre tract, South 36°27'37" East a distance of 324.20 feet to a point on the northwest right-of-way line of State Highway Loop 337;

THENCE: along said northwest right-of-way line of State Highway Loop 337, the following bearings and distances:

South 79°25'02" West a distance of 43.50 feet to a point,

South 73°42'02" West a distance of 201.00 feet to a point,

South 79°25'02" West a distance of 700.00 feet to a point,

South 76°33'02" West a distance of 200.30 feet to a point,

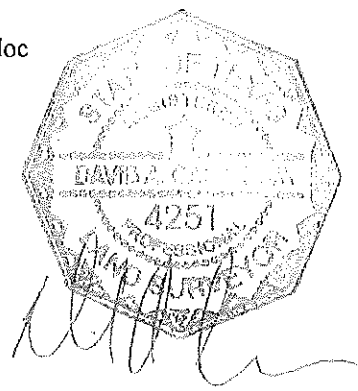
South 79°25'02" West a distance of 1258.30 feet to a point,

along a tangent curve to the left, said curve having a radius of 5839.60 feet, a central angle of 11°49'01", a chord bearing and distance of South 73°30'33" West, 1202.27 feet, for an arc length of 1204.40 feet to a point, and

South 67°36'02" West a distance of 518.39 feet to the POINT OF BEGINNING, and containing 27.8 acres.

This document was prepared under 22 TAC 663.21, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared.

PREPARED BY: PAPE DAWSON ENGINEERS, INC.
DATE: March 23, 2012
JOB No.: 9127-10
FILE: N:\Survey10\10-9100\9127-10\WORD\27.8 Ac DEANNEX E MBs.doc



FIELD NOTES
FOR A
DE-ANEXATION TRACT
CITY OF NEW BRAUNFELS, TEXAS

Being 34.6 acres, more or less, out of the J.M. Veramendi Survey No. 2, Abstract 3, Comal County, Texas. Said 34.6 acres also being a portion of a 2086 acre tract of land described as First Tract in Deed recorded in Volume 167, Pages 80-92 of the Deed Records of Comal County, Texas. Said 34.6 acre tract being more fully described as follows;

BEGINNING: at a point on the northwest right-of-way line of State Highway Loop 337, being the south most corner of the called 17.089 acre tract of land conveyed to Oakwood Baptist Church of New Braunfels, Texas, by Deed Recorded in Document No. 200706020677, of the Official Records of Comal County, Texas;

THENCE: along the northwest right-of-way line of State Highway Loop 337, the following bearings and distances:

South 60°43'02" West a distance of 101.06 feet to a point,

South 54°19'02" West a distance of 391.10 feet to a point,

South 53°26'02" West a distance of 4077.20 feet to a point,

along a non-tangent curve to the left, said curve having a radial bearing of South 36°30'07" East, a radius of 2412.00 feet, a central angle of 10°41'17", a chord bearing and distance of South 48°09'15" West, 449.29 feet, for an arc length of 449.94 feet to a point on the south line of said 2086 acre tract and of the herein described tract;

THENCE: departing the northwest right-of-way line of State Highway Loop 337, along and with the south line of said 2086 acre tract, North 37°35'41" West a distance of 303.78 feet to a point of intersection with the New Braunfels City Limits line;

THENCE: departing the south line of said 2086 acre tract, over and across said 2086 acre tract, along and with the New Braunfels City Limits line, said City Limits line being parallel to and offset 300' from said northwest right-of-way line of State Highway Loop 337 the following bearings and distances:

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along a non-tangent curve to the right, said curve having a radial bearing of South 46°07'13" East, a radius of 2712.00 feet, a central angle of 09°36'53" , a chord bearing and distance of North 48°41'14" East, 454.56 feet, for an arc length of 455.09 feet to a point,

North 53°26'02" East a distance of 4079.35 feet to a point,

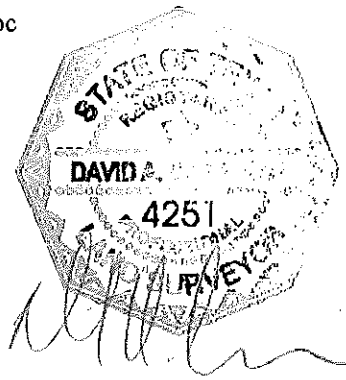
North 54°19'02" East a distance of 410.19 feet to a point,

North 60°43'02" East a distance of 83.58 feet to a point on the southwest line of said called 17.089 acre tract,

THENCE: departing the New Braunfels City Limits line, along and with the southwest line of said called 17.089 acre tract, South 35°47'46" East a distance of 301.95 feet to the POINT OF BEGINNING, and containing 34.6 acres.

This document was prepared under 22 TAC 663.21, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared.

PREPARED BY: PAPE DAWSON ENGINEERS, INC.
DATE: March 23, 2012
JOB No.: 9127-10
FILE: N:\Survey10\10-9100\9127-10\WORD\34.6 Ac DEANNEX W MBs.doc



City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. D)

Presenter/Contact
Garry Ford, City Engineer
(830) 221-4020 - gford@nbtexas.org

SUBJECT:
Public hearing and first reading of an ordinance amending Section 126-354 of the City of New Braunfels Code of Ordinances to revise Parking by Permit Area K.

BACKGROUND / RATIONALE:
Council District: 5

Staff has received a request from property owners along Kuehler Avenue to be included in the existing Parking by Permit Area K. The requested area consists of single-family homes and commercial properties.

Signed petitions have been received from the property owners and residents requesting addition into Parking by Permit Area K on both sides of Kuehler Avenue between East Nacogdoches Street and St Mary Street. This request is for daily between 8:00 a.m. to 8:00 p.m., from May 1 to September 30, which is consistent with the existing Parking by Permit Area K ordinance.

The proposed designated parking by permit area is a contiguous residential area and matches the schedule of existing parking by permit areas. Over two thirds of the affected residents have submitted a signed statement of the following for the initial requested area:

> *We the undersigned are residents and/or property owners of the proposed designated permit area described in this application. We understand that: (i) if this area is designated, certain restrictions will be placed upon on-street parking within the area; (ii) residents and/or residential property owners of the area will be entitled to obtain a limited number of parking permits exempting their vehicles from such parking restrictions, but if a resident and/or property owner owns a vehicle without having a permit displayed, that vehicle will be subject to the parking restrictions; (iii) parking permits will be issued for a term of one year and require replacement each year; (iv) the cost of issuing the annual parking permits will be paid by the residents and/or property owners.*

A public hearing on the application shall be conducted by City Council. Notices of the public hearing were mailed to all property owners (as shown on the latest tax roll) within a 300 foot radius of the requested area and all residents listed on the petition.

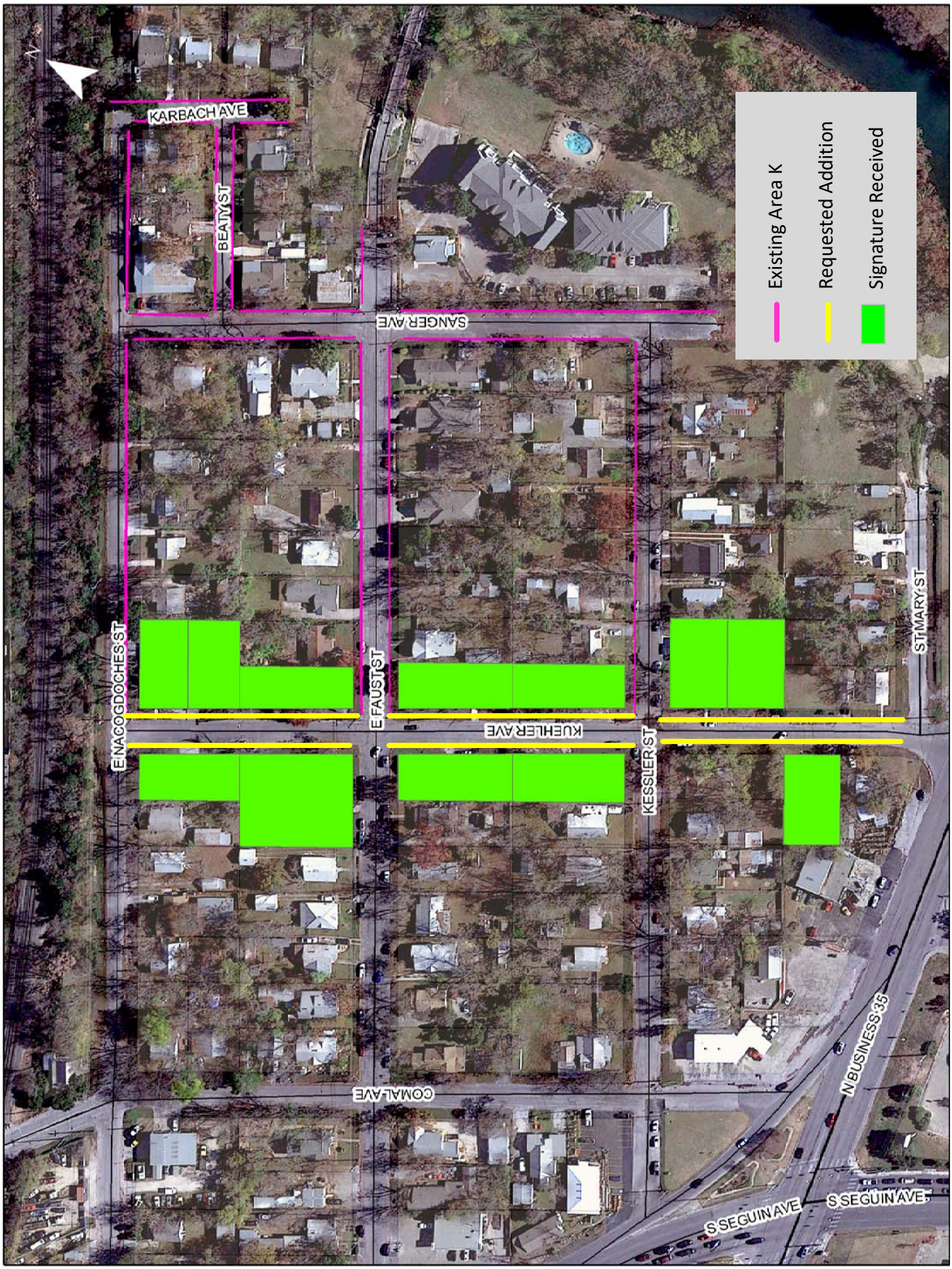
ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:
Envision New Braunfels Strategy 1: Support Vibrant Centers: Action 1.2: Create plans for

neighborhoods and transitional areas to maintain quality of life.

FISCAL IMPACT:
Traffic control signs cost approximately $150 each. Sufficient funding is available in the FY18-19 approved streets and drainage budget.

COMMITTEE RECOMMENDATION:
The Transportation and Traffic Advisory Board unanimously approved a recommendation to City Council to amend Section 126-354 of the City of New Braunfels Code of Ordinances to revise Parking by Permit Area K to include both sides of Kuehler Avenue between East Nacogdoches Street and St Mary Street at their meeting on June 13, 2019.

STAFF RECOMMENDATION:
Staff recommends approval of amending Parking by Permit Area K to include both sides of Kuehler Avenue between East Nacogdoches Street and St Mary Street.



Requested Addition to Parking by Permit Area K

ORDINANCE NO. 2019-____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS, AMENDING SECTION 126-354 (c) TO AMEND PARKING BY PERMIT AREA K.

WHEREAS, the City Council has determined that Section 126-354 (c) Parking by Permit Only, Designated Permit Areas be amended in order to protect the health, safety and welfare of the citizens.

WHEREAS, after engineering and field investigation, the Transportation and Traffic Advisory Committee and the City Engineer have recommended that traffic control signs be installed on certain streets, avenues, thoroughfares and boulevards within the corporate limits of the City of New Braunfels in order to protect the health, safety and welfare of the citizens.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS:

I.

THAT Section 126-354 (c) is hereby amended to read:

(12) Area K, between the hours of 8:00 a.m. and 8:00 p.m. from May 1st through September 30th.

b. On both sides of Kuehler Avenue from East Nacogdoches Street to St Mary Street.

II.

THAT the Public Works Department is directed to obtain and install the traffic control signs in the locations as set forth in this ordinance, and is directed to maintain the signs in a manner that provides for the health, welfare and safety of the citizens of New Braunfels.

III.

THAT all provisions hereof are hereby declared to be severable and if any provisions hereof is declared to be invalid or unconstitutional, such shall not invalidate or affect the remaining provisions hereof which will be and remain in full force and effect.

IV.

This Ordinance shall become adopted and effective upon its second reading, signature required by City Charter, and filing with the City Secretary's Office. This Ordinance must also be published in a newspaper of general circulation at least one time within ten (10) days after its final passage, as required by the City Charter of the City of New Braunfels.

PASSED AND APPROVED: First reading this the _____ day of _____, 2019.

PASSED AND APPROVED: Second reading this the _____ day of _____, 2019.

CITY OF NEW BRAUNFELS, TEXAS

_____
BARRON CASTEEL, MAYOR

ATTEST:

_____
PATRICK D. ATEN, CITY SECRETARY

APPROVED AS TO FORM:

_____
VALERIA M. ACEVEDO, CITY ATTORNEY

City of New Braunfels

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. E)

Presenter/Contact
Garry Ford, City Engineer
(830) 221-4020 - gford@nbtexas.org

SUBJECT:
Discuss and consider approval of the first reading of an ordinance amending Sections 114-98, 114-99, and 118-46 of the Code of Ordinances regarding access on collector or major thoroughfare streets, turn lane and traffic impact analysis requirements, and removal of references to the sub-collector street section.

BACKGROUND / RATIONALE:
This item was presented to the Development Community on January 17, 2019, Transportation and Traffic Advisory Board on February 21, 2019, and Planning Commission on May 7, 2019.

City staff is proposing amendments to *Chapter 114 - Streets Sidewalks and Other Public Places, Article IV - Right-of-way Access and Management, Section 114-98 - General specifications for all roadways* and *Section 114-99 - Approval methods for granting access to roadways*, and *Chapter 118 - Platting, Article IV - Design Standards, Section 118-46 - Streets* of the Code of Ordinances. The proposed amendments will specify that traffic impact analysis (TIA) trip generation shall consider potential land use based on future land use and/or zoning when specific land use is unknown; add deceleration lane requirements; add provisions for residential lot access on collector and major thoroughfare streets; and remove references to the sub-collector street section.

Traffic Impact Analysis Trip Generation
The Code of Ordinances specifies that no master plan, plat, building permit or driveway access shall be approved unless a traffic impact analysis (TIA) is completed by the developer and approved by the city engineer. Furthermore, a TIA may also be required by the planning director, planning commission or the city council as part of a zoning change application. A TIA is intended to determine the development's traffic impact and need for any improvements to the internal and adjacent transportation system to maintain satisfactory level of service, acceptable level of safety and appropriate access provisions. A TIA should be submitted at several stages in the development process including:

- Zoning and rezoning;
- Master plan;
- Preliminary and final plat;
- Site plan review;
- Access permits; and
- Building permits.

Separate studies are not needed at each development stage; however, studies need to be updated to include more detail as site plans and development become more specific. It is critical that a TIA is

submitted during the master plan and plat process to determine right-of-way needs, address community concerns, and legally specify mitigation requirements as part of city approval.

City staff received recent requests to not require a TIA at the master plan or plat stage since the specific land use was unknown or receive TIA worksheets that are not compatible with the site and just under the peak hour threshold that requires a TIA report. The city also receives requests to conduct the TIA at the time of building permit which often results in piecemeal TIA worksheets that do not address the impact of the overall development. Staff's response is the TIA shall be based on the future land use and/or zoning with consideration to existing topography, comparable properties and updated as development progresses. Furthermore, an experienced transportation professional who has specific training and experience in preparing TIA can forecast and analyze proposed developments early in the development process. The proposed amendment will codify the specific language to better address future requests.

Turn Lane Requirements
Turn lanes are exclusive deceleration and storage lanes that allow for vehicles to turn left and right at intersections and driveways outside the through lane. Turn movements at intersections, especially movements that are made from lanes that are shared with through traffic, cause delays and adversely impact safety. Turn lanes are one strategy to improve operations and safety on the city's transportation system. The Code of Ordinances Section 114-98 (f) provides limited guidance on turn lanes and engineers use various guidelines or only one factor to warrant and recommend them through the TIA process. The proposed amendment will provide standard criteria with the consideration of other factors.

The guiding document for street design is the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*. AASHTO states that warrants for turn lanes cannot be definitely stated and many factors should be considered, including speeds, traffic volumes, frequency of intersections and site conditions. Guidance for left turn lanes is provided based on opposing and advancing traffic volumes, with additional considerations for local conditions, functional classification and character of traffic.

The Texas Department of Transportation (TxDOT) guidance for right turn lanes is provided in the *Access Management Manual*. It specifies that right turn lanes should be considered when speeds are greater than 45 miles per hour and turn volume is greater than 50 vehicles per hour, and when speeds are equal to or less than 45 miles per hour and turn volume is greater than 60 vehicles per hour. The manual also specifies other conditions that may warrant the need for a right turn lane when volumes are less than provided including high crash experience, heavy peak hour flow, truck traffic and limited sight distance.

TxDOT guidance for left turn lanes is provided in the *Roadway Design Manual*. Like AASHTO, guidance for left turn lanes is provided based on opposing and advancing traffic volumes, with additional considerations for local conditions and character of traffic. In some cases, engineers use TxDOT right turn volume guidance to warrant left turn lanes.

The most recent left turn lane design guidance is provided by the National Cooperative Highway Research Program (NCHRP) sponsored by AASHTO and the Federal Highway Administration. The design guidance is based on benefit-cost approach considering delay savings, crash costs, crash reduction and construction costs. The guidelines are based on the peak hour volumes and

intersection configuration. The left turn peak hour volume for a left turn lane for various scenarios, including urban/suburban streets, is 50 vehicles per hour. Additionally, the City of San Antonio's threshold for left and right turn lanes is 50 vehicles per hour, and 500 vehicles per day.

Staff recommends establishing turn lane requirements at 50 vehicles per hour following the NCHRP and City of San Antonio guidelines including review of other factors. Additional amendments are proposed to the requirements including design and construction requirements.

Access on Collector or Major Thoroughfare Streets
The existing Code of Ordinances does not permit driveway access on arterial roads that require backing maneuvers in a public street right-of-way. The proposed amendment will add other thoroughfare streets (expressway, parkway and collector streets) to the list of roadway classifications where backing maneuvers from driveways is not permitted. These types of streets are designed to provide a higher level of mobility with limited access.

This amendment also addresses the operational and safety issues on collector streets in residential subdivisions. Collector streets can carry up to 5,000 vehicles per day, and it is common and best practice to restrict standard one and two-family lots fronting and driveway access on collector streets. Homes fronting collectors is a common neighborhood issue and city staff and the Transportation and Traffic Advisory Board have reviewed many traffic concerns on collector streets in New Braunfels including Sungate Drive, Dove Crossing Drive, Divine Way, Pahmeyer Road, Oak Run Parkway and Stone Gate Drive. Engineering and Police Department staff received complaints from residents when daily traffic volumes are as little as 500 vehicles per day. Furthermore, the city continues to receive new subdivision plans with residential lots fronting collectors and with planned driveway access that requires backing onto the street.

Good examples of design collectors without homes fronting and having driveway access include Southbank Boulevard, Avery Parkway, Pahmeyer Road within the Voss Farms subdivision, and the collector network in Veramendi.

The proposed amendment will revise Chapters 114 and 118 to not allow residential lot access to collector or major thoroughfare streets that require backing onto street. Residential lots having direct access on collector roadway may be platted only if:

1. All lots are greater than one acre, have a minimum lot frontage of 100 feet and provide a permanent vehicular turnaround on the lot preventing backing onto the street;
2. Permit access to lots less than one acre if a marginal access street or easement is constructed and access is spaced a minimum of 200 feet apart and from an existing driveway or street;
3. The street is classified as a residential collector with a minimum of 36 feet of pavement, has daily traffic volumes of less than 2,000 vehicles per day, and includes traffic calming measures; or
4. The street is classified as a residential collector with a minimum of 40 feet of pavement, has daily traffic volumes of less than 4,000 vehicles per day, and includes traffic calming measures.

The marginal access street shall be designed for emergency access, on-street parking, sidewalk connection and solid waste operations that do not require backing within the marginal access street or easement.

The residential collector provision is also based on consideration of pavement width, traffic and parking operations, traffic safety and neighborhood livability. It is also a start at implementing “Complete Streets” as identified in Envision New Braunfels and addressing neighborhood concerns. A residential collector currently has a pavement width of 36 feet and maximum daily traffic of 5,000 vehicles per day. A local street has a pavement with of 30 feet and maximum daily traffic of 1,000 vehicle per day.

Remove References to the Sub-Collector Street Section
The proposed amendment removes the sub-collector classification as it is not used in practice and was removed from the platting ordinance in a recent update.

Remove Duplicate Traffic Impact Analysis Requirements
The proposed amendment removes the TIA requirements from Section 114 and refers to the requirements, including turn lane requirements, in Section 118.

Review Process
This item was presented to City Council, Planning Commission and the Transportation and Traffic Advisory Board in 2018. Planning Commission requested that the proposed amendments be presented to the development community at a “face to face” meeting. A meeting was held with the development community on January 17, 2019. The feedback received at the meeting was related to allowing a higher traffic volume threshold for backing maneuvers onto residential collectors, removing planning commission discretion on the requirement of turn lanes, and the timing and vesting of the proposed amendments. Staff revised the proposed amendments and recommend that they become effective after city council approval. Approved master plans and plat may be vested based on application and in accordance with Chapter 245 of the Texas Local Government Code.

ADDRESSES A NEED/ISSUE IN A CITY PLAN OR COUNCIL PRIORITY:
Envision New Braunfels Strategy 7: Connect All: Action 7.22: Adopt a Complete Streets policy to ensure ease of access for all people and all transportation modes.

FISCAL IMPACT:
N/A

COMMITTEE RECOMMENDATION:
The Transportation and Traffic Advisory Board unanimously recommended approval of the proposed amendments on February 21, 2019. The Planning Commission unanimously recommended approval of the proposed amendments on May 7, 2019.

STAFF RECOMMENDATION:
Staff recommends approval of the proposed amendments to Sections 114-98, 114-99, and 118-46 traffic impact analysis trip generation, turn lanes, and access on collector or major thoroughfare streets, and removal of references to the sub-collector street section.

Proposed Amendments (February 11, 2019)

CHAPTER 114 - STREETS, SIDEWALKS AND OTHER PUBLIC PLACES

ARTICLE IV. - RIGHT-OF-WAY ACCESS AND MANAGEMENT

Sec. 114-98. - General specifications for all roadways.

(a) *Generally*

(3) No driveways, other than those required for one and two family residential structures on local streets or as approved on final plat, shall be constructed in such a way as to require backing maneuvers into the public right-of-way.

(b) *Location of driveway access.*

(1) Driveway access to expressway, parkway, arterial and collector roads shall not be permitted for parking or loading areas that require backing maneuvers in a public street right-of-way. Driveway access to streets for commercial or multifamily developments shall not be permitted for parking or loading areas that require backing maneuvers in a public street right-of-way. Additional provisions for access on a collector are provided in Section 118-46(m).

(2) No curb cuts through a left turn lane of a median shall be permitted in order to provide for left turn movements to driveway approaches.

(3) Driveways in right turn lane transition areas shall not be permitted.

(c) *Spacing of driveway access.*

(1) Application of the driveway access location and design policy requires identification of the functional classification of the street on which access is requested. Street sections are classified as follows:

a. Local street;

~~b. Sub-collector;~~

~~c~~b. Collector;

~~d~~c. Minor arterial;

~~e~~d. Major arterial;

(2) Driveway access spacing shall be measured from the closest edge of pavement of the first access connection to the closest edge of pavement of the second access connection. (Figure 1)

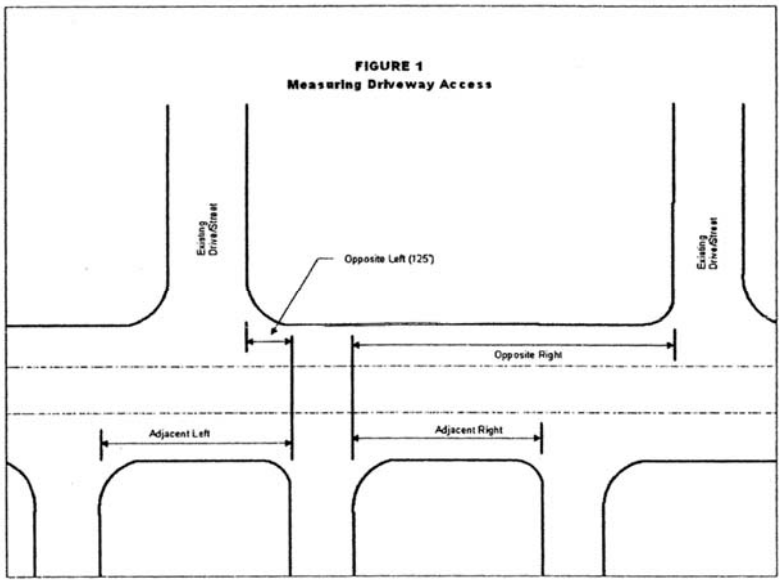


Figure 1—Measuring Driveway Access

(3) Opposite right driveways, for other than one or two family development, shall be located per the following requirements:

Street Classification	Spacing
Local	Must match or greater than 15 feet
~~Sub-collector~~	~~Must match or greater than 15 feet~~
Collector	Must match or greater than 100 feet
Minor arterial	Must match or greater than 225 feet
Major arterial	Must match or greater than 300 feet
Major arterial median	To be determined by city engineer

(4) Additional opposite right spacing exceeding that set forth in the above section may be required if it is determined by the city engineer that there is insufficient left turn queue storage or weave maneuver area between the opposite right and proposed driveway. This determination shall be made under peak traffic conditions.

(5) Opposite left driveways, for other than one and two family development, shall be located per the following requirements:

Street Classification	*Spacing*
Local	Must match or greater than 15 feet
~~Sub-collector~~	~~Must match or greater than 15 feet~~
Collector	Must match or greater than 125 feet
Minor arterial	Must match or greater than 125 feet
Major arterial	Must match or greater than 125 feet
Major arterial median	To be determined by city engineer

(6) Where possible, opposite driveways for other than one or two family development shall align. These drives shall be considered as an intersection.

(7) Adjacent driveways, for other than one or two family development, shall be located per the following requirements:

Street Classification	*Spacing*
Local street	Greater than 25 feet
~~Sub-collector~~	~~Greater than 75 feet~~
Collector	Greater than 100 feet
Minor arterial	Greater than 150 feet
Major arterial	Greater than 250 feet

(8) Exceptions. Where driveway spacing according to the standards in this section may not be possible or practical, the city engineer may require one or a combination of the following:

a. Where adequate access connection spacing cannot be achieved, the city engineer may allow for a lesser spacing when shared access is established with an abutting property.

b. Where no other alternatives exist, construction of an access connection may be allowed along the property line farthest from the intersection. To provide reasonable access under these conditions but also provide the safest operation, consideration shall be given to designing the driveway connection to allow only the right-in turning movement or only the right-in/right out turning movements, if feasible.

(d) *Corner clearance.*

(1) Corner clearance, the distance between a street intersection and a driveway, for driveway access other than to one or two family development, shall meet or exceed the minimum driveway spacing requirements for that roadway, as shown above.

(2) Downstream corner clearance. When minimum spacing requirements cannot be met due to lack of frontage and all means to acquire shared access drives or cross access easements have been exhausted, the following shall apply: at intersections with channelized right-turn lanes with yield control, a corner clearance as shown in the following may be approved by the city engineer:

a. Local streets. No closer than 30 feet.

~~b. Sub-collectors. No closer than 75 feet.~~

~~c~~b. Collectors. No closer than 75 feet.

~~d~~c. Minor arterials. No closer than 100 feet.

~~e~~d. Major arterials. No closer than 120 feet.

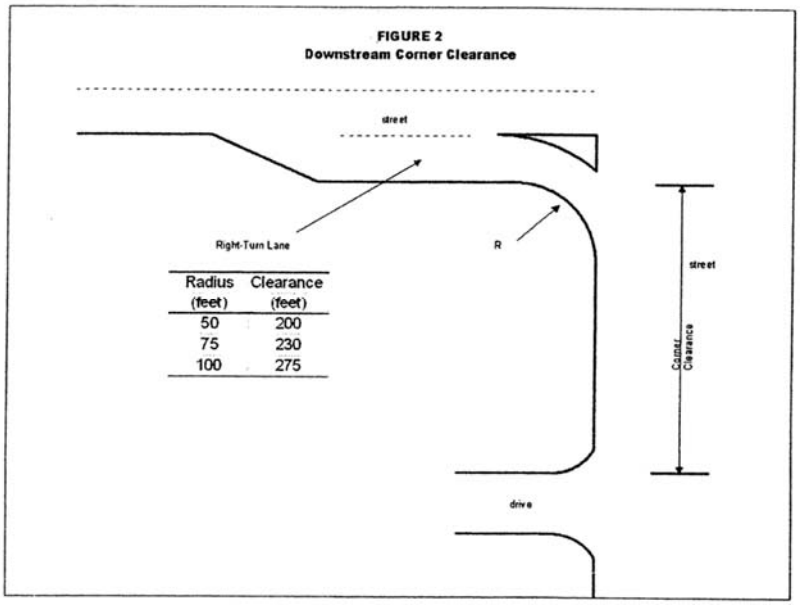


Figure 2—Downstream Corner Clearance

(f) *Geometric design of driveway access.*

(1) All driveways shall meet the city's standard specifications for street construction and construction standards.

(2) Curb cuts for driveways shall not be permitted in the curb return of an intersection.

(3) The curb return radii or flares for driveways intersecting at right angles with the roadway and without a deceleration lane shall be as follows:

a. Curb return radii or flares for one or two family driveways shall be five feet or have a three feet flare.

b. Curb return radii or flares for industrial, commercial and multi-family driveways shall be a minimum of 15 feet to a maximum of 30 feet.

c. Curb return radii or flares for driveway types not included in this section shall be determined by the city engineer.

d. The city engineer may allow a larger radii or flare in special circumstances, for instance where there will be significant large truck, bus, or shuttle traffic on a daily basis.

(4) The tangent point of the driveway curb return at the public roadway line or flare shall be a minimum distance of one foot off the property projected perpendicular to the street centerline, except single family zero lot line lots. On single family zero lot line lots where the drive is on the zero lot line, the tangent point or flare shall be no greater than three feet beyond the adjoining property line projected perpendicular to the street centerline.

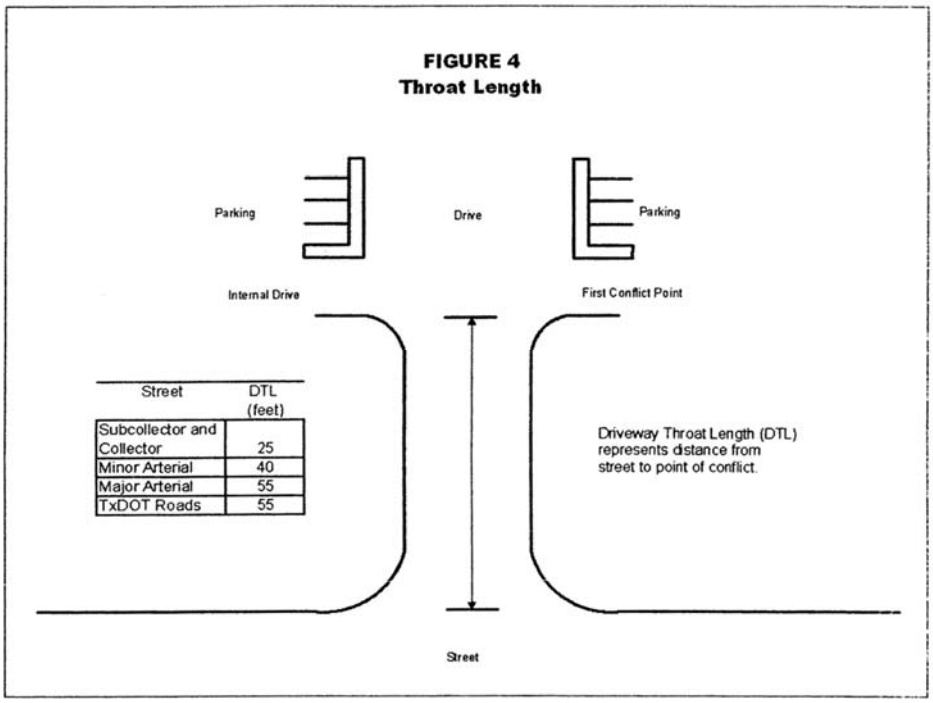
(5) The maximum width of a one- or two-family driveway approach measured at the property line shall not exceed 30 feet in width, while the minimum width shall not be less than 12 feet in width unless the driveway is shared, in which case the driveway shall not exceed 40 feet in width.

(6) The maximum width of a commercial, industrial and multi-family driveway approach for two-way operation shall not exceed 40 feet except that the city engineer may issue permits for driveway approaches greater than 40 feet in width on major streets to handle special traffic conditions. The minimum width of a commercial and multifamily driveway approach for two-way operation shall not be less than 20 feet.

(7) The width of a driveway approach that is a combination of two driveways for one or two family circular drives shall not exceed 28 feet.

(8) Throat length. A minimum driveway throat length of 25 feet for ~~sub-collectors and~~ collector streets, 40 feet for minor arterials, and 55 feet for major arterials, as shown in figure 4, may be required as determined by the city engineer to allow for traffic entering the site to be stored on site in order to avoid a queue of traffic from the development from being out on the roadway causing delays to the through traffic stream. The driveway throat length shall be defined as the distance from the street to the first point of conflict in the driveway.

FIGURE 4
Throat Length



(9) Driveway median. On collector, minor arterials, and major arterials, access points may be required to be designed to prohibit certain types of turning movements (for example, left turns). Driveways not meeting the spacing guidelines in subsection 114-98(c) may be designed for limited access by the addition of a median to the driveway.

(10) Turn lanes~~Right turn deceleration lane~~. Turn lanes are exclusive deceleration and storage lanes that allow for vehicles to turn left and right at intersections outside the through lane. ~~On collector, minor arterials, and major arterials, tapered or channelized deceleration lanes for vehicles turning right into high volume or intersection type driveways may be required if warranted.~~ Turn lanes requirements are provided in Section 118-46(y).~~Design of right turn deceleration lanes shall be in accordance with the AASHTO Green Book on auxiliary lanes.~~

(11) The spacing requirements for driveways not meeting the specifications in subsection 114-98(c) may be lessened or waived by the city engineer if tapered or channelized deceleration lanes are used.

(12) Signalization. Access points on collector, minor arterials, and major arterials may be required to be signalized in order to provide safe and efficient traffic flow. A development may be responsible for all or part of any right-of-way, design, hardware, and construction costs of a traffic signal if it is determined that the signal is necessitated by the traffic generated from the development. The procedures for signal installation and the percent of financial participation required of the development in the installation of the signal shall be in accordance with criteria set forth by the city engineer.

Sec. 114-99. - Approval methods for granting access to roadways.

Granting approval to all roadways. The city engineer will require one of the following before granting an applicant access to any roadways:

(1) The applicant must meet the requirements listed within this article for all roadways.

(2) The city engineer may require an engineering study or traffic impact analysis (TIA) to be completed and approved by the city engineer and improvements made according to the approved TIA for a development, including a subdivision master plan and the issuance of a building permit, that would generate more than 100 peak hour trips (PHT) on any street or where the standards of this article cannot be met to ensure safety at access points. A building permit shall not be issued for a development that is required to have an approved TIA until such TIA has been approved and any improvements called for in the TIA have been approved as part of the building permit plans. A certificate of occupancy shall not be issued until any improvements required in the approved TIA have been completed, inspected and approved by the director of public works or his designee or as otherwise approved by the city engineer ~~in accordance with subsection e~~. TIA requirements are provided in Section 118-46(y).

Remove subsections a-g.

Proposed amendments (February 11, 2019)

CHAPTER 118 - PLATTING

ARTICLE IV - DESIGN STANDARDS

Sec. 118-46. - Streets

~~(m) *Marginal access streets.* Where a one-family or two-family residential lot or development has frontage on or borders an arterial street, highway or freeway, the planning commission may require marginal access streets to be provided on the residential development side of these streets, unless the adjacent lots back up to, side up to, or front with extra depth (see subsection 118-45(e)), or access off an alley, and provide some other means of restricting individual access directly to an arterial street, highway or freeways, or unless the planning commission determines such marginal access streets are not desirable under the facts of a particular case for adequate protection of the lots and separation of through and local traffic.~~

(m) *Access and driveways.* The provisions of this section and chapter 114 shall apply to all access and driveways. Access shall be approved in accordance with the approved plat and by the local agency with permitting authority.

(1) *Frontage and access on collector or major thoroughfare streets.* Access to collector or major thoroughfare streets shall not be allowed for residential lots that require backing maneuvers onto a street. Residential lots having direct access on a collector or major thoroughfare streets may be platted only if:

(a) All lots are greater than one (1) acre in size, have a minimum lot frontage of one hundred (100) feet, and provide for permanent vehicular turnaround on the lot to prevent backing onto the street. A note shall be placed on the plat stating a permanent vehicular turnaround shall be provided on each lot to prevent a vehicle from backing onto the street.

(b) Access points which would permit vehicular access to lots less than one (1) acre in size may be allowed if a marginal access street or easement to serve two (2) or more lots spaced a minimum of two hundred (200) feet apart and two hundred (200) feet from an existing driveway or street is constructed. The marginal access street or easement shall be designed to prevent a vehicle from backing onto collector or major thoroughfare streets.

(c) The street is classified as a residential collector with a minimum of 36 feet of pavement, has daily traffic volumes of less than 2,000 vehicles per day, and includes traffic calming measures.

(d) The street is classified as a residential collector with a minimum of 40 feet of pavement, has daily traffic volumes of less than 4,000 vehicles per day, and includes traffic calming measures.

(2) *Marginal access street or easement.* Where a developer furnishes a marginal access street or easement, it shall be designed to allow for emergency access, on-street parking, sidewalk connection to the collector or major thoroughfare street, and solid waste operations that do not require backing within the marginal access street or easement.

(y) *Traffic impact analysis.*

(1) *Requirements.* No master plan, plat, building permit or driveway access shall be approved unless a traffic impact analysis (TIA) worksheet or TIA, as provided for in this section, is completed by the developer and approved by the city engineer. A TIA may also be required by the planning director, the commission or the city council as part of a zoning change application. If the specific land use is unknown, the TIA worksheet or appropriate level TIA shall be based on the Future Land Use Plan with consideration to existing topography and comparable properties.

(9) *Turn lane requirements.* Turn lanes are exclusive deceleration and storage lanes that allow for vehicles to turn left and right at intersections outside the through lane. Design of deceleration lanes shall be in accordance with the latest edition of AASHTO *A Policy on Geometric Design of Highways and Streets*.

(a) Left and right turn lanes shall be required:

(1) At all driveway or street intersections with a daily entering traffic volume of five hundred (500) vehicle trips or fifty (50) vehicle peak hour trips;

(2) At all driveway or street intersections on the state highway system at the option of TxDOT; or

(3) Based on other factors such as street classification, travel speeds, sight distance, truck traffic, crash history, and other site conditions.

(b) The design of turn lanes shall be based on the existing centerline of the roadway. The existing and new pavement for turn lane improvements shall be designed based on the development traffic loads and may include rehabilitation. At minimum, a surface course treatment is required for the full improvements including taper and pavement marking area.

(c) The construction of turn lanes may be limited due to topographic conditions or need to obtain right-of-way from adjacent property owners. The applicant must show that all reasonable efforts have been made to implement turn lanes required by the TIA or this chapter. This may include relocating driveways or streets to allow for the construction of turn lanes or alternate design options.

ORDINANCE NO. 2019-____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS, AMENDING SECTIONS 114-98, 114-99, AND 118-46 OF THE CODE OF ORDINANCES REGARDING ACCESS ON COLLECTOR AND MAJOR THOROUGHFARE STREETS, TURN LANE AND TRAFFIC IMPACT ANALYSIS REQUIREMENTS, AND REMOVAL OF DUPLICATE TRAFFIC IMPACT ANLAYSIS REQUIREMENTS AND REFERENCES TO THE SUB-COLLECTOR STREET SECTION.

WHEREAS, the State of Texas has enacted legislation empowering municipalities to exercise authority relating to subdivision regulation; and

WHEREAS, the City Engineer may amend city standards from time to time, upon recommendation of Planning Commission to City Council; and

WHEREAS, the Transportation and Traffic Advisory Board and Planning Commission unanimously recommend to the City Council adoption of amendments regarding access on collector and major thoroughfare streets, turn lane and traffic impact analysis requirements, and removal of duplicate traffic impact analysis requirements and references to the sub-collector street section; and

WHEREAS, the City Council has determined that it is in the best interest of the citizens of New Braunfels to amend Sections 114-98, 114-99, and 118-46 of the Code of Ordinances.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEW BRAUNFELS, TEXAS:

I.

THAT, Section 114-98, General specifications for all roadways, is amended by deleting subsections (a)(3), (b)(1), (c)(1), (c)(3), (c)(5), (c)(7), (d)(2) and (f)(10), and adding new subsections (a)(3), (b)(1), (c)(1), (c)(3), (c)(5), (c)(7), (d)(2) and (f)(10) as follows:

(a)(3) No driveways, other than those required for one and two family residential structures on local streets, shall be constructed in such a way as to require backing maneuvers into the public right-of-way.

(b)(1) Driveway access to expressway, parkway, arterial and collector roads shall not be permitted for parking or loading areas that require backing maneuvers in a public street right-of-way. Driveway access to streets for commercial or multifamily developments shall not be permitted for parking or loading areas that require backing maneuvers in a public street right-of-way. Additional provisions for access on a collector are provided in Section 118-46(m).

(c)(1) Application of the driveway access location and design policy requires identification of the functional classification of the street on which access is requested. Street sections are classified as follows:

a. Local street;
b. Collector;
c. Minor arterial; and
d. Major arterial.

(c)(3) Opposite right driveways, for other than one or two family development, shall be located per the following requirements:

Street Classification	Spacing
Local	Must match or greater than 15 feet
Collector	Must match or greater than 100 feet
Minor arterial	Must match or greater than 225 feet
Major arterial	Must match or greater than 300 feet
Major arterial median	To be determined by city engineer

(c)(5) Opposite left driveways, for other than one and two family development, shall be located per the following requirements:

Street Classification	*Spacing*
Local	Must match or greater than 15 feet
Collector	Must match or greater than 125 feet
Minor arterial	Must match or greater than 125 feet
Major arterial	Must match or greater than 125 feet
Major arterial median	To be determined by city engineer

(c)(7) Adjacent driveways, for other than one or two family development, shall be located per the following requirements:

Street Classification	*Spacing*
Local street	Greater than 25 feet

Collector	Greater than 100 feet
Minor arterial	Greater than 150 feet
Major arterial	Greater than 250 feet

(d)(2) Downstream corner clearance. When minimum spacing requirements cannot be met due to lack of frontage and all means to acquire shared access drives or cross access easements have been exhausted, the following shall apply: at intersections with channelized right-turn lanes with yield control, a corner clearance as shown in the following may be approved by the city engineer:

a. Local streets. No closer than 30 feet.
b. Collectors. No closer than 75 feet.
c. Minor arterials. No closer than 100 feet.
d. Major arterials. No closer than 120 feet.

(f)(10) Turn lanes. Turn lanes are exclusive deceleration and storage lanes that allow for vehicles to turn left and right at intersections outside the through lane. Turn lanes requirements are provided in Section 118-46(y).

II.

THAT, Section 114-99, Approval methods for granting access to roadways, is amending by deleting subsection (2), and adding new subsection (2) as follows:

(2) The city engineer may require an engineering study or traffic impact analysis (TIA) to be completed and approved by the city engineer and improvements made according to the approved TIA for a development, including a subdivision master plan and the issuance of a building permit, that would generate more than 100 peak hour trips (PHT) on any street or where the standards of this article cannot be met to ensure safety at access points. A building permit shall not be issued for a development that is required to have an approved TIA until such TIA has been approved and any improvements called for in the TIA have been approved as part of the building permit plans. A certificate of occupancy shall not be issued until any improvements required in the approved TIA have been completed, inspected and approved by the director of public works or his designee or as otherwise approved by the city engineer. TIA requirements are provided in Section 118-46(y).

III.

THAT, Section 118-46, Streets, is amending by deleting subsections (m), (y)(1), and (y)(9), and adding new subsections (m), (y)(1), and(y)(9) as follows:

(m) *Access and driveways*. The provisions of this section and chapter 114 shall apply to all access and driveways. Access shall be approved in accordance with the approved plat and by the local agency with permitting authority.

(1) *Frontage and access on collector or major thoroughfare streets*. Access to collector or major thoroughfare streets shall not be allowed for residential lots that require backing maneuvers onto a street. Residential lots having direct access on a collector or major thoroughfare streets may be platted only if:

(a) All lots are greater than one (1) acre in size, have a minimum lot frontage of one hundred (100) feet, and provide for permanent vehicular turnaround on the lot to prevent backing onto the street. A note shall be placed on the plat stating a permanent vehicular turnaround shall be provided on each lot to prevent a vehicle from backing onto the street.

(b) Access points which would permit vehicular access to lots less than one (1) acre in size may be allowed if a marginal access street or easement to serve two (2) or more lots spaced a minimum of two hundred (200) feet apart and two hundred (200) feet from an existing driveway or street is constructed. The marginal access street or easement shall be designed to prevent a vehicle from backing onto collector or major thoroughfare streets.

(c) The street is classified as a residential collector with a minimum of 36 feet of pavement, has daily traffic volumes of less than 2,000 vehicles per day, and includes traffic calming measures.

(d) The street is classified as a residential collector with a minimum of 40 feet of pavement, has daily traffic volumes of less than 4,000 vehicles per day, and includes traffic calming measures.

(2) *Marginal access street or easement*. Where a developer furnishes a marginal access street or easement, it shall be designed to allow for emergency access, on-street parking, sidewalk connection to the collector or major thoroughfare street, and solid waste operations that do not require backing within the marginal access street or easement.

(y)(1) *Requirements*. No master plan, plat, building permit or driveway access shall be approved unless a traffic impact analysis (TIA) worksheet or TIA, as provided for in this section, is completed by the developer and approved by the city engineer. A TIA may also be required by the planning director, the commission or the city council as part of a zoning change application. If the specific land use is unknown, the TIA worksheet or appropriate level TIA shall be based on the Future Land Use Plan with consideration to existing

topography and comparable properties.

(y)(9) *Turn lane requirements*. Turn lanes are exclusive deceleration and storage lanes that allow for vehicles to turn left and right at intersections outside the through lane. Design of deceleration lanes shall be in accordance with the latest edition of AASHTO A Policy on Geometric Design of Highways and Streets.

(a) Left and right turn lanes shall be required:

(1) At all driveway or street intersections with a daily entering traffic volume of five hundred (500) vehicle trips or fifty (50) vehicle peak hour trips;

(2) At all driveway or street intersections on the state highway system at the option of TxDOT; or

(3) Based on other factors such as street classification, travel speeds, sight distance, truck traffic, crash history, and other site conditions.

(b) The design of turn lanes shall be based on the existing centerline of the roadway. The existing and new pavement for turn lane improvements shall be designed based on the development traffic loads and may include rehabilitation. At minimum, a surface course treatment is required for the full improvements including taper and pavement marking area.

(c) The construction of turn lanes may be limited due to topographic conditions or need to obtain right-of-way from adjacent property owners. The applicant must show that all reasonable efforts have been made to implement turn lanes required by the TIA or this chapter. This may include relocating driveways or streets to allow for the construction of turn lanes or alternate design options.

IV.

This Ordinance shall become adopted and effective upon its second reading, signature required by City Charter, and filing with the City Secretary's Office. This Ordinance must also be published in a newspaper of general circulation at least one time within ten (10) days after its final passage, as required by the City Charter of the City of New Braunfels. The amendments shall be filed with the City Secretary at least ten days before it becomes effective.

PASSED AND APPROVED: First reading this the _____ day of _____, 2019.

PASSED AND APPROVED: Second reading this the _____ day of _____, 2019.

CITY OF NEW BRAUNFELS, TEXAS

_____
BARRON CASTEEL, MAYOR

ATTEST:

_____
PATRICK D. ATEN, CITY SECRETARY

APPROVED AS TO FORM:

_____
VALERIA M. ACEVEDO, CITY ATTORNEY

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. A)

Deliberate issues regarding economic development negotiations in accordance with Section 551.087, of the Texas Government Code, including but not limited to:

- Project Nautilus

City Council Agenda Item Report

550 Landa Street
New Braunfels, TX

7/8/2019

Agenda Item No. B)

Deliberate the purchase, exchange, lease or value of real estate in accordance with Section 551.072 of the Texas Government Code

- Property for city facilities