

An aerial photograph of a dense, lush green forest. A narrow, light-brown dirt path or streambed winds through the trees, starting from the bottom left and moving towards the upper left. The sunlight filters through the canopy, creating a mix of bright green highlights and deep shadows. The overall scene is a vibrant, natural landscape.

# **DRY COMAL CREEK GREENWAY**

## MASTER PLAN



# TABLE OF CONTENTS



<b>Recognition of all Participants &amp; Partners</b>	<b>1</b>
<b>Executive Summary</b>	<b>2</b>
<b>Invitation to the Reader</b>	<b>3</b>
<b>About New Braunfels</b>	<b>4</b>
<b>Project Overview</b>	<b>5</b>
<b>Opportunities &amp; Constraints</b>	<b>6</b>
<b>Plan Recommendations</b>	<b>7</b>
<b>Appendices</b>	<b>8</b>
<b>a. Workshop Results</b>	<b>9</b>
<b>b. Survey Results</b>	<b>10</b>
<b>c. Ford/Powell Plan</b>	<b>11</b>
<b>d. City Design Documents</b>	<b>12</b>



The Dry Comal Greenway Master Plan was developed through a stakeholder-based community planning process. The following entities are gratefully acknowledged for their participation in the process through workshops, interviews, small committees and surveys.

## **Governmental Entities**

Alamo Area Metropolitan Planning Organization (AAMPO)

City of New Braunfels

- Parks and Recreation Department
- Planning and Community Development
- Engineering & Watershed Management
- New Braunfels Police Department

Comal County

National Park Service Rivers, Trails and Conservation Assistance Program (NPS)

Texas Department of Transportation - San Antonio District

## **Private Organizations and Associations**

Cemex USA

Comal Trails Alliance (CTA)

Comal County Conservation Alliance (CCCA)

Columbus Club Association of New Braunfels

New Braunfels Chamber of Commerce

Town Creek Homeowners Association

## **Subject Matter Expertise**

Hill Country Alliance

San Marcos Greenbelt Alliance

San Antonio Parks and Recreation Department

San Antonio Police Department

## **Steering Committee**

The following individuals are given special recognition for serving in lead roles and making this plan a reality. Working together, they formed the Dry Comal Greenway Master Plan

Steering Committee:

- Ylida Capriccioso, New Braunfels Parks and Recreation Department
- Mark Enders, New Braunfels Watershed Management Division
- Marta d. Newkirk, National Park Service Rivers, Trails and Conservation Assistance Program
- Matthew Simmont, Planner, Planning and Development Services
- Garry Ford, Assistant Director of Public Works/City Engineer
- Robert Boyd, Comal County Assistant Engineer
- Kris Long, TXDOT – San Antonio District
- Chester Jenke, Vice President of Economic Development, New Braunfels Chamber of Commerce
- Joey Pawlik, Active Transportation Planner, AAMPO
- Nancy Pappas, President, CTA



## INTRODUCTION

Like many other cities along the IH-35 corridor, New Braunfels is growing rapidly. Over the past decade or so, large areas of land have been developed and the City's population has increased significantly, and this trend is expected to continue. In addition to traditional recreation facilities such as playgrounds, parks, and recreation centers, residents are looking to the City, and its partners, to provide a well-designed trail system that provides the opportunity to escape the stresses of their busy day-to-day lives. At the same time, the popularity of trails has been increasing steadily. Outdoor recreation, trails in particular, is recognized as one of the top three recreational needs in New Braunfels. In the 2017 Parks Strategic Master Plan 48% of survey respondents supported improving the existing trail system, 46% indicated support for connecting parks to city-wide trails, and 43% indicated support for developing new trails. The

Dry Comal Creek Greenway Master Plan is the first to respond to this outdoor recreational need.

This Master Plan is intended to set forth a clear vision for the future phased development of the Dry Comal Creek Greenway in New Braunfels. This non-motorized greenway is envisioned to serve a diverse range of users, providing safe and well-maintained linkages to important natural, cultural and civic destinations, neighborhoods and other points of interest within the City.

The development of the Master Plan was overseen by the Dry Comal Creek Greenway Stakeholder Committee, New Braunfels Parks and Recreation Department, and the National Park Service. The Stakeholder Committee was made up of representatives of city and county government, state agencies, trail advocates, the business community, and adjacent landowners. Each serve in a leadership role in the development of





the Greenway Master Plan but rely on the efforts of various local and regional agencies, advocacy groups and property owners for trail implementation.

To date, there are approximately 13.5 miles of multipurpose trails and 13 miles of bike facilities in New Braunfels. The existing Dry Comal Creek Trail is 2.25 miles of completed natural trails wrapped around the Little League baseball fields off Loop 337. The Dry Comal Creek Greenway is envisioned to be a 5 to 6 mile multipurpose greenway extension from the existing nature trail. It is organized in four (4) phases for development based on location, topography, and roads.

The Dry Comal Creek Greenway is both a short and long-term initiative that is designed to be complementary to other planning initiatives in the City. It will be implemented by the City through its own efforts and through partnerships with a variety of organizations that share an interest in trails. The City will guide the development and maintenance of trail infrastructure and programs. It will also provide the steps and tools necessary for implementation. Some of the key objectives of the Dry Comal Creek Greenway Master Plan were to initiate contact with property owners, to gauge public interest, and to identify greenway standards and amenities for future planning and construction.

Public input was a key component of the planning process. Property owners and residents were contacted at various times throughout the planning process and invited to attend meetings, workshops and take online surveys. During the process property owners were informed that only voluntary acquisition or easements would be used in the design and construction of the trail. Routes or alignments that need to be taken on street would also be evaluated. This Master Plan did not determine a specific alignment, instead it segmented the Greenway and recommended future feasibility for these areas to determine a preferred alignment.

## **PLAN GOALS AND OBJECTIVES**

The Master Plan included five Goals:

### **1 DEVELOP A PLAN FOR GREENWAY PROJECTS**

### **2 INCREASE TRAIL RECREATIONAL OPPORTUNITIES**

### **3 PROVIDE A TRANSPORTATION ALTERNATIVE**

### **4 INCREASE INFORMATION ABOUT CONSERVATION AND EASEMENT FOR TRAILS**

### **5 CREATE A LOCAL MODEL FOR GREENWAY PLANS**

The planning process used opportunities and constraints identified by the committee, stakeholders, and the public to inform the recommendations and implementation strategies. Additionally the Master Plan includes design standards and funding strategies to serve as a resource and reference guide for City departments, trail advocates, and stakeholder groups with regard to planning, design and construction of the greenway trail.

## **CALL TO ACTION**

This plan is intended to be a living document.

New Braunfels will continue to grow and is literally changing the landscape of Comal County. Consequently, the needs and desires of the people and wildlife along the rivers and creeks will change with it.

Successful development of the greenway trail system will take years to accomplish. It will require strong partnerships among governmental bodies, community groups, businesses and landowners. You are invited to contribute your ideas and resources to the realization of this vision as a resource for all. We hope you will become a local partner in this important quality-of-life improvement for our community.



# AN INVITATION TO THE READER

From downtown's charm and Gruene's quaint shops to the excitement of the City Tube Chute and floating down the Guadalupe River, New Braunfels residents new or old love it here. We've got something really good y'all. We are blessed to be the gateway to the Hill Country and nestled between two of the strongest growing economies in Texas—San Antonio and Austin. As we benefit from this growth and economic prosperity, we should pause and consider what we want to preserve, polish, and change. How do we distinguish New Braunfels? What makes New Braunfels, well New Braunfels – rivers, creekways, parks, people, community, culture?



In 2017, you (and your neighbors) told the City through the Envision New Braunfels and the Park Strategic Master Planning processes that you loved your City parks. But you wanted more. Specifically, you told us to invest more in outdoor recreation features such as walking and hiking trails, kayaking, nature education, and safer walking and biking areas. Thank you for loving our many parks and telling the City what to focus efforts on to meet your requests. Now we would like to invite you to help fulfill your desire for more outdoor recreation through an effort underway to establish a greenway trail system. The proposed project intends to be the next step toward the development of a Dry Comal Creek Greenway that will help to preserve local heritage, polish new green space and will offer a different experience for residents to recreate, learn, and live.

Imagine a greenway trail system throughout New Braunfels where meandering pathways along a bubbling creek, dotted with Texas wildflowers and white-tail deer lead you from your neighborhood to downtown, parks and the rivers. Or suppose a greenway trail





corridor that ties seamlessly into regional corridors from San Antonio and San Marcos or even Austin – just as the El Camino Real de Los Tejas did in the past.

A greenway trail network will provide routes for our children to walk to school in safety. It will offer inviting places for families to walk, hike, and bike for recreation, exercise, or to simply enjoy nature. It will also strengthen local and regional economies through increased property values, bolstered tourism, and new business investment drawn to the improved quality of the community. A greenway trail system keeps us connected to the past and lead us toward a stronger the path for the future.

Reading this plan will answer most questions about the greenway vision for the Dry Comal Creek. While the plan explains the many tangible benefits of greenway trails, we hope it will also inspire you to support and partner with us to bring the project to reality.

Successful development of the greenway trail system will take years to accomplish. It will require strong partnerships among governmental bodies, community groups, businesses and landowners. It requires your voice, your ideas, and your support.

Furthermore, this plan is intended to be a living document. New Braunfels will continue to grow and is literally changing the landscape of Comal County.



THE EL CAMINO REAL DE LOS TEJAS NATIONAL HISTORIC TRAIL WAS A THOROUGHFARE FROM THE 18TH-CENTURY SPANISH COLONIAL ERA IN SPANISH TEXAS INSTRUMENTAL IN THE SETTLEMENT, DEVELOPMENT AND HISTORY OF TEXAS.

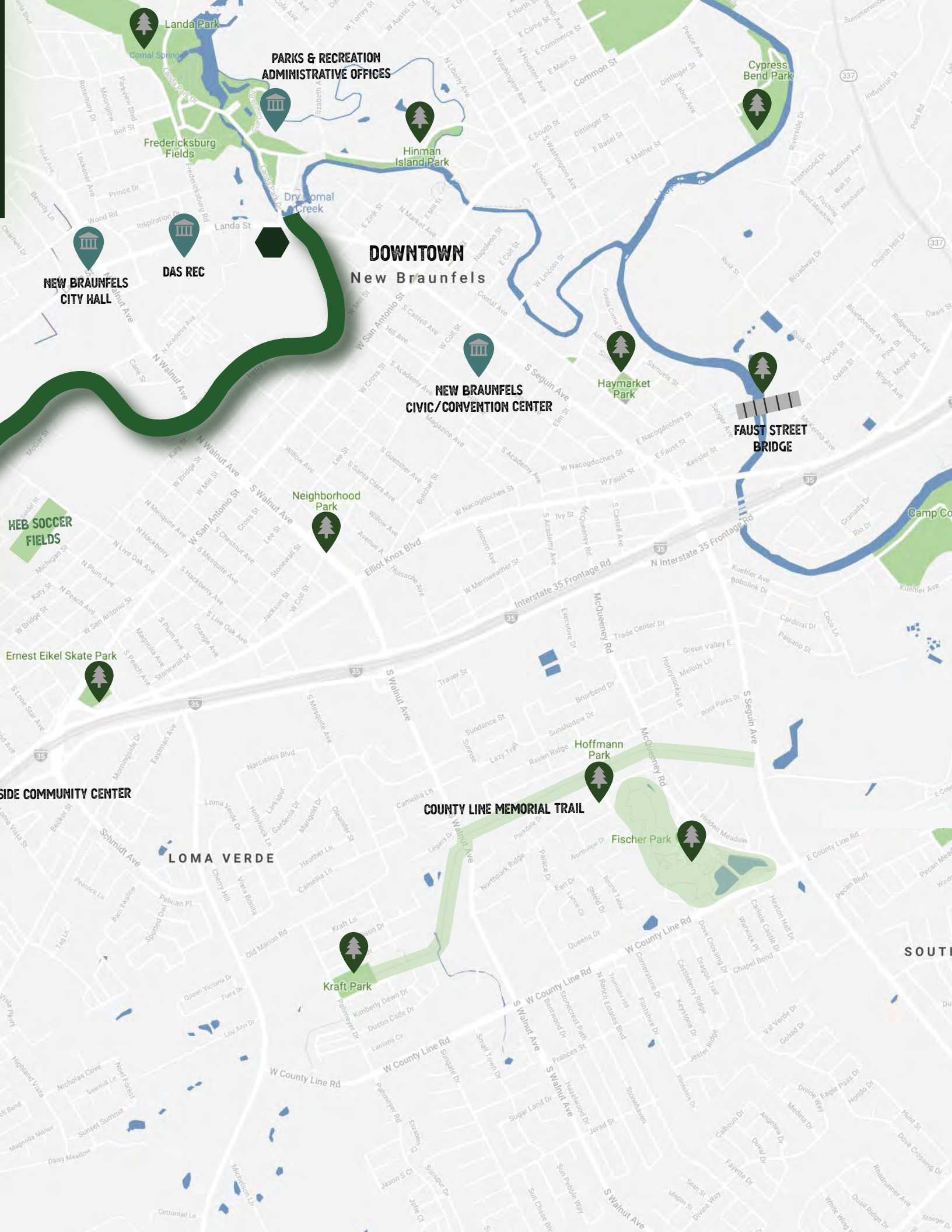
Consequently, the needs and desires of the people and wildlife along the rivers and creeks will change with it. You are invited to contribute your ideas and resources to the realization of this vision as a resource for all. We hope you become a local partner in this important quality of life improvement for our community. Whether new to the community or a native, we hope you can imagine the possibilities of the Dry Comal Creek Greenway.



# DRY COMAL CREEK GREENWAY CONCEPTUAL MAP







**PARKS & RECREATION  
ADMINISTRATIVE OFFICES**

**Cypress Bend Park**

**DOWNTOWN  
New Braunfels**

**NEW BRAUNFELS  
CITY HALL**

**DAS REC**

**NEW BRAUNFELS  
CIVIC/CONVENTION CENTER**

**FAUST STREET  
BRIDGE**

**Neighborhood  
Park**

**HEB SOCCER  
FIELDS**

**Ernest Eikel Skate Park**

**SIDE COMMUNITY CENTER**

**COUNTY LINE MEMORIAL TRAIL**

**LOMA VERDE**

**Hoffmann Park**

**Kraft Park**

**SOUTH**



# ABOUT NEW BRAUNFELS





*"The thought came to me involuntarily upon viewing the city and beautiful fruitful valley from a distance, what an earthly paradise could be created here through the hands of an industrious and cultured population."*

– Dr. Ferdinand von Roemer, 1845

On March 21, 1845 Prince Carl of Solms-Braunfels led a German immigrant wagon train up the Guadalupe River to the ford of the San Antonio-Nacogdoches road. There they made camp at a site on Comal Creek (now Dry Comal Creek) and promptly organized to receive later arrivals from the Adelsverein. The land was located northeast of San Antonio along the El Camino Real de los Tejas. Within weeks Prince Solms had laid the cornerstone for New Braunfels.

Today the city is situated at the confluence of the Guadalupe and Comal rivers and the intersection of Interstate Highway 35 and Farm Road 725, 30-miles northeast of San Antonio and 45-miles southwest of Austin near the southeastern border of the county. It is the county seat of Comal County, Texas. This area is along the Balcones Escarpment, a line of low hills that extends through central Texas. This escarpment marks the break



between two major geologic divisions: The Hill Country/Edwards Plateau uplands on the western side of the escarpment, and the Blackland Prairie on the east.

Beginning as an agricultural community, it later supported other industries due to the location along the rivers and rail lines. By 1936 the city had purchased park lands of Cypress Bend and Landa parks. Landa Park began to develop as a tourist destination for weekend excursions from San Antonio. Tourism in New Braunfels accelerated in the decades following World War II, when Interstate Highway 35 was completed and when local merchants and investors began to capitalize on the natural and historic attractions offered by the city and its natural resources.

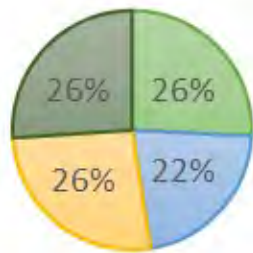
Source: <https://tshaonline.org/handbook/online/articles/hen02>





While New Braunfels was once a quiet, charming, rural community in the Texas Hill Country, it is now a rapidly urbanizing city. The U.S. Census Bureau recently named it the second fastest growing city in the country among cities with a population of 50,000 or more. Current 2016 population estimates put the city population, including the extraterritorial

## Percent by Age



0-17 18-34 35-54 55 and Over

*Source: New Braunfels Parks Strategic Plan 2017*

jurisdiction, at about 90,000 residents. The population is about evenly spread into four age segments under 18 (25.7%), 18-34 (21.6%), 35-54 (26.3%), and 55 and over (25.9%).



The City of New Braunfels will celebrate its 175th birthday in 2020.

Additional Census figures recently released show that Comal County held at the second fastest growing county in the nation for year-over-year percentage growth from 2017 to 2018.

This growth is attributed to the strong economic base within the community. According to the Economic Development Corporation, the New Braunfels community boasts diverse industries including distribution, manufacturing, data centers, health-care related, and aviation industry.

Continued infrastructure improvements, like roads, schools, and parks will be required as the population grows. A trail and greenway network are an attractive, cost-effective way to meet growing demands for green space. Additionally, a greenway trail can also be a way to maintain the connection to the City's history and legacy. A greenway through history can remind new and old residents alike of the natural resources that inspired the Native Americans and allowed the German settlers to build and sustain its new community.





# PROJECT OVERVIEW





## BACKGROUND

The existing Dry Comal Nature Trail is a 2.25-mile looped trail located off Loop 337 surrounding the Little League Ball fields. It was established in 2003 by the Parks and Recreation Department and volunteer groups. Today, it offers wildlife viewing and recreation opportunities, and is the only mountain bike trail in the City's park system.

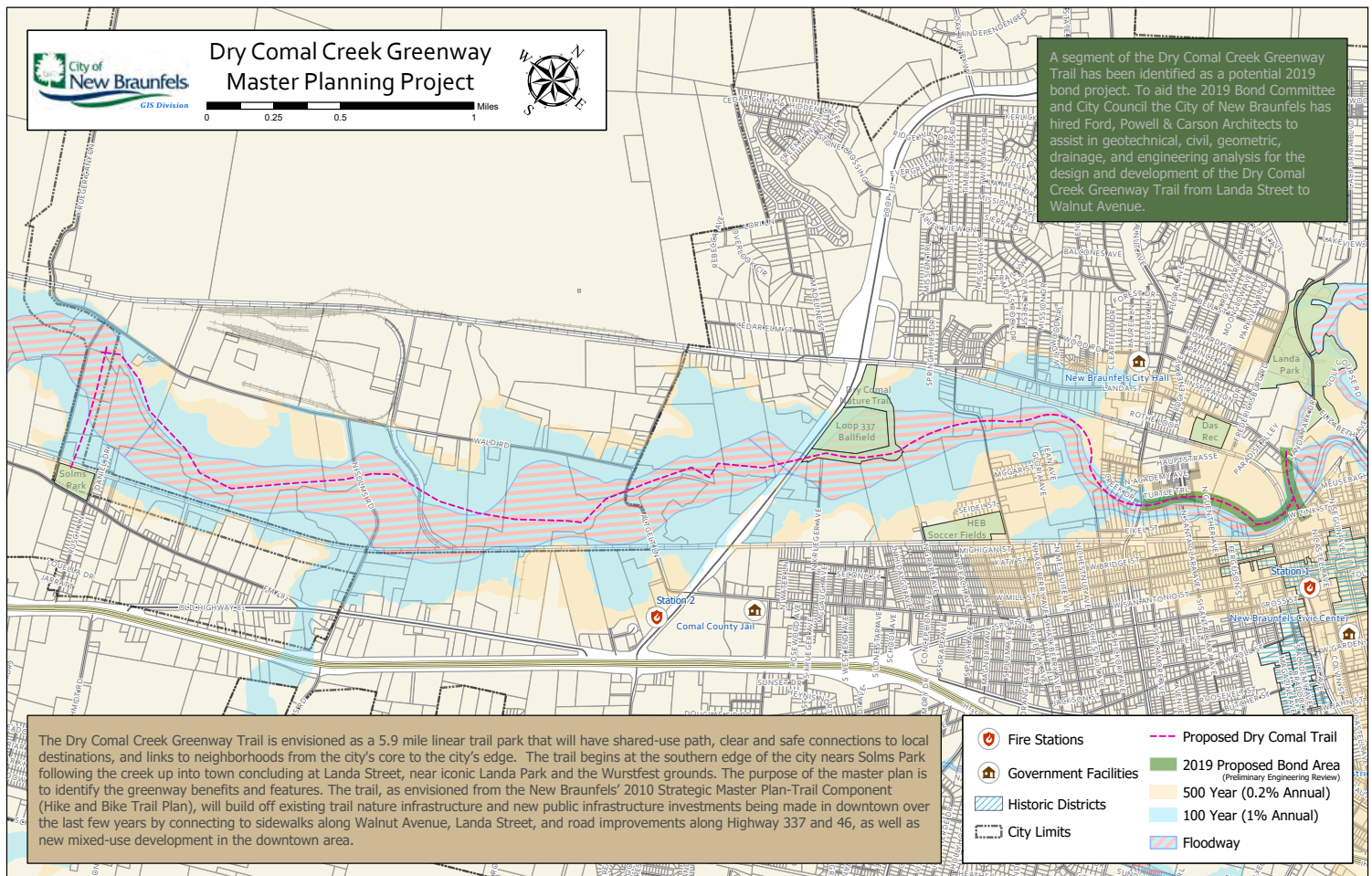
In 2010, the City's Parks Master Plan identified the Dry Comal Extension as a key priority project for developing a city-wide trail system that connects all of New Braunfels. The community vision proposed expanding the existing trail to extend north toward the town center and south toward Solms Park and neighboring communities. The northbound section of the proposed greenway trail is approximately two miles from the nature trail. Heading south along the creek outside of Loop 337 the trail extends another three to four-miles toward Solms Park. In total, the approximate greenway mileage would

be six miles along the Dry Comal Creek. The trail would incorporate access for walking, biking, wildlife watching and outdoor education.

In 2013, the residents approved a \$86 million Bond Program that included \$20 million for parks and open space. This bond included the Dry Comal Creek Trail if there were remaining funds from the other projects. No available funding remained from the Proposition 3 projects and the Dry Comal Hike and Bike Trail Improvements were not funded.

## TECHNICAL ASSISTANCE

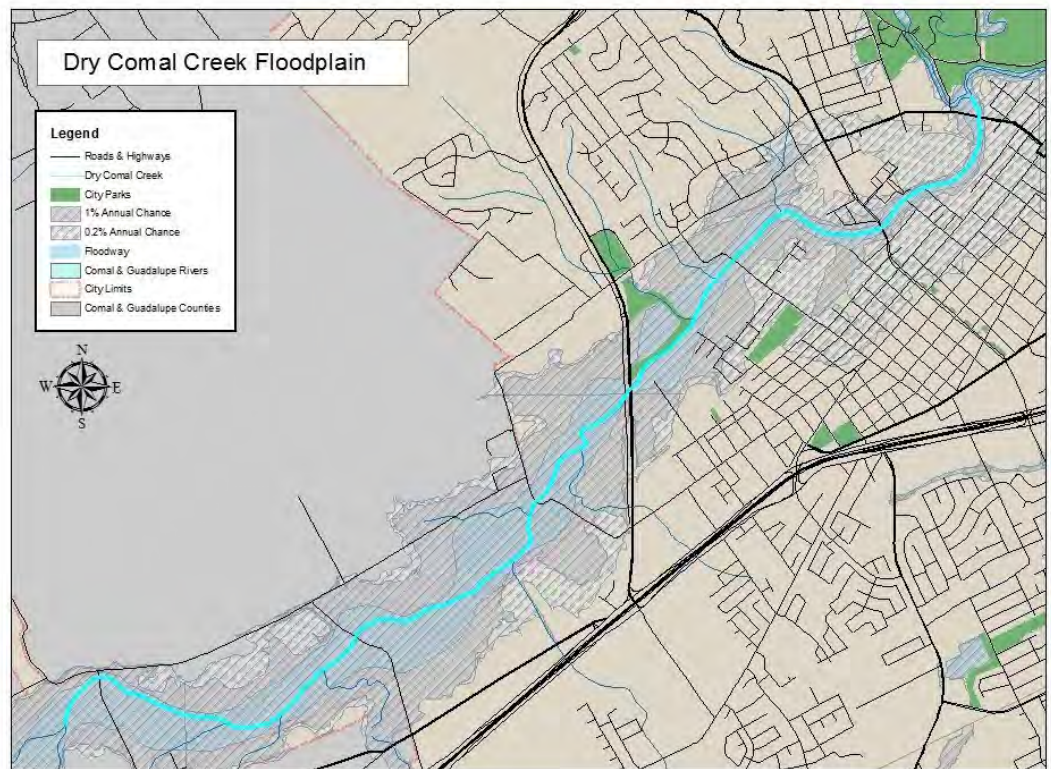
It was clear after public input from both the Parks Strategic Master Plan and City's comprehensive planning process that the public still had an interest and desire to see the Dry Comal trail idea come to life. In late 2017, the City of New Braunfels was awarded a technical assistance grant from the National Park Service's Rivers, Trails and Conservation Assistance program to develop a master plan for the Dry Comal





Trail expansion. The NPS agreed to help with:

- Defining the project vision and goals
- Identifying and analyzing the key issues and opportunities around the Dry Comal corridor
- Identifying and engaging partners and stakeholders with interest in a City-wide greenway system
- Inventorying and mapping of community resources
- Identifying funding sources
- Creating a framework for public engagement for trail projects



The overall greenway project extends a total of six miles and is in the city limits of New Braunfels, Texas and unincorporated parts of Comal County. The geographic scope of the project is within the creek's 100-year floodplain.



The proposed route is based on the adopted 2010 City's Hike and Bike Trail plan. Its alignment is not specific to parcels, but begins along the creek. Any future alignment decisions will consider modifications to accommodate property owners, roads, topography and other conditions.

## RELEVANCE TO OTHER PLANS

This Master Plan builds off existing local, regional, and state plans, policies, and initiatives. The Dry Comal Creek Greenway Master Plan will serve as an implementation strategy for various policies and initiatives from these plans, while strengthening efforts for walking and bicycling in New Braunfels and the region.

While the City is blessed with lush natural

resources, signature parks and tourism amenities, the exponential growth is creating challenges for access to park and green space. Rapid residential development is occurring in areas located further out from the city center leaving residents without a local public trail or park within walking or biking distance.

In 2017, the City of New Braunfels updated and approved a Parks and Recreation Strategic Master Plan. The purpose of the Plan was to provide guidelines and strategies for future acquisition and development of recreational facilities and opportunities for the City of New Braunfels. Trails and outdoor recreation topped the list of desires by residents.

The following were identified as Key Unmet Facility Needs:

- River access/canoe kayak-launch areas
- Walking and biking trails
- Adventure areas
- Paved/unpaved trails

Later in 2018, the Envision New Braunfels Comprehensive Plan was officially adopted by the Planning Commission and City Council. Envision New Braunfels is a comprehensive plan that establishes a vision and framework for the future of New Braunfels.



It establishes priorities and more detailed plans for specific areas of New Braunfels (sub area plans) and for detailed topical plans (such as parks and open spaces, trails and roads). Within the area of Parks,



Envision  
New Braunfels  
A SPECIAL PLACE BY DESIGN

Recreation and Open Space, Envision New Braunfels, current calculations are 7.7 acres of park land per 1,000 in 2017. It recommended 10.10 acres of park land per

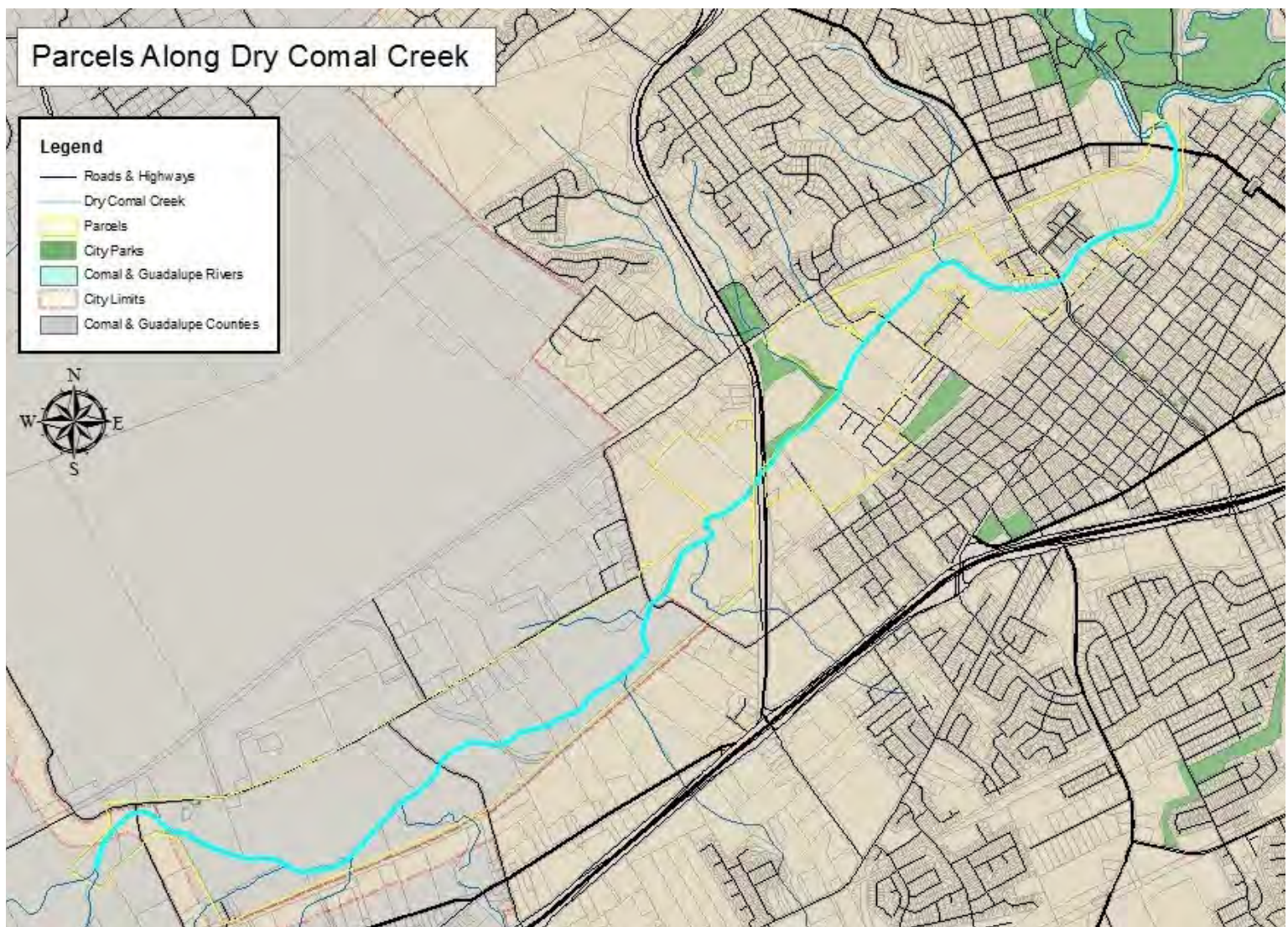
1,000 residents by 2027, based on resident priorities. It was determined that 649 acres of parkland would need to be added to the City's park inventory to reach the community-desired goals. This goal could include greenway trails.

The Dry Comal Creek trail concept began as a small effort to utilize a natural area as a public greenspace.

Its popularity has grown into a community desire to extend the trail and build a greenway system of trails that connect all of New Braunfels allowing residents to go from one end of the city to the other in a fun and healthy way. More recent plans envision a complete and seamless network of on/off-street trails that give residents a fun, healthy way to recreate, enjoy nature, and commute.

**For more information about these plans visit:**

- [2017 Parks Strategic Master Plan](#)
- [Alamo Area Bike and Pedestrian Planning Study](#)
- [Downtown Implementation Plan](#)
- [Envision New Braunfels – Parks & Open Space](#)
- [Economic Development Strategic Plan 2017](#)
- [Texas Department of Transportation Tourism Trails Study](#)





# PLANNING PROCESS





In the summer of 2017, the City of New Braunfels worked with strategic partners to submit an application for National Park Service assistance in developing a Greenway Master Plan for the Dry Comal Creek. The partnership effort was awarded the assistance of the National Park Service (NPS) through its Rivers, Trails and Conservation Assistance Program (RTCA).

One of the first tasks in the planning process was to gather representatives that would serve as a committee to guide the planning process. Representatives from Comal County, the Comal Trails Alliance, the Alamo Area Metropolitan Planning Organization, and the Texas Department of Transportation were invited to join representatives from the City of New Braunfels to become the Steering Committee for the Dry Comal Greenway Master Plan. Staff from the City of New Braunfels included representatives of the Parks and Recreation Department, the Planning Division, the Engineering Division and the Watershed Management Division. Facilitated by the National Park Service, this large group of interests was sought to ensure a broad base that reflected diverse community perspectives.

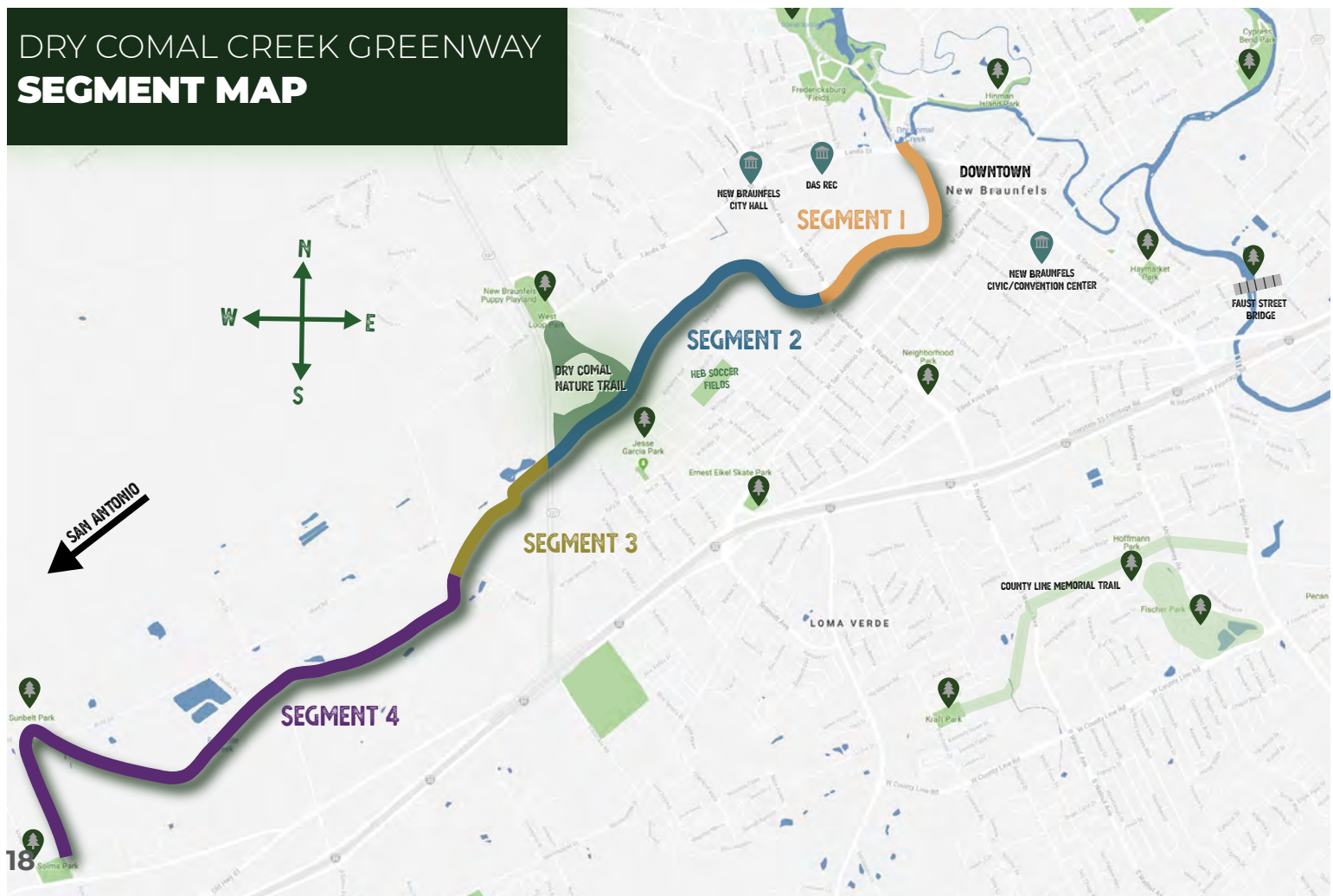
In the spring of 2018, the Steering Committee began to meet regularly with the NPS planners to shape the scope and look of the Dry Comal Greenway Master Plan.

Following the establishment of the Steering Committee, the group met and defined the planning corridor. Collectively, the group identified four distinct segments for the purposes of identifying key neighborhoods and stakeholder groups surrounding the creek corridor. The four segments defined begin from the southern end of the City.

- Segment 4: Solms Park to Altgelt Lane (Cemex and UP portion)
- Segment 3: Altgelt Lane to Loop 337/Ballfields
- Segment 2: Ballfields to Walnut Avenue
- Segment 1: Landa Park to Walnut Avenue (Town Creek portion)

The Steering Committee at this time also reviewed topography data and identified other key stakeholders that would have interest in the planning corridor and important insight to include in the planning process.

## DRY COMAL CREEK GREENWAY SEGMENT MAP





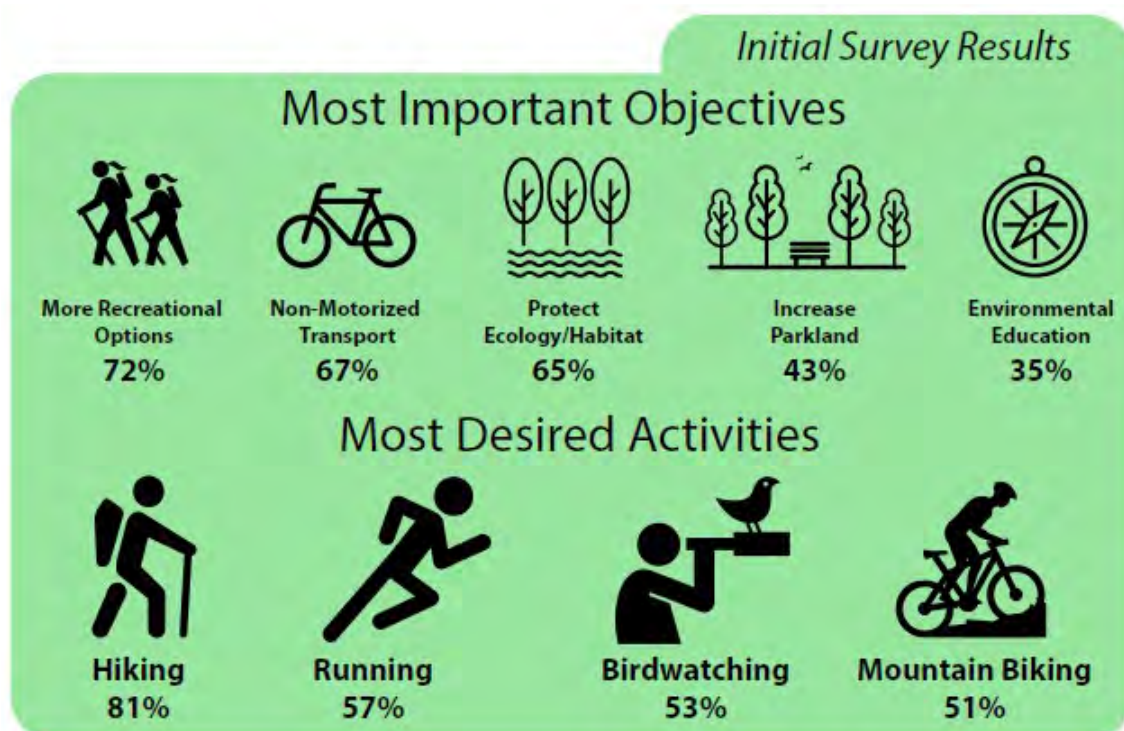
These key stakeholders included adjacent property owners, commercial property owners, neighborhood associations, the Chamber of Commerce, educators, historians, and more.

In the spring of 2018, the City's Bond Advisory Committee delivered to City Council their recommendations for potential projects for a citywide bond election. The Dry Comal Hike and Bike Trail, Segment 1 was approved for further study. The preliminary engineering study provided the steering committee an opportunity to work with Ford, Powell & Carson Architects team and delve into the possibilities along Segment 1. The two groups hosted a joint community meeting for broad public comment. The community meeting was held August 22, 2018. It was very well-attended, approximately 75 attendees, by various members of the greater New Braunfels area. Meeting attendees were invited to contribute their thoughts and comments in a variety of ways. Maps were laid out for comments and markings, both positive and negative. Idea boards were displayed throughout the venue. Participants were encouraged to leave their comments in writing for inclusion in the planning process. A compilation of those comments can be found in the appendices. Meeting participants were also invited to fill out a brief survey. The results of that survey are included in the appendices.

Although the New Braunfels City Council decided not to include the Dry Comal Trail on the final bond project list, the Steering Committee continued its planning and community engagement efforts. Additional outreach efforts were focused on an online survey, pop-up events and festivals. The online survey was promoted on city's website and social media outlets, as well as with partner organizations.

The pop-up events were hosted primarily at the public library weekdays and evenings. At the festivals, city staff hosted tables with maps, preference image surveys, and a paper questionnaire. The survey instruments were all the same format from the public meeting, online survey, and pop-events. The Steering Committee hosted a second community meeting on November 14, 2018. The meeting utilized the same format as the August meeting, with maps, storyboards, notepads, and flipcharts for community input. A paper version of the community survey introduced at the August meeting was provided for further input collection. The results of the entire surveying process, both online and in-person (paper copies) are included in the appendices.

Following the public engagement and input, the Steering Committee members met to review community input gathered at the various community meetings, workshops, events and via the online survey and to determine next steps. By this time the Steering Committee had grown to include the Comal County Conservation Alliance and the Columbus Club. It was decided that the Steering Committee would host two special workshops: one focused on Safety and Security and a second focused on land conservation options for property owners.



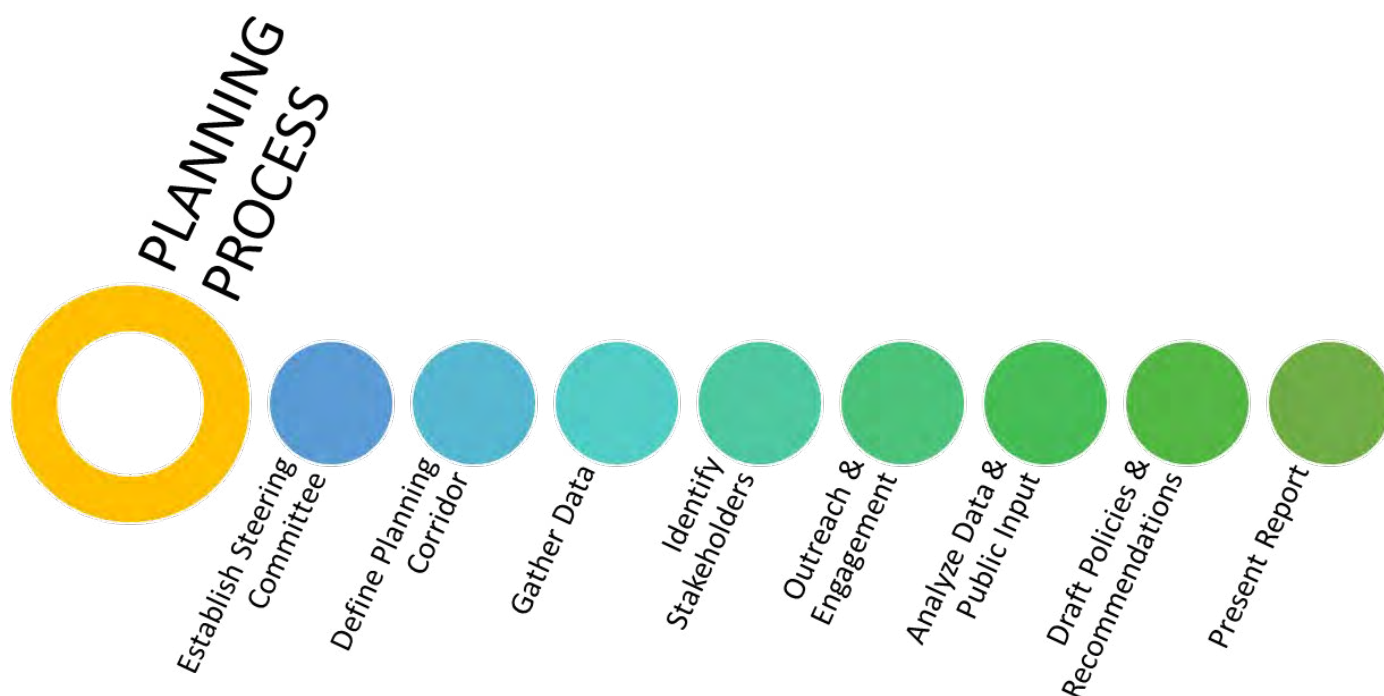


On March 20, 2019 the Steering Committee hosted a workshop for New Braunfels area law enforcement and emergency management personnel. The workshop focused on Safety and Security. Two guest panelists representing the City of San Antonio Linear Creekway Parks Program and the City of San Antonio Park Police were invited to contribute their expertise and experiences. The workshop participants were asked to identify leading safety concerns and to identify solutions. The results are included in the appendices, as is a case study presentation of the San Antonio Linear Creekway Parks Program.

On July 10, 2019 the Steering Committee hosted a workshop for property owners focused on land conservation strategies for landowners. Four guest panelists representing the Comal Trail Alliance, the Comal County Conservation Alliance, the Hill Country Alliance and the San Marcos Greenbelt Alliance were invited to contribute their expertise and experiences. The workshop participants contributed input via keypad polling and were invited to an extensive Q&A session with the panelists. A case study presentation of the work of the San Marcos Greenbelt Alliance is included in the appendices.

The Steering Committee took all of the community and stakeholder comments, all the data and input collected throughout the planning process, and multiple contributions from subject matter experts and compiled it into this Dry Comal Creek Greenway Master Plan. The concepts and recommendations proposed in the Dry Comal Creek Greenway Master Plan are intended to be the first steps toward the long-term development of not only a Dry Comal Trail and Greenway system, and but also a citywide greenway system linking to neighborhoods to community parks, employment, shopping and entertainment and other desirable areas. Successful development of this network will require strong partnerships among governmental bodies, community groups, businesses and landowners.

The City will continue to develop partnerships and add “Success Stories” to the Dry Comal Creek Greenway Master Plan as initiatives and projects are implemented. Project partners will implement projects within their jurisdictions as opportunities and resources allow. The reader of this plan is invited to contribute her ideas and resources to the realization of this vision by visiting [www.nbtexas.org/drycomalgreenwayplan](http://www.nbtexas.org/drycomalgreenwayplan).





# GREENWAY GOALS & OBJECTIVES





# GREENWAY VISION & GOALS

Any process for developing a greenway trail should be community-driven and completely voluntary. The vision and goals of this project were assembled based upon discussions and feedback received from public meetings, steering committee and community survey. This planning effort is aimed at helping the community determine a path forward in the community vision, future alignment determination, partnerships and funding.

## GOAL 1

### DEVELOP A PLAN FOR GREENWAY PROJECTS

- Develop a list of short and long-term recommendations for the Dry Comal Greenway
- Identify potential funding opportunities for trails

## GOAL 2

### INCREASE TRAIL RECREATIONAL OPPORTUNITIES

- Create a greenway trail that serves as the model and spine for citywide hike and bike network to connect neighborhoods to downtown, shopping, employment and schools
- Provide more outdoor recreational opportunities to more residents in the city
- Highlight new recreational opportunities along the trail

## GOAL 3

### PROVIDE A TRANSPORTATION ALTERNATIVE

- Develop trail as an alternative route for non-motorized modes of transportation for travel to parks, shopping areas, government facilities, schools or other desirable destinations.

## GOAL 4

### INCREASE INFORMATION ABOUT CONSERVATION AND EASEMENT FOR TRAILS

- Use trails projects, like the Dry Comal Creek Greenway, as a way to help increase local park land for residents.
- Increase awareness for land owners about land conservation or easement opportunities on trails.

## GOAL 5

### CREATE A LOCAL MODEL FOR GREENWAY PLANS

Develop public engagement strategies that attract participation and feedback in the planning process

- Identify opportunities for continual feedback and participation
- Create internal contact list of partners and residents interested in trails
- Provide examples for memorandum of understanding, inter-local agreements, and resolutions in support of trails

Using these goals, the Plan will shape the opportunities and constraints into recommendation and implementation strategies to see the project from planning to construction.



# OPPORTUNITIES & CONSTRAINTS





Working within the context of existing conditions, this section provides background information about the benefits and the constraints of a planned greenway while helping to inform future greenway routing decisions (within the right-of-way), programming, policies and facility design issues. The analysis builds from a foundation of:

- GIS data,
- Limited field observation/assessment,
- Industry standards and BMPs for watershed management, transportation, parks and planning
- Input provided by the Dry Comal Stakeholder Committee, and
- Input collected from the Public Workshops, Online Survey, and conversations with other key stakeholders (rangers, police, fire, private land owners and businesses).



The planning effort conducted by the NPS did not include a complete survey of the area, ROW, title research, land, detailed mapping, utilities coordination, land cost appraisals, or hydrological studies. Only one segment, Segment 1, along the proposed trail include more of this detailed information.

There are numerous benefits to greenways such as offering low-cost recreational opportunities; safe, alternative form of transportation; substantial health benefits; habitat enhancements for plants and wildlife, and unique opportunities for outdoor education and cultural interpretation. The key benefits identified in this plan are prompted from various planning documents (2017 Envision New Braunfels Comprehensive Plan; Strategic Parks and Recreation Master Plan, Trail Component, 2010; Downtown Implementation Plan, 2010;

Regional Transportation Plan, 2012; Mobility 2040; Regional Bicycle & Pedestrian Planning Study) and are supported by Dry Comal Creek Greenway survey results, public meetings and steering committee feedback. As with any greenway project there are also constraints needing to be identified and addressed to help progress the vision or goals of a specific project. Generally, constraints may serve as a starting point for further investigation and new ideas on alternatives.

## RECREATION

One of the most evident benefits of greenway trails is its recreational element. Greenway trails add to a community's portfolio of outdoor recreational activities, such as running, biking, hiking and nature and wildlife observation. These activities often require minimal facilities or development with little or improved environmental impact on the recreational site. Another recreational benefit to a greenway trail is it offers a low-cost opportunity for anyone of any ability or age looking for an easy way to increase physical activity while in nature.

The 2017 Parks Strategic Master Plan surveyed residents about park and trails. About 50 percent of the survey respondents want the City to improve the existing trail system, connect parks to city-wide trails and develop new trails. Walking and biking trails, paved and unpaved trails and open space/conservation trails were the top three most needed facilities by survey respondents. In analyzing the activities and programs that are most important to respondents' households the 2017 Strategic Plan has

The following is a list of the most supported actions that the City of New Braunfels can take to IMPROVE the parks, trails & recreation system.	
Improve existing trail system	48%
Improve existing playgrounds	47%
Connect parks to a city-wide trails system	46%
Purchase land to preserve open space and natural areas	46%
Improve public river access	46%
Develop new paved walking/biking trails	43%
Purchase land to develop future community and regional parks	43%
Improve aging infrastructure at City Tube Chute/Hinman Island Park	43%

(Source: City of New Braunfels Parks Strategic Master Plan 2017)





identified the trails and associated activities as the highest priority for investment. (Source: City of New Braunfels Parks Strategic Master Plan 2017)

## HEALTHY LIFESTYLES

According to a report from the National Recreation & Parks Association, adults living within a half mile of a park, visit parks and exercise more often. However, according to the 2014 State Indicator Report on Physical Activity, less than 38 percent of the U.S. population lives within a half mile of a park. The Dry Comal Creek Greenway is six miles long and touches many residential areas. If constructed the greenway would provide trail and park access to nearly 10,000 residents within a half mile of the greenway. Access to the trail provides a potential opportunity for increased physical activity. Any increase in physical activity can lead to medical cost savings. The annual individual medical cost of inactivity (\$622) is more than two and a half times the annual cost per user of bike and pedestrian trails (\$235).<sup>1</sup>

Lead author Caoimhe Twohig-Bennett, from UEA's Norwich Medical School, said: "Spending time in nature certainly makes us feel healthier, but until now the impact on our long-term well-being hasn't been fully understood." Evidence gathered from Twohig-Bennett's work studied data from 20 countries including the UK, US, Spain, France, Germany, Australia and Japan. The team analyzed how the health of people with little access to green spaces compared to that of people with the highest amounts of exposure. They found that "People living closer to nature also had reduced diastolic blood pressure,

heart rate and stress." In particular the team was able to uncover that exposure to greenspace reduces people's levels of salivary cortisol -- a physiological marker of stress.<sup>2</sup> The conclusion is that when people are living near greenspace one is likely to have more opportunities for physical activity and socializing.

The NPS and the Centers for Disease Control (CDC) partnered to create a resource for planners, parks & recreation professionals, and health practitioners called "Parks, Trails and Health Workbook." The NPS and CDC believe strongly that "parks and trails support community and individual well-being. Access to these resources can help increase residents' physical activity, support mental health, and foster community and social interactions."<sup>3</sup>



### Health Benefits of Trails:

- Providing opportunities to practice healthy lifestyles
- Creating destinations and venues for physical activity
- Reducing stress and improving mental wellness
- Fostering community interaction & social support networks
- Providing beneficial, low impact use of sensitive areas, reducing injury and property loss that could occur if the land was used for other functions
- Reducing air and water pollution
- Mitigating urban heat islands
- Preserving important habitat, environmental, and cultural sites

While recreational benefits are a natural benefit of greenways, integrating these in communities can also prove to have health benefits that will improve the overall quality of life for residents.



Study co-author Prof Andy Jones, also from UEA, said: “We often reach for medication when we’re unwell but exposure to health-promoting environments is increasingly recognized as both preventing and helping treat disease. Our study shows that the size of these benefits can be enough to have a meaningful clinical impact.”

## IMPROVED WATER QUALITY & ENVIRONMENT

In general, greenways work to protect habitat, improve water quality and drainage. Designed properly, they serve as green infrastructure benefiting many aspects of a watershed. The Dry Comal Creek is an important tributary to the Comal and Guadalupe Rivers which serve as the lifeblood of the City of New Braunfels’ water recreation economy. Both New Braunfels residents and visitors frequent these rivers to swim, tube and fish. The Comal River is home to several federally-listed endangered aquatic species and the City of New Braunfels is a partner on the Edwards Aquifer Habitat Conservation Plan (EAHCP), a program designed to protect these species. The Dry Comal Creek and Comal River have been included on the State of Texas’ 303(d) impaired waterbody listing as being impaired for bacteria. A Watershed Protection Plan (WPP) has been developed by local stakeholders, and accepted by the U.S. Environmental Protection Agency, to help decrease bacteria loading to these waterbodies.

It is imperative that actions are taken to improve and protect water quality and the ecology of the Dry Comal Creek and the rivers that it feeds. Green infrastructure practices can be incorporated into greenways and in areas of new development to enhance recreational value, filter stormwater runoff and ultimately help to protect water quality of receiving waterbodies.

Green Infrastructure can be defined as an approach to water management that protects, restores or mimics the natural water cycle. Specifically, green infrastructure can help to manage stormwater runoff and minimize the discharge of pollutants to adjacent waterways while also providing recreational

and ecological benefits. According to the US Environmental Protection Agency, incorporating Green Infrastructure into park projects offers a variety of benefits to local communities.<sup>8</sup>

Incorporation of green infrastructure into the Dry Comal Creek Greenway can result in the following benefits:

### Water Quality

Significant water quality benefits can be realized by preserving riparian zones along waterways. Riparian vegetation along waterways helps to absorb and infiltrate stormwater runoff. Healthy and dense vegetation along waterways also helps to filter and remove pollutants from stormwater runoff, preventing pollutants from reaching adjacent streams and rivers.

Twohig-Bennett said: “We hope that this research will inspire people to get outside more and feel the health benefits for themselves. Hopefully our results will encourage policymakers and town planners to invest in the creation, regeneration, and maintenance of parks and greenspaces, particularly in urban residential areas and deprived communities that could benefit the most.”

### Improved Habitat

Greenways and green infrastructure can improve habitat for both terrestrial and aquatic species. Vegetated green infrastructure such as bioretention and native plantings can provide habitat for birds, lizards, and small mammals. Robust vegetation along waterways can provide shade to the adjacent waterway, protecting fish habitat by preventing increases in water temperature and decreases in dissolved oxygen. Green infrastructure can also help to minimize the discharge of pollutants to adjacent waterways, thereby benefiting aquatic species. Protected endangered species, such as the fountain darter, that live in the Comal River system would benefit from riparian area preservation and green infrastructure along the Dry Comal Creek.

Green infrastructure can be incorporated into the Dry Comal Creek Greenway to help achieve goals set forth



in the Dry Comal Creek & Comal River Watershed Protection Plan (WPP) and the EAHCP. Funding may be available through the WPP and EAHCP programs for the preservation of riparian areas and implementation of green infrastructure practices along the Dry Comal Creek Greenway.

## **INCREASE PARK LAND & OPEN SPACE**

Greenways near and along a creek can help communities increase access to public park land. A greenway is one low-cost way of acquiring new park land to meet the demand for new parks and open space for growing communities. Typically land within the floodplain has more regulations for building and construction of buildings or other vertical structures. These regulations can be cost prohibitive and are often left as unused land. This land may be easier to acquire land dedications or purchase below market value because of its limited land use.

A result new park land or open space preserved for conservation and developed for public use can translate into economic benefits by providing opportunities for community renewal, improved property values, and supports recreation-related spending in the community – biking, roller blades, binoculars, outdoor clothing, etc.

The City of New Braunfels currently provides a total of 7.7 acres of park land per 1,000 residents based on the City and ETJ's combined population of 91,611. The 2017 plan recommended an increase to 10.10 acres/1,000 population. To keep up with the projected population growth, the City will need to add a total of 649 acres to the parks and recreation system by the year 2027 in order to achieve the recommended standard. Securing greenways to meet this need will benefit the community and achieve the recommendation of the Park Strategic Plan.

## **BOOST ECONOMIC DEVELOPMENT**

Numerous studies have been done that validate the benefit of trails as important community amenities to spur and support local economies. There is no denying the positive connection between well-designed open spaces and trail and critical

economic indicators. Rails-to-Trails Conservancy white paper “From Trail Towns to TrOD: Trails and Economic Development” highlights several economic development benefits including boosting strong and economically vital communities.<sup>5</sup> The paper refers to a National Association of Homebuilders study cited by The New York Times, that trails are a primary amenity potential homeowners desire when they are looking at moving into a new community. Trails revitalize neighborhoods by spurring new housing development and businesses adjacent to the trail. Communities with trails can and have built local businesses through bicycle tourism. According to the report, the Virginia Creeper Trail in southwest Virginia see visitors spend \$1.5 million annually providing an estimated 27 new jobs.

Developing wildlife viewing opportunities can bring dollars to a community. Birding in the United States: A Demographic and Economic Analysis, an addendum to the 2011 National Survey published by the U.S. Fish and Wildlife Service, reported that bird watchers spend nearly \$41 billion annually on trips and equipment. In the research it showed local community economies benefit from the \$14.9 billion that bird watchers spend on food, lodging and transportation. In 2011, 666,000 jobs were created as a result of bird watching expenditures.<sup>6</sup> Comal County is host to the Comal County Birders who conduct an annual Christmas Bird Count, which supports the research and efforts of the Texas and National Audubon Societies.

New Braunfels boasts a strong tourism industry and a growing economy. In Envision New Braunfels, the plan recognized that talented and creative people seek areas with exposure to inspiring spaces, places, and people. Investing in greenway trail for New Braunfels will only continue to support the existing rich cultural heritage, stunning natural resources, and tourism amenities that provide a high quality of life new and existing residents desire.

## **MOBILITY & TRANSPORTATION**

Greenway networks can provide alternative transportation options that are currently unavailable



to the community. Residents who live in subdivisions near or outside of downtown areas would be able to walk or bike downtown for pleasure, work, or simply for recreation. Residents could circulate through on- and off-street corridors safely and efficiently through a developed greenway. Offering non-motorized forms of transportation can help to improve air quality and reduce traffic congestion.

In 2018, Bexar County's air quality was designated in non-attainment. Comal County is adjacent to Bexar and New Braunfels is the largest municipality in the county. Population projections have New Braunfels almost doubling in size again within 25 years, the City's air quality and transportation system will continue to face significantly higher demands. Providing alternative transportation modes can help to balance that future demand. Taking a proactive approach to improve air quality through increased transit service, bike and pedestrian facilities, like greenway trails provides residents more transportation alternatives to suit their needs. Regional Survey data collected about walking and biking in New Braunfels by the Alamo Area MPO reported a majority of survey takers would like to walk and bike more and rely less on their car.<sup>4</sup>

Local trail systems in San Antonio – Howard Peak Greenway, San Marcos – Emerald Trail, and Austin – the Violet Crown Trail are serving as the building blocks to larger regional trails that hope to connect communities along the IH-35 corridor.

## **EDUCATION**

Naturally there is an educational benefit to greenways, whether this is learning more about the local watershed or the wildlife and its habitat. Greenways where green infrastructure is used to improve ecology and water quality can be used to raise public awareness of the importance and type of measures that reduce stormwater pollution. Utilizing volunteers from local civic groups and schools to participate in planting of native vegetation along trails and within green infrastructure features such as bioretention basins and vegetated filter strips also serve an opportunity to educate the community. Contact with nature is a source of wonder and

inspiration for children, and essential to their healthy development and sense of spirituality. Research studies show that nature increases youth creativity, reduces stress, and helps kids who suffer from attention-deficit disorder.<sup>7</sup> Various research indicated that green settings improved attention and positively impact children diagnosed with attention deficit disorder as well as improve cognitive functioning and may regulate anger and aggression. A 2005 study by the American Institutes for Research found that kids who learn in outdoor classrooms improve their science scores by 27 percent.

In his award-winning book, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*, Richard Louv delves into the benefits of nature for children. He links the lack of nature in the lives of today's wired generation to troubling childhood trends, including the rise of obesity and depression. Louv spurred a national dialogue about the benefits of nature among parents, teachers, and health professionals referred to as the Leave No Child Inside movement. Educators and policymakers, concerned with the lack of children's connection to nature, enacted the No Child Left Inside Act of 2009 to help fund training and provide resources for environmental education.

## **TOPOGRAPHY**

The 2010 Hike and Bike Trail plan proposes an alignment that approximately follows the Dry Comal Creek. However, it does not dictate which side of the creek it should fall. Based limited access views and GIS data, the Dry Comal Creek has some topographic features that impact future alignment decisions and may create challenges for greenway construction and increases costs of trail development.

Segment 4 located within the Town Creek subdivision currently has a gravel trail on the northwestern side of the creek. A good portion of this already established trail is within the floodway.

## **LAND ACQUISITION & RIGHT-OF-WAY**

This Master Plan proposes a greenway trail along the Dry Comal Creek beginning at Solms Park and Sunbelt Park and continuing to Landa Street.

This proposed route lies within numerous private properties and would require voluntary donation, sale of land or easements by private property owners. This would require both time and resources for negotiation and acquisition. In total there are 72 parcels of land that are impacted by the proposed 2010 alignment, 48 of those are individual property owners. Some of these land owners include:

- Cemex
- Comal County
- Texas Department of Transportation
- Union Pacific Railroad

The proposed trail is located within the City of New Braunfels and Comal County. The approved 2010 Hike and Bike Trail shows the trail beginning at Solms Park and Sunbelt Park westerly along Rusch Lane then following the creek north paralleling Landa Street ultimately landing in the vicinity of Landa Park and Wursthof. The trail crosses two Union Pacific Railroad tracks and traverses the following streets:

- N. Solms Road
- Altgelt Lane
- Texas Loop 337
- N Live Oak Avenue
- A private driveway
- N Walnut Avenue
- N Guenther Avenue
- Landa Street

The project would be within existing Texas Department of Transportation and Union Pacific Railroad right of ways. Appropriate permitting will be necessary for both of these entities for construction of the project.

## PUBLIC SAFETY

Trail skeptics often express fears that a trail will increase crime and cause safety issues, however, the actual documented impact of trails is that they reduce criminal activity, increase regular monitoring and improve the public safety of previously disused spaces. Nevertheless, recognizing community fears or concerns are important to acknowledge early on in any process. Identifying best management practices and community-appropriate solutions can help build trust and buy-in with land owners adjacent to the trail and potential trail users.

For the Dry Comal Creek Greenway trail, other public safety concerns were identified by stakeholders including:

- Mid-block street crossings
- Heavy truck traffic areas from the quarry
- Railroad crossings
- Isolation/wayfinding/emergency access
- Lighting and visibility
- Wildlife – snakes, varmint, etc.
- Heat or lack of shade

## MAINTENANCE & OPERATIONS

Trail development is often championed by a small, very dedicated group without a long-term management and maintenance plan. Municipal management and maintenance of the trail is an opportunity assuming manpower and equipment is available to handle many day-to-day maintenance tasks. On the other hand, local government budgets can be strained while priorities change along with administrations.

### REGIONAL SURVEY HIGHLIGHTS

Data from the U.S. Census Bureau about travel patterns is limited to commuting to work. Additional data about biking and walking was collected by the AAMPO as part of this study. That survey reveals a significant interest in more transportation options, including walking and bicycling. While nearly all respondents said they use their car on a daily basis, a majority reported that they'd like to walk and bike more and rely on their car less.

#### daily travel use

According to a regional survey, driving is the dominant form of travel. Nearly all survey respondents reported using a car on a daily basis, yet 17.6% and 8.6% reported they walk or ride their bike on a daily basis.



#### interest in biking and walking





## ENVIRONMENTAL

Based on GIS analysis, the primary Dry Comal Greenway sits primarily in the floodway, floodplain, and riparian zone of the 6-mile corridor. Future efforts of the project may need to assess, verify and delineate any environmentally sensitive areas and establish a design approach to minimize impacts. Potential environmental and stormwater permits or regulations may be required to address impacts to wetlands and the floodplain. During the preliminary engineering report (PER) for the Dry Comal trail (Segment 4), the City expressed interest in including water quality features with the construction of the trail project. The PER did not recommended features located near the trail edge because it was within the 100-year floodplain. If any features are placed within the 100-year floodplain, they would be susceptible to damage during a 100-year flooding event.

## LANDSCAPE DESIGN

The trail type recommended for the Dry Comal Greenway is concrete. Some of the public feedback expressed a desire to keep the trail natural or with a soft surface option. City stakeholders indicated that a soft-surface trail particularly in the floodplain will require constant maintenance that is not sustainable by City staff. The city has determined that a concrete trail is the best and most cost-effective solution for multi-purpose greenway trails.

It is recommended that the city evaluate alternatives that may honor the desire for a soft surface trail. Consider options to tint the concrete to provide a more natural concrete color or consider, if financially feasible, resin-based stabilized material. When planning it may also be appropriate to identify areas, trails spurs, that would remain natural or with a soft-surface.

City and or partners should consider options that meet the ADA accessibility standards and park standard for long-term maintenance.

## COSTS

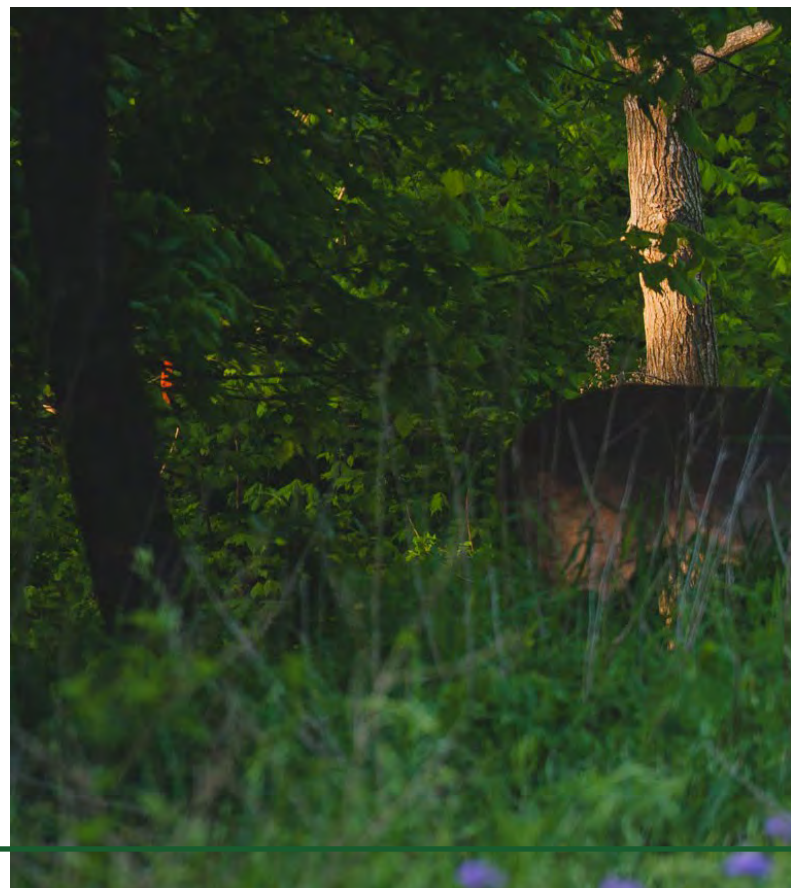
The cost of new trail construction is difficult to estimate. Many factors impact the costs such as trail surface, amenities, length, width, location, needs

structures, and the like. However, organizations like American Trails have been analyzing trail construction and maintenance costs throughout the country. They have compared trail construction costs from four projects:<sup>9</sup>

- Honey Creek Parkway Construction of bike trail from Portland Ave to 70th St, not including bridge construction, is \$149,206 per mile for 10-foot-wide asphalt trail
- Root River, from 60th St. under Hwy 100 to Rainbow Airport, not including boardwalk is \$301,014 per mile for 10-foot-wide asphalt trail
- South Side Trail (a.k.a. Kinnickinnic River Bicycle Trail) for base construction including trail amenities, signage, and drainage issues is \$176,470 per mile for a 10-foot-wide asphalt trail
- Milwaukee County's estimate for construction of the 6.5-mile Hank Aaron State Trail (West Allis Line) is \$224,307 per mile for a 10-foot-wide asphalt trail (including retrofit of bridges)

A report in 2011 by the Indiana Department of Transportation (INDOT), estimated the cost-per-mile of constructing new separate-alignment, shared-use paths at \$775,000, and the cost-per-mile of building out and maintaining an existing separate-alignment, shared-use path at \$115,000.<sup>10</sup>

The County Line Memorial Trail is a multi-use 10-foot-



wide trail that spans about 2 miles. The construction costs for this project in 2015 was \$1,056,315. This amount does not include bridges but does include amenities such as parking and landscaping.

#### END NOTES:

1. Source: Wang, G. et al. "Cost analysis of the built environment: The case of bike and pedestrian trails in Lincoln, Neb." *American Journal of Public Health* 94, no. 4 (2004): 549- 553.

2. 'The health benefits of the great outdoors: A systematic review and meta-analysis of greenspace exposure and health outcomes' is published in the journal of *Environmental Research* on July 6, 2018, <https://www.ncbi.nlm.nih.gov/pubmed/29982151>

3. [https://www.nps.gov/subjects/healthandsafety/upload/Parks\\_Trails\\_and\\_Health\\_Workbook\\_508\\_Accessible\\_PDF.pdf](https://www.nps.gov/subjects/healthandsafety/upload/Parks_Trails_and_Health_Workbook_508_Accessible_PDF.pdf)

4. Bicycle and Pedestrian Study City of New Braunfels Regional Bicycle & Pedestrian Planning Study, Alamo Area Metropolitan Planning Organization (2016)

5. From Trail Towns to TrOD: Trails and Economic Development [www.railstotrails.org](http://www.railstotrails.org) (2007)

6. U.S. Fish & Wildlife Service Birding in the United States: A Demographic and Economic Analysis Addendum to the 2011 National Survey of Fishing, Hunting, and Wildlife-

Associated Recreation (Report 2011-1).

7. <https://journals.sagepub.com/doi/10.1177/00139160121972864>

8. "Green Infrastructure in Parks: A Guide to Collaboration, Funding, and Community Engagement," EPA 841-R-16-112, June 2017,

Other Sources:

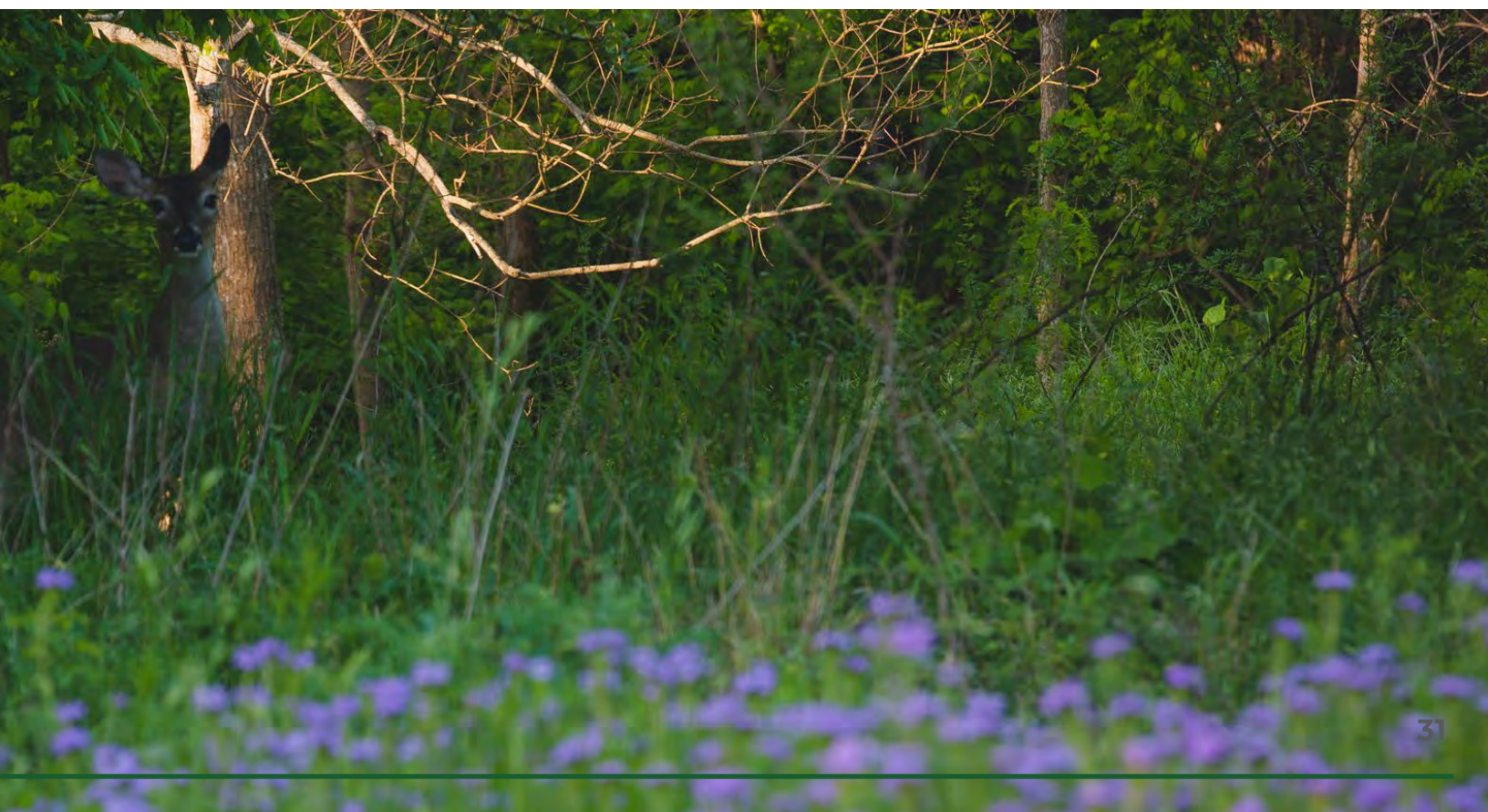
1. <https://www.psychologytoday.com/us/basics/gender>

2. <https://www.psychologytoday.com/us/basics/anger>

3. DRY COMAL CREEK HIKE AND BIKE TRAIL Conceptual Design City of New Braunfels FPC # 97600 (September 2018) CoNB #NB 18-029.

9. American Trails 2007 "Construction and Maintenance Costs for Trails" <http://www.americantrails.org/resources/ManageMaintain/MilwMaintcost.html>

10. Indiana Local Technical Assistance Program, Lyles School of Civil Engineering, 11-2014 [www.purdue.edu/inltap](http://www.purdue.edu/inltap), "Best Practices in Trail Maintenance" Ohio River Greenway Development Commission.





# TRAIL STANDARDS



## TRAIL DESIGN STANDARDS

These standards are based on best management practices used by trails, transportation and park professionals. The standards provided are specific to this project. Trail Type: 10-foot-wide salt or broom finish concrete trail with special paving at neighborhood connections, trail heads, and other special areas.

- **Alternative Surfaces:** Public feedback expressed a desire to maintain the decomposed granite trail in Segment 1, however current park operations and maintenance standards require concrete trails, especially in a floodplain. City staff should evaluate options such as resin-based trail surfaces, or tinted concrete to improve aesthetics.
- **Required Easements:** 20-25 feet with a riparian setback up to 30 to 50 feet; 5 feet on either side is preferred for mowing or maintenance.
- **Natural Landscaping:** Generally, selective clearing and manual removal of invasive tree species is recommended for any segment along the creek way for the length of the trail.
- **Planting Beds:** Recommended at any identified trail head (+/-2,000 sf) and include mulched with hardwood mulch and planted primarily with native, or native-adapted trees, shrubs, grasses and groundcovers. A preliminary planting list was drafted in the PER and is provided in the Appendix A. Any area with planting should be irrigated with temporary irrigation for 1-2 years.
- **Trail Furnishings:** Recommendations include seating (3-5 large limestone blocks at trail heads and trail seating with benches every  $\frac{1}{4}$  to  $\frac{1}{2}$  mile); bike repair stations, wayfinding, mileage markers, and corresponding waste and recycle containers, including pet waste.
- **Water Quality:** In areas identified through further engineering studies, it is recommended to install Low Impact Development (LID) or a small Continuous Deflective Separation System (CDS System). A CDS system is a drainage structure that would remove floatables, oil/grease and suspended materials from the surface runoff before it is discharged into the creek.
- **Where feasible trail alignment should follow the creek beneath a bridge, rather than cross at the street.**

## GREENWAYS FOR INFRASTRUCTURE

The Dry Comal Creek and Comal River have been included on the State of Texas' 303(d) impaired waterbody listing as being impaired for bacteria. A Watershed Protection Plan (WPP) has been developed by local stakeholders, and accepted by the U.S. Environmental Protection Agency, to help decrease bacteria loading to these waterbodies.

- The City should use the Watershed Protection Plan to implement green infrastructure practices along the Dry Comal Creek Greenway.
- Future design should include options for permeable pavement, rainwater harvesting, vegetative buffers and bioretention basins to mitigate drainage problems and flooding at low water crossings, parking areas and walkways.

## SIGNATURE AMENITIES

Based on the feedback received in the workshops and surveys the following items have been highlighted as priority features to be included in the trail design.

In general, the greenway trail will include basic amenities throughout including signage, benches, waste receptacles, and mile markers. Based on the feedback received in the workshops and surveys the following signature amenities have been highlighted as features desired along the greenway. Each segment design will determine the most appropriate signature amenity, but this is what can be expected for the Dry Comal Creek Greenway Trail.

- Landscaped trailheads
- Water fountains
- Vista or viewing spots for nature and wildlife
- Educational signage
- Bike fix-it stations
- Outdoor classroom space or areas for 60 students
- Covered shelters or pavilions
- Parking (8 spots) with drop-off zones or areas for on-site bus parking
- Restrooms



# RECOMMENDATIONS & IMPLEMENTATION STRATEGIES







Implementation of this Greenway Master Plan will be a long-term process. This plan will lay the foundation for continued success for the City in its greenway efforts. The Master Plan provides a framework for the Dry Comal Creek Greenway Trail and future greenway trails in New Braunfels. Based on public input, New Braunfels residents desire a citywide trail network and are awaiting City action to implement this need. The following recommendation and implementation strategies are aimed to help advance the project and identify the most manageable route toward success. The various recommendations are both general and specific in context to greenways and the project. They are in line with the stated Goals and Objectives that guided the planning process and will continue to do so throughout the implementation process.

## **POLICY RECOMMENDATIONS**

- Greenways should be recognized in City policies as a tool to build communities, promote health benefits, provide outdoor education opportunities, encourage a sense of place to surrounding neighborhoods and properties, provide transportation connectivity, and provide a safe place for our future generations to walk, bike, and explore our natural environment.
- The City should adopt a policy to explore alternative options to work around uninterested property owners such as the use of TXDOT or County roads, bike lanes, sidewalks, etc.
- The City should determine a policy to incorporate the use of existing and future utility easements for public use greenways.
- The City should strive to connect greenways to existing public facilities, like parks, civic buildings, schools, etc.
- The City should consider phasing greenway construction when necessary if a paved trail cannot be achieved. This could include acquiring easements for a grass walkway or mulch or gravel type surface in order to get a greenway on the ground. Funding for final trail paving could then be achieved later.
- The following City committees should receive a copy of the approved Greenway Master Plan– Transportation & Traffic Committee, Parks and Recreation Advisory Board, Planning Commission – should support Dry Comal Creek Greenway and a citywide greenway network.
- Economic development opportunities should be supported and encouraged along the Dry Comal Creek Greenway, and all future greenway corridors.



The Dry Comal Creek Greenway Master Plan should be viewed as a working document that will evolve over time yet be relevant years from now. The City should update the entire document, as well as reevaluate the recommendations and implementation strategies, approximately every five to ten years, in conjunction with other park, transportation, capital improvement and economic development plans to ensure the continued improvement and enhancement of the New Braunfels citywide greenway efforts.

Within the limits of this plan, based on GIS data with limited field observation, no critical issues were identified that would preclude the general advancement of the Dry Comal Creek Greenway trail. Appropriate next steps may include further analysis for alignment, progress toward acceptance of previously identified land dedications, and effort to produce a conceptual design in the southern segments of the trail with input from the community.

## IMPLEMENTATION STRATEGIES

The implementation strategies are directed at the City however, involve various stakeholders and partners. Many of the implementation strategies listed below can be accomplished concurrently.

### ADOPT THE PLAN

Adopting the plan is an important first step in realizing the potential and success of the Dry Comal Creek Greenway and other greenways in New Braunfels.

- The City should consider establishing a Dry Comal Creek Greenway Advisory Committee to implement the Master Plan and future feasibility studies.
- The City and its partners should continue to seek public participation, including public information sessions, while implementing various plan recommendations.
- The City should maintain a webpage dedicated to this Master Plan and include an interactive map to encourage greater public input.

- Consider establishing a separate fund in the Parks and Recreation budget to cover greenway maintenance costs.

Phasing construction of the Dry Comal Creek Greenway is recommended. Areas with land dedication or easement opportunities already in process should be considered high priority for design, construction and funding. These areas are in Segments 1 and 4. The City should complete design and construction of Segment 1 (Town Creek to Walnut Avenue) and apply for funding for construction. For Segment 4 (Solms Park to RR or alternative route along roadway) the City should fund a feasibility study.

With the alignment of the greenway uncertain, it is hard to know the exact type of landscape and opportunities available. Therefore, the overall design concept for New Braunfels greenway network will be guided by the design strategies proposed in the preliminary engineering report (PER) completed by Ford Powell & Carson, and New Braunfels



Parks and Recreation Standards. Those strategies include providing a corridor for people and wildlife, mitigating soil erosion, filtering pollution caused by storm-runoff, restoring the Dry Comal Creek to a more natural state by removing invasive vegetation species, and providing opportunities for connecting neighborhoods to downtown. The landscape design is recommended to enhance and complement the beauty of the natural setting and distinguish the trailheads, neighborhood connections and destinations for exercising, socializing and enjoying nature.

### **SUBMIT PLANS TO OUTSIDE ORGANIZATIONS**

There are various outside organizations that are impacted by the development of this greenway. As an intergovernmental effort, the City should submit this plan and the preliminary engineering report for review and comments to the following entities:

- Comal County
- Edwards Aquifer Authority
- Guadalupe Blanco River Authority
- Texas Department of Transportation
- Union Pacific Railroad

Through the PER process it was noted that the total process in obtaining a Construction and Maintenance Agreement from the Union Pacific Railroad is anticipated to be 12-18 months. It should also be noted a ballast retainer will be required when crossing underneath the existing railroad bridge for pedestrian safety. The retainer will need to span 30' on either side of the railroad structure per railroad guidelines.

### **EVALUATE LAND ACQUISITION OPTIONS**

One of the most critical aspects to constructing the Dry Comal Creek Greenway will be land acquisition and easements. Early discussions with key land owners have begun and should continue in a formal manner. Through partnerships, the City may want to work with trail advocacy groups to help initiate and facilitate land acquisition opportunities.

- The City and its partners should develop greenways through voluntary negotiations or contributions.

- Explore opportunities to acquire private lands for park and greenway development, through local trail and conservation groups, specifically, coordinate with HOAs (Town Creek), property owners (Columbus Club), and residential and commercial development.
- The City, and its partners, should utilize all means of land acquisition to minimize purchase costs, this may include, but are not limited to, land donations, utility easements, fee simple acquisition, long term leases, etc.
- Coordinate with public entities such as City departments, counties, utilities, and school districts for potential greenway land use or acquisition.
- Initiate discussions for land opportunities with larger land owners specifically, Union Pacific Railroad and Cemex.

### **CULTIVATE PARTNERSHIPS**

Advancing the Dry Comal Creek Greenway will require significant effort, coordination, and dedication of resources beyond plan adoption. The following process is suggested as a strategy and is based on the findings from this master planning process. Meaningful and continued public engagement should remain a key consideration in all phases of the project.

- Request the local non-profits, health, business, conservation, and education organizations to pass a resolution supporting the plan recommendations and identify specify ways their organizations can participate in implementation of the plan strategies, i.e., New Braunfels Chamber of Commerce, Comal County, Comal County Conservation Association, and the Comal Trails Alliance.
- Formalized partnerships with non-profits and advocacy groups through the Memorandum of Agreement (MOA) to establish the role and expectations of each entity for the development or maintenance of the trails and associated facilities and programs.
- The City should work with non-profits and advocacy groups to educate the public and property owners about the benefits of greenways as a health and wellness opportunity.



## SETUP GREENWAY SAFETY & SECURITY

Ensuring proper safety policies and measures along trails and greenways should be developed and implemented to provide assurance to park managers, trail users, and adjacent land owners.

- The City should begin gathering examples for ordinances that specify rules about trail use i.e., prohibition of alcohol, fires, camping, hours, and non-motorized vehicles to be used as model for future ordinances.
- Create an internal greenway security and safety team to identify solutions to address safety and security responsibilities and procedures modeled



after river operations coordination between Park Ranger and New Braunfels Police.

- Develop appropriate safety measures for the community and specific segments.
- Develop signage plan for greenways and trailheads.
- Consider the development of a volunteer greenway riders' program in conjunction with the local trail and cycling advocacy groups to:
  - Increase awareness and education for other bike riders on the importance of responsible and environmentally sound trail use
  - Report unsafe trail conditions, and
  - Aid bike riders and other trail users by providing general information about the trail
- Greenway design should include specifications for emergency access and trail coordinates for first responders.
- Greenway design should provide examples for delineation of private property i.e., posts, cables, signage, landscaping, wall, fencing etc.

## COMPLEMENT ECONOMIC DEVELOPMENT

The City of New Braunfels has an opportunity to build

- Economic development opportunities should be supported and encouraged along identified greenway corridors.
- Work with partners to help fund an economic impact analysis of eco- and/or greenway tourism in New Braunfels to support cycling or other outdoor adventure and birding, or other wildlife watching opportunities.

## MAINTAIN GREENWAYS

Maintenance of existing greenways should be a priority. Greenway maintenance is essential to the long-term success and viability of a citywide greenway network. The network should be viewed and maintained as a public asset. This plan recommends a strong, collaborative approach to maintenance.

- The City should formalize maintenance efforts with non-profits and trail advocacy partners.
- The City should consider low-maintenance greenway designs
- The City should use contracting a private party





that specializes in outdoor facility maintenance such as the Texas Conservation Corps.

- Create an avenue for greenway users to report maintenance issues specific to the trail, this could be done on a phone app, social media page or an email address dedicated to the greenway
- Consider creating a separate fund in the Parks and Recreation budget to cover greenway maintenance costs.
- Develop a trail maintenance plan for the greenway.

## IDENTIFY FUNDING

Funding the next steps in project advancement is a continual challenge. Local, state and federal resources are highly competitive and vary in the types of eligible projects, i.e., planning, design, or construction. When pursuing funding opportunities, the Dry Comal Creek Greenway can benefit from coordinating with other local and regional governmental entities for match funding.

- The City should utilize public-private partnerships and work with local business owners, and industries to complete funding for segments of the Dry Comal Creek Greenway.
- The city should apply for various state and federal grants that value many aspects of a greenway, such as green infrastructure, trails, mobility, history and culture and economic development and tourism.
- The City should prepare planning documents and feasibility studies to secure future construction funding for the Dry Comal Creek Greenway.

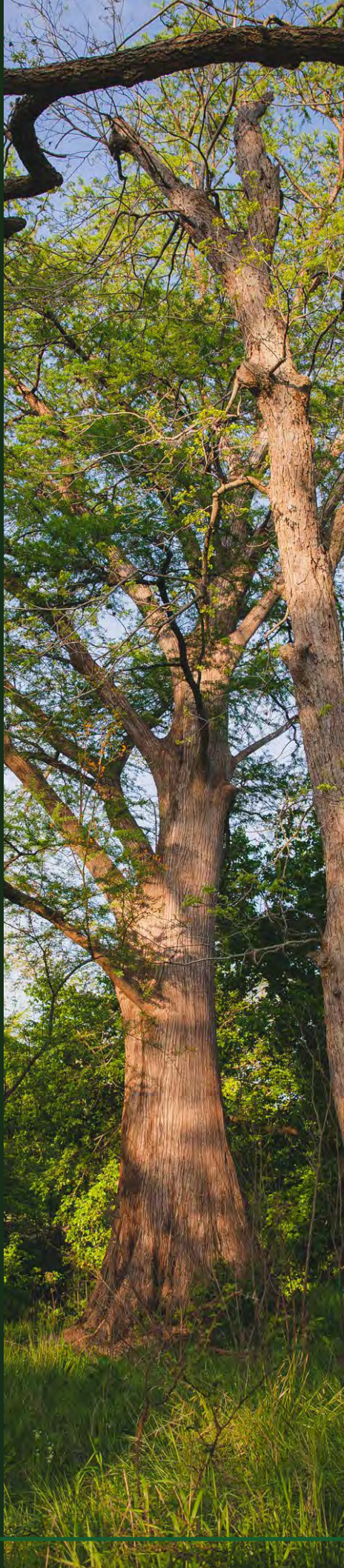
many neighborhoods and smaller parks within a 2-mile radius. As our community grows outward a linear greenway helps link older neighborhoods to newer neighborhoods. The Dry Comal Creek Greenway has the potential to be a significant component of a greater multimodal and nature network.

- Identify connections opportunities with new developments and established neighborhoods, such as Town Creek.
- Create connections and wayfinding for local landmarks and businesses.
- Create on-and off-street connections to schools, parks and community centers
- Future design should prioritize the community's sense of place with natural focal points of heritage trees, cliffs, meadows, or springs and the use of outdoor educational exhibits or signage.
- Future design should prioritize the community's sense of place with cultural focal points such as El Camino Real de los Tejas at the Comal Springs, Texas Hill Country Trail, the Headwaters of the Comal and the Great Springs Project.

## MAKE LOCAL & REGIONAL TRAIL CONNECTIONS

Due to its linear nature, the greenway can connect





## **FEDERAL AND STATE FUNDING SOURCES:**

Transportation Alternatives Set-Aside (TA) Program  
The Texas Department of Transportation administers TA funds for locally sponsored bicycle and pedestrian infrastructure projects in communities less than 200,000. In large urbanized areas with populations over 200,000, TA funds are distributed directly to Metropolitan Planning Organizations (MPO) to administer according to their needs. MPOs and TxDOT are responsible for selecting projects independent of one another.

## **SAFE ROUTES TO SCHOOLS-INFRASTRUCTURE (SRTS) PROGRAM**

The Texas Department of Transportation administers SRTS funds for locally sponsored infrastructure projects that facilitate walking and biking to school. Projects may be located anywhere in the state as long as they are within two miles of K-8 schools.  
<https://www.txdot.gov/inside-txdot/division/public-transportation/bicycle-pedestrian.html>

## **RECREATIONAL TRAILS GRANTS**

Texas Parks and Wildlife Department administers the National Recreational Trails Fund in Texas under the approval of the Federal Highway Administration (FHWA). The reimbursable grants can be up to 80% of project cost with a maximum of \$200,000 for non-motorized trail grants and a maximum award of \$400,000 for motorized (off-highway vehicle) trail grants. Funds can be spent on both motorized and non-motorized recreational trail projects such as the construction of new recreational trails, to improve existing trails, to develop trailheads or trailside facilities, and to acquire trail corridors.  
<https://tpwd.texas.gov/business/grants/recreation-grants/recreational-trails-grants>

## **LOCAL PARK GRANTS**

Texas Parks and Wildlife Department administers the Local Park Grant Program consists of 5 individual programs that assist local units of government with the acquisition and/or development of public recreation areas and facilities throughout the State of Texas. The Program provides 50% matching grants on a reimbursement basis to eligible applicants. All grant assisted sites must be dedicated as parkland in perpetuity, properly maintained and open to

the public. <https://tpwd.texas.gov/business/grants/recreation-grants/about-local-parks-grants>

### **NORTH AMERICAN WETLANDS CONSERVATION ACT STANDARD GRANT**

The US Fish and Wildlife Services administers the Standard Grant and Small Grants Programs. The two programs provide funds to conserve wetlands and wetlands-dependent fish and wildlife through acquisition (including easements and land title donations), restoration and/or enhancement. <https://www.fws.gov/birds/grants/north-american-wetland-conservation-act/how-to-apply-for-a-nawca-grant.php#us-standard>

### **TEXAS PRESERVATION TRUST FUND**

The Texas Historical Commission administers the Texas Preservation Trust Fund. It provides reimbursement grants for preservation projects, including restoration work, preservation planning, architectural planning, and/or heritage education training. <https://www.thc.texas.gov/texas-preservation-trust-fund>

### **PRIVATE FUNDING SOURCES:**

Union Pacific Community-based Grant Program Building upon its heritage, the mission of the Union Pacific Community Ties Giving Program is to build safe, prosperous, and vibrant communities by investing in high-quality nonprofits and programs in the cities and towns in which UP operates and its employees live and work. UP is committed to supporting the local economy by building and enhancing community spaces that contribute to the distinct identity of a city or town, creating destinations where families, businesses, and visitors want to be. <https://www.up.com/aboutup/community/foundation/local-grants/index.htm>

### **MOODY FOUNDATION**

The Moody Foundation accepts inquiry letters on an ongoing basis, and our trustees meet four times a year to consider grant awards. Applicants may submit up to three projects for consideration. Each project should be outlined on the form below with a

brief description, estimated total budget, and amount of Moody Foundation funding sought. Generally, no more than one project per applicant will be selected for further review. <https://moodyf.org/application-process/>

### **MICHAEL AND SUSAN DELL FOUNDATION**

"Some infrastructure opportunities can change systemic problems into practical solutions. Some community investments reflect the innovative spirit of our community. Other grants are meant to take advantage of the resources only available close to home. Taking the lead from the community helps us understand what works and avoid what doesn't. We know that lasting change in the community comes from better cross-sector coordination rather than from the isolated interventions of individual organizations." <https://www.msdf.org/initiatives/ctx-community-programs/>

### **BROWN FOUNDATION**

The purpose of The Brown Foundation, Inc. is to distribute funds for public charitable purposes, principally for support, encouragement, and assistance to education, the arts, and community service. Since its inception it has awarded more than \$1.60 billion in grants through the fiscal year ending June 30, 2017. Of these funds, approximately 80% were awarded within the State of Texas with special emphasis on the City of Houston. <http://www.brownfoundation.org/guidelines>

### **SAN ANTONIO & NEW BRAUNFELS AREA COMMUNITY FOUNDATION**

The San Antonio Area Foundation makes grants from its funds, with help from its donors, to nonprofit organizations improving the quality of life in Bexar County and the following surrounding counties: Atascosa, Bandera, Comal, Guadalupe, Kendall, Medina and Wilson. Since 1964, the Area Foundation has distributed millions in grants and scholarships to educate youth, preserve the environment, protect animals, fund research and provide services that enhance the quality of life for people living in the San Antonio area. <http://www.saafdn.org/Nonprofits/Grants.aspx>



### **MEADOWS FOUNDATION**

Through its grantmaking, The Meadows Foundation seeks to assist communities in developing leadership talent, promoting civic/public collaboration, and improving processes and infrastructures for delivery of services to all residents. It is also deeply committed to supporting environmental programs focused on preserving a sustainable supply of clean water, improving air quality, promoting sustainable energy, protecting the state's plants and wildlife through land and habitat conservation, and developing a culture of public and political support for protecting environmental resources.

<http://www.mfi.org/whatwefund.html>

### **VALERO ENERGY FOUNDATION**

Valero believes that the company's success is directly correlated to the success of the communities where its employees work and live. That is why it sponsors and supports the Valero Energy Foundation and its multitude of diverse projects that positively contribute to the economic and cultural success of communities and play a meaningful role in shaping the future. <https://www.valero.com/en-us/Pages/Valero-Energy-Foundation.aspx>

### **ED RACHAL FOUNDATION**

The Mission of the Ed Rachal Foundation is established by the last will and testament of the Foundation's benefactor. In his will dated June 2, 1964, the late Ed Rachal decreed, "...I devise and bequeath the rest and residue of my estate of every kind and wheresoever situated real, personal and mixed, to such corporation to be used exclusively for the benefit of charitable, scientific, literary or educational purposes within the State of Texas" In keeping with this instruction, the Ed Rachal Foundation was created on July 29, 1965. This rather profound, albeit simple statement provides the mission pursued by the Foundation's management staff and Board of Directors.

### **KRONKOSKY CHARITABLE FOUNDATION**

The Foundation makes grants to expand or improve public parks, zoos, and wildlife sanctuaries and broaden the use of such facilities. The Foundation has a geographic limitation that requires that grant

funds be used in Bandera, Bexar, Comal, and Kendall counties in Texas. <https://kronkosky.org/Grants/Apply-for-a-Grant>

### **CULLEN FOUNDATION**

Established in 1947 by Hugh Roy and Lillie Cranz Cullen, The Cullen Foundation has a history of giving generously to support cultural arts, education, health care and public service in Texas, primarily in the greater Houston area. <https://cullenfdn.org/grant-guidelines/>

### **SID W. RICHARDSON FOUNDATION**

Grants from the Sid W. Richardson Foundation help to advance the missions of nonprofit organizations that serve the people of Texas. Grants are made primarily to educational, health, human service, and cultural organizations. <http://www.sidrichardson.org/grants/guidelines/>

### **KLEBERG FOUNDATION**

The Foundation is committed to wildlife conservation efforts that fill critical knowledge gaps through applied research or habitat restoration that support native wildlife, primarily in South Texas. The Foundation is particularly interested in research focusing on maintaining the integrity of ecosystems, including native plant establishment, understanding important stopover habitats of Nearctic-Neotropical migratory birds, and investigations of endangered/sensitive species endemic to the South Texas region. Other projects relevant to understanding potential threats to wildlife or their habitats in South Texas are also of interest, as are habitat restoration and protection, and the preservation of culturally significant natural heritage in South Texas. <https://www.klebergfoundation.org/>

### **MCKENNA FOUNDATION**

The McKenna Foundation awards grants for the purpose of increasing opportunities for activity, enrichment and engagement within the New Braunfels community. <https://mckenna.org/>

## LOCAL FUNDING SOURCES:

Local funding sources are needed to provide Match to larger private, state and federal grants. The 2017 City of New Braunfels Parks and Recreation Strategic Master Plan identified the following Primary Local Funding Options:

### NEW BRAUNFELS INDUSTRIAL DEVELOPMENT BOARD (4B) FUNDING

The New Braunfels 4B Board is authorized to allocate sales tax funds for quality of life projects that further economic development in the City.

### PARK DEVELOPMENT FEES

Many municipalities seek developer contributions for parklands and for the development of trails that run through the property being developed. The developer perceives the enhanced value such improvements mean for her or his development. Park or trail dedication as a requirement of subdivision development is a reliable means for maintaining equity of access to parks and trails.

### IMPACT FEES

Many municipalities seek developer contributions for roadways impact fees and for the development of those future roadways.

### PARK, OPEN SPACE AND TRAIL BOND ISSUES

Agencies typically seek parks bonds to meet park related needs. The key is to use debt financing through bonds to address needs that are both unmet and clearly a community priority. It is best to propose a capital-bond project that serves a variety of users and needs. Even in the worst economic downturn, bond issues have been passing because communities are the direct recipient of the money, and it benefits families on a personal basis.

### PARTNERSHIPS

Partnerships are joint-development funding sources or operational funding sources formed between separate agencies, such as two government entities, a non-profit and a public agency, or a private business and a public agency. Partners jointly develop revenue-producing park and recreation facilities and share risk, operational costs, responsibilities, and asset

management based on the strength of each partner.

## ADDITIONAL PARTNERSHIP OPPORTUNITIES:

- The New Braunfels Parks Foundation
- Comal Trails Alliance
- Comal County Conservation Alliance
- Corporate and Personal Donations
- Maintenance Endowment Fund
- Irrevocable Remainder Trusts

### Tax-Based Funding Mechanisms

- Dedicated Sales Tax
- Tax-Increment Financing District
- Tax-Increment Reinvestment Zone (TIRZ)
- Public Improvement District (PID)
- Water Improvement District (WID)



# APPENDICES



### Q3 Please give us your thoughts an/or comments about the Dry Comal Creek Greenway concept?

Answered: 10 Skipped: 5

#	RESPONSES	DATE
1	I think this will be a great improvement to increase outdoor activities.	8/26/2018 1:30 PM
2	I have not seen any conceptions. How would one know where to locate the concept? I understand there are meetings... Those are extremely difficult to attend with an 8 to 5 work schedule.	8/26/2018 11:00 AM
3	Great project worth doing	8/23/2018 2:30 PM
4	I use the trails at the baseball fields often. Although I love them, I would love to see a longer trail and one that connects to downtown. I am super excited about this and the health impacts it can have on our city.	8/23/2018 2:22 PM
5	I only saw one small project that I have to question. Half way along the trail would be a "classroom". I was told that the City would be placing it in that spot to correct a bad drainage problem created by a developer. I question the idea of a "classroom" at the edge of a neighborhood due to parking problems and because there didn't seem to be any support for people or any real interesting features there. Fix the erosion problem, send the bill to the developer and invest our money in a classroom in a better spot.	8/23/2018 12:45 PM
6	I am in full support of more trails in our area! We are desperately in need of more places to hike without having to drive to a neighboring city. New Braunfels gets so much attention for its outdoor activities but it would be great to expand that list of activities to things outside our rivers.	8/23/2018 10:57 AM
7	I fully support the efforts and think it would add exponential value to our community.	8/23/2018 10:27 AM
8	I really love this idea! I think the increased property values alone will pay for this project. In my opinion, we need to go big with this and do it right. The more we invest in this natural amenity, the bigger the return on investment. I do think we need to be sure to make easy off-road connections to downtown and to Das Rec in the bond project.	8/23/2018 9:56 AM
9	This project should have been started a long time ago so I am happy New Braunfels is finally taking notice to protect and better utilize this creek. I would like to see this project end up something like Salado Greenway or Mission Reach. This has the potential to connect to Schertz, Garden Ridge, and San Antonio. This would be a great economic development asset to attract high tech companies and jobs from Austin and San Antonio. It also will help to keep the Comal River clean and protected. This project is a no brainer that will pay many dividends in the future.	8/23/2018 9:47 AM
10	Love it! Constructive criticism. Phase 1 proposal is from Landa to Walnut. I heard 3 million to concrete this section. I understand the maintenance, but there is already a gravel trail there. What if we enhance the gravel trail? Wider, signage, etc. and use the larger parts of the money to buy land to extend the trail all the way to the baseball fields? Comal Trails Alliance already received grant money to extend the trail to Landa Street for the cost of \$10-15k. Much cheaper than concrete and more enjoyable to run/walk/ride on.	8/23/2018 9:32 AM



## Q3 Please give your thoughts and/or comments about the Dry Comal Greenway concept:

Answered: 42 Skipped: 13

#	RESPONSES	DATE
1	Yes! We need this and more -	8/30/2018 2:51 PM
2	Develop it as an ecological preserve area and trails for hiking and biking	8/30/2018 2:51 PM
3	What about effects from flooding? Would like trail to extend under Landa St. Bridge and/or bypass Knights of Columbus building	8/30/2018 2:50 PM
4	The concept to increase recreation opportunities for non-motorized transportation is wonderful. We for sure will bring many visitors to our community to enjoy our wonderful places.	8/30/2018 2:46 PM
5	Thank you for what you are doing! Open most of trail sooner, add improvements @ nodes, better surfacing, etc over time.	8/30/2018 2:44 PM
6	Yes! Soon! More!	8/30/2018 2:42 PM
7	Like it! NB needs to take advantage of the natural woodlands and creeks w/in the city to encourage healthy lifestyles.	8/30/2018 2:41 PM
8	non concrete. Ex: crushed granite	8/30/2018 2:40 PM
9	Great ideas!	8/30/2018 2:39 PM
10	long overdue	8/30/2018 2:38 PM
11	non-concrete surface	8/30/2018 2:37 PM
12	I would love a car-free place to cycle.	8/30/2018 2:37 PM
13	Full support to develop it	8/30/2018 2:34 PM
14	I love it. We need more of it!!	8/30/2018 2:33 PM
15	I hope to cycle and jog along greenway.	8/30/2018 2:32 PM
16	Connecting trail sections is vital	8/30/2018 2:09 PM
17	My preference is to build trails w/o concrete.	8/30/2018 2:04 PM
18	A natural surface to run on, rather than; or in addition to the proposed concrete path. Even 1 foot wide will do!	8/30/2018 2:03 PM
19	I am interested in facilitating a walkable, bikeable community.	8/30/2018 2:02 PM
20	I would like to connect from Dry Comal Creek Park to Walnut than the way you are proposing now	8/30/2018 2:01 PM
21	Valuable addition to New Braunfels outdoor recreation! Great opportunity to utilize flood prone greenway.	8/30/2018 1:59 PM
22	What is the flood gauge going to be? And what is the river going to do for people? How are they going to build it to 2019? Is it going to be connected to the city?	8/30/2018 1:58 PM
23	Town Creek is a golf cart community and this limits our access to Landa Park	8/30/2018 1:57 PM
24	live on creek. interested to see proposed trail past Walnut.	8/30/2018 1:56 PM
25	Thank you! Yay!	8/30/2018 1:55 PM
26	Projects like this are a fantastic way to enhance quality of life.	8/30/2018 1:54 PM
27	Want the entire length built out ASAP. Please do it or we will find elected officials who will!	8/30/2018 1:53 PM
28	Should be part of a regional trail plan.	8/30/2018 1:52 PM
29	Take of drainage and flood potential	8/30/2018 1:51 PM

30	Expand further to San Marcos	8/30/2018 1:49 PM
31	The NB Citizens voted long ago that they want this!	8/30/2018 1:48 PM
32	Please don't pave the majority of the trails.	8/30/2018 1:47 PM
33	I am all for any improvements to and additions of outside trails. Now is the time to connect our city other than by vehicle.	8/30/2018 1:47 PM
34	I knew this would happen someday and I think for the greater good	8/30/2018 1:46 PM
35	I think it intrudes on private property rights - The city does nothing for our end of the city - What have you done for Solms ara	8/30/2018 1:44 PM
36	Love it! Please make this happen	8/30/2018 1:43 PM
37	I'm in favor of the extended trail proposal and would like to see the Loop 337-Live Oak section completed as well.	8/30/2018 1:41 PM
38	Walkability is very important to this community!	8/30/2018 1:40 PM
39	Good idea - adds to similar trails in adjacent towns.	8/30/2018 1:39 PM
40	The most important project for the future of the city. This creek has been neglected, but it is the economic engine that has driven people and businesses to the region. It is also conveniently a great greenspace and central pedestrian/cyclist corridor.	8/30/2018 1:37 PM
41	This is a MUST for the city! Trail should go all the way to 337.	8/30/2018 1:34 PM
42	New Braunfels needs more green space!	8/30/2018 1:33 PM





# Dry Comal Creek Greenway

The 2010 Hike and Bike Trail Plan envisioned extending the Dry Comal Creek Nature Trail to the north and south. In 2017 the City was awarded a technical assistance grant to develop a master plan for this vision by the National Park Service through the Rivers, Trails, and Conservation Assistance Program. You are invited to contribute your input and ideas to the greenway planning process.

## Initial Survey Results

### Most Important Objectives



**More Recreational  
Options**  
72%



**Non-Motorized  
Transport**  
67%



**Protect  
Ecology/Habitat**  
65%



**Increase  
Parkland**  
43%



**Environmental  
Education**  
35%

### Most Desired Activities



**Hiking**  
81%



**Running**  
57%



**Birdwatching**  
53%



**Mountain Biking**  
51%

*The concept will increase recreation opportunities for non-motorized transport and allow residents and visitors to enjoy our wonderful places.*

*New Braunfels needs to take advantage of the natural woodlands and creeks within the city to encourage healthy lifestyles.*

*This creek has been neglected, but it is a great greenspace and a convenient central pedestrian and cyclist corridor.*



The survey is ongoing! To participate, please visit: <https://www.surveymonkey.com/r/DryComalTrail>

**For more information visit:**  
<http://www.nbtexas.org/193/Park-Projects>

COMMENT:	DATE COLLECTED:	VENUE/EVENT:	NOTES:
"I thought the Bond project included the entire trail area?"	8/22/2018	Community Meeting, City Hall	
"This is a great start. Need to get this Greenway funded!"	8/22/2018	Community Meeting, City Hall	
"Please include the ENTIRE Greenway in 2019 Bond."	8/22/2018	Community Meeting, City Hall	
"Connectivity along the entire greenway system is what makes this a greenway. It needs to have our support on 2019 Bond."	8/22/2018	Community Meeting, City Hall	
"I would like to see hike/bike trails along the entire greenway."	8/22/2018	Community Meeting, City Hall	
"Criminal activity around Solms Park. Not in City Limits. Ms Wetz? Straten Lane/Altget Lane."	8/22/2018	Community Meeting, City Hall	
"Needs to connect with neighboring greenbelts (Schertz, San Marcos, etc.)"	8/22/2018	Community Meeting, City Hall	
"How do we go here and back when your in a hurry?"	8/22/2018	Community Meeting, City Hall	
"Single track for mountain biking"	8/22/2018	Community Meeting, City Hall	
"How do you secure private property encroachment - fence?"	8/22/2018	Community Meeting, City Hall	
"Build/finish intown development first - it will encourage in-fill development and community formation!"	8/22/2018	Community Meeting, City Hall	
"Like Town Lake"	8/22/2018	Community Meeting, City Hall	
"Crushed granite or similar surface"	8/22/2018	Community Meeting, City Hall	
"Concrete too hot, HARD on feet, ankles, knees, backs"	8/22/2018	Community Meeting, City Hall	
"I would like to see the trail connect to Hinman Island"	8/22/2018	Community Meeting, City Hall	
"Excited to take students to an outdoor classroom - not in Seguin!! We would stay closer to home. :)"	8/22/2018	Community Meeting, City Hall	



“The Greenways in San Antonio have been enjoyed by many, many people since we began implementing the program. We’re excited to see the initiative New Braunfels has now also taken toward building its greenway trails and wish them the best on successfully bringing their vision to reality.”

Brandon Ross, AICP, City of San Antonio, Parks and Recreation Department

“Since its inception in 2003, the San Antonio Park Police have assisted the City of San Antonio’s Howard W. Peak Linear Greenway Development Program team in creating a safe and secure environment for the tens of thousands of patrons who utilize our linear creekway system each year for a variety of recreational pursuits and mobility methods. We wholeheartedly endorse the City of New Braunfels’ efforts in the development of a similarly unique program for its citizens and visitors.”

Timothy J. Packard, Operations Support Lieutenant, San Antonio Park Police

## HOWARD W PEAK GREENWAY TRAILS PRESENTATION

DRY COMAL CREEK MASTER PLAN PRESENTATION

THE CASE FOR CONSERVATION DRY COMAL CREEK

COMAL TRAIL ALLIANCE PRESENTATION

SAN MARCOS TRAILS ALLIANCE PRESENTATION



