

CONFLUENCE

THE TRINITY RIVER STRATEGIC MASTER PLAN

THE RIVER PARTNERS





“There is a growing conviction in the land that we can restore beauty where it has been ravaged. That we can preserve it where it now exists and that we can create it as we build anew. Environmental problems can be solved only through the cooperation of citizens, business and government all working toward the same ends.”

Never has it seemed so important, with our society showing such evidence of fragmentation, that both private and public policy be one of fostering cooperative efforts. There are no simple solutions to multiple use problems. What is needed most of all, is good faith, good taste and balanced judgment.”

- Laurance Rockefeller

Introducing *Confluence : The Trinity River Strategic Master Plan*

THE TRINITY RIVER BELONGS TO ALL OF US.

It is our grandest civic space and the tie that binds our community together. It is a place that beckons all citizens, regardless of age, color, or mobility. It links us to the outdoors and, through nature, to one other.

The decades-long effort to reclaim our Trinity has been, and continues to be, a Trinity in and of itself: a confluence of vision, collaboration, and determination.

This expansive strategic master plan envisions the future of the river and translates that vision into specific goals, objectives, and projects. In the years to come, we sincerely believe this plan will become a beautiful reality.

Please join us as we navigate a bold new course to ensure the future success of our river, our community and its people.

Mark Paukune

Managing Director, U.S. Trust, Bank of America Private Wealth Management
President, Streams & Valleys Board of Directors

Johnny Campbell

President and CEO, Sundance Square
Vice-President, Streams & Valleys Board of Directors
Chairman, Strategic Planning Committee

Stacey Pierce

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Table of Contents

CHAPTER 1 - INTRODUCTION	06	CHAPTER 3 - RIVER PROJECTS	62
Context + Setting	07	Upper West Fork	64
History	09	Bomber Spur + Bomber Heights	68
The River Partners	10	Clear Fork	72
Other Partners	11	Lower West Fork	78
Past River Planning Efforts	12	Marine Creek	82
The 2016-2018 Planning Process	13	Sycamore Creek	86
<i>Confluence</i> Planning Committees	13	West Fork East	90
Stakeholders + Community Engagement	13	System Wide	94
Planning Process Phases	14	Advocacy + Support	96
Plan Overview	15		
CHAPTER 2 - VISION, GOALS, + STRATEGIES	16	CHAPTER 4 - IMPLEMENTATION	98
Framework Diagram	17	Plan Implementation + Administration	98
Vision	18	Roles + Responsibilities	100
Goal Areas + Strategies	20	Funding + Financing	102
Community	22	Project Prioritization + Ranking	106
Connectivity	26	Project Implementation Matrix	108
Economic Development	30	Acknowledgments	125
Education	34		
Environment	38	GLOSSARY	126
Flood Control	42		
Health	46		
Recreation	50		
Sense of Place	54		
Water Quality	58		



INTRODUCTION



Weaving its way through the sprawling landscape of North Texas, **the Trinity River is one of the Dallas-Fort Worth Region's most vital resources.** The waterway was critical to the livelihoods of the Native Americans and Europeans who settled here, and it remains indispensable today. Along its expansive reaches and tributaries, the Trinity River supports the region's economy, fosters a rich and varied ecosystem, and links together a multitude of neighborhoods, communities, and cities.

Fort Worth's relationship with its river has changed over time. After floods in the mid-1900s, the United States Army Corps of Engineers (USACE) built levees to protect the city. Attention turned away from the river, and its condition declined. Since then, through decades of strong leadership and successful planning efforts, the Trinity River system has been transformed from a neglected "muddy ditch" into a magnificent natural and recreational amenity, and hub of community activity. The river system is the true centerpiece of the Fort Worth community—an innovative waterway that weaves through urban and rural areas, welcoming diverse groups of people and fostering sustainability throughout the region. And it's only getting better.

This plan recommends strategies to **enhance the Trinity River and its tributaries over the next 10 years and beyond.** As this plan is implemented, it can also serve as a model for how cities across the country can holistically think about and plan for their own river systems and greater communities.

Confluence: The Trinity River Strategic Master Plan builds on past planning efforts to continue the evolution of the river system. It centers on sustaining a **healthy and thriving river that connects citizens and communities, catalyzes economic development, and offers an abundance of active transportation and recreational amenities for the region.**

Specifically, this plan addresses the geography of the river system and its surroundings, including the West Fork and Clear Fork of the Trinity River itself, its banks and adjacent amenities, and the major tributaries of Marine Creek and Sycamore Creek. The plan addresses other tributaries, such as Village Creek, Big Fossil Creek, and Little Fossil Creek, as well as connections into the city's various districts and neighborhoods. For simplicity, the plan, except where noted, refers to the entire system and its waters as the "Trinity River." This introductory chapter provides the background and context for *Confluence*. It is organized around the following topics:

- **Context + Setting**
- **History**
- **The River Partners**
- **Past River Planning Efforts**
- **The 2016-2018 Planning Process**
- **Plan Overview**

Context + Setting

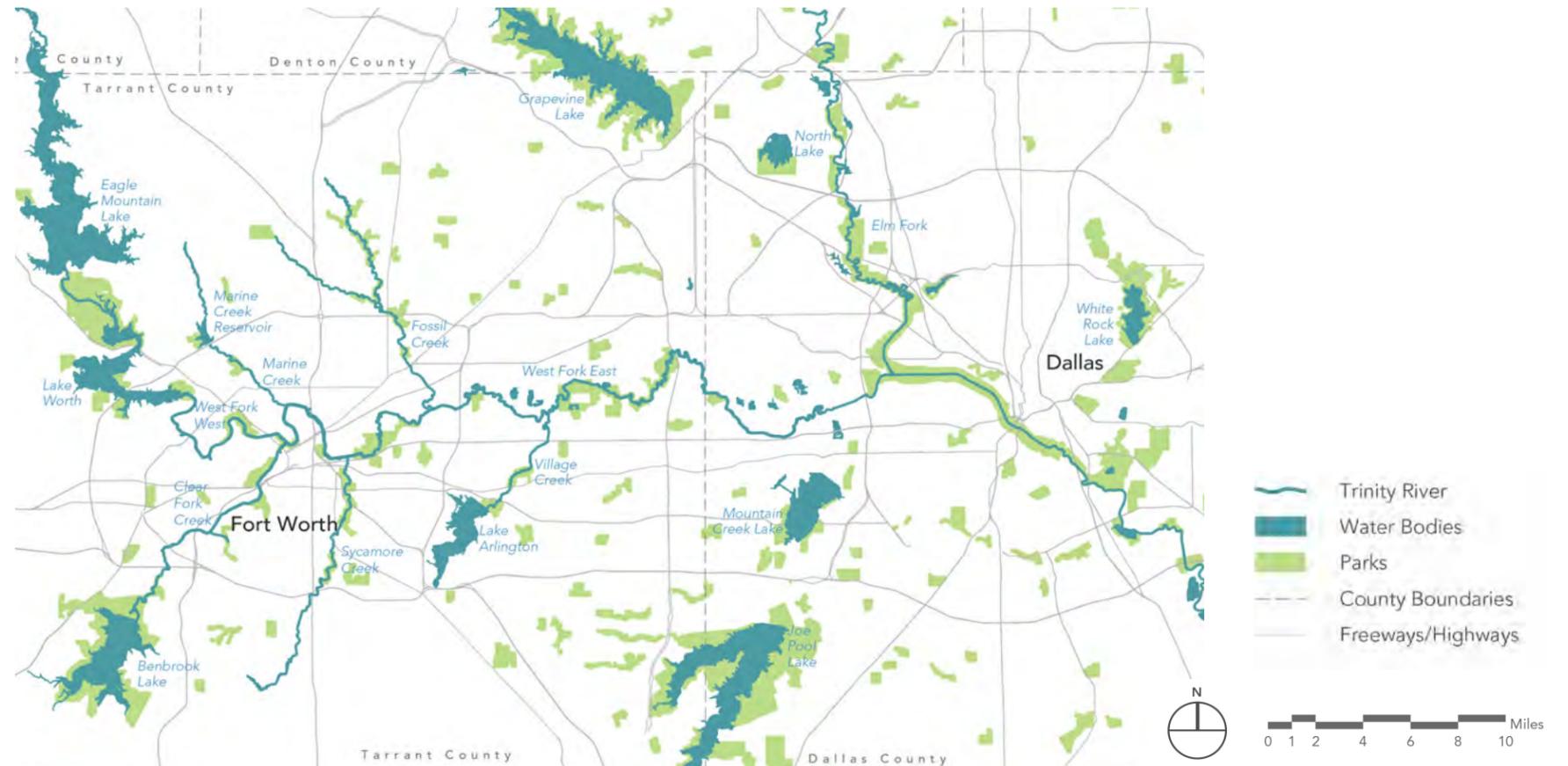
Trinity River Watershed

The Trinity River is a 710-mile-long river, and **the longest river with its watershed entirely within the state of Texas**. It is the third largest river in Texas by average flow volume. The Trinity River has four major branches: the West Fork, the Clear Fork, the Elm Fork, and the East Fork. The West Fork and the Clear Fork run through Fort Worth. The river's headwaters are in Archer County in North Texas, flowing southeast through Eagle Mountain Lake, through Lake Worth and the City of Fort Worth to Dallas, and down to the Gulf of Mexico. The Clear Fork begins north of Weatherford, flowing southeast through Benbrook Lake, and then northeastward toward Downtown Fort Worth's confluence.



Dallas-Fort Worth Metroplex

The Trinity River acts as a natural connector for the Dallas-Fort Worth metropolitan area. The waterway runs through Tarrant County into Dallas County, creating opportunities for regional active transportation and recreational destinations and trail linkages along its banks. The Trinity River also plays an **integral role in the larger social, environmental, and economic contexts of the metroplex**. Both Dallas and Fort Worth are experiencing rapid population and economic growth, much of it along the Trinity River. As the river has become an increasingly well-used natural and recreational amenity, it has also seen a rise in development along its banks: in Tarrant County, the population within one-half mile of the Trinity River has grown by 20 percent since 2000. While this growth is a boon for the regional economy, it also puts strains on the Trinity River. The system experiences impacts on its role and function as an open space amenity, water source, and environmental system.

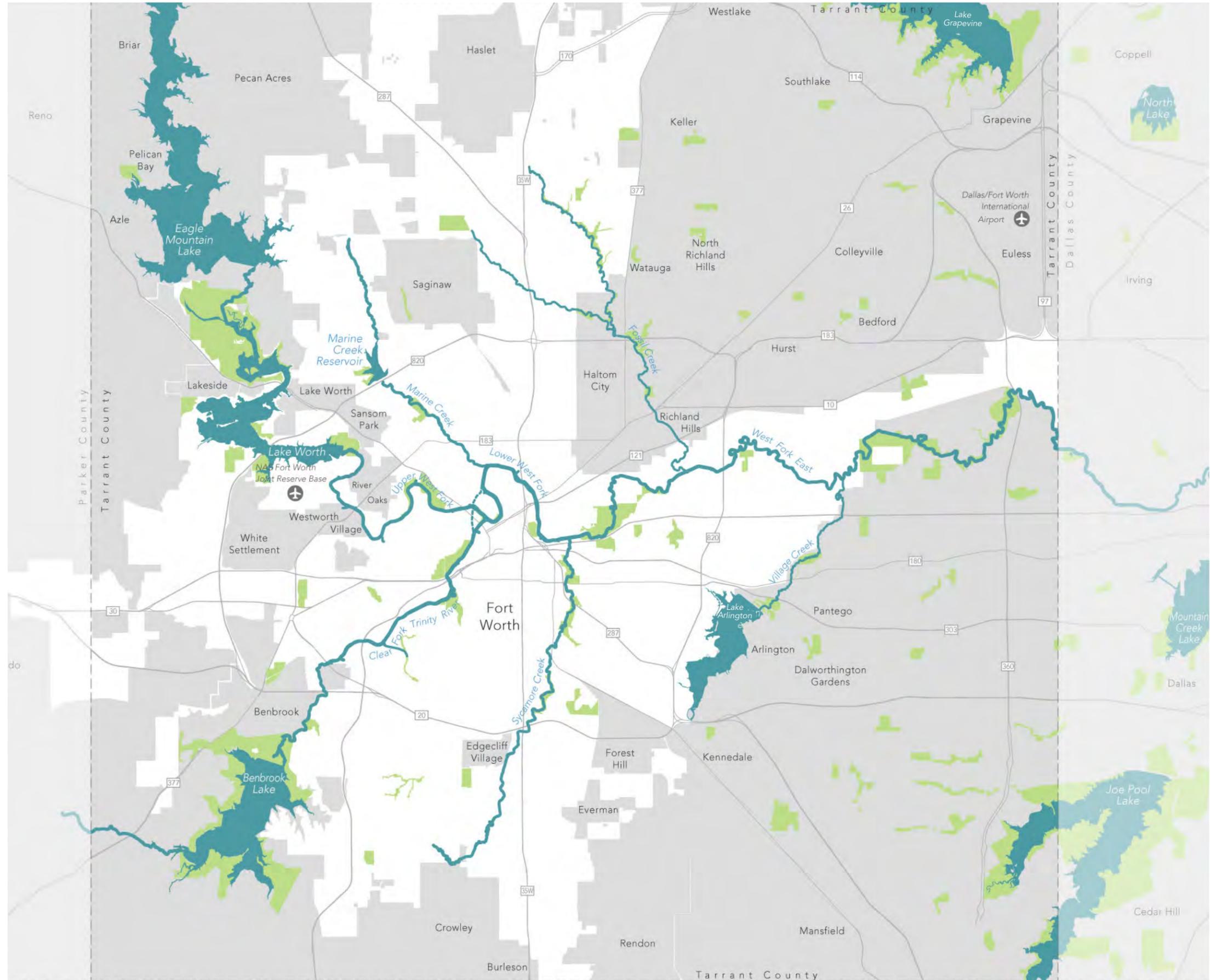


Fort Worth sources its water from eight resources, six of which are associated with the Trinity River: Lake Bridgeport, Eagle Mountain Lake, Lake Worth, Benbrook Lake, Cedar Creek Lake, and Richland Chambers Reservoir. The Tarrant Regional Water District (TRWD) and other regional agencies are currently planning large-scale infrastructure projects to address increased water demands through the Dallas-Fort Worth area. As the region grows, strategic planning along the Trinity River is critical to guarantee continued adequate and safe water supplies, ensure active transportation and recreational access for a broad range of users, and foster the long-term environmental health of the system.

Tarrant County

The Clear Fork and West Fork of the Trinity River flow from the northwest and southwest corners of Tarrant County, meeting in Downtown Fort Worth, and stretching eastward through Arlington. The river's path links a **diverse set of communities throughout the county across this wide geography.** The river and its tributaries, including West Fork, Clear Fork, Marine Creek, and Sycamore Creek, stretch 88 miles through Tarrant County, with more than 72 miles of shared-use trails along their banks. Each river segment is home to a different natural and urban environment, creating a varied and engaging experience throughout the river corridor.

-  Trinity River
-  Water Bodies
-  Parks
-  Other Cities/Towns
-  County Boundaries
-  Freeways/Highways
-  Panther Island Bypass Channel



History

The current wave of population growth along the Trinity River is not a new phenomenon. **The river has played a major role in the development of the Dallas-Fort Worth area** since the founding of the two cities. Land around the river was prized for its fertile, game-rich hunting grounds. In 1849, US Army Major Ripley Arnold established Fort Worth on the bluffs overlooking the river, where the Clear Fork and West Fork converge. For decades, the Trinity River was used as a navigational system between Dallas and Fort Worth, as far north as Henderson County. In the late 1800s, railroad construction diminished river transportation, and the Trinity River Navigation Company was founded to promote riverboat transportation.

In 1909, George Kessler worked with the Fort Worth Park League to create a masterplan for Parks and Open Space. This plan recommended acquiring both banks of all creeks and rivers for open space. During this period and into the early 20th century, Fort Worth blossomed along the Trinity River's banks. However, in 1949, a massive flood destroyed much of the city. The river reached a depth of 52 feet and a width of 1.5 miles, killing 10 people and leaving 4,000 citizens homeless. The 1949 event sparked a series of flood control measures that led to today's levee systems. As the channels were straightened and the levees were extended and raised, **Fort Worth began to turn its back on the Trinity River, treating it as a threat rather than as the backbone of the city.**

In the 1950s, the United States Army Corps of Engineers began building a massive flood protection system. They straightened sections of the West Fork and Clear Fork, constructed the levees, and created the Fort Worth Trinity River Floodway. The Army Corps also removed hundreds of trees to prevent potential hazards and blockages during floods. Because of these efforts, the Trinity River no longer functioned as a thriving natural system. The river became degraded, underutilized, and littered with trash.

In 1969, Phyllis Tilley and a small committee of Fort Worth citizens organized a Trinity River bus tour for community leaders and elected officials to discuss the **necessary steps to reclaim the city's most valuable resource.** In 1971, the group incorporated as "Streams & Valleys, Inc.," a non-profit organization charged with the beautification of the river and the development of the system as a recreational amenity. Early efforts included TRWD constructing low water dams which allowed more aesthetically pleasing water levels, and working with the City of Fort Worth Parks Department to build trails along the banks of the river. In 1971, fewer than three miles of trail existed along the river, but by 2003, there were 30 miles of trail. **More than 72 miles of trail exist today**, with additional facilities planned in the coming years. In fact, the trail system has become so successful that certain segments face safety issues due to conflicts resulting from the interaction of high volumes of users with different modes of travel, varying trip purposes, and travel speeds.

Today, the Trinity River is a thriving amenity that not only provides recreational opportunities throughout the city, but has also become a **destination for community gatherings, large events, and riverside living.** Fort Worth community members are increasingly seeking residential, commercial, and entertainment opportunities along the river, and developers are responding in kind. New development such as Clearfork at Edwards Ranch provides riverfront dining and casual open spaces that serve as community hot spots for trail users and non-trail users alike. "Rockin' the River" is one of the city's most popular events, and Panther Island Pavilion has become the premier venue for outdoor concerts and festivals. The growing excitement along the Trinity River has also **helped foster a sense of community stewardship.** The broader Fort Worth community has become more actively involved in preserving and enhancing this central amenity, due to a number of educational and cleanup efforts. Examples include: the "Reverse Litter" campaign, the "Trinity Trash Bash," and the "Share the Trail" trail safety and courtesy program which promotes overall safety on the trail system.



The flood of 1949 caused massive destruction and led the city to turn its back on the river.



Phyllis Tilley led a group of engaged citizens to begin revitalizing the Trinity River after decades of neglect.





The River Partners

Three entities comprise “The River Partners,” an alliance that **promotes the health and vibrancy of the Trinity River through Fort Worth and Tarrant County.** These parties are the driving forces that have led the transformation of the Trinity River in recent decades and have come together again to forge *Confluence: The Trinity River Strategic Master Plan*. Comprised of Streams & Valleys, the City of Fort Worth Park & Recreation Department, and Tarrant Regional Water District, The River Partners have led numerous planning, design, and implementation efforts along the Trinity. Each effort has included a new wave of goals and projects, including trail connections, park improvements, infrastructure changes, and environmental cleanups.

With the multi-layered political and jurisdictional context of the Trinity River, it is important for all entities to collaborate and communicate about various projects and planning initiatives. This Strategic Master Plan creates a framework that assists the relevant parties as they work together for a healthier, stronger Trinity River and Tarrant County.

Each of The River Partners is described in detail at right.

Streams & Valleys, Inc. (S&V)

Streams & Valleys (S&V) is a non-profit organization and river steward whose mission is to inspire, fund, and advocate for projects that improve and expand community access and use of the Trinity River and its trails. The organization was formed in 1969 to re-establish the river as a clean and healthy waterway. Streams & Valleys plans and coordinates recreation enhancements, beautification efforts, and promotes the Trinity River and its tributaries in Fort Worth and Tarrant County. Streams & Valleys also serves as the convener of The River Partners and of river planning efforts. Operated by a small staff and volunteer board, the organization currently focuses on fundraising for river projects, as well as programming of public events and various river-oriented campaigns.

Tarrant Regional Water District (TRWD)

TRWD manages the flood control system in Fort Worth, including 27 miles of floodway channel improvements and levees along the West Fork and Clear Fork of the Trinity River. TRWD is the major water supplier for the region, constructing and managing large infrastructure projects and water supply reservoirs on the Trinity River and in East Texas. TRWD provides clean, healthy water for more than two million people across a service area of more than 5,800 square miles in 11 counties. TRWD also constructs and maintains a large portion of the trail system along the Trinity River’s levees, and grants permits for events along the river. TRWD works in close partnership with the City of Fort Worth, particularly the Park & Recreation Department (PARD), on river-area projects and their maintenance.

Other Partners

The Trinity River flows through and is managed by multiple agencies in a variety of jurisdictions throughout Tarrant County. This broader network of partners works together to **maintain and improve this great amenity.**

Parks along the Trinity River within the **City of Arlington** are owned and operated by the Arlington Parks and Recreation Department. The cities of Fort Worth and Arlington are actively partnering to develop a riverside trail connection between the two jurisdictions.

The **North Central Texas Council of Governments (NCTCOG)** is also involved in connections to and along the Trinity River. NCTCOG works on a variety of transportation and sustainability efforts for North Central Texas, including the North Texas Regional Veloweb, which is a proposed network of off-street shared-use trails for active transportation. The Veloweb includes all Trinity Trails and many connecting trails and roads. NCTCOG coordinates with TRWD, the City of Fort Worth, the City of Arlington, and other local jurisdictions on trail, bikeway, and pedestrian infrastructure projects.

The **Trinity River Vision Authority (TRVA)** is an economic development corporation created by the Tarrant Regional Water District to implement the Panther Island project, a massive infrastructure and flood control initiative that will open 800 acres of land for re-development just north of Downtown Fort Worth.

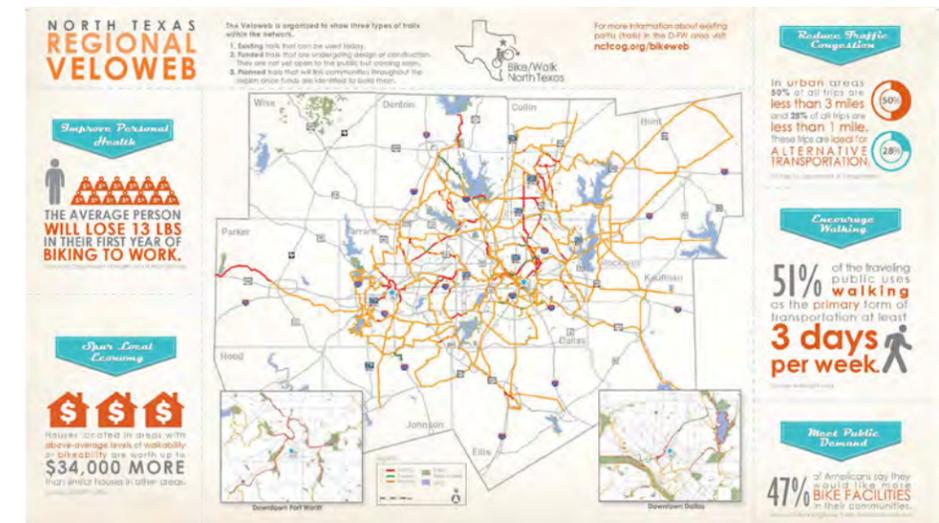
The **United States Army Corps of Engineers (USACE or Army Corps)** has developed floodway systems in both Dallas and Tarrant Counties. The primary focus of the Army Corps is flood damage reduction along the river. To that end, they have established an extensive “Levee Safety Program,” which rates levees that protect populated areas from damaging flood events.

City of Fort Worth Park & Recreation Department (PARC)

The City of Fort Worth is committed to ensuring that the Trinity River is a valuable asset for the Fort Worth community. PARC maintains and operates all parks along the Trinity River and its tributaries, including the major assets of Gateway Park, Trinity Park, Riverside Park, Cobb Park, Sycamore Park, Buck Sansom Park, and Marion Sansom Park, in addition to the Fort Worth Nature Center and Wildlife Refuge. PARC is also responsible for permitting activities and events in these parks, as well as for trail expansion and maintenance outside TRWD’s jurisdiction. The City of Fort Worth Planning and Development Department is also actively involved in development along the Trinity River, working with developers to approve and permit new projects, and to promote the continued health and vibrancy of the Trinity River as the built environment expands.



The Panther Island project, led by the Trinity River Vision Authority, will dramatically change the relationship between the Trinity River and the surrounding urban context.



The North Texas Regional Veloweb provides a broad vision for bicycle connectivity and active transportation throughout the Fort Worth region.



Past River Planning Efforts

For decades, the Trinity River’s evolution has been guided by thoughtful and innovative planning processes and careful implementation. **Confluence builds upon the rich history** of the following initiatives:

The Halprin Plan (1971)

In 1971, Streams & Valleys commissioned Halprin and Associates to study the Trinity River in Fort Worth. The resulting plan recommended low-water dams to regulate water levels, extensive multi-user trail systems, lighting, tree planting, and public space improvements. Streams & Valleys championed the implementation of this plan by planting thousands of trees, increasing water levels, and establishing miles of recreational trails and trailheads.

The Tilley Plan (1999)

In 1999, the Trinity River Master Plan was updated and adopted by Streams & Valleys and the Parks and Community Services Advisory Boards. The 1999 plan focused on the river corridor from Trinity Park to Gateway Park, and was known as the “Tilley Plan,” named for an influential and dynamic S&V founding member, Phyllis Tilley.

The Trinity River Vision Master Plan (2003)

In 2003, Gideon Toal, Inc., completed the Trinity River Vision Master Plan, encompassing 90 miles of the river and creek corridor, and focusing on eight distinct river segments: Clear Fork North, Clear Fork South, Marine Creek, Sycamore Creek, West Fork East, West Fork West, and the Central City area. The plan provided recommendations to improve the river’s public accessibility, attract more visitors, develop the Downtown waterfront, preserve natural areas, and increase the visibility and presence of the river for Fort Worth community members and visitors. The plan also focused on proactive safety improvements and preventative flood control measures as well as environmental enhancements. This plan laid the groundwork for the Trinity Uptown Plan (described below) and led to the creation of the Trinity River Vision Authority (TRVA) to implement the projects outlined in the plan. This plan was developed and ratified by each of The River Partners.

The Trinity Uptown Plan (2004)

In 2004, TRWD, the City of Fort Worth, and Tarrant County, with the support of Streams & Valleys and Tarrant County College, established a dramatic new vision for urban waterfront development. The Trinity Uptown Plan identified an innovative new project to create a flood control bypass channel and enable the development of the 800-acre area just north of Downtown. The publicly funded component of the plan, which includes environmental restoration, flood protection, and infrastructure improvements, is known by the Army Corps as the “Central City” project. However, most of the general public now refers to this overall development plan and to this area of the city as “Panther Island.”

The project, currently being implemented by TRVA, includes full development of the site, and represents a massive infrastructure investment that will establish a new relationship between the urban core of Fort Worth and the waters of the Trinity River. The bypass channel and control structures will allow water levels to be regulated, creating an opportunity for greater interaction between recreationalists and the river itself. The goal is to develop a vibrant urban environment, integrally connected to the Trinity River, linking Downtown, the Historic Stockyards, and the Cultural District.

The Trinity River Vision Neighborhood and Recreation Enhancement Plan (2009)

In 2009, TRWD, TRVA, Streams & Valleys, and the City of Fort Worth updated the 2003 Trinity River Vision Master Plan. The purpose of the Neighborhood Recreation Enhancement Plan (NREP) was to identify and prioritize recreational and neighborhood connections to the Trinity River over a 10-year period. Recommendations included neighborhood trail linkages, increased access to open space opportunities, new trailheads, signage and wayfinding systems, and recreational improvements. The NREP provided conceptual detail about each project recommendation, including the Gateway Park Master Plan. Funding for all proposed projects in the NREP is reviewed each year by the River Partners.

Trinity To Be

By MIKE BUCHHOLZ

Things are really starting to roll on the Trinity River. In fact, many of the recreational projects that have been discussed for the past three years will actually be ready for use by the time summer gets here.

Members of the Streams and Valleys Committee hope that the 5.3-mile bike path along the west bank of the river will be black-topped and open for peddling by June.

* * *

AND, IF everything works out okay, river visitors will be able to rent bikes that travel on land or water at a concession expectd to be finished May 1.

Hershel Lindly, a senior planner with the city planning department who has been coordinating the river beautifi-

The 2016-2018 Planning Process

Confluence: The Trinity River Strategic Master Plan represents the next phase of river planning, provides a strategic overlay, and identifies new priorities and projects that build upon successful past planning initiatives. *Confluence* articulates a vision and implementation strategy for the Trinity River to become a **world-class amenity and resource as well as an economic development catalyst for the region**. The River Partners began this important project in the summer of 2016 and it includes seven phases and the formation of three committees. Each component of the planning process is outlined below.

Confluence Planning Committees

Trinity River Task Force

The Trinity River Task Force met seven times over the course of the planning process. This talented group provided high-level feedback and insight into the broad vision for the Trinity River. Members represented a diversity of interests and backgrounds, providing important perspectives to ensure the Trinity River meets the needs of all Fort Worth community members. Task Force members included elected officials, agency heads, policy makers, property owners, and members of the corporate community.

Trinity River Working Committee

The Trinity River Working Committee was formed to provide more detailed input about specific planning concepts. The group met six times during the project. Working Committee members included representatives from TRWD, PARD, City of Fort Worth Planning and Development Department, NCTCOG, Sundance Square, and Streams & Valleys. The Working Committee reviewed and informed the plan at each stage of its development.

Trinity River Technical Committee

The Trinity River Technical Committee was comprised of a small group of staff representatives from TRWD, PARD, NCTCOG and Streams & Valleys who provided technical expertise and detailed feedback about specific policies and projects in the proposed plan. This committee met numerous times during the latter phases of the planning process and worked together to further define each project shown in this document.

Stakeholders + Community Engagement

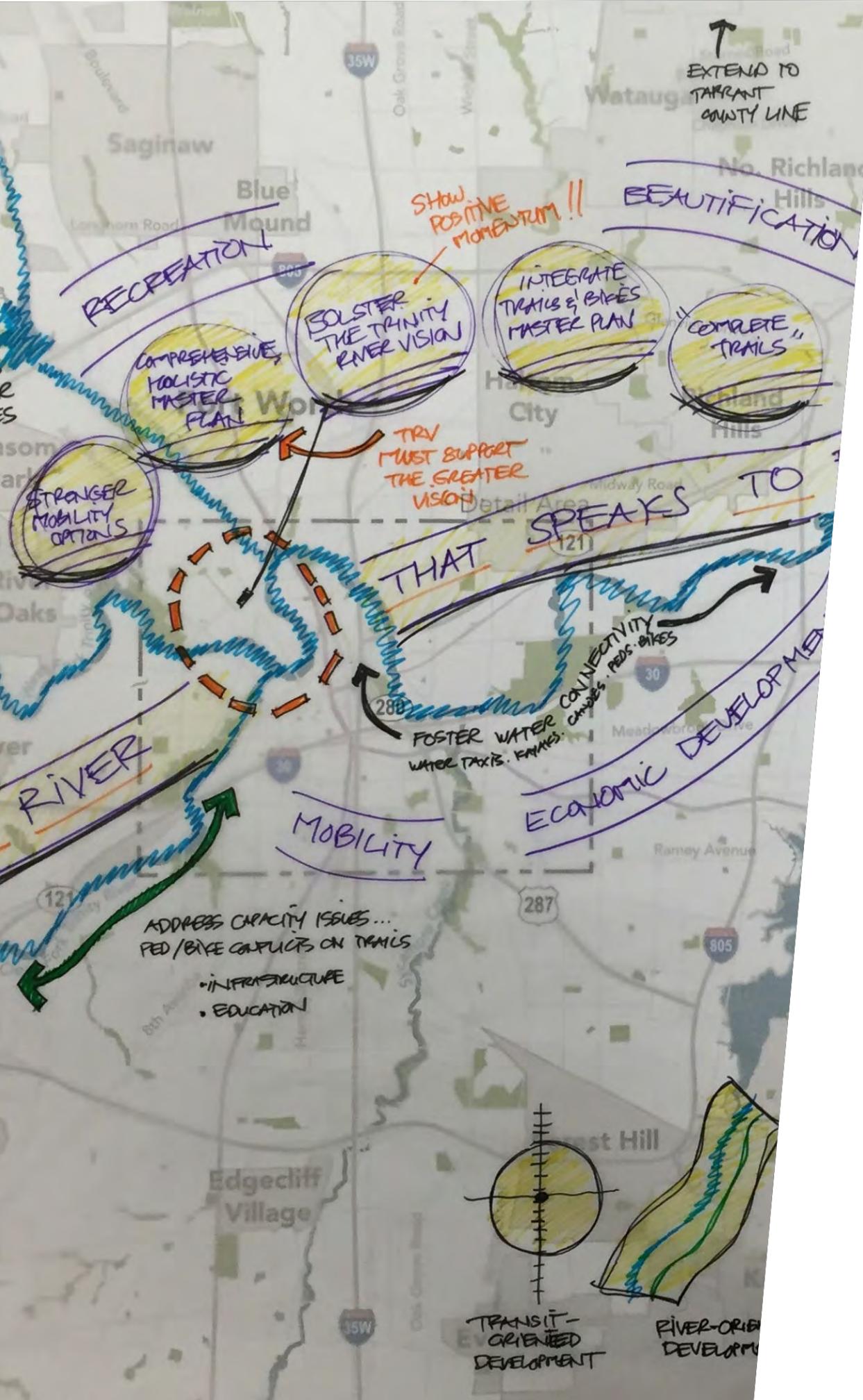
In addition to each of the planning committees, the Strategic Master Plan process included outreach to a broad array of stakeholders.

Stakeholder interviews and focus groups were held with the Fort Worth Mayor and City Council, City of Fort Worth engineers and planners, Arlington Parks and Recreation Department staff, local developers and architects, tourism and economic development experts, event organizers, community advocates, local non-profit organizations and current and former Streams & Valleys Board members.

The process also included “**Pop-Up Workshops**” along the Trinity Trails and in other well-used spaces throughout Fort Worth. These events provided an opportunity to collect feedback about the river directly from trail users and the broader public. The project team set up posters with a variety of questions for participants to answer using dot stickers and written comments. The posters included questions about river activities and usage, access, frequency and timing of river use, and opportunities for river improvements. The team also talked with participants about their overarching vision for the Trinity River.

The River Partners also collaborated with the City of Fort Worth, North Central Texas Council of Governments, and Blue Zones Fort Worth on an **interactive bilingual survey**. Data from the survey will be used to improve Fort Worth’s transportation and recreation options, update the City’s bicycle and pedestrian plans, create the first trails masterplan, and study the Trinity River and Trails network.

The input collected through community outreach provided the foundation for the overarching plan framework as well as the detailed project and policy ideas. The diverse opinions and wide range of stakeholders involved ensures that the future of the Trinity River will be inclusive and welcoming to all.



Planning Process Phases

Phase 1: Discovery. The Discovery Phase of the *Confluence* process focused on a review of previous planning efforts and background information, participation in river tours, extensive stakeholder interviews, a series of focus group sessions, and meetings with the Trinity River Working Committee.

Phase 2: Visioning. The Visioning Phase expanded outreach to the broader community with Pop-Up Workshops to gather river user feedback and ideas. The project team also conducted additional stakeholder interviews, held the second Working Committee meeting and facilitated a session with the Streams & Valleys Board of Directors. This phase included a keynote address and promotion of the planning process at the Streams & Valleys Annual Meeting.

Phase 3: Preliminary Vision. Based on the extensive data and feedback collected in the first two phases of the process, the project team created an Environmental Scan and a Corridor Market Analysis, as well as the Preliminary Trinity River Vision, which identified broad goals and objectives for several overarching topic areas related to the river.

Phase 4: Plan Framework. The Environmental Scan and Preliminary Trinity River Vision formed the basis for the Draft Plan Framework. The Framework outlines ten key goal areas for the Trinity River and several supporting strategies. The Framework serves as the underlying structure of the plan.

Phase 5: Draft Plan. The next phase of the planning process used the feedback collected throughout the earlier phases to expand on the Plan Framework and identify policies, programs, and projects to support and implement the overall Trinity River Vision. These became the Draft Plan.

Phase 6: Final Plan. The final phase of the strategic planning process provided an opportunity for stakeholders, community members, and project participants to provide input at the Streams & Valleys 2018 Annual Meeting. The Final Plan is a product of each project phase and a cohesive reflection of feedback collected throughout the two-year process.

Plan Overview

Confluence: The Trinity River Strategic Master Plan is an action-oriented document that outlines policies, programs, and catalytic projects that will help the Trinity River live up to its full potential as the communal centerpiece of Tarrant County. Each section of the plan establishes strategies and projects to guide future decision-making in the coming years.

Following this Chapter 1: Introduction, the remainder of *Confluence* consists of the following sections:

Vision, Goals, + Strategies (Chapter 2)

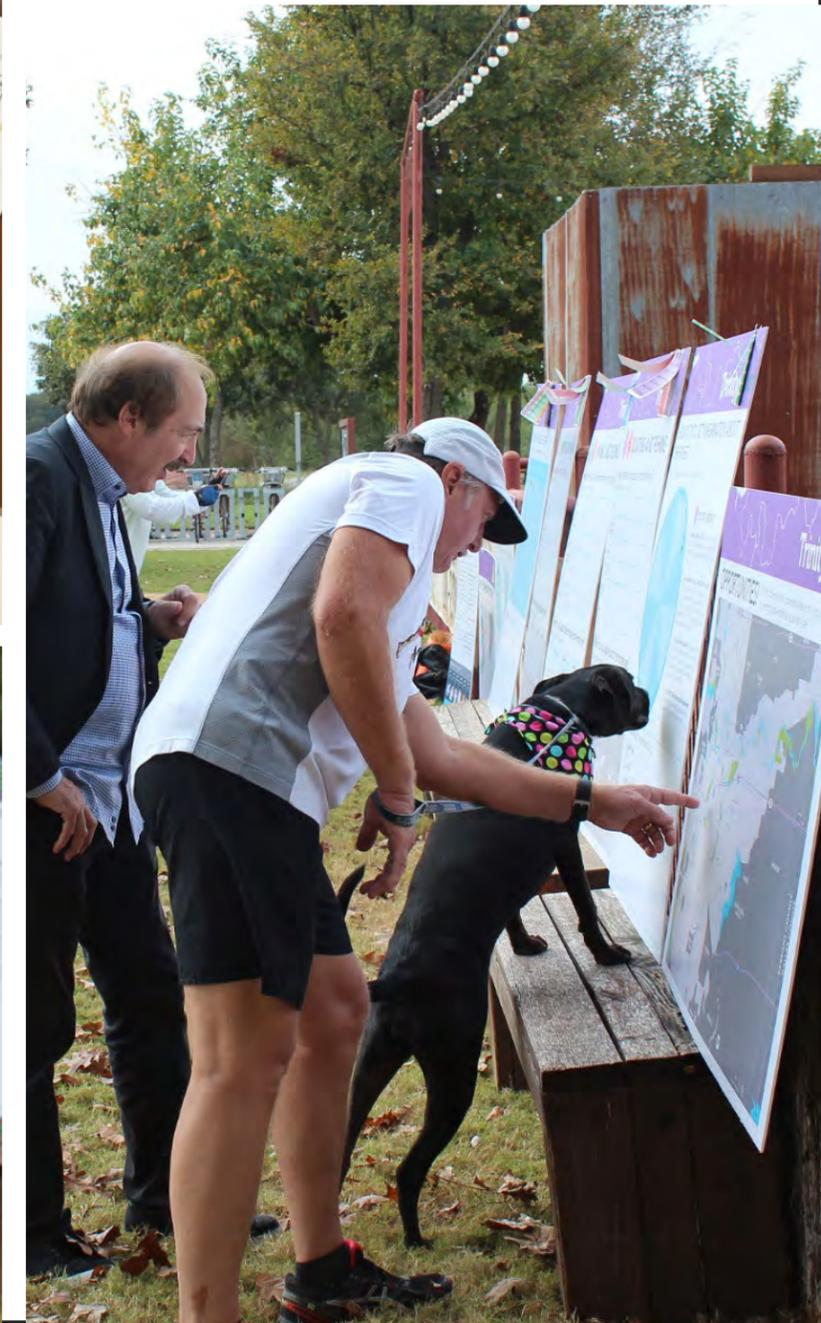
This chapter establishes a Framework for *Confluence*, based on a high-level Vision for the future of the Trinity River. The Framework is organized around six Vision Elements and ten Goal Areas: Community, Connectivity, Economic Development, Education, Environment, Flood Control, Health, Recreation, Sense of Place, and Water Quality. The chapter then expands upon the Framework with a series of implementable strategies, policies, and programs that will help achieve each goal.

River Projects (Chapter 3)

This chapter is organized around the six major segments of the Trinity River through Fort Worth: Upper West Fork, Clear Fork, Lower West Fork, Marine Creek, Sycamore Creek, and West Fork East. The chapter identifies a variety of projects that will improve the river system in the coming years, and includes at least one Key Project for each river segment. Illustrative graphics, maps, diagrams, and photos accompany the Key Projects, bringing the concepts to life.

Implementation (Chapter 4)

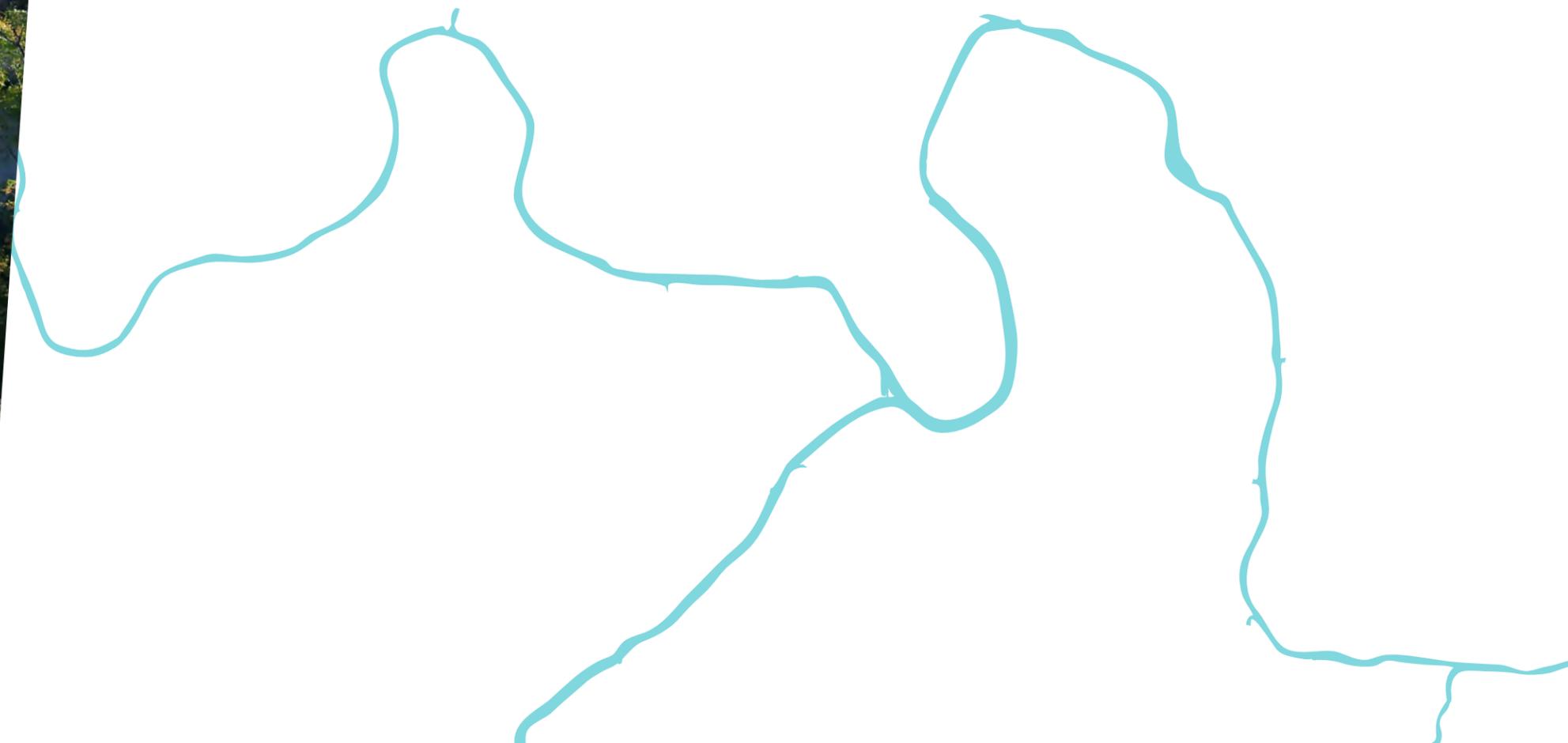
This chapter outlines the major actions and responsibilities required to implement *Confluence*. The implementation section also includes time frames and priorities for plan projects, policies, and programs; forming a step-by-step guide to realize the Vision for the Trinity River.



VISION, GOALS + STRATEGIES

This chapter establishes the blueprint for the Trinity River's future. It will guide improvements to the waterway and trails, and shape and support growth and change in the Fort Worth community. The Framework provides the building blocks for **policies, programs, and projects that will enable the river to thrive for years to come.** These ideas and actions reflect input collected throughout the planning process from community members, river and trail users, public officials, property and business owners, and other stakeholders. The Framework recognizes a diverse set of needs and desires, and proposes policies that will allow the river system to be a **fun, healthy, accessible, sustainable, and economically vibrant place for everyone.**

The following diagram offers an overview of the contents of this chapter; including the guiding vision statement, six vision elements, ten goal area statements, and the key strategy for each of those goals. The remainder of the chapter describes specific strategies, policies, programs, and projects to support the Framework.



VISION STATEMENT

THE TRINITY RIVER IS...

Integral to a robust **economy** for Fort Worth and the Tarrant County region.

The lifeblood of our **environment** that seamlessly interweaves our natural spaces and urban places.

The centerpiece of our **community** where people come together to socialize, recreate, and play.

VISION ELEMENTS

Safe

The Trinity River system is a place where all users feel comfortable.

Inclusive

The Trinity River system is a place for people of all ages, abilities, races, cultures, genders, and income levels.

Healthy

The Trinity River system encourages healthy lifestyles for community members throughout the region.

Natural

The Trinity River is a thriving and diverse ecosystem that promotes a healthy balance between the urban environment and the natural world.

Accessible

The Trinity River provides transportation and recreation access for all the communities along its reaches.

Vibrant

The Trinity River stimulates economic activities and promotes sustainable, context-sensitive development throughout the region.

GOAL AREAS



Community

Ensure equitable and inclusive river access, amenities, and activities that respond to local needs.



Connectivity

Establish a complete and highly accessible mobility network that connects all Fort Worth neighborhoods to the Trinity River system and serves as a regional transportation system suitable for users of all ages and abilities.



Economic Development

Promote balanced development in targeted locations to create an inclusive and prosperous economy for the Fort Worth community.



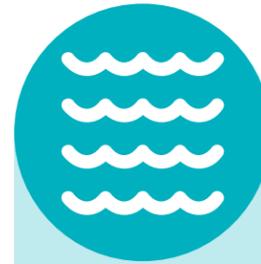
Education

Capitalize on the Trinity River system as a learning environment for all ages, and create a variety of educational spaces, programs, and information-sharing opportunities.



Environment

Expand, preserve, and enhance natural open space and environmental features along the Trinity River, and create opportunities for exploring nature.



Flood Control

Protect communities along the Trinity River from flood damage by implementing innovative and flexible flood management strategies.



Health

Encourage active lifestyles and fun, healthy living by creating attractive, safe, and accessible parks, trails, and open spaces.



Recreation

Promote diverse recreational opportunities for users of all ages and abilities.



Sense of Place

Foster a unique experience and identity at each node along the Trinity River and establish an overarching sense of place for the river corridor.



Water Quality

Ensure access to clean and safe water along the Trinity River and its tributaries.

PRIORITY STRATEGIES

CM1 Foster a sense of ownership and community stewardship along the river

CN1 Close key gaps in the trail and transportation network and implement the North Texas Regional Veloweb to create a continuous mobility system along the river throughout Fort Worth and to neighboring cities and towns

EC1 Create complementary development nodes that form a balanced, interesting, and engaging urban condition

ED1 Utilize the river corridor's natural features to create environmental, historic, and cultural education opportunities

EN1 Create nodes and corridors of habitat and open space to balance conservation and development and to enhance the ecological integrity of the river and streams

FC1 Create innovative infrastructure improvements that provide flexible, natural, and recreational amenities during non-flood events

HE1 Provide safety and comfort on trails for users of all fitness levels and abilities

RE1 Support inclusive and varied recreation opportunities, including off-trail family spaces, passive recreation, structured recreation facilities for sports, and wilderness areas for hiking, birding, and exploring

SP1 Promote the distinct identities of each river segment

WQ1 Develop integrated, watershed-wide stormwater treatment policies that ensure long-term water quality for the Trinity River





VISION



THE TRINITY RIVER IS ...

Integral to a robust

economy

for Fort Worth and the
Tarrant County region.

The lifeblood of our

environment

that seamlessly interweaves
our natural spaces
and urban places.

The centerpiece of our

community

where people come
together to socialize,
recreate, and play.

Safe

The Trinity River system is a place where all users feel comfortable. The trails and waterways are clean and well-maintained, with adequate lighting, “911 signs” at regular intervals, and access for emergency services. Riverside trails support activity and the “eyes on the river” that foster a sense of security. All uses, activities, and modes of travel are welcome and accommodated in a way that prevents conflict.

Inclusive

The Trinity River system is a place for people of all ages, abilities, races, cultures, genders, and income levels. The system meets the needs of the diverse communities along its path, with context sensitive design and neighborhood-specific amenities. Its recreation facilities are publicly available free of charge, and provide a variety of activities and spaces for different uses. It welcomes commuters, runners, swimmers, cyclists, equestrians, fishers, boaters, picnickers, athletes, sunbathers, nature enthusiasts, seniors, families, and children alike.

Healthy

The Trinity River system encourages healthy lifestyles for community members throughout the region. It provides a variety of accessible and affordable exercise opportunities along trails, in parks, and on the water. The trail system also creates an active transportation network and facilitates alternative commuting patterns. The natural system fosters interaction with nature, teaches children that they are part of the natural environment, and provides respite from the stressors of daily life. The river ecosystem is also healthy and clean, with stormwater controls and pollution mitigation measures that protect its long-term functions. The river network creates community by bringing people together and offering opportunities for play, recreation, socializing, and relaxation. It is a physical, social, and mental health provider for the region.

Natural

The Trinity River is a thriving and diverse ecosystem that promotes a healthy balance between the urban environment and the natural world. The river is a sustainable and clean water source for the region and is home to a variety of animal and plant communities that enhance the environmental health of the region. Riverside vegetation, wetlands, and natural floodplains provide habitat, enhance stormwater management, and counteract the negative impacts of development and pollution.

Accessible

The Trinity River provides transportation and recreation access for all the communities along its reaches. Trails are easy to find, easy to reach, and easy to travel on. The waterway is safe and navigable in many stretches, with boat launches and touch points throughout the system. Bike lanes and sidewalks provide continuous linkages from neighborhoods to the trail system. Wayfinding and signage help users navigate the network, and information about programming and activities is readily available. The river system is universally accessible: walkable and rollable for people of all abilities and provides disability-friendly access points to the water.

Vibrant

The Trinity River stimulates economic activities and promotes sustainable, context-sensitive development throughout the region. The river creates opportunities for diverse activity nodes and key destinations, each with its own character. It encourages entrepreneurship and supports existing communities of all income levels. The river network fosters activity, social gathering, and memorable experiences. The Trinity River is fun!



GOAL AREAS



Ten Goal Areas form the building blocks for *Confluence: The Trinity River Strategic Master Plan's* strategies, policies, and programs. Each Goal Area is described in specific detail. Consistent, collaborative work toward these goals will propel the river system forward to achieve its long-term vision and live up to its full potential.

Community

Ensure equitable and inclusive river access, amenities, and activities that respond to local needs.



Economic Development

Promote balanced development in targeted locations to create an inclusive and prosperous economy for the Fort Worth community.



Connectivity

Establish a complete and highly accessible mobility network that connects all Fort Worth neighborhoods to the Trinity River system and serves as a regional transportation system suitable for users of all ages and abilities.



Education

Capitalize on the Trinity River system as a learning environment for all ages, and create a variety of educational spaces, programs, and information-sharing opportunities.



Environment

Expand, preserve, and enhance natural open space and environmental features along the Trinity River, and create opportunities for exploring nature.



Health

Encourage active lifestyles and fun, healthy living by creating attractive, safe, and accessible parks, trails, and open spaces.



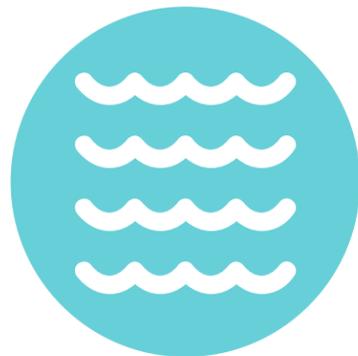
Sense of Place

Foster a unique experience and identity at each node along the Trinity River and establish an overarching sense of place for the river corridor.



Flood Control

Protect communities along the Trinity River from flood damage by implementing innovative and flexible flood management strategies.



Recreation

Promote diverse recreational opportunities for users of all ages and abilities.

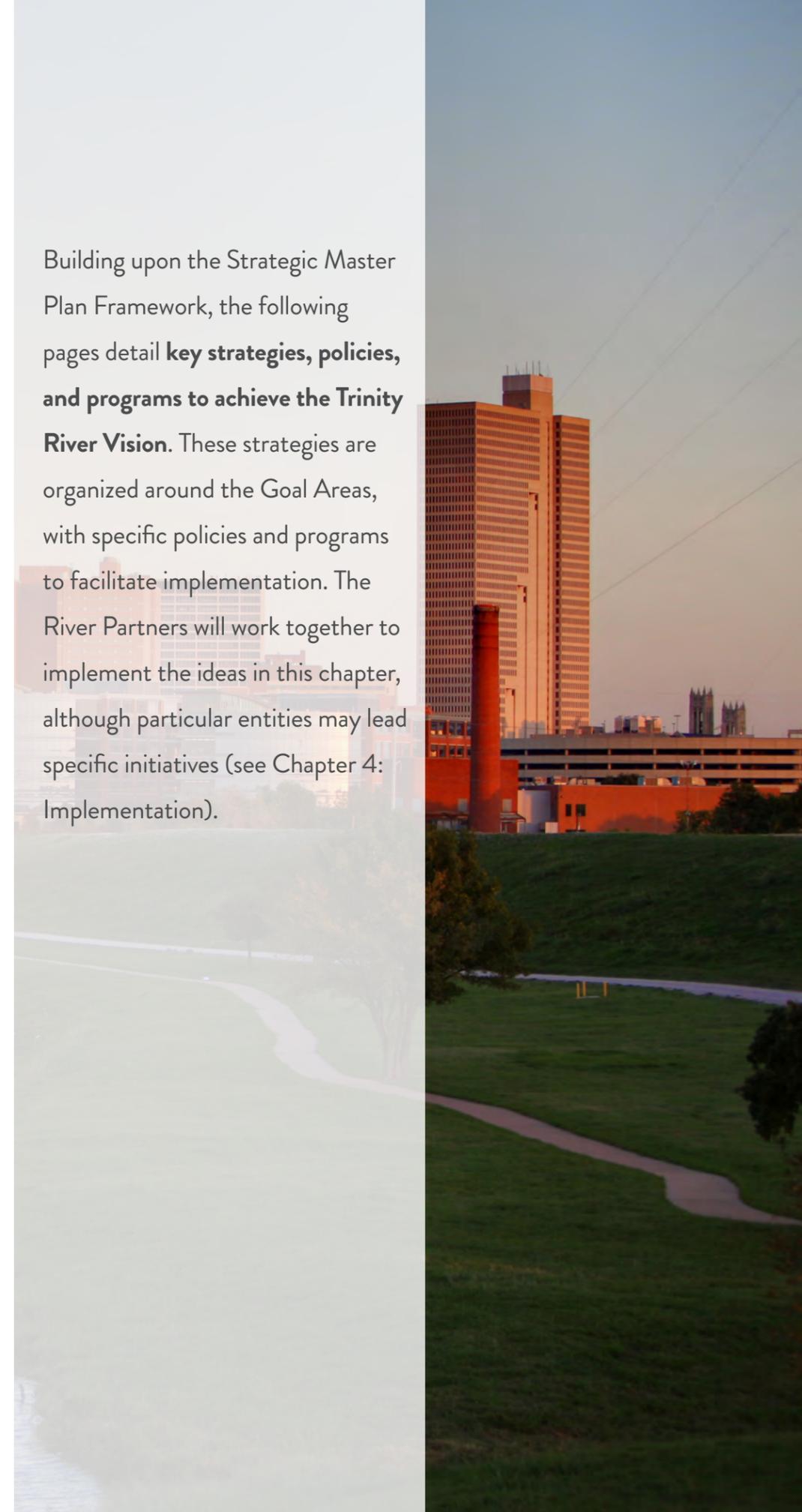


Water Quality

Ensure access to clean and safe water along the Trinity River and its tributaries.



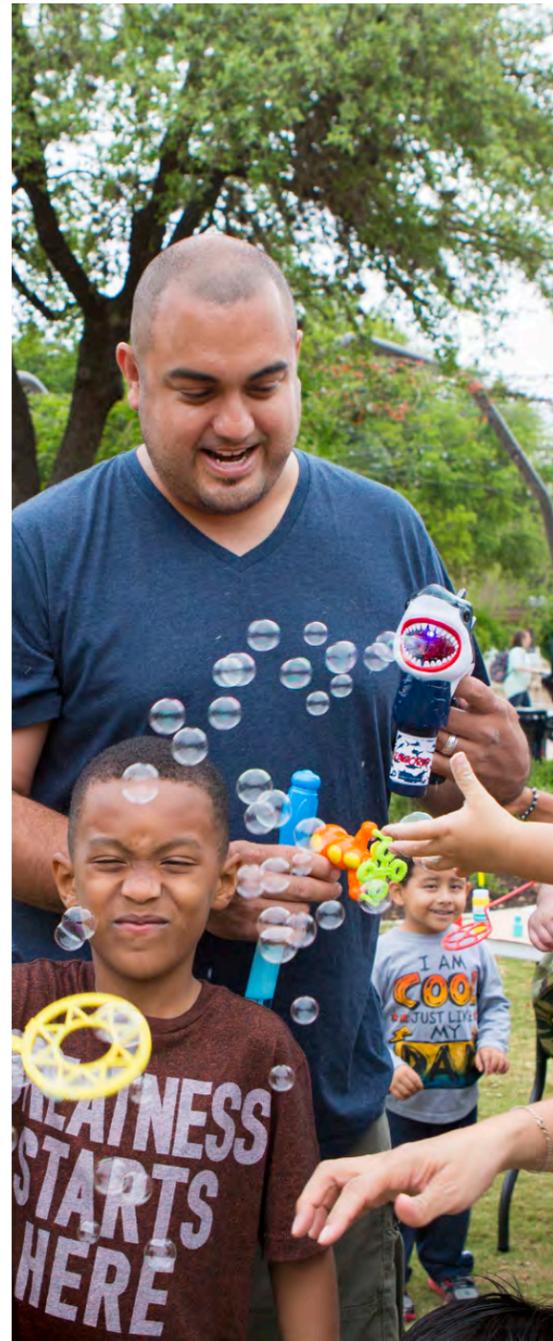
Building upon the Strategic Master Plan Framework, the following pages detail **key strategies, policies, and programs to achieve the Trinity River Vision**. These strategies are organized around the Goal Areas, with specific policies and programs to facilitate implementation. The River Partners will work together to implement the ideas in this chapter, although particular entities may lead specific initiatives (see Chapter 4: Implementation).



Community



The Trinity River runs through a diverse set of communities in Tarrant County, and it has the potential to bring all of those communities together. The river can act as **a gathering place - a linear town square** - as long as people have equitable access to its resources. The success of the Trinity River is dependent on ensuring that all Fort Worth community members have the ability to use the river system in ways that meet their needs. This section outlines existing conditions related to community building, identifies a key goal for the next 10 years, and provides strategies, programs, and policies to establish access for all communities along the river.



GOAL
Ensure equitable and inclusive river access, amenities, and activities that respond to local needs.



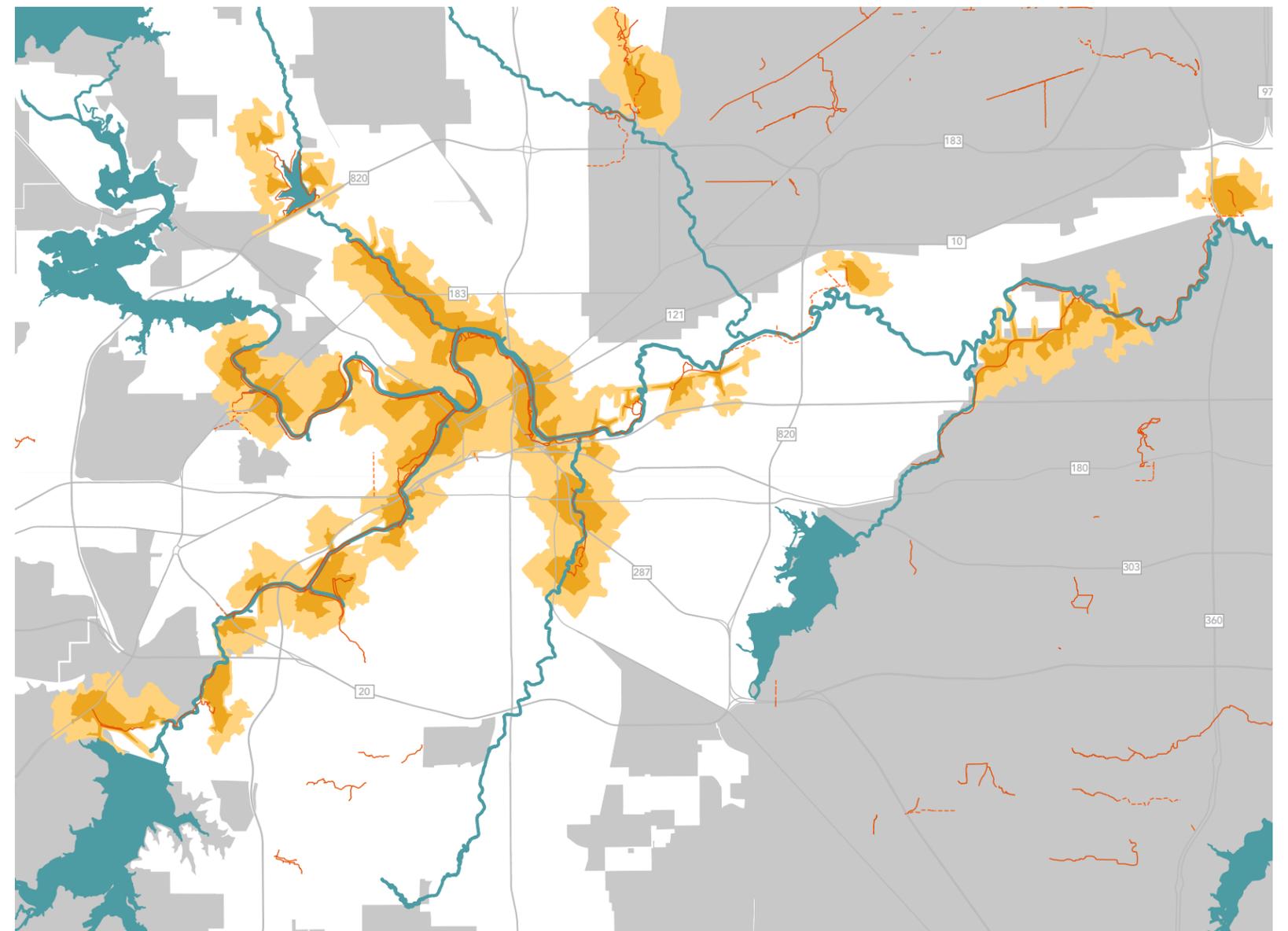
Context

The Trinity River was not always a highly sought-after amenity for recreation, healthy living, scenic beauty, and community building. The desire for all nearby residents to use the river is evidence of the waterway's successful transformation from a "muddy ditch" into a regional asset. Although the river has grown in popularity, **equitable access remains a concern**. The River Partners have made significant efforts to bring the benefits of the Trinity River to all Fort Worth communities, as evidenced by recent TRWD trail improvements at Marine Creek Lake, and City of Fort Worth Park & Recreation Department improvements to both Gateway Park and Cobb Park, as well as consistent trail expansion along all segments of the river, and the adoption of NCTCOG's Regional Veloweb. However, some communities have easier and safer access to the river than others because of development patterns, infrastructure barriers such as highways, private property directly abutting the river, and flood control infrastructure along each segment. Neighborhoods outside the Highway 820 loop in every direction are disconnected from the river, and as the city grows outwards, efforts should be made to link these neighborhoods to the Trinity Trails via bikeways, safe pedestrian routes, signage, and education about the river system. Some neighborhoods within

the Highway 820 loop also have limited river access. West Fork East is lined with a significant amount of private property, creating barriers for trail connections and access. Sycamore Creek provides beautiful trails through large open spaces in Cobb Park and Sycamore Park, but it is disconnected from the larger trail system because of property ownership, large roadways, and other barriers. North Fort Worth and the neighborhoods along Marine Creek are growing rapidly, and additional efforts will need to be made to ensure those residents are both physically and socially connected to the river.

All neighborhoods in the Fort Worth region would benefit from the health, recreation, and community-building experiences offered by the river. Community building strategies should account for neighborhood-specific needs, and community members should be involved in planning events and choosing amenities that will draw them to the river system. The Trinity River has **the potential to build community on a variety of scales** and garner ever stronger community pride in Fort Worth.

Trailhead Access: Gap Analysis



The current trail system does not provide equitable access to the river for all communities in Tarrant County, particularly in east and southeast Fort Worth.

Areas Accessible to Trailheads

- Half-Mile Service Area
- One-Mile Service Area

STRATEGIES



KEY STRATEGY

CM 1

Foster a sense of ownership and community stewardship along the river

CM 1a. Partner with neighborhood associations and community groups to establish regular river clean-up days and other activities such as local landscape projects and other community initiatives along the river and trails

CM 1b. Work with local schools to conduct service-learning days and encourage schools to offer credit for river-related service activities

CM 1c. Consider establishing a “Community-River Liaison Program” with community representatives for each neighborhood along the river to voice local concerns and desires

CM 1d. Convene an annual River Town Hall at “Confluence” (See SP 2a.) for community members to discuss river-related issues

CM 1e. Consider establishing a youth jobs and internship program for river-related work with PARD, TRWD, S&V, River Legacy, and other river-oriented organizations

CM 1f. Establish a Fort Worth Trinity River “Stream Team” through the Texas State University Meadows Center for Water and the Environment

Why it’s important:

When community members are actively involved in their neighborhood, they work to ensure it is safe, healthy, and thriving. The same is true of the Trinity River: if people are involved in river events, activities, and maintenance, they will develop a sense of pride in the river, and make sure it is well used and well taken care of. In order for the river to meet the specific needs of residents along each segment, the community members themselves need the opportunity to make it their own.

CM 2

Program inclusive events and activities that welcome and engage diverse communities throughout the river network

CM 2a. Work with neighborhood groups to plan nearby river events and help manage the permitting process

CM 2b. Work with local elected officials to identify potential funding sources for smaller neighborhood events on the river

CM 2c. Encourage major event organizations such as Mayfest and Rockin’ the River to conduct a community survey that identifies specific strategies to draw people from underrepresented communities to the events

CM 3

Develop neighborhood-specific amenities that respond to local needs, desires, and cultures

CM 3a. Conduct extensive outreach and engage community members in future improvement plans and projects on different river segments

CM 3b. Encourage Fort Worth City Council Members to conduct a survey of their constituents about neighborhood-specific river improvements and amenities

CM 3c. Develop pilot projects along different river segments to test out new and innovative amenities and activities

CM 4

Create equitable trail access and connectivity by linking communities to the larger river and trail network

CM 4a. Prioritize connectivity improvements along Sycamore Creek and West Fork East

CM 4b. Prioritize on-street bike facilities suitable for users of all ages and abilities that link East Fort Worth neighborhoods to the river system

CM 4c. Work with neighborhood groups in underserved communities to promote river and trail usage

CM 4d. Engage community members in underserved areas to identify existing barriers to connectivity and key locations for new trailheads

CM 4e. Consider conducting an equity assessment for the Trinity Trails network to garner political support and potential funding for equity-based connectivity projects

CM 5

Connect communities along smaller creeks throughout the region to the broader trail system through physical infrastructure, activities, and events

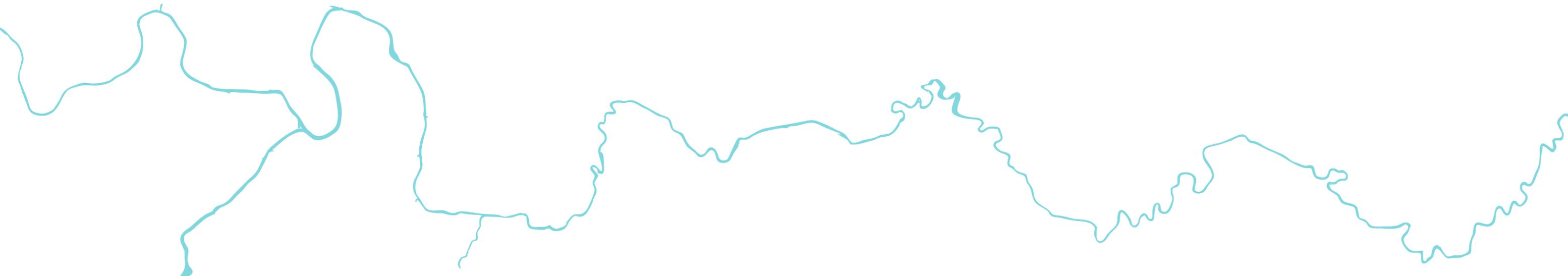
CM 5a. Work with local agencies and elected officials to identify potential connection points to the north, south, east, and west between the Trinity River and the following tributaries:

- Big Fossil Creek
- Little Fossil Creek
- Mary's Creek
- White's Branch Creek
- Village Creek

CM 5b. Identify funding to expand the trail network along each tributary

CM 5c. Incorporate Trinity Trails signage to direct people towards river tributaries

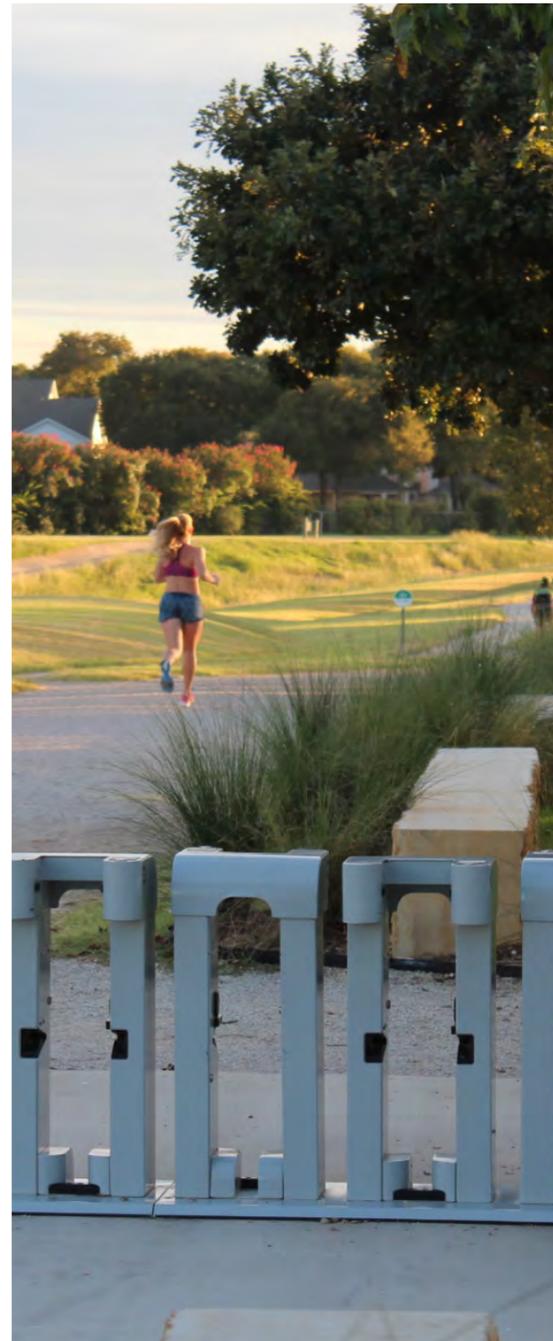
CM 5d. Establish a "Trinity Tributaries Day" with events on each creek and an on-street bike ride between each location



Connectivity



The Trinity River system is part of a vital connective network in the Dallas-Fort Worth metropolitan area, bringing together communities and serving as a facility for **walking, running, and bicycling modes of transportation** as well as **providing recreational amenities for the entire region**. Trail connectivity has been a top priority for Streams & Valleys since its founding, and The River Partners have created trails along much of the system in Fort Worth. The next phase of connectivity is on the horizon, and it includes bridging gaps in the trail network, a vision of linkages from neighborhood streets to the river, and expanding the trail network beyond Fort Worth and Tarrant County. This section outlines existing connectivity conditions, identifies a key goal for the next 10 years, and provides strategies, programs, and policies to establish the trail system as part of the region's core transportation infrastructure, as well as a place to go for enjoyment and exercise.



GOAL

Establish a complete and highly accessible mobility network that connects all Fort Worth neighborhoods to the Trinity River system and serves as a regional transportation system suitable for users of all ages and abilities.



Context

The Trinity River trail system (Trinity Trails) is a robust, expansive and ever-improving network. Thanks to strong advocacy from Streams & Valleys and a collaborative relationship between The River Partners, the Trinity Trails have grown from less than 10 miles in the 1970s to 30 miles in 2003 and 72 miles today, with plans for continued development. Community members and elected officials have expressed a **desire to expand the system** to include connections to Arlington, Dallas, Fort Worth suburbs and the major lakes in Tarrant County.

Trinity Trails is also part of the North Central Texas Council of Government’s (NCTCOG) “Regional Veloweb,” which is a planned network of off-street, shared-use paths for bicyclists, pedestrians, and other non-motorized forms of transportation throughout the region. The Regional Veloweb network includes plans to close trail-to-trail gaps along the Trinity River. However, street-to-trail connectivity is still limited by infrequent or unsigned access points, creating obstacles for cyclists and pedestrians in neighborhoods that are not adjacent to the river.

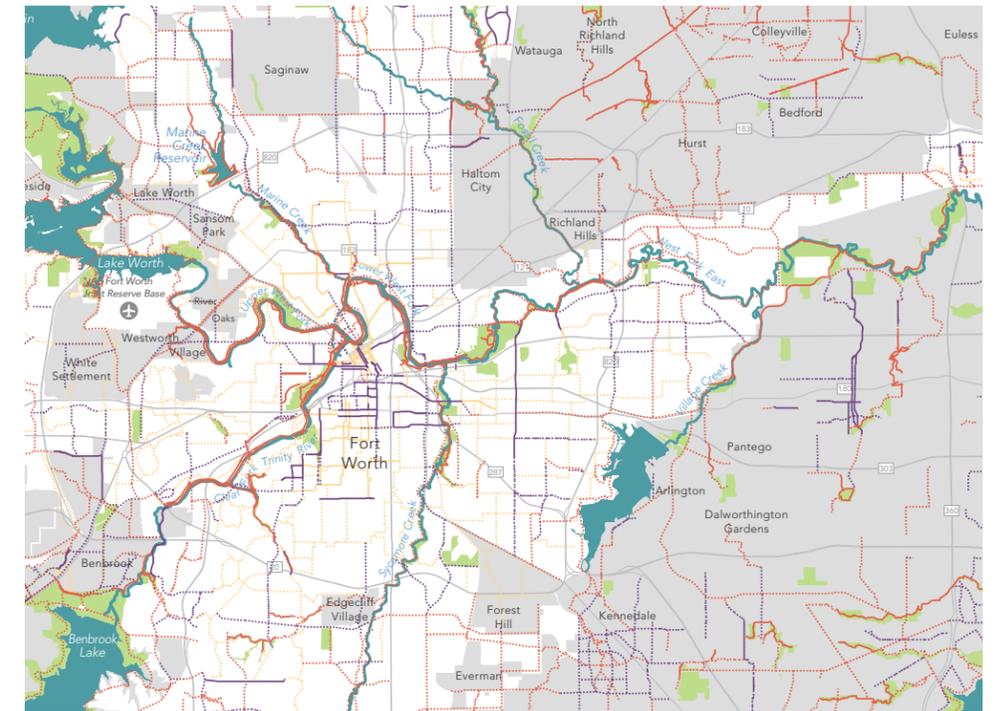
Improved trail access and street connectivity are needed in neighborhoods throughout the region. North Fort Worth is experiencing rapid growth, and new development plans should include linkages to the Trinity Trails, particularly north of Highway 820. Southeast Fort Worth has limited access to the west side of Lake Arlington, and limited connectivity to West Fork East or Sycamore Creek. Southwest Fort Worth has a valuable trail amenity along the Clear Fork, but as development increases in this portion of the city, improved on-street bikeways will be needed to ensure trail access for more remote neighborhoods.

The lack of safe on-street bikeway connections suitable for users of all ages and abilities is one reason commuters rarely use the Trinity Trails. Other issues include a limited number of trailheads and difficulty finding points of access, infrequent river crossings, and limited trailside amenities, as well as a lack of connectivity and visibility from Downtown, where many commuters need access. This limited connectivity from Downtown not only deters Fort Worth residents and employees but also tourists and visitors from using and enjoying the trail system.

The City and NCTCOG are currently working on a citywide Active Transportation Plan to address some of these issues. The plan is anticipated to be complete in early 2019 and will integrate the adopted Bike Fort Worth Plan, Walk Fort Worth Plan, Master Thoroughfare Plan, and the Transportation Authority Master Plan to establish a cohesive network of on- and off-street pedestrian, bicycle, public transportation, and thoroughfare facilities.

The Trinity Trails provide critical transportation infrastructure, and have the potential to become even more important as the river corridor further integrates with the regional transportation network. Strategic connectivity improvements will **bolster river and trail usage, establishing the Trinity River as the region’s preeminent recreation and transportation asset.**

Bikeway Network



The trail system has been dramatically expanded over the past 40 years, and the next phase of connectivity improvements lies in creating a better integrated on-street bike network.

- On-Street Signed Route, Existing
- ⋯ On-Street Signed Route, Future
- On-Street Bike Lane, Existing
- ⋯ On-Street Bike Lane, Future
- Off-Street Bike Path, Existing
- ⋯ Off-Street Bike Path, Future



KEY STRATEGY

CN 1

Close key gaps in the trail and transportation network and implement the North Texas Regional Veloweb to create a continuous mobility system along the river throughout Fort Worth and to neighboring cities and towns

CN 1a. Prioritize the development of an on-street bicycle and pedestrian network that connects river trail endpoints to one another, creating a large loop around the Fort Worth metro area

CN 1b. Convene regular meetings with NCTCOG, Streams & Valleys, TRWD, and the City of Fort Worth to establish an action plan to implement the Regional Veloweb and protected on-street bikeway connections to the Veloweb trails

CN 1c. Establish a regular forum for communication between the City of Fort Worth, the City of Arlington, the City of Dallas, other neighboring cities, and TxDOT to identify and overcome barriers to regional trail connections

CN 1d. Implement trail gap closure projects along West Fork East to build momentum towards Arlington and Dallas connections

CN 1e. Identify and pursue potential funding sources for trail gap projects

CN 1f. Establish partnerships between Streams & Valleys and similar organizations in neighboring communities, such as the River Legacy Foundation, to champion trail connectivity improvements and trail gap projects

Why it's important:

The Trinity Trails System includes several places where long stretches of trail are disconnected from one another. Closing these small but technically challenging gaps will result in dramatically expanded access and opportunities for trail users.

CN 2

Connect neighborhoods to the river and establish a fully integrated mobility network by linking protected on-street bike lanes and neighborhood bike boulevards to river trails

CN 2a. Partner with the Fort Worth Planning and Development Department to identify streets for low-stress bicycle facilities, and establish a series of safe, continuous protected bike lanes and neighborhood bike boulevards between neighborhoods and the river

CN 2b. Identify gaps in the Fort Worth Bike Share system, and add additional stations along the river and in residential neighborhoods to provide access for people without bicycles

CN 2c. Prioritize connections between neighborhood and community parks and the trail system

CN 2d. Work with the Trinity Metro to establish weekend shuttle routes and service between neighborhoods and the river system

CN 2e. Encourage developers in high growth areas such as North and Southeast Fort Worth to include bikeways and signage that guide residents to the Trinity Trails

CN 2f. Expand the trail system to include southern sections of Sycamore Creek to the southern end of Carter Park

CN 3

Ensure that walking and bicycling facilities are suitable for users of all ages and abilities, support trail safety, and encourage user courtesy

CN 3a. Provide separated facilities for pedestrians and bicyclists along new or existing trails with anticipated high volumes of users to improve safety for different modes of travel

CN 3b. Ensure that new trails or upgrades to existing trails are consistent with guidance set forth by the American Association of State Highway and Transportation Officials (AASHTO), with a minimum width of 10-14 feet

CN 3c. Provide ADA accessible trailheads and ensure disability-friendly trail access and crossings wherever possible

CN 3d. Provide resting areas with benches, shade, water fountains, and restrooms at regular intervals along trails, to ensure the comfort of all users

CN 4

Connect the Trinity Trails to key destinations, recreational amenities, and tourist attractions

CN 4a. Establish a tourist river route with associated wayfinding, signage, and promotional materials, that connects Downtown, the Historic Stockyards, Panther Island, the Cultural District, and other tourist attractions (See ED 5d.)

CN 4b. Work with neighboring cities to improve trail access to and around nearby lakes, including Lake Arlington, Lake Worth, Eagle Mountain Lake, and Benbrook Lake

CN 4c. Support implementation of the Lake Worth Vision Plan, adopted by the Fort Worth City Council in 2011, which outlines future land use, development patterns and forms, recreational use, and facilities on and around Lake Worth

CN 4d. Identify and pursue connections to nearby off-river Regional Veloweb trails, such as the Cotton Belt Trail

CN 4e. Pursue funding for engineering design and construction of the Bomber Spur Trail between Clear Fork and Upper West Fork

CN 5

Construct additional river crossings and bridges in strategic locations to create looped trails and increase access to and usability of the trail network

CN 5a. Conduct community outreach to identify priority locations for river crossings

CN 5b. Pursue public-private partnerships to fund bicycle/pedestrian bridges near new development, where appropriate

CN 5c. Prioritize river crossings in locations with potential for trails on both sides of the river

CN 5d. Identify public funding sources for both bridges and low-water crossings

CN 6

Improve existing trailheads and identify sites for new trailheads and riverside amenities to facilitate use of the river system

CN 6a. Conduct an analysis of all trailheads to identify priority improvements and upgrade projects

CN 6b. Identify opportunities for new trailheads, and prioritize sites that would promote an even distribution of trailheads throughout the system

CN 6c. Prioritize trailhead opportunities that connect easily to on-street bikeways and bike lanes suitable for users of all ages and abilities

CN 6d. Increase the number of trailheads with drinking fountains and seating

CN 6e. Identify opportunities to combine trailheads with recreational facilities and playgrounds

CN 6f. Identify locations for bike parking areas to be installed along trails to encourage users to visit destinations and events along the river (See also EC 6d.)

CN 7

Create an integrated, river-oriented transportation network by linking neighborhoods to key employment centers along the river, and by exploring water transportation options

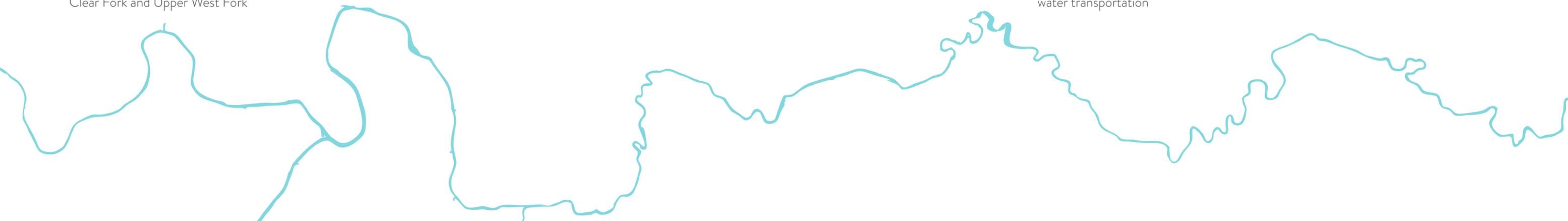
CN 7a. Identify connectivity improvements to major employment centers, including American Airlines Headquarters, Bell Helicopter, Tarrant County College, Texas Christian University, University of Texas Arlington, Texas Wesleyan University, Lockheed Martin, Naval Air Station Joint Reserve Base (NASJRB), and DFW Airport

CN 7b. Encourage Downtown employers to provide financial incentives for employees who bike to work (See also EC 4d.)

CN 7c. Encourage Downtown employers to provide “end of trip” facilities for bicycle commuters, including secure bicycle parking, showers, and changing rooms (See also EC 4e.)

CN 7d. Work with the Trinity Metro to create bus stops near Trinity River trailheads to encourage integrated transportation usage

CN 7e. Identify areas on the river to conduct a pilot project for water taxis or other forms of water transportation





Economic Development

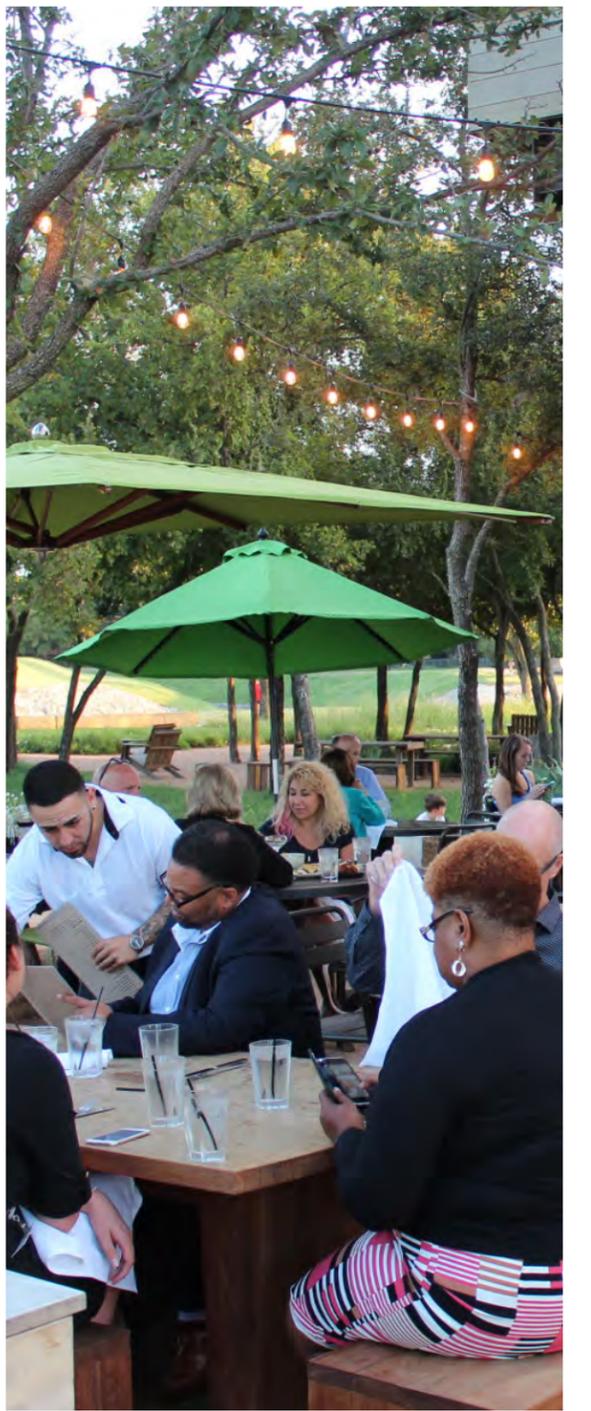


Over the last 30 years, Fort Worth has been transforming itself from a city that turned its back on the Trinity River into one that embraces the waterway as a central asset for the region. As a recreational and environmental amenity, the Trinity River enhances the quality of life for Fort Worth community members, which in turn **bolsters the local economy**. As more people are drawn to the river, developers are responding by building residential and commercial uses along its banks. It is incumbent upon public agencies, stewards of the river, and the Fort Worth community to ensure that economic development is responsible, context-sensitive, and equitable. This section outlines existing economic development conditions, identifies a key goal for the next 10 years, and provides strategies, programs, and policies to capitalize upon the river's economic development potential.



GOAL

Promote balanced development in targeted locations to create an inclusive and prosperous economy for the Fort Worth community.



Context

The Dallas-Fort Worth Metroplex is the fourth largest and second fastest growing metropolitan area in the United States. Fort Worth’s economy is transitioning from manufacturing to service oriented jobs. The Trinity River, as a key asset in the city’s livability and quality of life, has the potential to **attract knowledge workers and young talent**, and the employers that covet them. In fact, the population within one-half mile of this amenity grew by 20 percent (20,000) between 2000 and 2016. The river also has the potential to **serve as a catalyst for economic revitalization in under-invested neighborhoods, and to promote equitable development throughout the city.**

The Trinity River has been a focus of economic development for decades. The 2003 Trinity River Vision Master Plan set forth a bold framework for the river’s economic development potential with one of the area’s most well-known projects: Panther Island. This massive project will include innovative flood control infrastructure and serve as an economic generator for the region. The Panther Island project is in the process of opening up 800 acres of development across the river from Downtown, virtually doubling the size of Fort Worth’s central district. The project will generate more than \$600 million in economic development activity within its

first decade, supporting more than 29,500 new jobs, and increasing the tax base by more than a billion dollars.

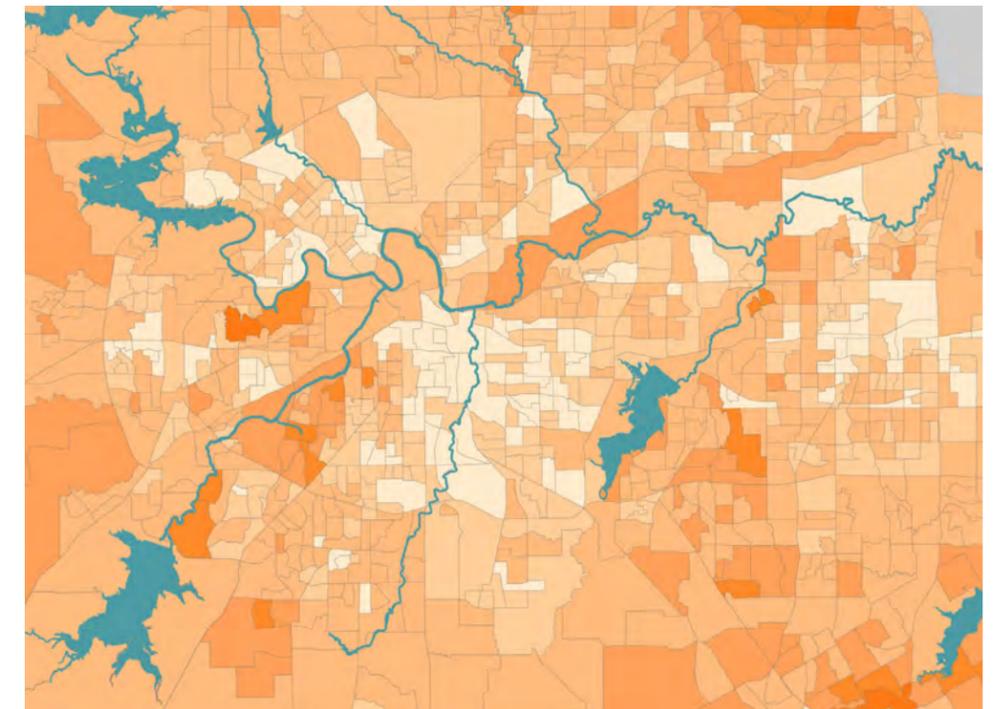
Developers are already seizing on the river’s potential, with more than \$2.1 billion in development activity underway along its banks. Nearly 30 percent of Fort Worth’s new office development since 2000 has occurred in Downtown (1.4 million square feet) and along the Clear Fork (one million square feet). Developers have built more than half a million square feet of retail along the Clear Fork in the past 10 years, with additional development on the way. The City is working to connect these new developments to the river, recently completing a key link between Downtown and the river along West 10th Street.

Much of the recent development is concentrated on western reaches of the river, with less activity occurring along West Fork East or Sycamore Creek. Southeast Fort Worth is home to a lower income, diverse community. This community is interested in promoting neighborhood-serving, equitable development. The City has been working to encourage development in Southeast Fort Worth through “Enterprise Zones” and “Neighborhood Empowerment Zones” (NEZs), which offer tax incentives and/or waived fees to promote economic

development in these areas. The 1999 Southeast Fort Worth Economic Development Plan identified six target zones for revitalization, with four of them along Sycamore Creek. Several community development corporations in these zones established local revitalization plans, and some neighborhood groups have partnered with the City of Fort Worth and local institutions, such as Texas Wesleyan University, to fund revitalization projects. Communities in Southeast Fort Worth are interested in high-quality development (particularly on vacant lots), workforce housing, transit connections, and stronger connections to Downtown.

While the increase in river-oriented development is a positive trend for the city, precautions should be taken to ensure that the waterfront does not become overdeveloped. This is important from both environmental and economic perspectives. The success of recent projects such as Clearfork and Waterside is largely because they serve as major destinations for Fort Worth community members. Development must strike a balance between the built fabric and open space to continue successful development patterns and ensure continued support of the recreational amenities, natural habitat, and flood water management that is vital to the Trinity River’s future.

Median Household Income



Sycamore Creek runs through lower-income communities that have been the subject of revitalization efforts in recent years. This segment of the river, along with Marine Creek, provides opportunities for context-sensitive, river-oriented development.



STRATEGIES



KEY STRATEGY

EC 1

Create complementary development nodes that form a balanced, interesting and engaging urban condition

EC 1a. Identify potential development nodes, and work with The River Partners and local developers to incorporate these sites into future land use plans

EC 1b. Establish an incentive structure to focus development in specific areas

EC 1c. Encourage developers to concentrate new development around existing and future destination points, such as Downtown, Panther Island, Gateway Park, and Marine Creek Lake

EC 1d. Establish public-private partnerships with developers to help fund open space and recreation facilities near new development projects

EC 1e. Promote denser, mixed-use development near Downtown Fort Worth and other nodes, and lower-density development towards the edges of the Tarrant County Line

EC 1f. In the Trinity River Design Guidelines (see SP 4b.), encourage developers to create an intimate sense of scale and a mix of uses that meet a variety of user needs

EC 1g. Consider development along West Fork East and Sycamore Creek, and identify strategies to prevent displacement of existing residents

EC 1h. Promote unique developments that will serve as regional trail-side destinations

Why it's important:

The success of a development project is largely contingent on its role as a local and regional destination. It is important to ensure the Trinity River does not become saturated with one type of use or product. A development strategy that establishes concentrated nodes featuring a range of denser, mixed-use projects interspersed with parks, open spaces, and lower density development will provide the region with an engaging built fabric and a successful economic engine.

EC 2

Use river open spaces and recreation amenities to catalyze development

EC 2a. Improve existing parks and open spaces in areas where development is desired

EC 2b. Identify potential parks and open spaces near future development projects

EC 2c. Integrate river-oriented open space amenities into Downtown Fort Worth to encourage infill development

EC 2d. Support development in the City's Enterprise Zones and Neighborhood Empowerment Zones (NEZs), particularly in Southeast Fort Worth along Sycamore Creek

EC 3

Attract knowledge workers and companies to the Fort Worth region by promoting a river-oriented lifestyle

EC 3a. Promote residential development that provides views of and connections to the river

EC 3b. Encourage developers to include river-oriented amenities such as pedestrian and bike facilities, fitness equipment, classes, and events

EC 3c. Promote outdoor dining along the river, including water-facing restaurants, cafes, and food truck lots

EC 3d. Ensure that development faces toward the river and avoids long blank walls along trails

EC 3e. Encourage businesses within one-half mile of the river to become a certified “Bicycle Friendly Business” as designated by the League of American Bicyclists.

EC 4

Improve connections between Downtown and the river and trail system

EC 4a. Create seamless and safe physical connections between the river trails and Downtown for bicyclists and pedestrians

EC 4b. Expand and improve wayfinding, signage, and river-themed design elements throughout Downtown to direct people to the Trinity Trails

EC 4c. Improve the “virtual” visibility of existing Downtown river connections through interactive websites and app tools

EC 4d. Encourage Downtown employers to provide financial incentives for employees who bike to work (See also CN 7b.)

EC 4e. Encourage Downtown employers to provide “end of trip” facilities for bicycle commuters, including secure bicycle parking, showers, and changing rooms (See also CN 7c.)

EC 4f. Partner with Downtown Fort Worth, Inc. and Visit Fort Worth to promote the river system and produce river-focused events and activities

EC 5

Integrate Panther Island with nearby districts and trails as a vital node in the river system and an economic catalyst for the region

EC 5a. Utilize Panther Island as an opportunity to promote new and innovative river-oriented development types

EC 5b. Support the Panther Island Form Based Zoning District to ensure that development follows the desired design aesthetic for the area

EC 5c. Create a Panther Island confluence trail signage program for connections to each river segment, establishing Panther Island as a major hub for the city and recreation system (See also ED 4i.)

EC 6

Draw people to the river by providing events, recreation and open space amenities for residents and visitors alike

EC 6a. Establish an annual river event called “Confluence,” that will draw tourists from around the state and country (See also SP 2a.)

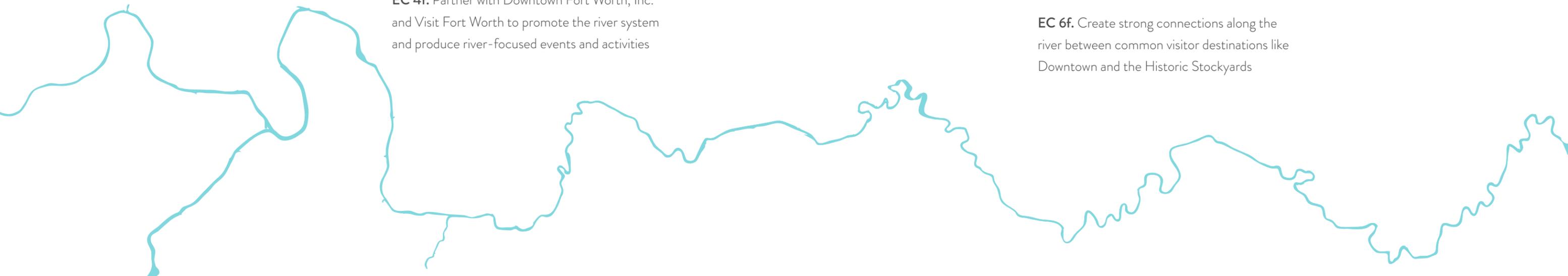
EC 6b. Encourage hotels to provide shuttle service to the river, as well as information about bicycle and walking routes to trailheads

EC 6c. Foster partnerships between hotels and bike share/bike rental businesses to encourage guests to bike to the Trinity Trails

EC 6d. Identify locations for bike parking areas to be installed along trails to encourage users to visit destinations and events along the river (See also CN 6f.)

EC 6e. Promote the development of hotels along the river in strategic locations, and ensure that new hotels provide connections to the trail system, and restaurants or other amenities that face the river

EC 6f. Create strong connections along the river between common visitor destinations like Downtown and the Historic Stockyards





Education

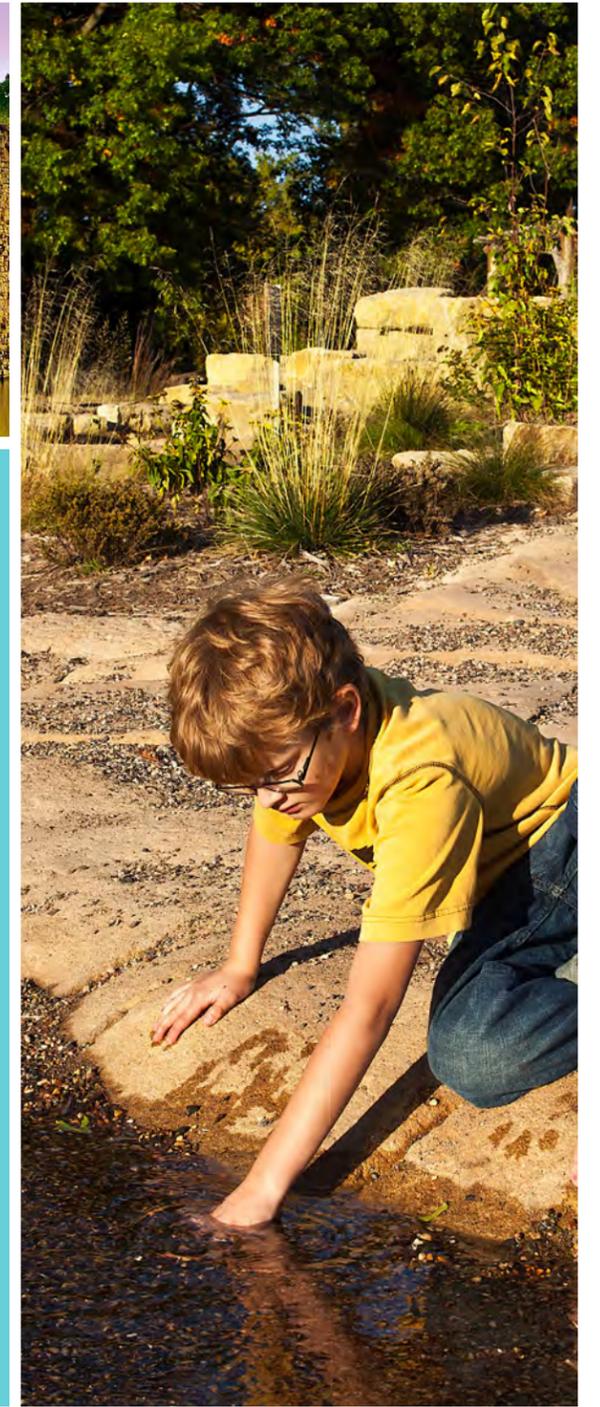


As a gathering place for the Fort Worth region, the Trinity River has the potential to become an **outdoor classroom** that provides a **breadth of opportunities to educate residents and visitors about the environment, recreational amenities, and healthy lifestyles.** The river's growing popularity as a regional destination emphasizes the importance of information-sharing through educational campaigns, promotional material, signage, and wayfinding. Partnerships between various agencies, nearby facilities, and educational institutions will be critical to maximize the river's educational opportunities. This section outlines the existing educational context, identifies a key goal for the next 10 years, and provides strategies and tactics to optimize the river as a learning environment for everyone.



GOAL

Capitalize on the Trinity River system as a learning environment for all ages, and create a variety of educational spaces, programs, and information-sharing opportunities



Context

Due to the successful environmental and recreational improvements made by The River Partners over the past several decades, the Trinity River has become a space for people of all ages to interact with nature and learn about the environment and history of Fort Worth. Efforts have already been made to improve information-sharing and establish partnerships with a range of learning institutions, but opportunities still exist to **transform the Trinity River into a truly educational experience for everyone who utilizes its resources.**

Many organizations and centers are currently dedicated to public education about the river's ecosystem. River Legacy Park and Science Center is committed to teaching young people to be stewards for the river environment. With a mix of indoor and outdoor exhibits, programs, and exploration opportunities, River Legacy is a prime example of utilizing the Trinity River as an exciting and interactive classroom. The Fort Worth Nature Center and Refuge, located north of Lake Worth, also provides a variety of ecological conditions to explore, as well as programming for schools and the broader community.

Covering more than 3,000 acres, this resource provides a balance of structured and unstructured learning opportunities near the Trinity River. The vast expanse of the river corridor creates potential for smaller versions of these types of teaching and learning spaces, capitalizing upon partnerships with nearby schools, non-profit organizations, the Fort Worth Zoo, BRIT, and Fort Worth Botanic Garden.

Streams & Valleys, TRWD, and the City of Fort Worth have all contributed to a variety of educational campaigns related to the river. From water conservation to trail safety to anti-litter campaigns, each entity has played a role in educating the public about important river issues. Through the "Share the Trail" campaign, Streams & Valleys has spread the word about trail safety and courtesy with signage, events, and peer to peer ambassadors. TRWD has promoted water conservation through the "Water is Awesome" campaign, which provides useful resources, tips, and information for Tarrant County residents and businesses to learn about saving water. The "reverse litter" campaign has been promoted jointly by TRWD and the cities of Fort Worth, Dallas, and Denton. The initiative educates the public about the impact of litter on rivers, creeks, lakes, and ultimately the water supply. These efforts should be

supported and expanded to have a more visible presence and impact. The prominence of social media provides additional far-reaching outlets for these campaigns, as well as new opportunities to promote overall use of the river system and its resources.

Wayfinding is another important component of river education, helping people find and access trailheads, amenities, and key destinations. TRWD has created Trinity Trails signage that is distinctive and recognizable throughout the system. This fosters a unified aesthetic and sense of place along the trails, and helps orient users throughout the system. Opportunities exist, however, to incorporate river-oriented signage into neighborhoods and districts, drawing people to the river and encouraging more trail usage. Different sign types, such as mile-markers and interactive displays, could also help people navigate to attractions and new sites. As the signage and wayfinding program expands, it could incorporate more digital features, linking to smartphone navigational systems and providing historic and environmental information about the river.

As the Trinity River continues to gain popularity, education and information-sharing should be incorporated into all park, trail, and waterway improvements. The Fort Worth community should have ample opportunities to learn about the river's history, ecology, conservation efforts, and recreational amenities. Users should be able to **easily navigate the system and feel comfortable exploring every river segment and trail.** All Tarrant County community members should be informed about the incredible assets provided by the Trinity River.

STRATEGIES



KEY STRATEGY

ED 1

Utilize the river corridor's natural features to create environmental, historic and cultural education opportunities

ED 1a. Identify key locations for nature play areas that encourage children and adults to interact with nature and learn about the river's ecosystem

ED 1b. Partner with educational institutions such as schools, non-profit organizations, the Fort Worth Zoo, BRIT, and the Fort Worth Botanic Garden to create educational spaces and programming along the river

ED 1c. Provide interactive informational signage about environmental resources and natural features

ED 1d. Expand access to natural areas throughout the river corridor for unstructured exploration of nature

ED 1e. Promote events and programs that highlight the river's natural and historic features

ED 1f. Work with local universities to engage students in river-oriented activities and environmental education projects

Why it's important:

The Trinity River is an extraordinary natural amenity that runs through a mix of urban and rural areas, with a variety of environmental conditions. The river corridor provides a breadth of opportunities for Fort Worth community members to connect with nature and understand the river's history and importance to the region's ecology and environment. Hands-on environmental education will help foster a commitment to conserving the river's precious resources, and ensure its longevity for generations to come.

ED 2

Improve information sharing about amenities, attractions, and recreational opportunities throughout the Trinity River system

ED 2a. Create a public information campaign about the diversity of recreation opportunities along the Trinity River, with a focus on water-based activities and newer amenities like Cobb Park, Gateway Park, and Panther Island

ED 2b. Provide clear public information about the process to schedule and permit events

ED 2c. Create a centralized information platform that builds on TRWD's products, including an app with navigational features, lists of available facilities, and a river event calendar

ED 2d. Host events, classes, and demonstrations on underutilized river and trail segments to encourage more widespread use

ED 2e. Expand social media presence and mailing lists to update community members about nearby events and programs based on their areas of interest

ED 2f. Create a social media campaign that encourages recreationalists to post pictures of their activities and "check-in" in at different river locations

ED 2g. Utilize river events to provide information about cycling, walking, running, and other forms of active transportation (See also HE 5d.)

ED 3

Educate the public about water quality, conservation, and strategies to keep the river healthy and clean

ED 3a. In cooperation with the Texas Commission on Environmental Quality (TCEQ) and Texas Parks & Wildlife Commission, establish a public information effort about water quality and ways to keep the river clean

ED 3b. Expand and improve public education and river clean up events to highlight the need to keep pollutants and trash out of the river (See also HE 6b.)

ED 3c. Establish creative events like TRVA’s “Rockin the River” and “Sunday Funday” that both promote water-based recreation and educate the public about water quality and supply

ED 3d. Promote the Texas Smartscape guidelines to educate private land owners about native landscaping and stormwater mitigation

ED 4

Improve signage and wayfinding to help community members access the trail system and key destinations

ED 4a. Expand the Trinity Trails sign system throughout Fort Worth to improve trailhead visibility and access

ED 4b. Engage with community members to identify key signage and wayfinding needs along each of the river segments, and establish distinctive signage designs specific to each segment

ED 4c. Improve signage and wayfinding for existing on-street connections between remaining trail gaps

ED 4d. Improve recreation-oriented signage along trails and in parks to direct users toward different activities

ED 4e. Add mile markers and signs along trails with distances to major destinations, including but not limited to:

Downtown Fort Worth, the Historic Stockyards, the 7th Street corridor, Cultural District, Panther Island Pavilion, Panther Island, Westbend, Waterside, Edwards Ranch, River District, Left Bank, riverside parks (Gateway, Trinity, Cobb, Harmon Field, Buck Sansom, Marion Sansom and Rockwood), and nearby lakes (Benbrook Lake, Lake Worth and Eagle Mountain Lake)

ED 4f. Consider creative in-pavement signage and markers in residential neighborhoods with distances to key locations and trailheads that direct people toward the river system

ED 4g. Expand the “Share the Trail” campaign by increasing signage and providing public information about trail safety and courtesy through a variety of mediums, including social media (See also HE 1a.)

ED 4h. Consider incorporating interactive signs that help trail users navigate to different destinations

ED 4i. Create a Panther Island confluence trail signage program for connections to each river segment, establishing Panther Island as a major hub for the city and recreation system (See also EC 5c.)

ED 5

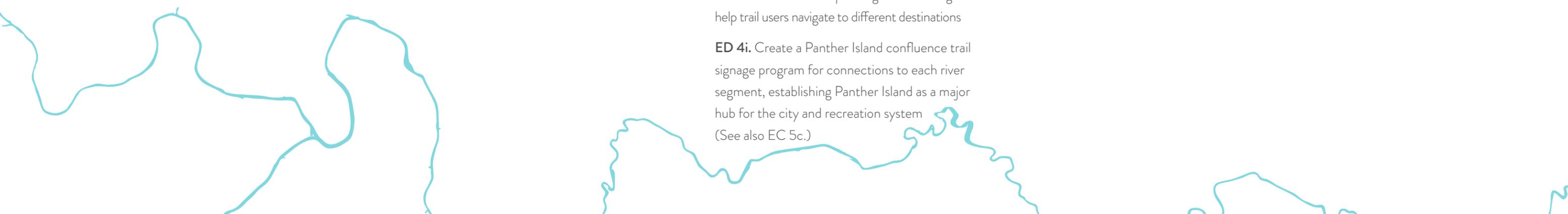
Draw visitors to the Trinity River and establish the river system as a world-class tourist destination

ED 5a. Partner with Visit Fort Worth and the Fort Worth Chamber to promote river usage and provide information for tourists

ED 5b. Encourage hotels to provide visitors with information about the Trinity Trails and sights along the river

ED 5c. Create a self-guided river tour that highlights key destinations, open spaces, restaurants, and bike share or bike rental shops along the river

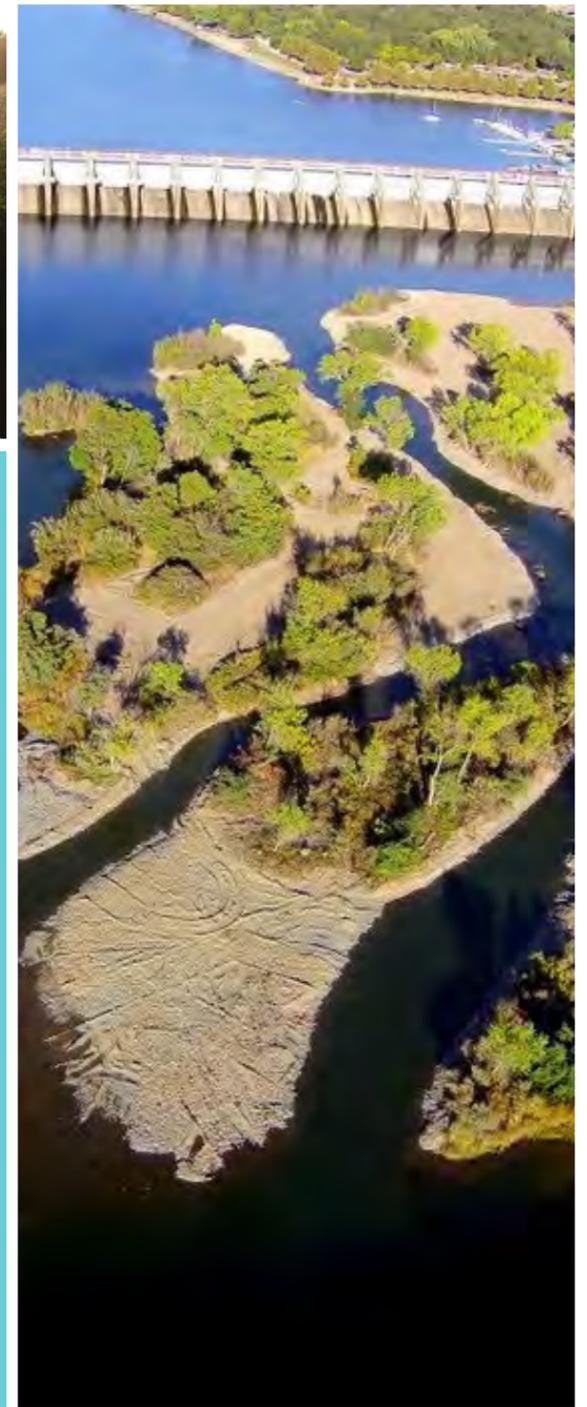
ED 5d. Establish a tourist river route with associated signage and promotional materials, that connects Downtown, the Historic Stockyards, Panther Island, the Cultural District, and other tourist attractions (See also CN 4a.)



Environment

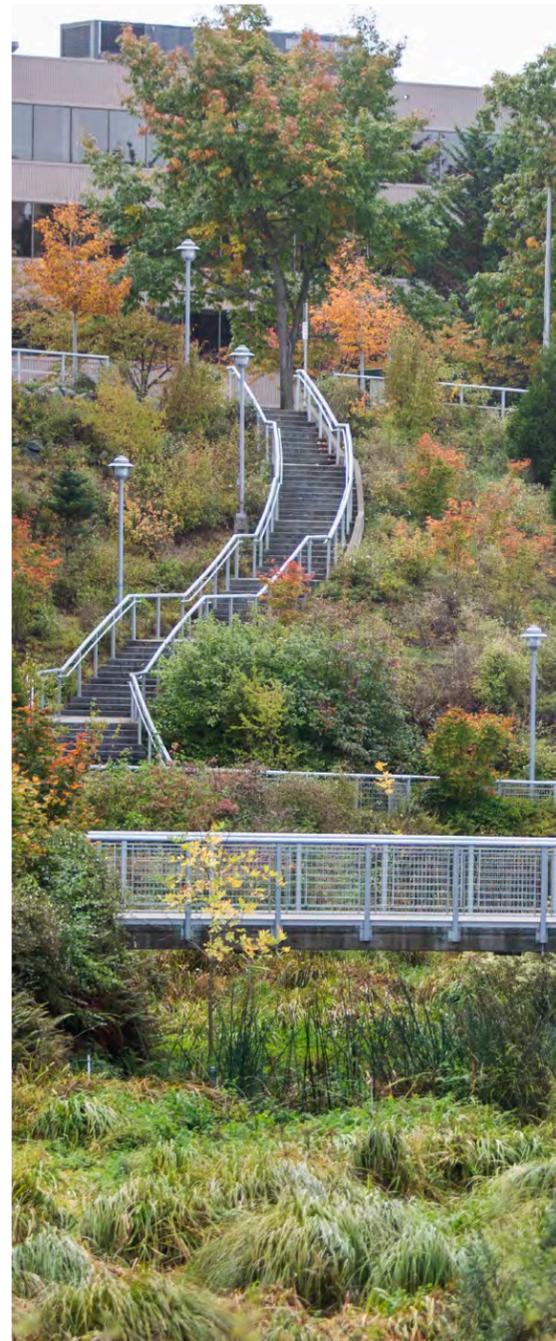


Though the Trinity River corridor has seen an increase in development over the past several decades, it is first and foremost a natural system. Natural systems have tremendous value in both urban and rural settings. At a very basic level, the waters of the Trinity support life in the region. The open space around it **provides habitat for plants and animals as well as less visible ecosystem services like cleaning, storing, and conveying stormwater.** Open spaces, natural areas, and healthy ecosystems also convey **direct benefits to people and quality of life.** There is the opportunity for community members to recreate and increase their cardiovascular fitness. Contact with nature also reduces stress and improves mental health and cognitive functions. People also simply get a lot of joy from natural beauty. These benefits are so pervasive and people desire so greatly to be near open space that its proximity increases property values. This section outlines existing environmental conditions, identifies a key goal for the next 10 years, and provides strategies and tactics to ensure preservation and expand functioning ecological systems along the river.



GOAL

Expand, preserve, and enhance natural open space and environmental features along the Trinity River, and create opportunities for exploring nature.



Context

Environmental conservation has also been a longstanding goal of planning efforts for the Trinity River system, beginning in 1970 with Lawrence Halprin's original plan for the river. Since then, numerous projects have been undertaken to make this original goal a reality, including the ongoing Riverside Oxbow Restoration Project in Gateway Park. This project will preserve an old growth riparian forest along the oxbow, transform former industrial sites into wetlands, and reforest the park with nearly 80,000 native trees. In 2003, the Fort Worth City Council adopted a master plan to improve and enhance facilities at the Fort Worth Nature Center and Refuge. In addition, TRWD has implemented numerous **erosion control and water quality enhancement projects that have enhanced habitat along the river**, and the Trinity River Vision Authority has advocated for naturalizing portions of the bypass channel and downtown bluffs in conjunction with the Panther Island development project.

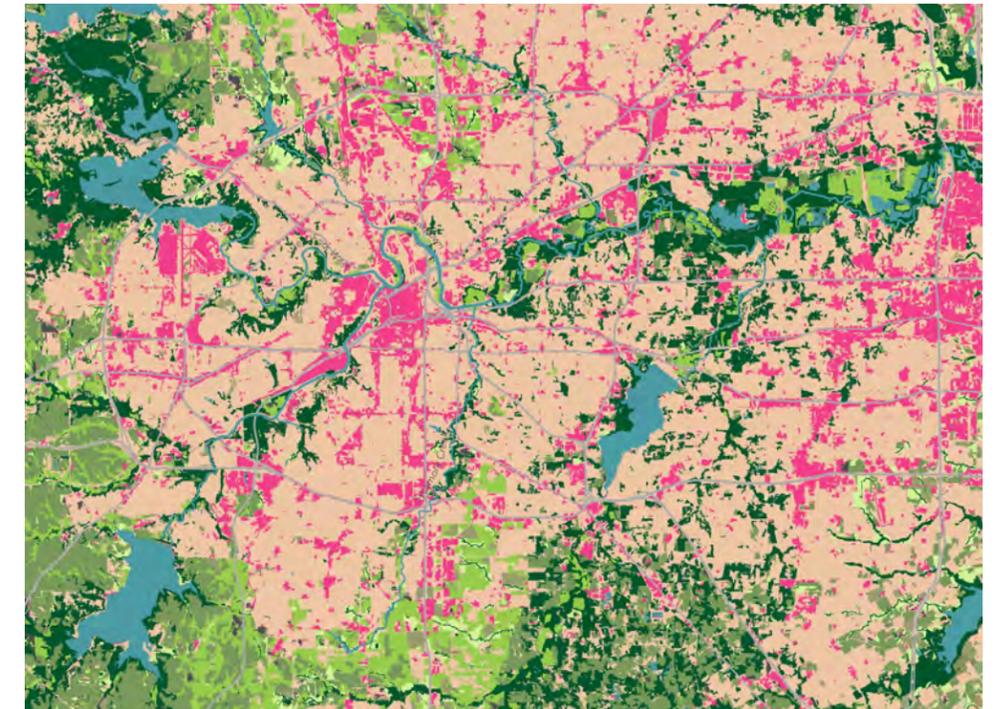
While much has been achieved to naturalize the Trinity River and improve its ecological functions, there is still work to do. Similar to the concepts of recreation and transportation connectivity described earlier, the overall health of large scale ecological systems such as the Trinity River are often assessed in terms of habitat connectivity and fragmentation,

with larger more contiguous open space areas being superior to smaller, distributed areas. According to the principles of Landscape Ecology, large scale nodes or 'patches' of habitat should be protected within developed landscapes wherever possible, and should be connected with contiguous linear open space corridors that provide safe passage for water, wildlife, and people, and for the enjoyment and beautification of surrounding communities. Therefore, a comprehensive vision for the river should include an analysis of the existing open space areas along the river, their current health, ownership, and protection status, and potential gaps in connectivity that can be enhanced to increase ecological functionality of the river system.

Notably, the Trinity River floodplain provides some of the last remaining large-scale open spaces in Tarrant County, particularly between Fort Worth and Dallas. Private parties own much of the existing open space. Community members have expressed a strong desire to gain and preserve access to undeveloped open space and environmental habitats because these spaces provide a welcome respite from urban living. Open spaces also increase land values for nearby development and help to establish a balanced fabric of urbanity and open space.

The river corridor and its floodplain offer a unique opportunity to **protect and restore open spaces for both ecological function and light recreational use**. The levee system creates the possibility for usable off-trail open spaces that still provide necessary flood control measures. West Fork East in particular has great potential for habitat preservation and restoration of large scale, open space areas. In some stretches, this segment is forested and lush and in others there are industrial sites that could be reimaged, repurposed, and remediated to reduce the fragmentation of habitat along the river. An exceptional example of an industrial site becoming an ecological amenity is the Village Creek Wastewater Treatment Plant, where sludge drying beds have become the premier birding destination in the region.

Vegetation and Urban Land Cover



Some of Fort Worth's last remaining natural open spaces lie along West Fork East, and efforts should be made to preserve these important amenities.



STRATEGIES



KEY STRATEGY

EN 1

Create nodes and corridors of habitat and open space to balance conservation and development and to enhance the ecological integrity of the river and streams

EN 1a. Explore potential opportunities to mitigate impacts to streams and wetlands for capital improvement projects which require mitigation or mitigation credits per Army Corps permitting requirements

EN 1b. Convene a meeting with TRWD, the City of Fort Worth, and the City of Arlington to identify potential concepts for open space preservation, and involve private landowners and developers in discussions about open space planning and preservation.

EN 1c. Review ownership and land uses along West Fork East and work with private developers to incentivize and prioritize the preservation of large contiguous open space areas along the river

EN 1d. Identify locations within existing parks that could be enhanced and maintained as natural areas

EN 1e. Promote the creation of open spaces that remediate or repurpose brownfield sites like landfills and industrial areas

EN 1f. Designate sensitive habitat areas for low-impact recreational use, such as walking and hiking, and create opportunities for environmental education

EN 1g. Encourage property owners of river side property to consider dedication of property for parks or open spaces.

Why it's important:

Open spaces benefit cities by increasing property values, delivering recreational opportunities, and providing habitat areas and ecosystem services. The river is at its core a natural environment, and efforts should be made to preserve and maintain the vegetation and wildlife that live in its waterway and along its banks. These efforts will not only ensure the long-term ecological health of the river system, but will also provide community members with opportunities to connect with nature and experience an engaging environment throughout the river system.

EN 2

Dedicate acquisition and preservation funds to establish large open spaces in and adjacent to the Trinity River for habitat restoration

EN 2a. Partner with river and park advocacy groups, such as River Legacy, to raise funds for open space and habitat preservation and the further integration of trail systems into regional amenities.

EN 2b. Explore grant funding opportunities, including but not limited to the following:

- National Fish and Wildlife Foundation – Wildlife & Habitat Conservation Grant
- Commission for Environmental Cooperation Community Grants
- US EPA Region 9 Project Grants
- National Wildlife Federation - State Wildlife Grants Program
- Congestion Mitigation and Air Quality Funding

EN 2c. Establish a Habitat and Open Space Fund, operated by the City of Fort Worth, that receives funding from developer impact fees

EN 3

Create usable open spaces within the levee system and related flood control facilities

EN 3a. Identify areas of the floodway suited for open spaces, and prioritize projects to protect and preserve those spaces, based on ecological sensitivity and environmental needs

EN 3b. Combine flood control facilities with open space and habitat areas by adding native vegetation and strategically located detention ponds where feasible

EN 3c. Provide durable paths and steps that lead from the Trinity Trail system down to waterside walking paths or access points

EN 3d. Develop floodable parks in the floodway, which are designed to detain flood waters during storm events and easily transition back to recreational uses after the water is released

EN 4

Integrate the urban and natural environments by weaving natural elements into new development projects

EN 4a. Explore incentive programs for developers to include stormwater treatment and retention and natural features in their projects

EN 4b. In the Trinity River Design Guidelines (See SP 4a), include a section on sustainable design and river-friendly landscaping with examples, precedents, and imagery

EN 4c. Meet with developers to discuss incorporating natural and sustainable features such as native plantings, permeable paving, and rain gardens into new development

EN 4d. Identify opportunities to re-incorporate natural features into existing urban areas, particularly Downtown

EN 5

Naturalize the river channel in targeted areas, and identify additional places for preservation or remediation

EN 5a. Work with Texas Parks & Wildlife to establish a long-term river aquatic restoration and channel naturalization plan where possible

EN 5b. Advocate for updates to the Texas Wildlife Action Plan and the Texas Conservation Action Plan to include Trinity River enhancement and restoration projects

EN 5c. Partner with local environmental groups to identify key areas for environmental restoration and advocate for project implementation

EN 5d. Restore and enhance aquatic and terrestrial riparian and upland habitats

EN 5e. Identify and remove invasive species from the river banks

EN 5f. Identify, maintain, and enhance wildlife corridors and reduce habitat fragmentation

EN 6

Preserve and expand the existing tree canopy and identify opportunities for additional vegetation

EN 6a. Work with the Army Corps to identify potential locations for additional tree planting and work with Corps standards to seek vegetated edge conditions where feasible

EN 6b. Consider native wetland and understory vegetation in areas where trees cannot be planted due to flood control constraints

EN 6c. Partner with local environmental groups to hold volunteer “planting days” that can inspire stewardship of the river system

EN 6d. Explore potential funding opportunities for vegetation expansion and enhancement, including:

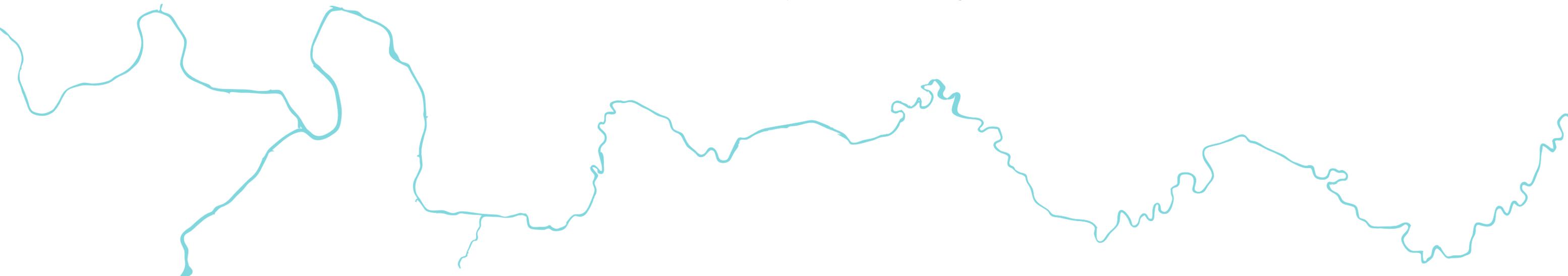
- Lady Bird Johnson Wildflower Center Seed Grants
- TD Green Streets Grant Program
- Tree North Texas Grant Program
- City of Fort Worth Tree Grant Program

EN 7

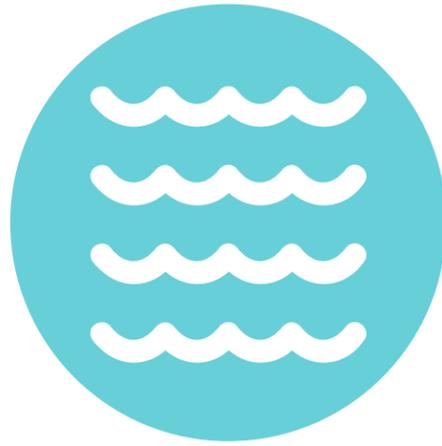
Conduct an ecological ‘gap analysis’ of the river system to prioritize future restoration and enhancement projects that can increase the overall health of the river

EN 7a. Develop a comprehensive GIS database of existing open space areas and interstitial gaps along the river, and prioritize these areas in terms of ecological value and potential for restoration and preservation

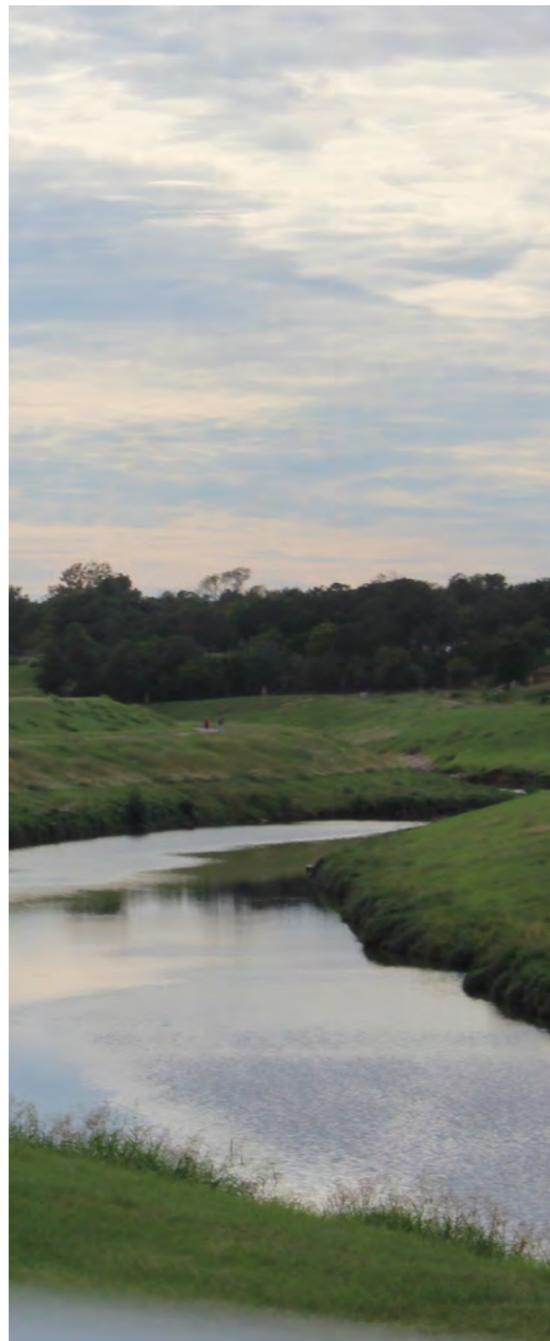
EN 7b. Document ownership status of all parcels along the river to consider the acquisition (by fee or easement) of privately-held properties that are critical to the ecological health and connectivity of the river system



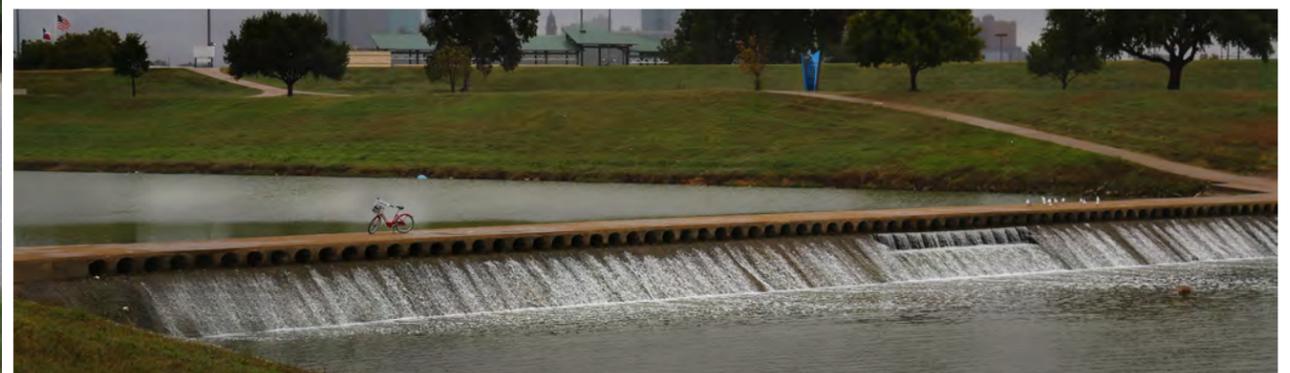
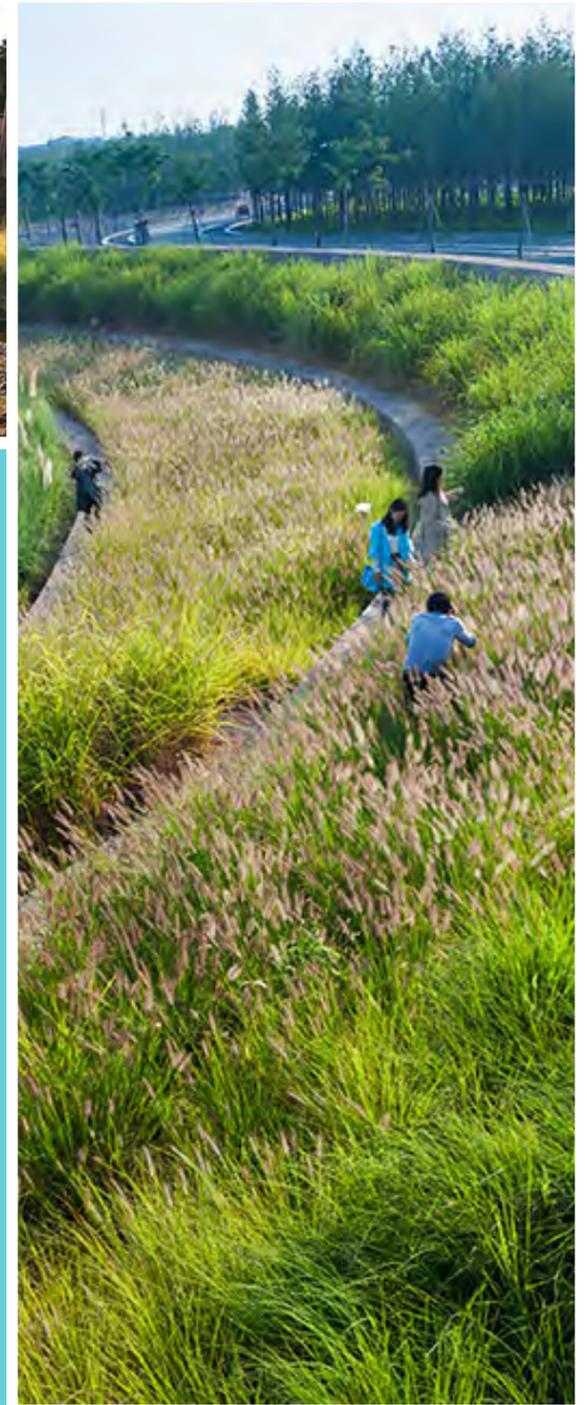
Flood Control



Major flood events can shift public perception of rivers from beautiful natural assets to menacing, dangerous hazards. Flood control measures along the Trinity River **have effectively protected communities from large-scale damage, but the levees have diminished public access and the natural experience of the river and created barriers** to water. New approaches to flood control are emerging across the country which utilize natural flood control strategies and allow rivers to expand in appropriate areas during flooding, rather than controlling them with structural barriers to convey water downstream as quickly as possible. This section describes existing flood control conditions along the Trinity River, identifies a key goal for the next 10 years, and outlines strategies, programs, and policies to naturally and sustainably protect communities from potential flood events.



GOAL
Protect communities along the Trinity River from flood damage by implementing innovative and flexible flood management strategies.



Context

Flood control is a central component of a successful and thriving Trinity River. Devastating floods in the mid-twentieth century caused the city to construct a levee system and turn its back on the river, leading to its ecological and aesthetic degradation over several decades. TRWD was created during the 1920s to protect Fort Worth from flood risks, and since that time the District has played an active role in protecting citizens and properties along the Trinity River. Since then, the **Trinity River has evolved into a valuable amenity rather than a dangerous threat.** TRWD works closely with the Army Corps to maintain a 27-mile levee system built between 1950 and 1971. In addition to owning and maintaining the levees and channels, TRWD has taken on additional projects along the river to reduce the risk of flooding, including regularly dredging the waterway, increasing levee heights in targeted locations, and leading the Panther Island project.

Existing flood control systems are critically important, but in many ways the Trinity River experience is defined by the channelized river and levees. The Army Corps has strict standards for floodway maintenance, relying heavily on physical infrastructure between development and the water. Unfortunately, these large levees create barriers for people who desire direct access to the water, and distance trail users from the river itself.

As described in the Water Quality and Supply Section, the rapid pace of new development along the Trinity River and throughout Fort Worth is causing increased stormwater runoff into the river. This intensifies flood risk, creating a need for new flood control infrastructure. Fortunately, TRWD, the City of Fort Worth, and the Trinity River Vision Authority are pursuing innovative flood control strategies. The first major infrastructure project is Panther Island, which will create a bypass channel that allows the water level of the river to be regulated in the downtown area. This massive project will provide flood protection while also allowing public access to the water.

In addition to new infrastructure, opportunities exist along the river banks to reduce flood risk through new regulations and erosion control measures. In many areas along the river, particularly on West Fork East, river banks have eroded due to higher, faster flows associated with increased development. Strengthening these areas by adding native vegetation and restoring and utilizing natural floodplains to slow floodwaters, can protect communities from floods and reduce the need for flood barriers. Erosion control along private property is not regulated after construction

is complete, but a policy to address channel erosion could benefit the health of the overall river watershed, in addition to protecting public infrastructure and increasing property values.

NCTCOG's Integrated Stormwater Management program (iSWM) was developed to help coordinate a regional and watershed-based approach to stormwater management, runoff, and flood control. Extensive future capital improvement projects are needed to bring undersized storm drain systems and open channels up to current standards. The City of Fort Worth participates in the iSWM program, and created a Stormwater Utility in 2006 to fund, design, construct, and maintain stormwater infrastructure; mitigate off channel flooding erosion and drainage hazards; warn residents about flood and erosion threats; and oversee development to protect current and future residents from adverse flooding impacts. The City participates in the National Flood Insurance Program (NFIP), and regulates development in FEMA floodplain areas within its jurisdiction. Potential local floodplain regulations are being explored as part of the Stormwater Management Program Master Plan Update. Floodplain protection and erosion control are

important, not only for safety, but also for ecosystem health, recreational opportunities, and the economic vibrancy of riverside developments.

The Fort Worth Stormwater Division currently conducts stormwater reviews for development projects more than one acre in size, with requirements to ensure new projects do not create negative flood impacts onsite or offsite. Stormwater flows are allowed to increase during development, provided there is no increase in flood risk. Stormwater development criteria are currently the same for both greenfield and infill sites, with an exception for small infill lots, and regulations are not specific to areas with known flooding issues or at-risk properties. These development criteria are currently under review as part of the Stormwater Program Master Plan Update.

A combination of flood control strategies and policies, innovative infrastructure projects, and an integrated stormwater management system can provide Tarrant County with **necessary flood protection without compromising the ecosystem health and natural beauty of the Trinity River.**



KEY STRATEGY

FC 1

Create innovative infrastructure improvements that provide flexible, natural, and recreational amenities during non-flood events

FC 1a. Identify areas for floodable parks and plazas that provide natural habitat and open space amenities while allowing for water storage capacity in the river system

FC 1b. Identify opportunities to re-contour low flow channel banks within the levees with a more natural, meandering land form and create a terraced floodplain environment

FC 1c. Establish a network of stormwater detention and retention areas to slow and reduce runoff during storm events

Why it's important:

Flood risks associated with rivers have caused cities across the country to turn their back on their waterways, treating them as threats rather than amenities. As Fort Worth embraces the Trinity River, flood control measures should reflect the changing understanding of urban waterways, providing innovative solutions that protect communities from damage, allow ecosystems to thrive, and provide opportunities for people to access the water.

FC 2

Sustain flood control capacity throughout the Trinity River system

FC 2a. Work with the Army Corps to establish a more effective rating and classification system for levees

FC 2b. Work with the Army Corps to design appropriate flood control facility retrofits that increase usability, aesthetics, and ecological value

FC 2c. Identify potential development regulations for local floodplains (in addition to FEMA floodplains), and minimize development in these areas wherever possible

FC 2d. Establish a riparian corridor setback and limit development and construction within this zone

FC 2e. Advocate for regular flood risk studies that incorporate the impacts of new development and current storm water management practices

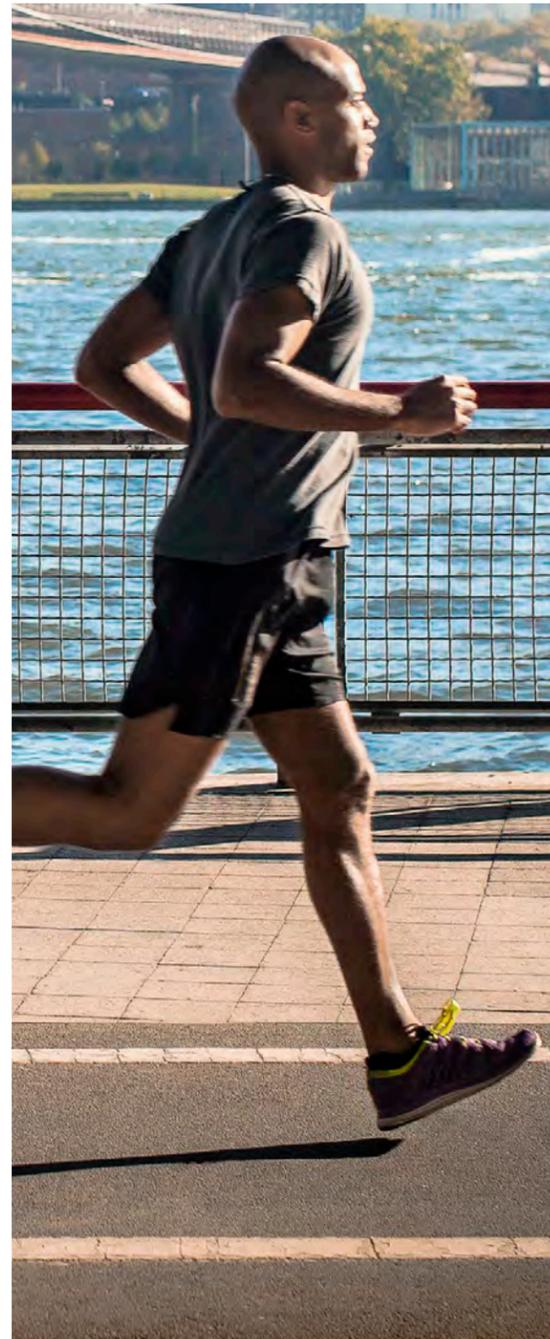
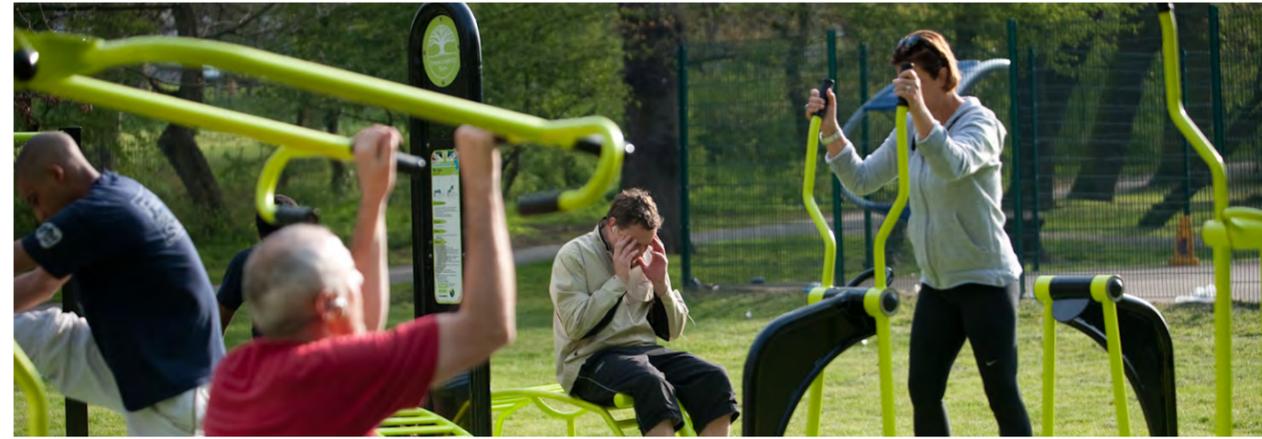
FC 2f. Consider a voluntary "buyout" program in which the City of Fort Worth purchases flood prone structures or structures at risk

FC 2g. Evaluate and develop citywide drainage and stormwater regulations to reduce future flooding

Health

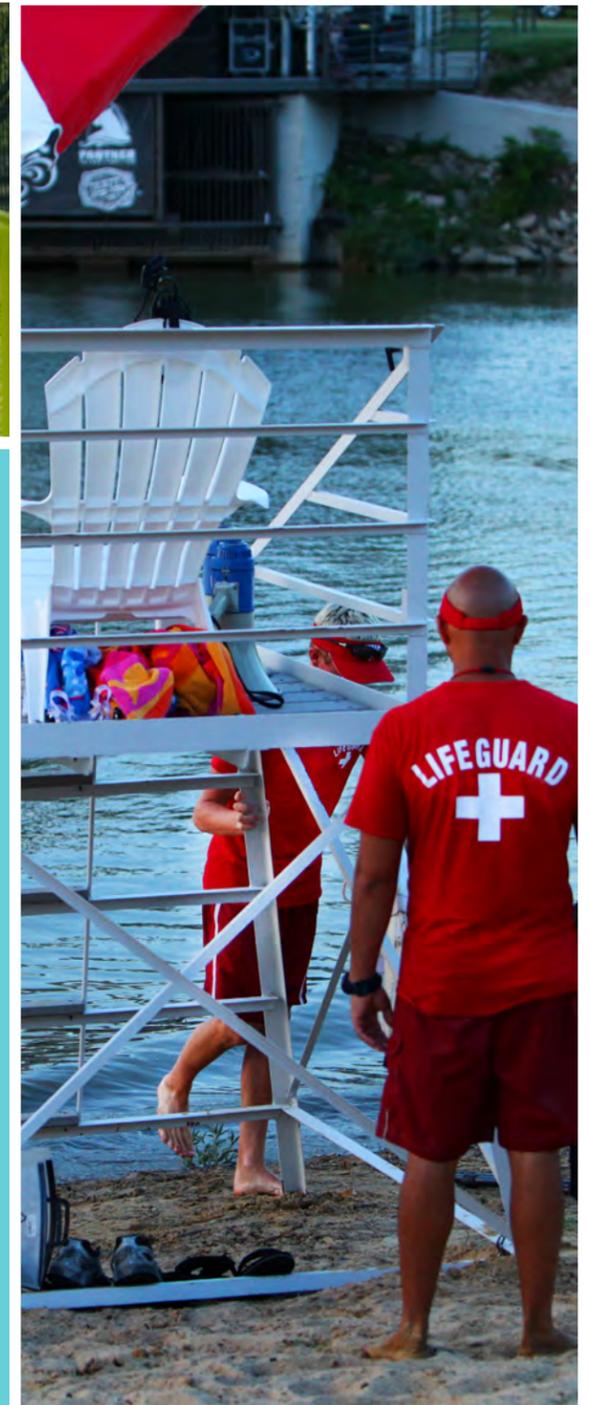


As the country becomes more aware of public health issues, the connection between chronic disease and lack of exercise, and the importance of promoting healthy lifestyles, outdoor play, and recreation facilities are gaining greater prominence in public discourse. Fort Worth is fortunate to have an expansive river and trail network that provides exercise opportunities within reach of much of the population. However, in order for the Trinity River system to live up to its potential as a **true healthy community asset, trails and parks must feel safe and accessible to all users.** This section outlines existing conditions related to community health along the Trinity River, identifies a healthy communities goal for the next 10 years, and provides strategies, programs, and policies to maximize the health benefits of the Trinity River system.



GOAL

Encourage active lifestyles and fun, healthy living by creating attractive, safe, and accessible parks, trails, and open spaces.



Context

The Trinity River corridor provides an **accessible and affordable recreational amenity that promotes healthy lifestyles** for all Fort Worth community members. In fact, according to Tarrant County Health Rankings, 97% of individuals in Tarrant County have reasonable access to a park or recreational facility, and much of this access is due to the expanse of the Trinity Trails network. However, more than 66% of Tarrant County adults are overweight or obese. To combat the rise in obesity and chronic disease, the City of Fort Worth engaged with the Blue Zones Project for its “Healthiest City Initiative.” The Blue Zones Project has successfully educated many community members about healthy lifestyle choices, but it is a temporary program and it will be important to maintain the momentum once the program concludes. Fortunately, FitWorth is another public health initiative whose mission is to reduce obesity in Fort Worth by promoting active lifestyles. The City and its leadership are committed to improving health outcomes, and the Trinity River can be an integral component of the City’s ongoing public health programs.

For trails to be well used, they must feel safe to users along all reaches of the river. **Trail congestion** along the Clear Fork has caused concern for families with children, who worry about conflicts with high-speed cyclists.

Events are often scheduled along this already congested trail segment, exacerbating the issue. In 2014, Streams & Valleys launched the “Share the Trail” program, which is a public awareness initiative designed to help all trail users safely enjoy the Trinity Trail system. The program includes education and information about trail rules and common courtesy such as “Stay Right, Pass Left” and “Sound off, Listen Up.” The program has also designated “Slow Zones” from Panther Island Pavilion through Trinity Park to The Woodshed. “Share the Trail” has increased safety along the most congested portions of the Trinity Trails, and continued visibility of the campaign is needed to address safety issues and avoid user conflicts.

Certain segments of the river, such as West Fork East and Sycamore Creek, are underutilized or have fewer facilities compared to the Clear Fork. West Fork East and Sycamore Creek run through lower-income neighborhoods and are home to diverse communities. Unfortunately, these segments provide less visibility in certain areas, and face maintenance and cleanliness issues, making them feel unsafe and fostering a negative public perception. These neighborhoods need concentrated support to achieve improved health outcomes, including the provision of safe, accessible, and inviting

trails. There will always be sections of the trails that are less congested, such as larger open spaces, particularly those with strong ecosystem components and/or large amounts of vegetation. This type of trail condition, where one can feel alone in the woods or observe wildlife, is a valuable resource. This plan works to balance safety concerns with the importance of establishing and preserving natural areas.

In the journey to improve the health of the Fort Worth community, the City and other relevant agencies must engage directly with community members to identify neighborhood-specific strategies that will **improve health outcomes and promote healthy, river-oriented lifestyles.**



KEY STRATEGY

HE 1

Provide safety and comfort on trails for users of all fitness levels and abilities

HE 1a. Expand the “Share the Trail” campaign by increasing signage and providing public information about trail safety and courtesy through a variety of mediums, including social media (See also ED 4g.)

HE 1b. Improve lighting along the trail network in needed areas, such as trailheads and under central bridges

HE 1c. Identify areas with limited visibility and maintain vegetation to improve sightlines where needed

HE 1d. Support effective systems for documenting crimes along the trails, identify higher crime areas along the river, and work with nearby communities and law enforcement to establish crime reduction strategies

HE 1e. Promote trail usage along Sycamore Creek, in Cobb Park, in Gateway Park, and along West Fork East to bring more “eyes on the river” and encourage positive perceptions of these river segments

HE 1f. Consider a trail “rating” system with specific segments designated for high-speed cycling and family-friendly areas for slower-paced activities

HE 1g. Establish speed limits on congested trail segments, install proper signage for police enforcements, and continue education campaigns promoting appropriate travel speeds

HE 1h. Establish hours demarcated with clear signage during which bicyclists may ride at higher speeds, and hours when slower speeds are enforced by the Fort Worth Police Department

Why it’s important:

Safety is a key concern for residents, business owners, and officials who want to see the river thrive. For the river to become a truly inclusive and accessible amenity, the system must be safe – and perceived as safe – for all users. Safety along the river is a key concern of all constituents and is a top priority of this plan.

HE 2

Distribute trail traffic to improve congestion and safety, and expand facilities where necessary and possible

HE 2a. Identify locations with sufficient right-of-way to create separated pedestrian and bicycle paths or wider trails, and work to design and implement separated or wider trails in congested areas

HE 2b. Prioritize separated trail projects where appropriate along the Clear Fork, and identify potential future congestion spots near upcoming development sites

HE 2c. Create trails on both sides of the river along the extent of the Clear Fork

HE 2d. Partner with community groups along Sycamore Creek and West Fork East to establish and promote regular “Trail Trek” events, in which community members walk from their homes to the nearest trail, gathering neighbors along the way

HE 3

Coordinate event management for the trail network and riverside parks, and encourage events in less congested areas

HE 3a. Support the efforts of TRWD, TRVA, and PARD to coordinate events and permitting, and consider forming a centralized system to schedule and permit events on PARD and TRWD land

HE 3b. Establish limits for the number of events that can be scheduled on a given river segment during any given time period to minimize trail conflicts due to overlapping activities

HE 3c. Consider providing incentives such as expedited permitting processes or reduced permitting fees for events along underutilized river segments

HE 4

Engage communities who do not use the river to create recreational opportunities that meet their needs

HE 4a. Conduct outreach in areas with low trail and riverside park usage to discuss current barriers to river and trail usage

HE 4b. Work with community leaders and elected representatives to address barriers and identify new recreational opportunities that will encourage more use along underutilized trail sections

HE 4c. Work with underserved communities to create a “Blue Zone Overlay” that identifies goals/objectives for community-specific health and recreation needs

HE 4d. Partner with community organizations to host events on underutilized segments of the river, and utilize their neighborhood networks to promote the events

HE 5

Promote the health benefits of biking and walking

HE 5a. Conduct a community survey to identify key barriers that prevent community members from using forms of active transportation

HE 5b. Support the City of Fort Worth and NCTCOG’s Fort Worth Active Transportation Plan

HE 5c. Promote “Bike to Work Day” and “Bike Month,” and establish other events that encourage community members to use the river system as a commuting network throughout the year

HE 5d. Utilize river events to provide information about cycling, walking, running, and other forms of active transportation (See also ED 2g.)

HE 5e. Encourage participants to bike or walk to events by providing incentives and giveaways (See also the Connectivity Section for additional active transportation policies)

HE 6

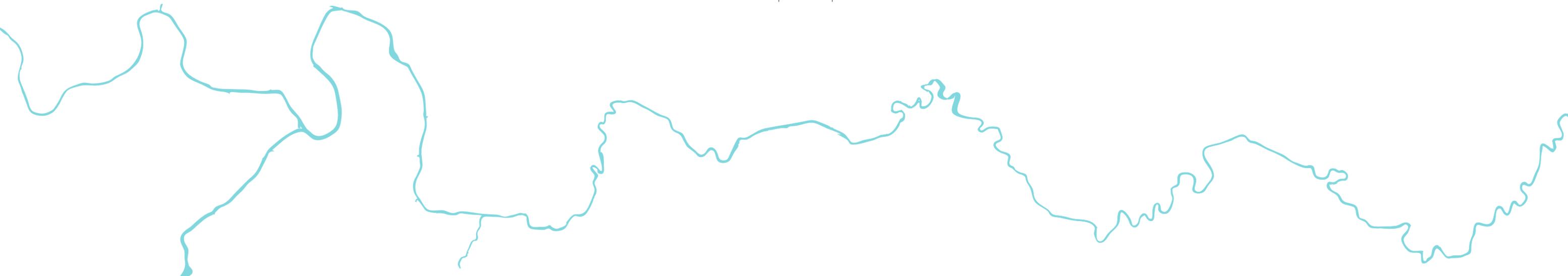
Ensure cleanliness along all river segments, both on trails and in the river itself

HE 6a. Formalize a centralized trash management process for waste in and along the river with shared responsibility between PARD and TRWD (See RE 4d.)

HE 6b. Continue to expand and promote the “Trinity Trash Bash” events and “Reverse Litter” campaigns to encourage trail users to help maintain the trail and park system (See also ED 3b.)

HE 6c. Add additional garbage and recycling bins along the trails and throughout the city to minimize litter both directly into the river system and from storm drains

HE 6d. Require event hosts to pay a fee for additional garbage bins during events and added maintenance and garbage collection after events



Recreation



The Trinity River, its tributaries, and its trails are exceptional assets for the Fort Worth community. Few cities can boast a recreational amenity of this magnitude, with more than 70 miles of maintained trails stretching in all directions from Lower West Fork. The water quality, too, is a major asset and is safe to swim in for most of the year. The community treasures the Trinity River system and ever-expanding trails, and usage has increased in recent years, particularly along the Clear Fork. With the success of the trail system, the next phase of recreational opportunities lies in **completing and strengthening the regional trail network and promoting and supporting water recreation and other off-trail activities.** This section outlines existing recreation conditions, identifies a key goal for the next 10 years, and provides strategies, programs, and policies that will create an accessible and diverse recreation network along the river.



GOAL

Promote diverse recreational opportunities for users of all ages and abilities.



Context

Recreation opportunities have been a central piece of The River Partners’ mission since Streams & Valleys was founded in 1969. The original Trinity River Master Plan, conducted by Lawrence Halprin, recommended low-level dams to regulate water levels and the creation of opportunities for multi-use trails with lighting, tree planting, and public space improvements. Since that time, **more than 70 miles of recreational trails have been constructed, and several flagship parks and open spaces along the river have become well-used amenities.** Improvements have been made to Cobb Park and the Rockwood Park Golf Course, and a major renovation of Gateway Park is underway. The River Partners’ efforts to improve water quality have also created water recreation opportunities for rowing, kayaking, fishing, and swimming.

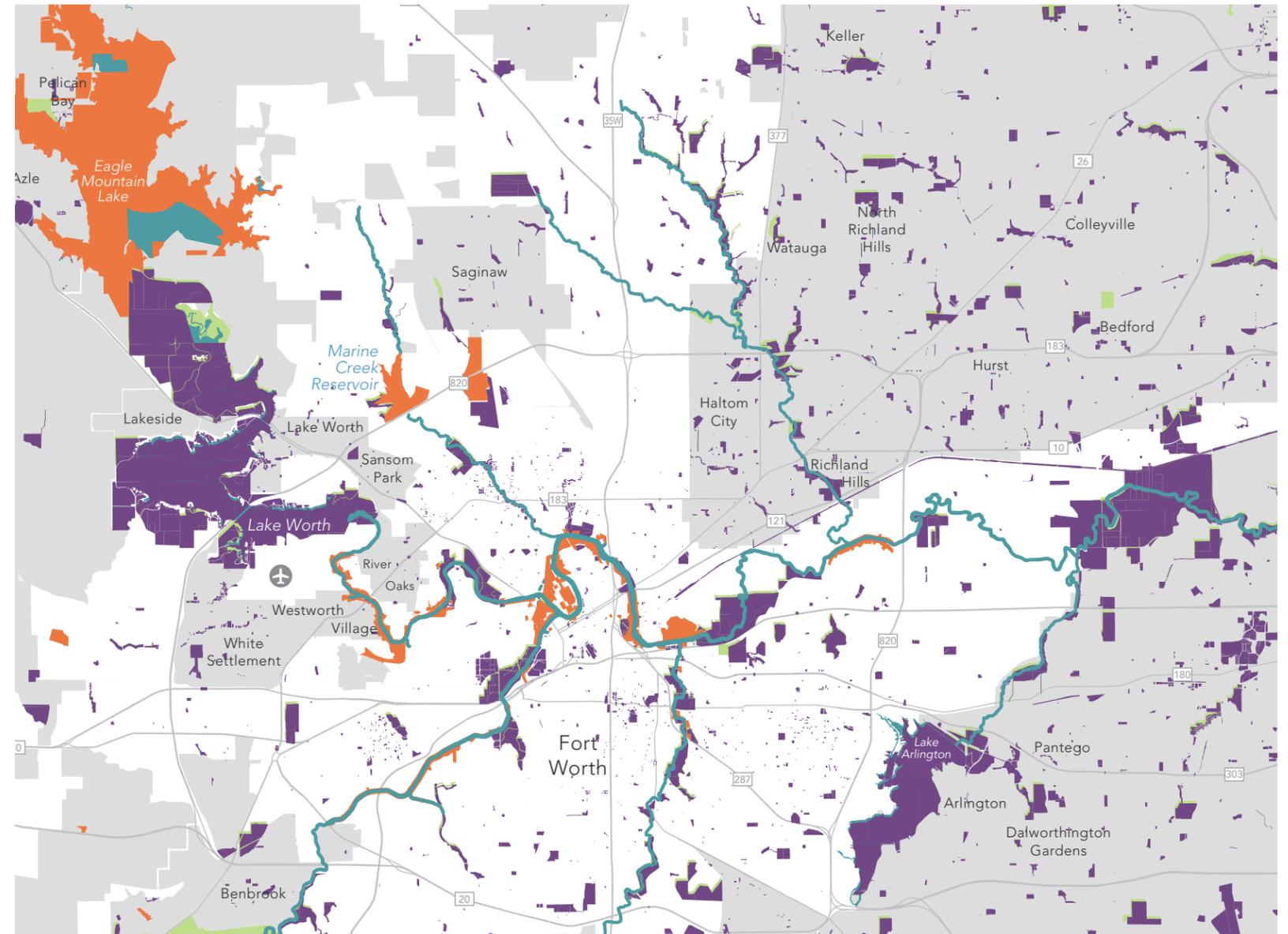
The parks along the Trinity River are owned and managed by the City of Fort Worth Park & Recreation Department (PARD). These include large facilities such as Trinity, Cobb, and Gateway Parks, as well as smaller recreation areas such as Mallard Cove and Riverside Park. TRWD owns and maintains much of the river channel itself, as well as the levees and trails and many trailheads. The Trinity Trails, operated and maintained by both TRWD and PARD have become increasingly popular recreation amenities, most commonly used for running, walking, and bicycling. As discussed above,

on-water activities are also available, although some community members have expressed difficulty accessing the water due to limited boat and paddling launches. Many people are also simply unaware of water recreation opportunities because of a lack of information.

In addition to water recreation improvements, community members have expressed a desire for longer trail alignments, more trail connections, and improved trailside amenities. Possible trailside amenities could include family-oriented spaces with small playgrounds, picnic facilities, nature areas, sports fields, restrooms, and water fountains throughout the trail network. As The River Partners upgrade recreation areas, it will be important to track current recreational trends to ensure the Trinity River provides **a variety of facilities that meet the needs of current and future users.**

Because multiple agencies own and operate riverside facilities, management is a central concern for all parties. A coordinated, multi-jurisdictional approach to park and recreation management would improve overall maintenance of the river system, and help recreation users understand who to contact with questions and requests. A comprehensive recreation and management strategy for the Trinity River and its facilities would help the system grow into an even more innovative and valuable recreation resource for the region.

Property Ownership



Recreational amenities and land ownership along the Trinity River are split between the Tarrant Regional Water District and the City of Fort Worth Park & Recreation Department, underscoring the importance of interagency collaboration to ensure well-maintained, accessible, and exciting recreational facilities throughout the river network.

Legend

- Tarrant Regional Water District
- City of Fort Worth

STRATEGIES



KEY STRATEGY

RE 1

Support inclusive and varied recreation opportunities, including off-trail family spaces, passive recreation, structured recreation facilities for sports, and wilderness areas for hiking, birding, and exploring

RE 1a. Identify specific locations for playgrounds, family picnic areas, public parks, and community gardens at various points along the trail system to provide additional safe places for activities other than biking and running/walking

RE 1b. Prioritize the creation of new riverside park spaces in areas of the City that have been defined as “park deficient” according to the Fort Worth General Plan

RE 1c. Ensure accessibility and maintenance of sports fields for both organized teams and pick-up games

RE 1d. Identify opportunities for equestrian trails and horseback riding amenities

RE 1e. Identify opportunities away from the urban core for hiking routes connected to the Trinity Trails system

RE 1f. Provide recreation opportunities for people with disabilities or mobility issues, including ADA accessible playgrounds, trails, and boat launches

RE 1g. Conduct community outreach to ensure nearby recreation facilities meet neighborhood-specific needs

Why it's important:

The Trinity Trails are well used by cyclists and pedestrians, but the river provides more diverse recreational amenities as well. Efforts to promote a variety of opportunities for people with varying interests, abilities, ages, and cultures will make the river a truly inclusive environment for all Fort Worth community members. Expanding existing facilities and developing new spaces for different activities will establish the Trinity River as the preeminent recreational destination for the region.

RE 2

Provide trailside amenities to support trail use and community health

RE 2a. Identify locations for additional restrooms and water fountains along trails

RE 2b. Provide trailside benches, picnic tables, and shade structures throughout the trail network

RE 2c. Partner with Fort Worth BCycle and local bike shops to provide bike repair stations along trails

RE 2d. Provide pet waste bags, trash cans, and dog water fountains in targeted locations along the trail system and in parks

RE 2e. Install exercise equipment along trails and in parks to provide a variety of affordable exercise options for community members

RE 3

Create safe areas and access points for water recreation, including swimming, boating, paddling, and fishing

RE 3a. Identify locations for additional boat and kayak launches, install informational signage at existing facilities, and promote the locations of existing kayak and canoe launches

RE 3b. Partner with private companies to set up rental stations for boats, kayaks, and paddleboards throughout the river network

RE 3c. Partner with private companies to establish water recreation tours with shuttle services

RE 3d. Identify potential locations for swimming holes, create signage to promote usage and safety, provide outdoor showers in these locations, and ensure predictable flows during swimming times

RE 3e. Establish designated locations for fishing with clear signage, cleaning stations, and fishing rod racks

RE 3f. Assist the Trinity Nature Conservancy in their effort to have the Trinity River designated as a National Recreation Trail by the National Park Service

RE 4

Support the development of innovative management practices for all recreation facilities along the river

RE 4a. Establish a cross-jurisdictional, centralized river system management group and supporting Trinity River Facility Management Plan with action items and strategies for the management and maintenance of the river system recreation amenities

RE 4b. Convene regular management meetings between Streams & Valleys, PARD, and TRWD to discuss management issues and strategies for improvement

RE 4c. Consider establishing park conservancies for major parks along the Trinity River, including Gateway Park, Trinity Park, Cobb Park, Buck Sansom Park and Marion Sansom Park

RE 4d. Formalize a centralized trash management process for waste in and along the river with shared responsibility between PARD and TRWD, including both active and passive collection of trash and debris from the river. (See HE 6a)

RE 4e. Include a feature on the online recreation platform and app (see ED 2c) for trail and park users to report management and maintenance issues

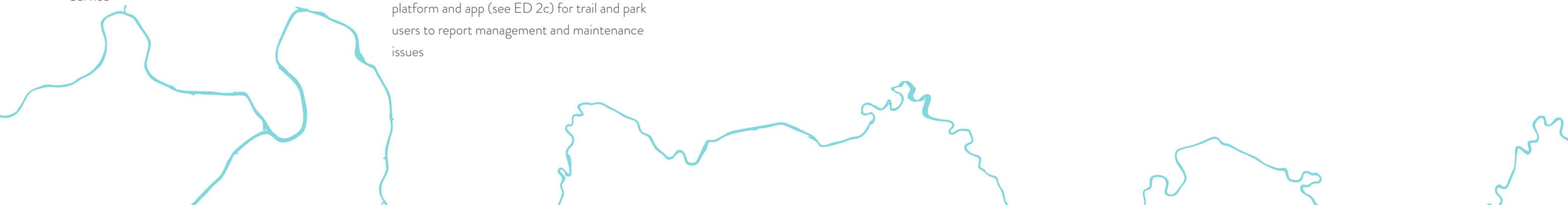
RE 5

Monitor recreation trends and update facilities to ensure the Trinity River provides an innovative and engaging recreational experience

RE 5a. Convene an annual session during “Confluence” (see SP 2a) with Streams & Valleys, PARD and TRWD to discuss current issues, trends, and recreational opportunities for the river system

RE 5b. Include a section on the online recreation platform and app (see ED 2c) for community members to share their ideas about recreation needs, and post articles or photos of recreation opportunities in other cities

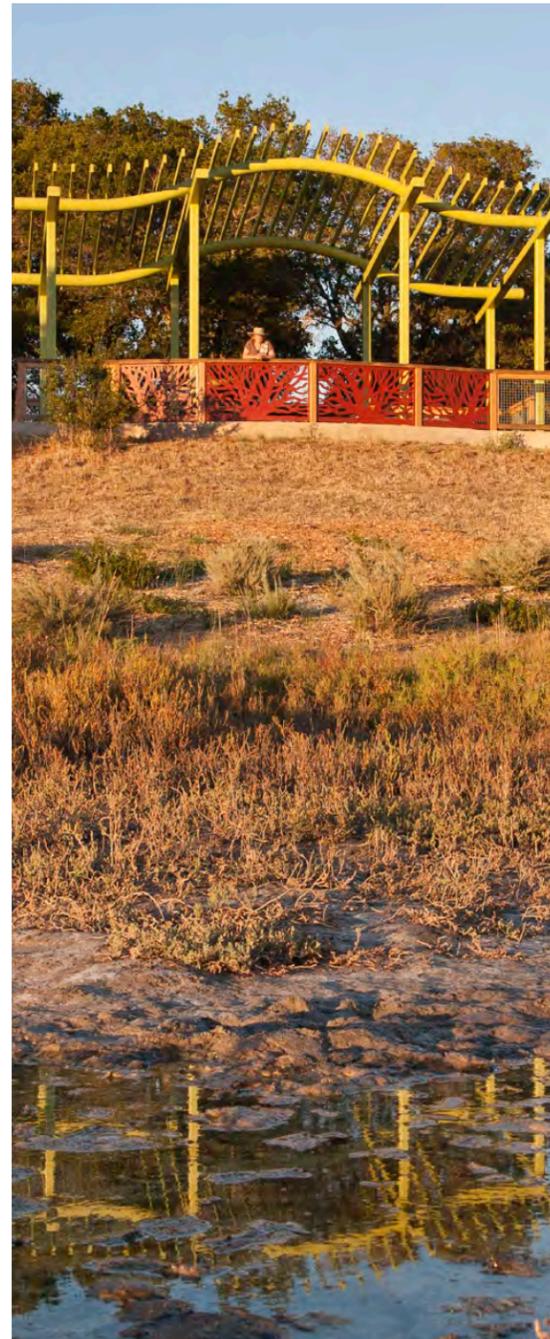
RE 5c. Conduct a panel or speaker series during “Confluence” (see SP 2a) that focuses on innovative river-oriented recreation trends



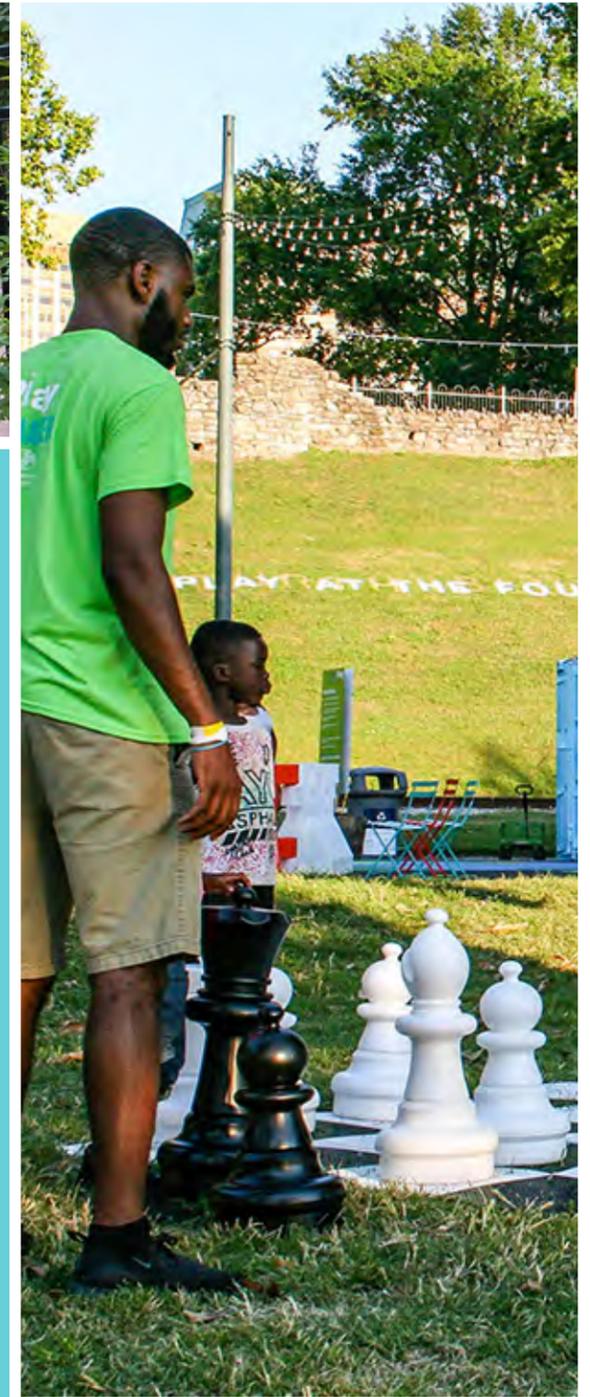
Sense of Place



As Fort Worth grows and evolves, the spirit of the Trinity River must be preserved. The river provides an incredible natural asset and recreational amenity for Fort Worth residents and visitors, and it is also a **source of historic pride and a gathering place for the community**. On June 6, 1849, Fort Worth was founded by Major Ripley Arnold and a company of U.S. cavalry dragoons on a bluff overlooking the confluence of the West and Clear Forks of the Trinity River. Each river segment has its own **unique charm and character**, and together they provide an engaging and varied experience throughout the network. This section outlines conditions related to the Trinity River's sense of place, identifies a key goal for the next 10 years, and provides strategies, programs, and policies to ensure that the river maintains its identity even as the city around it changes.



GOAL
Foster a unique experience and identity at each node along the Trinity River and establish an overarching sense of place for the river corridor.



Context

The Trinity River has been a centerpiece of Fort Worth's identity since 1849. Fort Worth has strong community pride, and the river has become a focal point for the community as a water supply source, an environmental asset, a recreational amenity, an economic generator, and a social gathering place. Flagship events such as Fort Worth's Fourth (of July), "Rockin' the River," and Mayfest build community cohesion and foster a sense of place along the river. Sporting events such as the Cowtown Marathon and other running races promote healthy lifestyles and draw people to the river to participate and celebrate. While there is no shortage of local events on the Trinity River, there are opportunities for larger iconic events to **draw visitors from across the country and raise the profile of this expansive system.**

In addition to events, the aesthetics of the river and its surroundings also contribute to community identity. Each segment of the river presents a different natural condition, built environment, and overall aesthetic. An urban-to-rural transect exists along the river. Different conditions are important to maintain, as they provide a distinct sense of place at each location along the corridor. At the same time, it is important to establish a cohesive design for the Trinity River throughout Tarrant County. Striking this balance will rely on a variety of factors, including **sensitively designed and diverse nodes of development, signage and branding, public art, and key natural features** to highlight.

Photo Simulation



Each river segment already has certain elements of identity and sense of place, but there are opportunities to enhance these characteristics with events, community gathering spaces, signage, and design elements.

STRATEGIES



KEY STRATEGY

SP 1

Promote the distinct identities of each river segment

SP 1a. Integrate creative river-oriented elements into the Downtown/Uptown area to create an innovative urban river environment

SP 1b. Balance new development and open space along the Clear Fork, and establish a “hip ranch” aesthetic for the segment

SP 1c. Maintain Upper West Fork’s open and expansive environment with wide rights-of-way, viewsheds, and nature areas

SP 1d. Promote Marine Creek as an intimate, accessible river segment that serves the growing North Fort Worth population and provides both visual and physical connections to the Historic Stockyards.

SP 1e. Establish Sycamore Creek as a neighborhood-oriented recreational destination by supporting and programming Cobb Park, providing better linkages to residential areas, and creating small park spaces along the creek

SP 1f. Preserve West Fork East’s densely vegetated natural condition and establish ecological open space areas, while also improving visibility and safety along the segment

Why it’s important:

Coursing through more than 80 miles of Tarrant County, the Trinity River and its tributaries run through a variety of different neighborhoods and places. For example, the Clear Fork abuts a bustling environment with new development and activity, whereas the Upper West Fork provides a more remote and rural atmosphere, with nature reserves and wide trails. As Fort Worth continues to grow along the Trinity River, it is important to ensure appropriate development that augments but does not undermine the unique sense of place of each segment.

SP 2

Raise the profile of the Trinity River as a world-class amenity

SP 2a. Create an annual river-oriented event (“Confluence”) that brings together creative thinkers from across the world to discuss trends and innovative ideas for urban rivers, and includes demonstrations and activities along the river system (See also EC 6a.)

SP 2b. Utilize the Panther Island project and TRVA promotional activity to promote Fort Worth as a cutting-edge innovator for urban river development

SP 2c. Establish a coalition of river-oriented cities throughout the country, and convene regular sessions between City officials to discuss current issues and best practices

SP 3

Reinforce flagship events and highlight regular local events along the river

SP 3a. Promote major events (such as *Mayfest* and *Rockin' the River*) in nearby cities to expand attendance beyond Fort Worth

SP 3b. Engage with community members, both in person and through social media, to identify new ideas that will draw more people to flagship events

SP 3c. Hire full-time staff or interns from local schools to utilize social networks and various forms of media to promote river events throughout the year

SP 4

Foster a cohesive design aesthetic along the river corridor that is sensitive to neighborhood-specific contexts

SP 4a. Establish a “Trinity River Design District” that encompasses properties within a half-mile radius of the river, including different “character zones” based on each segment of the river

SP 4b. Develop “Trinity River Design Guidelines” for all public and private development projects within the Trinity River Design District (See SP 4a.) for additions, new construction, redevelopment, and new signage

SP 4c. Establish a “Trinity River Design Review Board” composed of practicing professionals in the fields of architecture, landscape architecture, urban design/planning, and real estate, to review projects within the Trinity River Design District (See SP 4a.) based on the Trinity River Design Guidelines (See SP 4b.)

SP 4d. Work with developers early in the development process to provide information about river-oriented design

SP 4e. Engage with community members during the design review process to ensure new development meets local needs

SP 5

Highlight the river’s natural condition as a central characteristic

SP 5a. Ensure that even the most developed segments of the river are ecologically healthy and that natural features are integrated into developed areas

SP 5b. Utilize landscaping and built structures to frame views of the natural environment

SP 5c. Identify potential locations for scenic lookouts, and provide benches, viewing platforms, and stationary binoculars

SP 6

Promote public art along the trail network

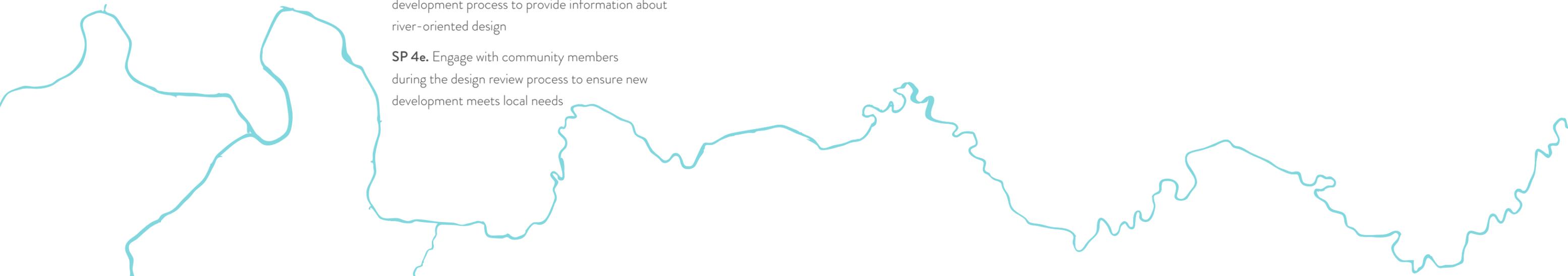
SP 6a. Identify appropriate locations for public art installations

SP 6b. Coordinate with the City of Fort Worth Public Art Program to establish a “Trinity Trails Art Program” to install pieces along the river corridor that relate to the river and Fort Worth community

SP 6c. Encourage riverside developers to include public art within their development and along adjacent trails

SP 6d. Host art events and art walks with temporary installations along different segments of the river and trails

SP 6e. Establish an event that brings people to the river, such as a “River Light” event with light sculptures and illuminated art over the river, floating art, or performances



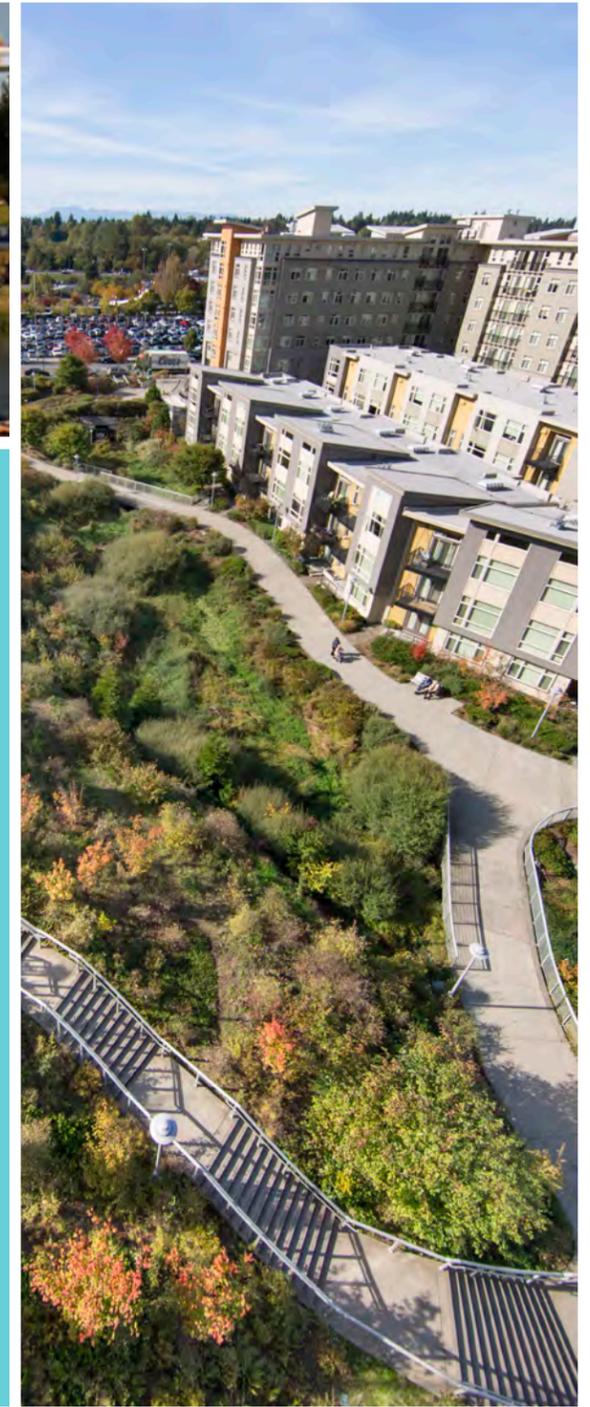
Water Quality



The quality of the water in the Trinity River is a critical issue for the region for both ecological and commercial reasons. The River Partners have been a driving force in **improving water quality to ensure clean water and promote water-based recreation.** However, new development throughout the Dallas-Fort Worth Metroplex and Trinity River watershed is impacting both water quality and demand. This section describes existing water quality issues, establishes a key goal for the next 10 years, and outlines strategies, policies, and programs to ensure the Trinity River is a sustainable and clean water source for years to come.



GOAL
Ensure access to clean and safe water along the Trinity River and its tributaries.



Context

The Trinity River Basin is the largest river basin with a watershed entirely within the State of Texas, and it is the third largest river in Texas by average flow volume. The Dallas-Fort Worth Metroplex is in the Trinity River basin. The region's population of more than 7 million people is the largest population in the United States residing within an inland river basin. Fort Worth relies solely on surface water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Reservoir, Cedar Creek Reservoir, Benbrook Lake, and the Clear Fork of the Trinity River for its water supply. **The reliance on surface waters means that Trinity River water quality is of critical importance** to ensuring safe and clean drinking water for the region.

Various entities have been committed to improving the river system's water quality for more than a hundred years. The growth of Fort Worth and Dallas in the early part of the twentieth century (including the opening of two large slaughterhouses near the river) caused significant degradation of water quality in the Trinity River. In 1912, the City opened its first water treatment plant, and the Tarrant Regional Water District (TRWD) was formed in 1924 with a goal of providing high quality water to its customers. A second water treatment plant opened in the 1950s. The Texas Water Pollution Control Advisory Council and the Trinity River Authority also established a Central Regional Wastewater System and basin-wide water quality plan. The City of Fort Worth regularly updates its Wastewater Master Plan, and the city's use of two major wastewater treatment plants meet stringent state and federal water quality standards before discharging into the Trinity River and its tributaries.

The City has been taking more aggressive steps to reduce sanitary sewer overflows in recent years, in accordance with Texas Commission on Environmental Quality (TCEQ) requirements.

In 1996, the City and TRWD were jointly issued a National Pollutant Discharge Elimination System (NPDES) permit by the Environmental Protection Agency (EPA) to discharge from the City's municipal stormwater sewer system into the Trinity River and other water bodies. In 2002, local governments initiated a regional integrated Storm Water Management program (iSWM), coordinated by NCTCOG. The NPDES permit was renewed in 2006 by the TCEQ, with a provision to minimize nonpoint source pollution in new development and redevelopment areas. The Fort Worth Stormwater Management Design Manual was adopted in 2006, providing stormwater management techniques applicable to site planning and construction. In 2008, Tarrant County received a Municipal Separate Storm Sewer System (MS4) Permit from TCEQ. The City is currently developing an Environmental Management Master Plan, which includes focused programs on water quality. An update of the City's Stormwater Management Program Master Plan was recently completed, and while water quality is not a discrete element in this plan, it is a concept that reaches across all program elements in the document. TRWD and TRVA work closely with the City of Fort Worth Storm Water Management Department to address off channel flood and drainage issues that ultimately impact the Trinity River.

Despite the dramatic improvements in water quality and supply since the early part of the twentieth century, continued efforts are needed to ensure the long-term sustainability of the river system. The recent rapid pace of development in the region has increased domestic water usage, construction-related soil disturbances, and impermeable surfaces. This has created a need to address both environmental impacts and demands on water sources. By the year 2060, TRWD and the Dallas Water Utilities Department (DWU) will need to provide water service for approximately 10 million residents, which is more than double the current population and water usage.

The City's efforts to meet rising demand include several water conservation efforts, such as the SmartFlush Toilet Retrofit Program and SmartWater Audits. The Fort Worth Water Department also established a water reuse program for non-residential uses, and distributes reused water that offsets irrigation demands that would otherwise use treated drinking water. TRWD has also initiated water conservation measures, including a public campaign called "Water is Awesome," which encourages North Texas residents to be more efficient with their water use, and provides information and resources to help community members save water.

TRWD has also responded to increasing water service demands by developing an Integrated Water Supply Plan, which combines previously disparate water planning activities and identifies new water supply opportunities for reliable future service. A major project to increase supply is the Integrated Pipeline (IPL). The IPL represents a partnership between TRWD and DWU to design, build, and operate a raw water infrastructure system that extends from Lake Palestine to Benbrook Lake. This 150-mile long pipeline will address water supply needs for the growing metropolitan population. The first phase of construction is expected to be complete in 2018.

The environmental impacts of increased development can also have economic repercussions. The expansion of paved and impervious surfaces has increased stormwater runoff, particularly along the Clear Fork (where most new development is occurring), decreasing water quality along this segment and, therefore, the river's health, appeal, and marketability. For new riverside development to continue to be economically successful, **the river needs to be maintained as a clean and healthy environmental and recreational asset.**

Community members founded Streams & Valleys to advocate for a cleaner, more accessible and attractive river, and today the Trinity River is swimmable. The River Partners can continue to build upon this legacy by establishing innovative policies and practices that ensure the best quality water for Fort Worth residents.

STRATEGIES



KEY STRATEGY

WQ 1

Develop integrated, watershed-wide stormwater treatment policies that ensure long-term water quality for the Trinity River

WQ 1a. Support and implement the City of Fort Worth’s Environmental Master Plan, and water quality provisions in iSWM

WQ 1b. Support TRWD’s Stormwater Quality Design Guidelines for development and redevelopment that discharges directly into the river

WQ 1c. Establish cross-jurisdictional landscaping policies that promote the natural removal of water contaminants

WQ 1d. Identify a strategy and actionable steps to make the Trinity River a self-sustaining ecosystem that benefits both people and nature

WQ 1e. Designate open spaces on both City and TRWD land that filter and cleanse runoff before it enters the Trinity River system

WQ 1f. Support the study of the economic impact of varying stormwater treatment and retention scenarios, including onsite and regional costs, benefits, and solutions

Why it’s important:

The appeal of the Trinity River depends on its high water quality. With increased development along the river, it is now more critical than ever to take a watershed-wide approach to ensure that stormwater runoff is adequately treated at the source, before it enters the river system. Stormwater treatment and retention policies will enable economic development to thrive while preserving the health of the Trinity River. These efforts will proactively prevent the need for costly environmental remediation efforts in the future.

WQ 2

Develop a coordinated approach to water quality, engage with partners, and build collaborations across jurisdictions and agencies throughout the watershed

WQ 2a. Collaborate with the Region C Regional Water Planning Group to discuss current water supply and quality issues

WQ 2b. Support the Tarrant County Transportation and the Tarrant County Public Health Departments in fulfilling the requirements of the county’s MS4 Permit

WQ 2c. Support the development of the Fort Worth Environmental Management Master Plan, and assist in implementing the plan’s water quality programs

WQ 2d. Support implementation of the “Lake Worth Greenprint,” and riparian corridor protection within the Greenprint’s High Priority Water Quality Zones

WQ 2e. Promote the study of High Priority Water Quality Zones throughout the Trinity River corridor, and protect these zones by preserving remaining open space and mitigating the stormwater impacts of development

WQ 2f. Identify opportunities for additional local and regional stormwater detention and retention basins, creating a distributed network of facilities that can slow and cleanse water before it enters the river system

WQ 2 continued

WQ 2g. Develop countywide tax incentives for property owners to preserve critical land in High Priority Water Quality Zones and associated watersheds

WQ 2h. Implement the existing EPA-acceptable Watershed Protection Plans for the following watersheds:

- Eagle Mountain Lake
- Hickory Creek
- Lavon Lake

WQ 2i. Support the development of an EPA-acceptable Watershed Protection Plan for the following watersheds:

- Richland-Chambers Lake
- Lake Arlington/Village Creek
- Cedar Creek Lake

WQ 2j. Establish a Water Protection Overlay in all jurisdictions with municipal storm sewer systems that requires developers to utilize innovative stormwater treatment and mitigation measures, protecting both quality and quantity of available water

WQ 3

Adopt water conservation and reuse strategies to foster a sustainable water system

WQ 3a. Encourage rainwater collection for use in gardens and other landscaped areas, and continue the rain barrel distribution program

WQ 3b. Support TRWD’s greywater recycling program, and expand the distribution and range of uses for reclaimed water

WQ 3c. Encourage the use of water-conserving plumbing fixtures, and support the City of Fort Worth’s incentive program for residents, businesses, and developments that replace old fixtures

WQ 3d. Advocate for an incentive program that encourages developers to incorporate water conservation and reuse practices into new development

WQ 3e. Identify opportunities to expand groundwater recharge facilities and increase water supply

WQ 4

Promote low-impact development to minimize stormwater runoff and pollutants entering the water system

WQ 4a. Encourage developers to reduce the amount of impervious surface on-site wherever possible

WQ 4b. Establish citywide incentives, such as density bonuses, increased allowable building heights, or reduced development fees for new developments that incorporate stormwater retention and treatment elements

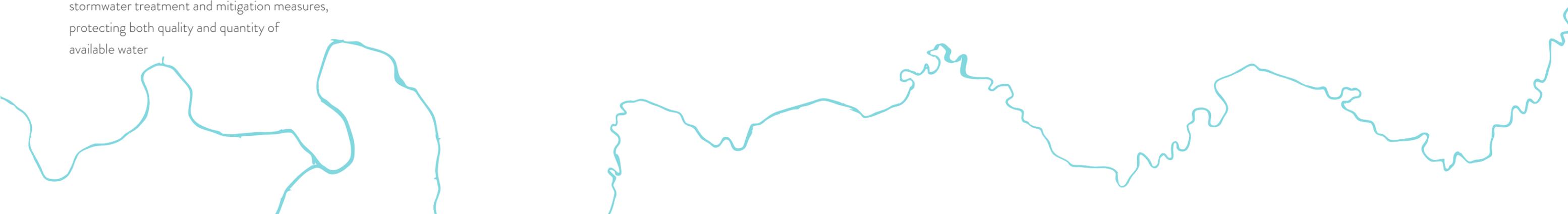
WQ 4c. Consider establishing and strengthening “green infrastructure” regulations for new developments

WQ 4d. Establish a “green roof campaign” to promote rooftop gardens for both residential and commercial buildings

WQ 4e. Create a low-impact development handbook that outlines strategies to reduce stormwater runoff, and provides a list of native, drought-tolerant landscaping options

WQ 4f. Advocate for a regulation that requires parking lots in new developments to capture and filter stormwater runoff, including strategies such as landscape buffers, bioswales, and bioretention areas

WQ 4g. Require that new development capture and treat stormwater onsite, and expand stormwater treatment and water quality regulations to remain in place after a new development is constructed



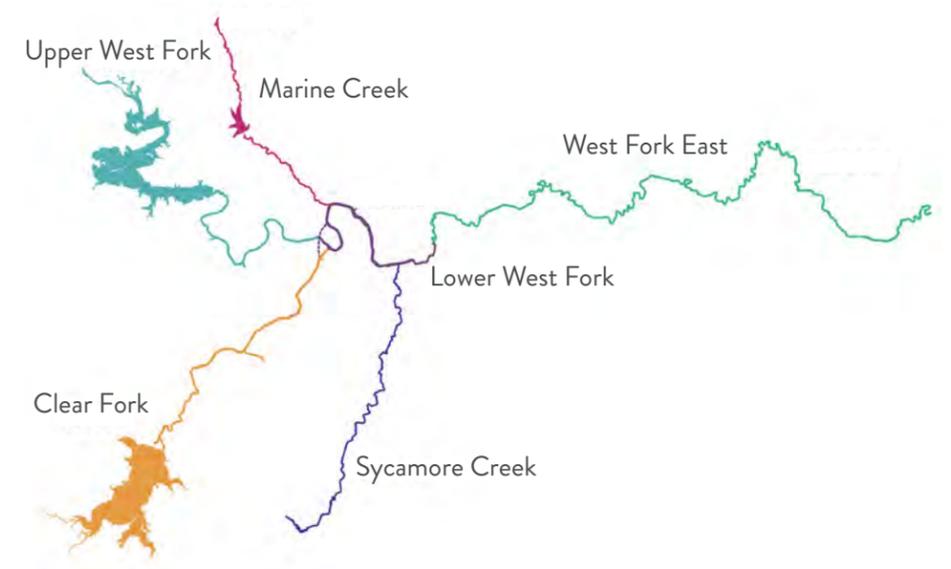
RIVER PROJECTS

The Trinity River is experiencing significant change and development, and will continue to do so in the coming years and decades. The goal of this plan is to guide and support development initiatives along the Trinity, partnering with the private sector to achieve the Strategic Master Plan objectives while also supporting the achievement of property and business owner objectives.

This chapter describes projects that will focus the continued transformation of the Trinity River. These projects are **multi-benefit initiatives**, each touching upon many of the plan's Goal Areas. The projects will focus community attention on the river, catalyze economic development, highlight the ecological and educational value of the river, promote community health and connections, and provide many other economic, social, and environmental benefits.

This chapter describes transformative projects along six river segments, as well as projects that have scope and impact along the entire Trinity River. Each river segment has **unique local conditions that require tailored improvements specific to that context.**

River Segments



UPPER WEST FORK

The westernmost portion of Fort Worth's river network, from Lake Worth east to Jacksboro Highway

CLEAR FORK

The southwest tributary of the river network, stretching from approximately N. Henderson Street south to Benbrook Lake

LOWER WEST FORK

The central hub of Fort Worth's river network, reaching from Jacksboro Highway east through Downtown to Gateway Park

MARINE CREEK

The northern tributary of the system, reaching from the Samuels Avenue bridge north to Marine Creek Lake

SYCAMORE CREEK

The southeast tributary of the Trinity River, from just north of Highway 30 southwards to approximately N. Crowley Road

WEST FORK EAST

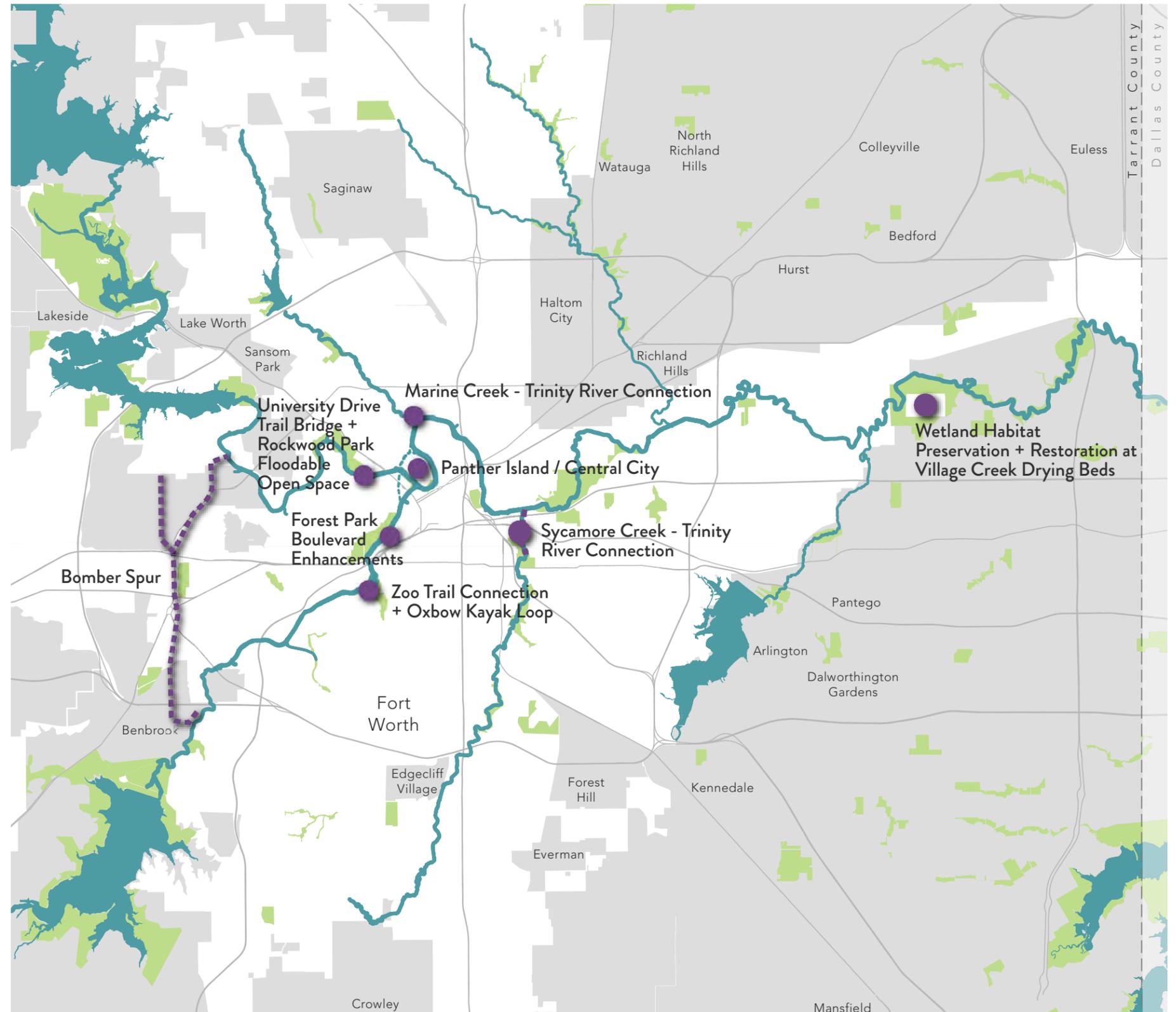
The eastern portion of the river, stretching from the western portion of Gateway Park to the Tarrant County line

Key Projects

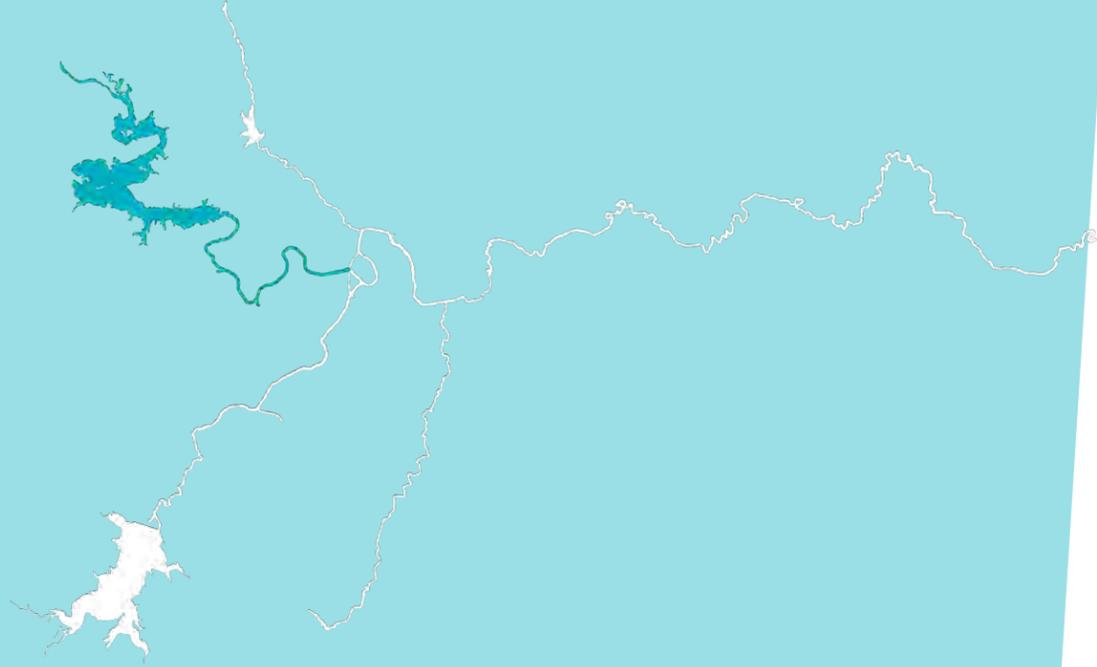
The sections in this chapter include descriptions of the existing context and opportunities along each river segment, and an overall vision for the area. Each section provides brief descriptions of three to five main projects and identifies one or two “Key Projects” per segment. The Key Projects were selected based on discussions with stakeholders and committee members in the early phases of the planning process. They provide multiple benefits across the Goal Areas and are high priorities for implementation. All projects in this section have a designated “Project Lead,” who will champion the project and move it toward implementation, as well as an approximate implementation timeframe, defined below:

- Underway: Currently in implementation phase
- Short-term: Less than 5 years
- Medium-term: 5-10 years
- Long-term: 10 or more years

A complete list of all potential river projects is located in the Implementation Chapter.



UPPER WEST FORK



VISION

The Upper West Fork features a spacious, natural environment that embodies the grand openness and big sky of Texas. The residential neighborhoods are secluded from the surrounding hustle and bustle of Fort Worth, with a free flow between backyards and river open space, and trails that meander from the water into the woods. The Upper West Fork provides amenities for recreationalists of all ages and abilities, and connections to a variety of destinations, amenities, and communities.

Context and Opportunities

Flowing eastward from Lake Worth toward Downtown Fort Worth, the Upper West Fork is the river segment closest to the Trinity's headwaters. Here the river winds its way through natural areas and residential neighborhoods, and provides a more open and natural environment than the more developed Lower West Fork, Clear Fork, Marine Creek, and Sycamore Creek. Levees flank many sections of the segment. It generally features a deep right-of-way with wide trails both on top of its levees and closer to the water. The Upper West Fork feels remote and protected from the urban environment, both along the levees and in the expansive Riverbend Nature Area. Some paths lead into shady wooded areas, which are unique along the riverway due to the many trees that have been removed to facilitate flood control elsewhere. It is important to maintain this open, natural character and shaded areas as changes occur in the area.

Most existing and proposed land uses along the Upper West Fork are residential, contributing to a quieter and less commercially-oriented environment. Some new development is underway, including the 276-acre River District project just south of White Settlement Road. The focus of this development is to provide a range of housing types, but the proposal also includes commercial, office, and entertainment uses. Many existing houses face away from the river along the Upper West Fork and are walled off from the trail network. It will be important for new residential projects to provide access and seamless transitions between the built environment and the riverway.

The trails along the Upper West Fork are actively used, though they are relatively uncongested. The trails are particularly frequented by runners, hikers, and nearby residents walking their dogs. There are fewer cyclists in this area because the trails are often unpaved or rough. Connectivity is strong, with continuous parallel trails on both sides of the river from Isbell Road to Meandering Road. The City of Fort Worth is developing a trail connection to and around Lake Worth, linking the river to another important water-based recreational amenity.

Connectivity between nearby neighborhoods and the Upper West Fork's trail system could be improved, both via on-street bike lanes and with the Bomber Spur project (discussed in the River-wide section). As part of the Regional Veloweb, NCTCOG has already identified and funded alignments from the northern segment of the Bomber Spur Trail to Airfield Falls, eventually connecting to the Upper West Fork trail system. These off-street linkages will improve access to the Trinity Trails from Westworth Village and the Naval Air Station Joint Reserve Base, establishing ties to the river's recreational amenities for these important communities. Jacksboro Highway will also serve as a key connectivity corridor with its bicycle and pedestrian friendly design.

The Upper West Fork provides a unique environment, with natural features and wide-open spaces, as well as recreational amenities. It has the potential to become a destination for both nearby residents and recreationalists throughout Fort Worth, but should maintain its character as a peaceful place and welcome respite from urban life.

Projects

KEY PROJECT

University Drive Trail Bridge + Rockwood Park Floodable Open Space

This project includes an iconic pedestrian and bicycle bridge that will be constructed alongside the University Drive overpass, providing access to the river and a safe route for commuters, recreationalists, and visitors alike.

Project Lead: City of Fort Worth
 Partners: TRWD and Streams & Valleys
 Implementation Timeframe: Medium-term

Lake Worth Trail: The City of Fort Worth is currently directing design for various segments of this overall trail project, including preparation of final construction documents for the initial implementation of Marian Sansom Park to Arrow 5 Park. These, and future segments, will need advocacy and support and will ultimately provide at-or-near-lake edge trails around much of Lake Worth (with the exception of the Naval Air Station Joint Reserve Base lake edge).

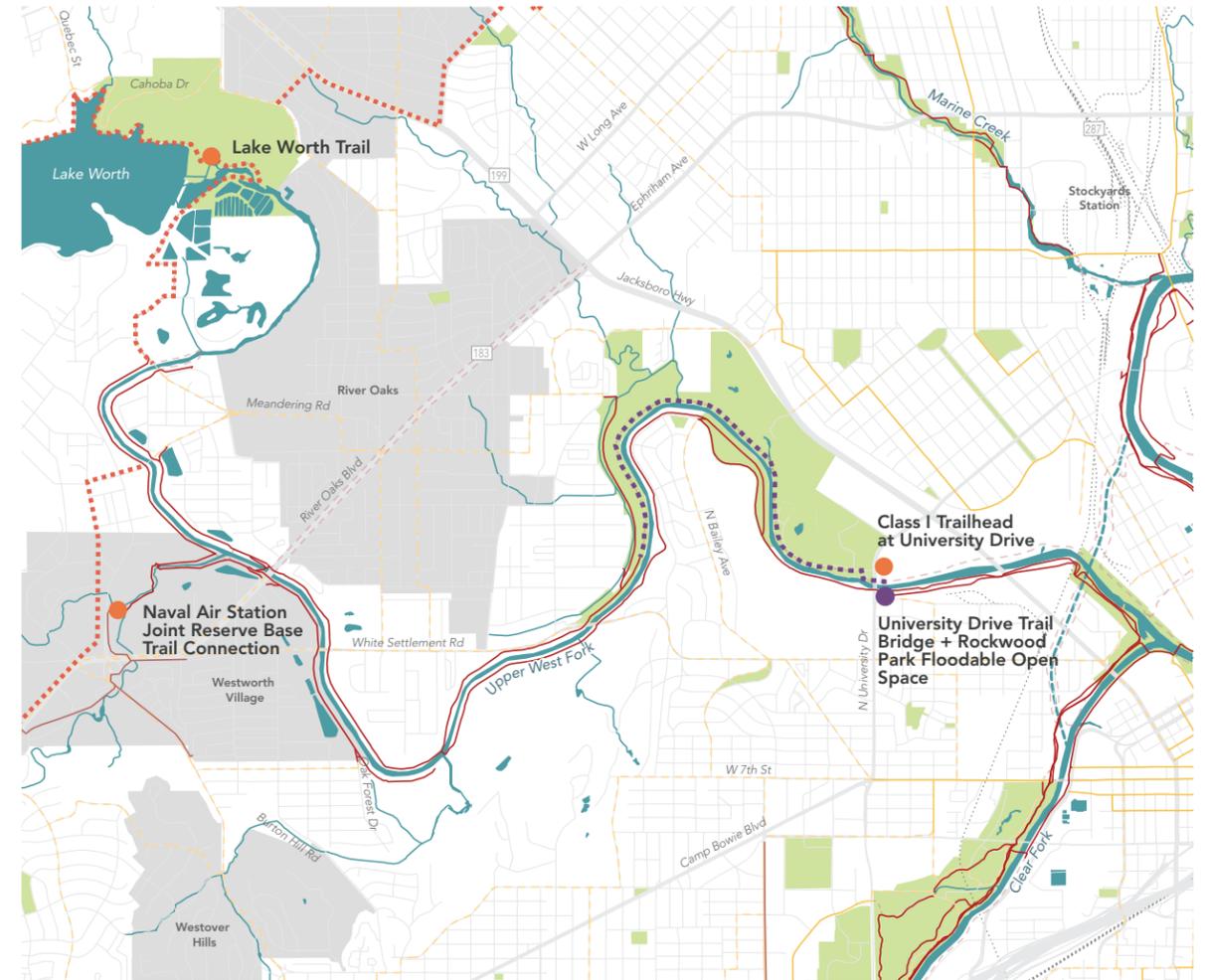
Project Lead: City of Fort Worth
 Partners: TRWD and Streams & Valleys
 Implementation Timeframe: Underway

Naval Air Station Joint Reserve Base Trail Connection: This project will provide an important linkage between the Trinity Trails and the Naval Air Station including direct access for service members and Air Station employees and an opportunity for an iconic three-pronged bridge at the confluence of the Farmers Branch and the West Fork of the Trinity River.

Project Lead: TRWD and Camp Carter
 Partners: TRWD, Streams & Valleys, NASJRB
 Implementation Timeframe: Long-term

Class I Trailhead at University Drive: A Class I trailhead at the northeast side of the University Drive vehicular bridge over the river will bolster the University Drive Bridge and Rockwood Park Floodable Open Space Key Project by providing increased trail and river access as well as additional amenities. It will also establish a destination connection point for residents and visitors.

Project Lead: City of Fort Worth
 Partners: TRWD and Streams & Valleys
 Implementation Timeframe: Medium-term

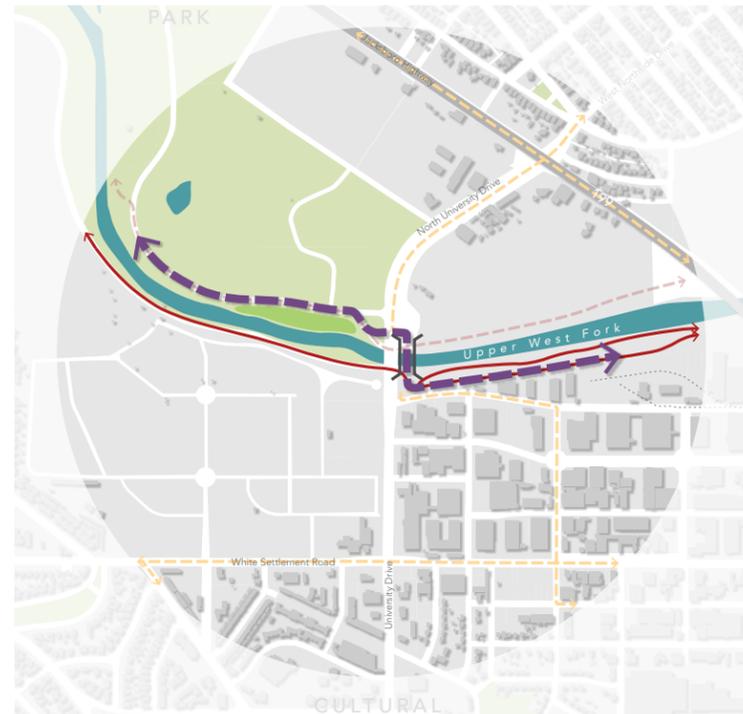


- Proposed Project
- - - Proposed Trail Connection
- Key Project
- - - Key Trail Connection

University Drive Trail Bridge + Rockwood Park Floodable Open Space

As rapid growth progresses in northern Fort Worth neighborhoods, it is important to improve connectivity between the Trinity Trails system and residential and employment areas. The University Drive Trail Bridge provides a breathtaking view of Downtown Fort Worth, but little opportunity to stop and enjoy it. Bicycle and pedestrian infrastructure is limited, and access from University Drive to the trail system is challenging. There is also limited connectivity between the Rockwood Park sports facilities and the Trinity Trails.

This project includes a pedestrian and bicycle trail bridge constructed alongside the existing University Drive vehicular bridge. This river segment faces erosion issues, and a floodable open space on the northern bank will provide additional flood storage capacity, as well as a natural experience along the trail.

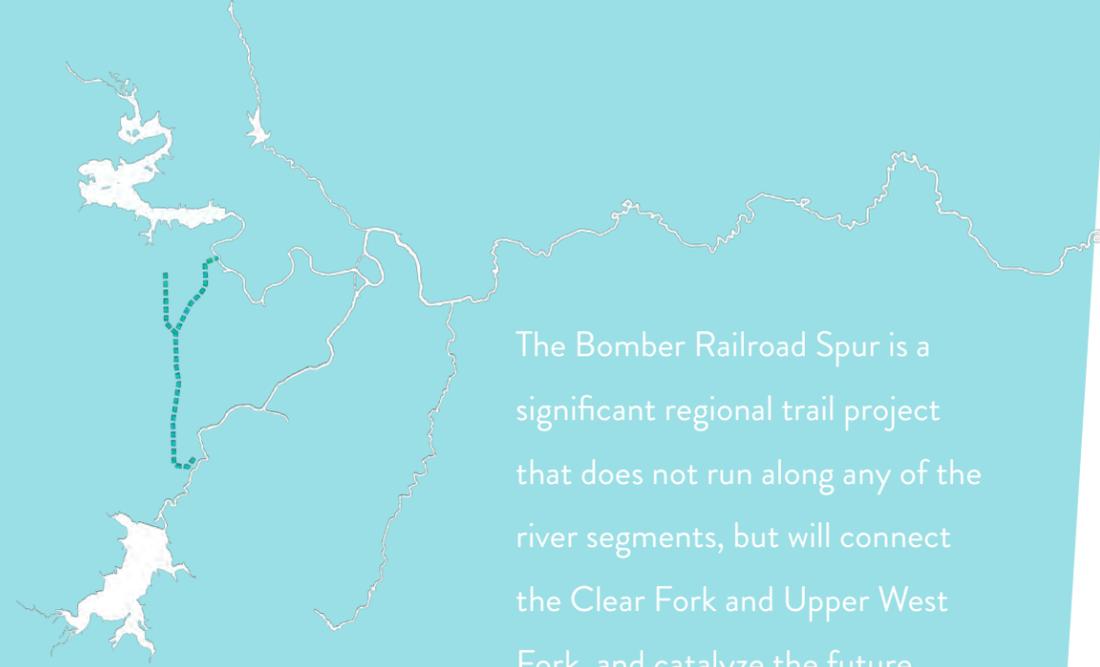




The trail bridge will establish a safe and welcoming path for commuters, recreationalists, and visitors alike, providing stunning views towards Downtown. It will bolster the pedestrian improvements underway along Jacksboro Highway and improve connectivity to the Rockwood Park recreation facilities and open space.



BOMBER SPUR



The Bomber Railroad Spur is a significant regional trail project that does not run along any of the river segments, but will connect the Clear Fork and Upper West Fork, and catalyze the future “River Loop Trail” (see System Wide Key Project). The trail corridor is designated as part of the Regional Veloweb in Mobility 2045.

KEY PROJECT

Bomber Spur / Bomber Heights

The Bomber Spur is a major catalytic project that would transform the abandoned Bomber Railroad Spur into a trail between the Clear Fork and Upper West Fork. The trail will originate at approximately the intersection between W. Vickery Boulevard and State Highway 183, running north along N. Z Boas Community Park, to the Naval Air Station Joint Reserve Base (NASJRB), where it will split towards Upper West Fork and White Settlement. This rails-to-trails conversion project could become a regional destination, with races and events occurring between the two river segments. It will also provide a new recreational amenity and off-street connective route for communities in West Fort Worth, including White Settlement and Westworth Village. An important strategy to implement this project is to divide it into segments for which different local partners could provide funding and support. Possible segment divisions are outlined in the paragraphs below.

Project Lead: Streams & Valleys
Partners: City of Fort Worth, NCTCOG, TxDOT
Implementation Timeframe: Medium-long-term

Section 1: Westworth Village Residential: The alignment for this connection will include an off-street connection from SH 183, crossing Roaring Springs and White Settlement roads, and running along Pumphrey Drive to connect with the Upper West Fork at Airfield Falls. NCTCOG has secured funding for this project.

Project Lead: City of Westworth Village, TxDOT
Partners: City of Fort Worth, TRWD and Streams & Valleys
Implementation Timeframe: Underway

Section 2: Airfield Falls Connection: This section will link Airfield Falls to Camp Carter, and would require coordination with both Westworth Village, Camp Carter, and possibly the NASJRB.

Project Lead: Streams & Valleys
Partners: TRWD, City of Fort Worth, NCTCOG, TxDOT
Implementation Timeframe: Short-term

Section 3: Westworth Village East Commercial: This section will run along Highway 183/Westworth Boulevard to Altamere Drive.

Project Lead: City of Westworth Village
Partners: TxDOT, City of Fort Worth, Streams & Valleys
Implementation Timeframe: Short-term

Section 4: Fort Worth West Commercial: This section will run along State Highway 183/Alta Mere Drive, and cross over I-30. The crossing of I-30 will be included in the reconstruction of the I-30/SH 183 interchange and is currently scheduled in TxDOT's Unified Transportation Program for the mid-2020s.

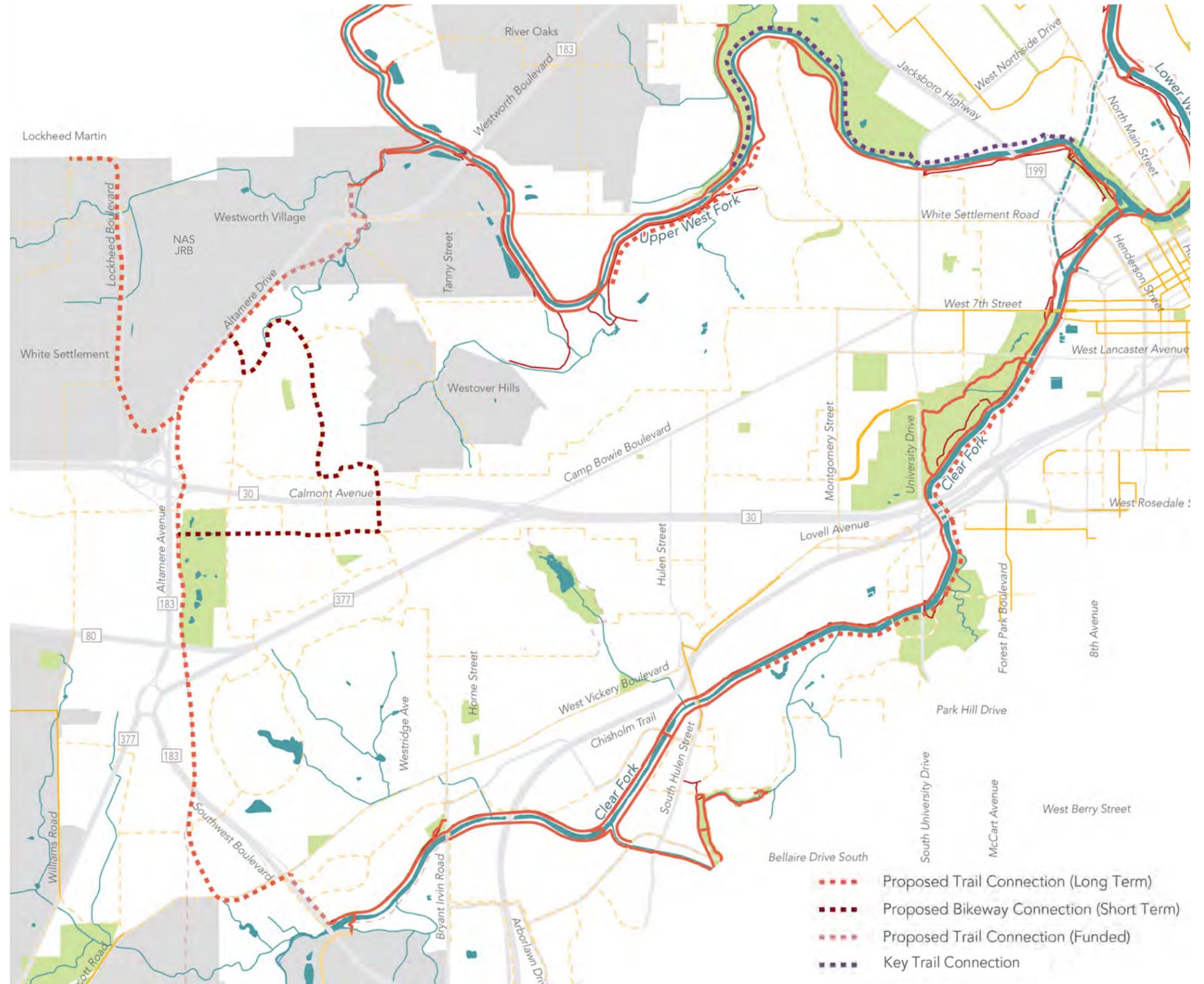
Project Lead: Streams & Valleys
 Partners: TxDOT, City of Fort Worth, NCTCOG
 Implementation Timeframe: Short-term

Section 5: Fort Worth Residential South: This section will include the primary off-street trail along the former Bomber Spur Railroad tracks, and will then provide an on-street protected bike lane, or an off-street path parallel to the Union Pacific rail line along W. Vickery Boulevard to Southwest Boulevard where it will extend southward on SH183 road right-of-way to the Clear Fork Trinity Trail. The exact alignment for the on-street route will need to be determined.

Project Lead: Streams & Valleys
 Partners: City of Fort Worth, TxDOT, Union Pacific Railroad, NCTCOG
 Implementation Timeframe: Medium-term

Environmental Education Center: This project will provide environmental education facilities and nature programming along the waterfront at Mary's Creek. It will integrate natural features and create an opportunity to implement ecological restoration in this area. The specific site for this project is undefined, but there are several locations along the banks of Mary's Creek that present possibilities.

Project Lead: Streams & Valleys
 Partners: City of Fort Worth, Bomber Heights Neighborhood Association
 Implementation Timeframe: Medium-term



Bomber Spur

Officially known as the “Carswell AFB Industrial Lead,” the Bomber Railroad Spur was once part of the Texas & Pacific Railroad, and was used to carry prefabricated parts and materials for military planes to Carswell Air Force Base in Westworth Village. Several years after World War II with the advent of industrial trucking, the rail line was no longer needed, and the tracks were abandoned. The rail line’s right-of-way is now but a vestige of the once bustling corridor, overgrown and providing few visible traces of the historic railroad tracks.

This linear site provides a perfect opportunity for a “Rails to Trails” project, and will establish a safe and comfortable on and off-street connection between the Clear Fork and Upper West Fork of the Trinity River. The trail will cross several difficult intersections, including Highway 183, Interstate 30, Camp Bowie Boulevard, and West Vickery Boulevard. In order to create a safe and seamless path for bicyclists and other trail users, each crossing will need to be highly visible, and use innovative traffic calming strategies.

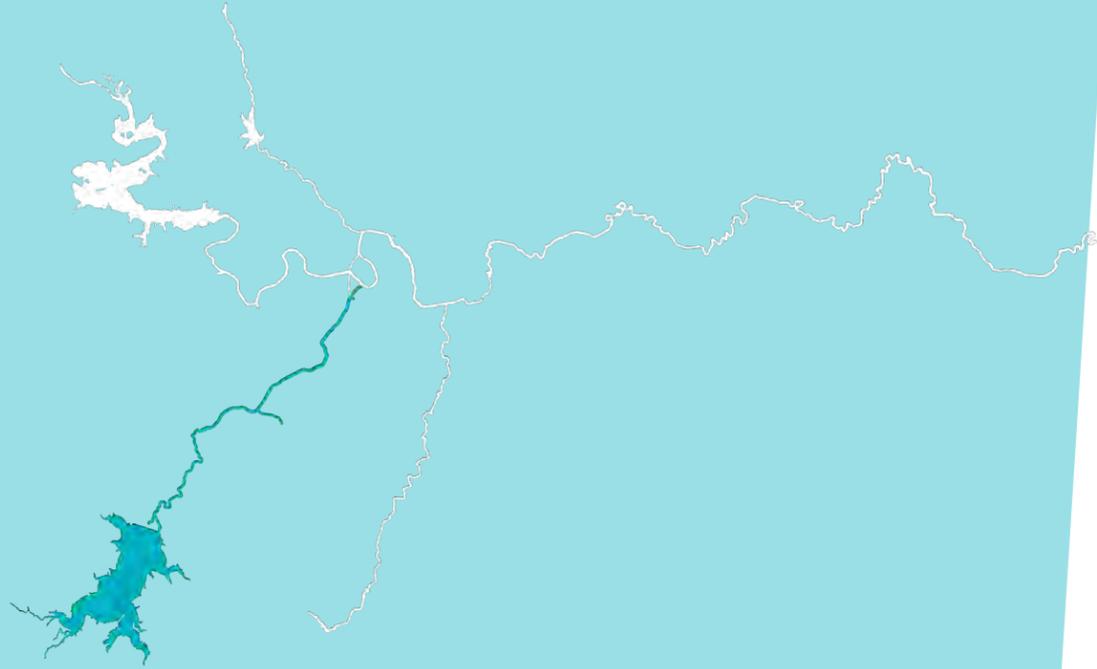




The Highway 183 crossing will include distinctive paving and a signalized intersection to slow traffic and allow for safe pedestrian and bicycle crossings. This portion of the trail will also provide places of respite with shaded seating and attractive landscaping. Distinctive signage that evokes the history of the site will be incorporated throughout the length of the corridor and at each major trail crossing.



CLEAR FORK



VISION

The Clear Fork is a vibrant and active river segment that is known for its high quality commercial activity, urban and suburban living, and natural areas. It provides a variety of amenities for different users, including welcoming open spaces, family-oriented play spaces, entertainment, dining, community events, education, and water recreation. The Clear Fork is bustling and energetic, but also provides safe and accessible trails and open spaces for users of all ages and abilities.

Context and Opportunities

The Clear Fork is the most well-used segment of the Trinity River in Fort Worth, and it has seen significant development activity in recent years. The trails along this segment are a favorite recreational amenity for runners and cyclists. This popularity creates congestion issues along stretches where there is only a single path for all forms of travel. Events and races occur regularly along the Clear Fork, exacerbating congestion and crowding. These issues have raised safety concerns and conflicts between high-speed cyclists and pedestrians. In response to these challenges, Streams & Valleys launched the successful “Share the Trail” campaign to promote trail safety and courtesy, which should be bolstered and expanded. Other measures such as distributing trail traffic and creating separated lanes will also help. The Clear Fork East Bank Extension project is nearing completion, and funding has been dedicated for parallel trails on both sides of the river from Rodgers Road to the Mistletoe pedestrian bridge.

Part of the Clear Fork’s success and popularity is attributable to two key developments that include river-oriented development in Fort Worth: Clearfork at Edwards Ranch and Waterside. Clearfork is home to the Press Café, a popular restaurant that faces the river with outdoor seating, an inviting lawn area, and Adirondack chairs that evoke a backyard sense of comfort. The rustic aesthetic of the development reflects the site’s history as Edwards Ranch, but also provides a hip modern atmosphere. Waterside fosters a more urban aesthetic, with higher density contemporary housing fronting the river itself, and commercial uses and restaurants slightly farther from the water. Both projects are emblematic of the active, mixed-use, and family-oriented nature of the Clear Fork’s future. These two activity hubs, interspersed with

natural areas and lower-scale development, embody the Priority Economic Development Strategy of creating balanced development nodes (EC 1).

In terms of connectivity, the Clear Fork’s banks feature mostly continuous trail between Downtown and Highway 183, but there is a one-mile gap along the southern segment of the trail, making the connection to Benbrook Lake difficult. Improved access to and around Benbrook Lake, and linkages to other nearby amenities such as Longhorn Park, could expand options for recreationalists who frequently use the Clear Fork trail system, and could also help disperse congestion. There is also an opportunity to establish a navigable water trail between Westbend and Trinity Park, providing an alternative recreation and connectivity route along this river segment.

As activity increases along the Clear Fork, there is a desire for greater variety in recreational options. In addition to water access, families with children have expressed the need for off-trail open spaces with playgrounds, picnic areas, and learning opportunities. Educational facilities such as the public Fort Worth Zoo and the private Kinderplatz of Fine Arts preschool are both located directly along the Clear Fork and could be valuable partners for river-focused programming.

The Clear Fork is a beloved recreational amenity working to keep pace with its own success. Too much activity is a positive issue to have, but it will be important to ensure safety and comfort for all users along this river segment in years to come.

Projects

KEY PROJECT

Zoo Trail Connection + Oxbow Kayak Loop

This project will provide a trail connection between the Fort Worth Zoo and the recently-completed trail bridge south of West Rosedale Street. The project will also create a navigable kayak loop along the oxbow just north of the Zoo.

Project Lead: City of Fort Worth
 Partners: TRWD, Streams & Valleys
 Implementation Timeframe: Medium-term

KEY PROJECT

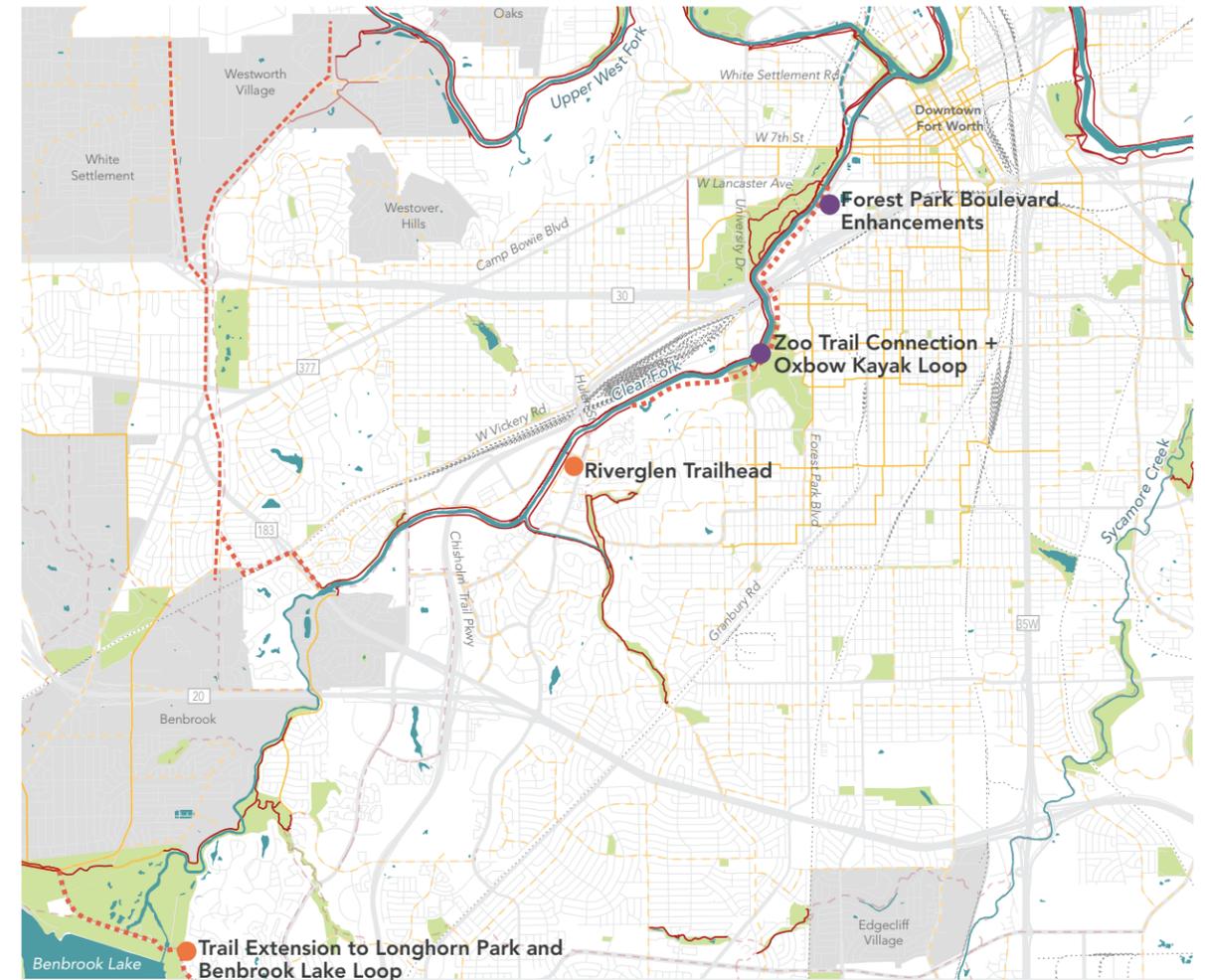
Forest Park Boulevard Enhancements

This project will improve the aesthetics and connectivity along Forest Park Boulevard. It will establish a gateway to Downtown by including multi-modal improvements, connectivity to the trail system, wayfinding enhancements, and distinctive landscaping.

Project Lead: Streams & Valleys
 Partner: City of Fort Worth
 Implementation Timeframe: Medium-term

Riverglen Trailhead: This project will establish a Class I Trailhead with access to the Clearfork Main Street Bridge, which will better connect neighborhoods and new development with the trail system.
 Project Lead: TRWD
 Implementation Timeframe: Short-term

Trail Extension to Longhorn Park and Benbrook Lake Loop: This project extends from the current terminus of the Clear Fork Trinity Trails near Benbrook Lake to Longhorn Park, Oakmont Park, and Quail Ridge Loop, eventually leading around Benbrook Lake. Enhancements along the banks of Benbrook Lake include an overlook, shoreline access, and picnic areas. The loop will significantly increase cycling amenities for Clear Fork bicyclists, as well as create a definitive destination for recreationalists.
 Project Lead: Streams & Valleys
 Partners: TRWD, City of Fort Worth, City of Benbrook
 Implementation Timeframe: Medium-term

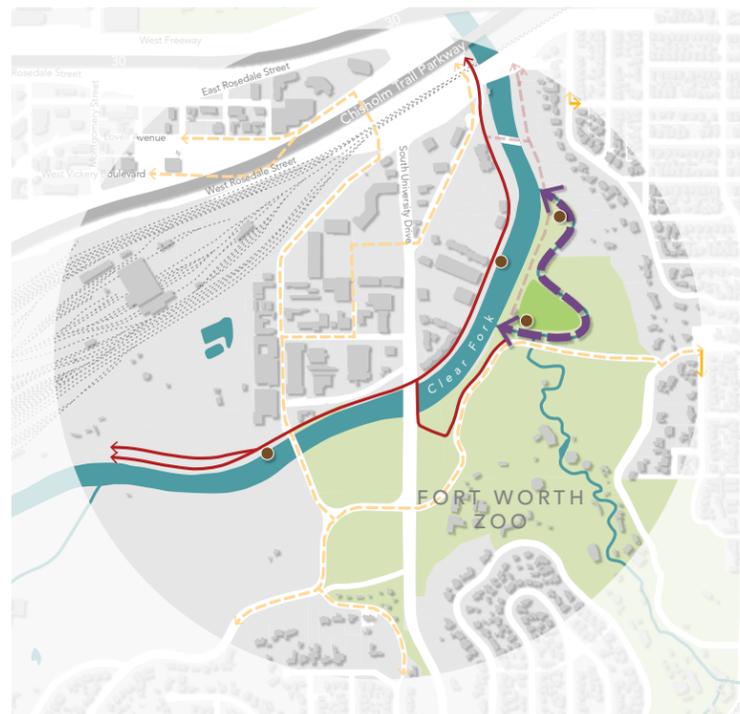


- Proposed Project
- - - - Proposed Trail Connection
- Key Project
- - - - Key Trail Connection

Zoo Trail Connection + Oxbow Kayak Loop

The existing site for the Water Trail and Kayak Loop is an oxbow just north of the Fort Worth Zoo, just east of the Forest Park Miniature Railroad station on the north side of Colonial Parkway. Currently, the waterway is only occasionally navigable. There is a gap in the Trinity Trail network between the zoo and a pedestrian bridge to the north. Dense tree cover and vegetation limit access to the water along the oxbow. The site's proximity to the zoo, new development on the western bank, and Trinity Park make this an ideal location for new recreational facilities and a community gathering place with diverse programming opportunities.

This project will provide a trail connection between the Zoo main entry point on Colonial Parkway and the east end of the recently-completed trail bridge over the Trinity River, adjacent to the miniature railroad bridge. On a larger scale, the Oxbow Kayak Loop could be expanded to facilitate the use of a navigable water trail between the WestBend development, the zoo and nearby activity hubs, creating opportunities for kayaking and rowing between different Clear Fork destinations.





EXISTING

Planning and design for the trail connection will address potential locations for a kayak launch so that visitors can paddle within, and possibly beyond, the adjacent off-Trinity backwater channel. The new pedestrian bridge will improve connectivity between the river and the Fort Worth Zoo, and will entice Zoo visitors and recreationalists alike to participate in the available water sport activities. Proximity to the Zoo also makes this trail segment ideally suited to provide educational opportunities related to wildlife and habitat restoration.



PROPOSED

Forest Park Boulevard Enhancements

A major artery that connects neighborhoods in south Fort Worth to Downtown, Forest Park Boulevard runs along the eastern bank of the Clear Fork. The segment of the road north of Chisholm Trail Parkway is located along prime riverfront real estate, but does not currently provide easy access to the river or trail system. This four-lane thoroughfare features wide lanes with a large median, and few opportunities for cars to stop, pedestrians to cross the road, or cyclists to connect with the Trinity Trails. Grass and trees have been planted in the median, but the street has no distinctive landscaping or signage to demarcate it as a major gateway to Downtown.

This project will improve access to riverside pathways and nearby neighborhoods while maintaining a sense of openness and serenity. Adjustments to the road configuration, including a bicycle lane and crosswalks, will establish a more pedestrian- and bicycle-friendly environment.

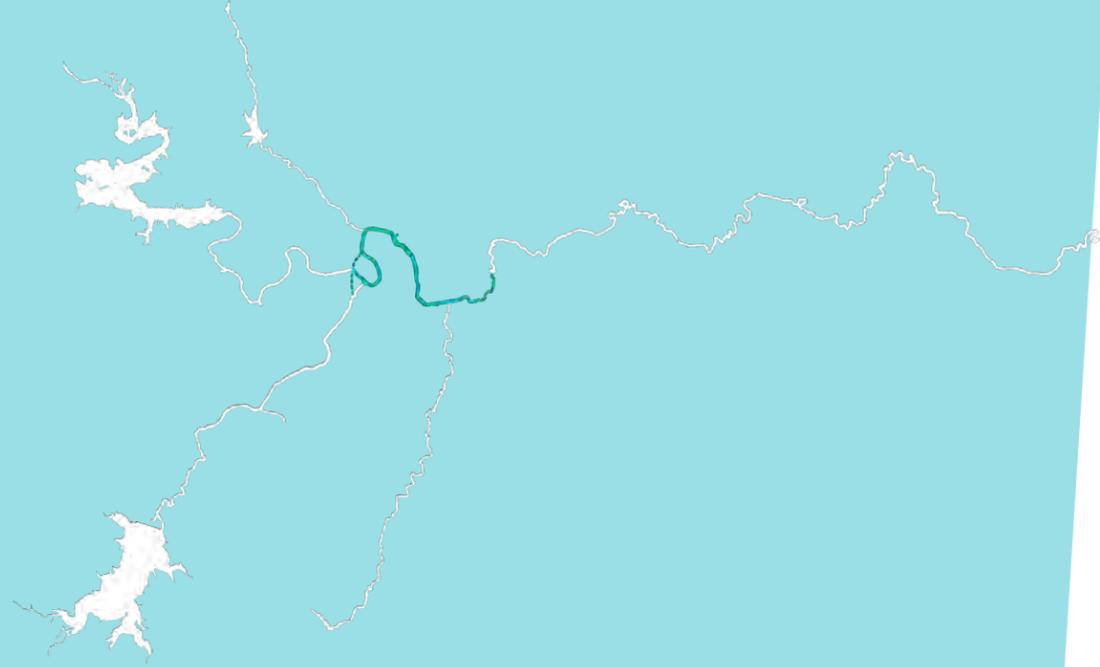




Forest Park Boulevard has the potential to become a “21st Century Parkway.” This project will foster a sense of place and establish a gateway into Downtown through creative design solutions, low-maintenance and sustainable landscaping, and wayfinding enhancements. It will also provide opportunities for community gatherings and festivals near the Phyllis J. Tilley Memorial Bridge and Rotary Plaza.



LOWER WEST FORK



VISION

Lower West Fork is at the confluence of the river network and the community. It showcases the river as an urban amenity while weaving the river's natural resources into the urban core. The Lower West Fork connects people and places throughout Fort Worth.

Context and Opportunities

The Lower West Fork area lies at the confluence of Fort Worth's Trinity River system. This segment of the river runs through the heart of Downtown Fort Worth and around Panther Island, but it is not fully utilized as an urban amenity. Several connection points exist between Downtown and the river, but they are not easily identifiable or visible. Projects are already underway to improve connectivity between Downtown and the River, including the Heritage Plaza Master Plan and several bridge projects associated with the Panther Island project. These improvements could be accompanied by efforts to improve wayfinding and signage in the surrounding areas, better integrating Fort Worth's urban core with its river amenities.

Fort Worth has an opportunity to differentiate itself as a truly river-oriented city by innovatively integrating the natural and urban environments, even in the Downtown core. Rain gardens, naturalized river banks, and river-themed design elements are some potential improvements that could expand the river's reach into Downtown and bring residents and visitors down to enjoy this unmatched river system.

The Panther Island project will be an economic development catalyst and recreational landmark for the entire Dallas-Fort Worth region. In addition to providing flood control improvements, Panther Island's bypass channel will isolate flood flows and facilitate a controlled water level in the current Trinity River channel, with a town lake, boardwalk, boating activities, riverfront development, and a series of canals. Improved access is a goal on both sides of the waterway. Connections between Downtown and Panther Island will be critical to ensure that the vibrancy of new development spills across the river to Downtown.

Lower West Fork trails should also guide recreationalists, residents, and visitors to the variety of amenities along each of the other segments of the river, including the Historic Stockyards, the Fort Worth Zoo, Lake Worth, Gateway Park, Cobb Park, and more. As the confluence point for Fort Worth's waterways, Lower West Fork has the potential to both convene people and disperse them towards the many exciting destinations along the river.

Projects

KEY PROJECT

Panther Island/Central City

This project represents dramatic transformation of Fort Worth's flood control systems, waterfront development, and infrastructure. The proposed bypass channel will allow new development to be constructed with direct waterfront access and will provide new water recreation opportunities. The project needs full support from all of the River Partners to ensure full implementation.

Project Lead: TRVA
 Partners: TRWD, City of Fort Worth, Tarrant County, U.S. Army Corps of Engineers
 Implementation Timeframe: Underway

Heritage Plaza Master Plan: In 2009, the City of Fort Worth announced its intent to reopen Heritage Plaza, a landmark park designed by Lawrence Halprin in 1975. In 2014 residents passed a \$1.5 million bond to support the project. The restoration project will address safety, water, structural, and electrical issues with the park's infrastructure, and will also improve connectivity between the plaza's top level adjacent to Downtown and the Trinity River. It represents an opportunity to recapture the vibrancy of this historic site, and to better integrate this supremely situated public space into the river and trail network. Designs for this project are complete, but support and advocacy are needed for implementation.

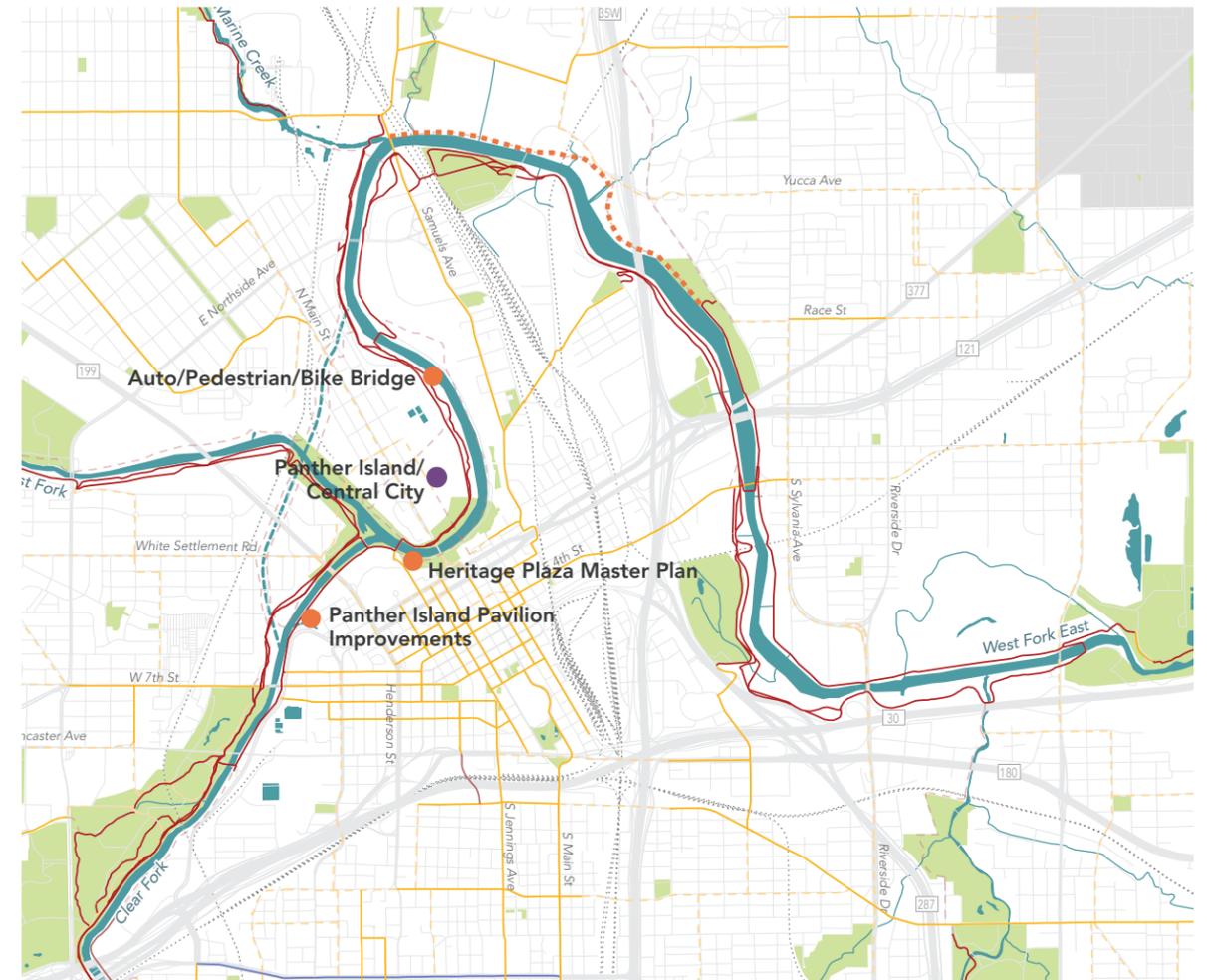
Project Lead: City of Fort Worth, Downtown Fort Worth, Inc.
 Partners: TRWD, Streams & Valleys
 Implementation Timeframe: Underway

Panther Island Pavilion Improvements: Panther Island Pavilion is a well-used space for events, community gatherings, and watersport rentals. Placemaking elements such as food trucks, shaded seating, and temporary landscaping, as well as sustainable features such as permeable paving, could help enliven this space for everyday use. Although this space is temporary, its functionality can be maximized until the Panther Island project is complete.

Project Lead: TRVA
 Partner: TRWD
 Implementation Timeframe: Short-term

Auto/Pedestrian/Bike Bridge: Several new bridges are funded or under construction as part of the Panther Island project, but one critical link to the northeast has not been included in funding plans. This bridge would provide bicycle, pedestrian, and vehicle access from the northeast corner of Panther Island, near the baseball stadium, connecting to neighborhoods across the river. The bridge will also establish a clearer connection to the Historic Stockyards, and fast-growing areas in North Fort Worth.

Project Lead: City of Fort Worth
 Implementation Timeframe: Long-term

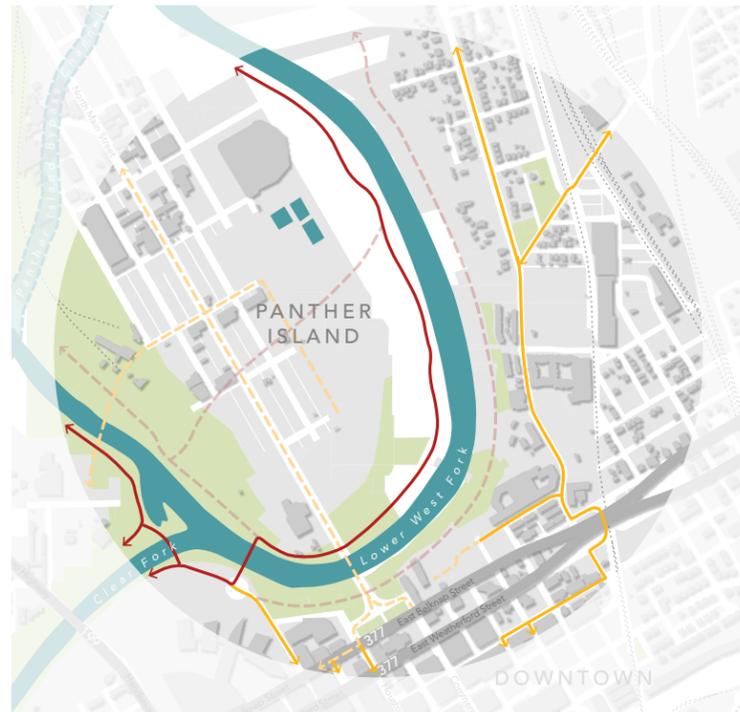


- Proposed Project
- - - - Proposed Trail Connection
- Key Project
- - - - Key Trail Connection

Panther Island/Central City

Panther Island sits directly north of Downtown Fort Worth, across the Trinity River. For decades the site was home to industrial uses such as the TXU Power Plant, but in recent years much of it has sat largely vacant. The LaGrave Baseball Field at the northeastern edge of Panther island had been abandoned since the Fort Worth Cats' final baseball season in 2014, but was recently purchased by TRWD as a part of the overarching development and infrastructural strategy. The Main Street Bridge currently provides the only road access to Panther Island from Downtown, and the Trinity Trails run along the southeastern bank of the site.

The Panther Island/Central City project represents an iconic transformation of Fort Worth's flood control systems, waterfront development, and infrastructure. A major innovation of the project is a 1.5-mile-long bypass channel that will redirect floodwaters around the low-lying area north of Downtown.



Panther Island's bypass channel will allow new development to be constructed with direct waterfront access and will provide new water recreation opportunities. The Panther Island/Central City project is emblematic of Fort Worth's deep shift toward embracing the Trinity River and its resources. Led by TRVA in concert with many partners, the Panther Island project needs full agency and community support to see it through and ensure that it lives up to its greatest potential. The River Partners should continue to advocate for additional connectivity improvements between Panther Island and other river segments to ensure that this world-class project fully links to the entire Fort Worth community.

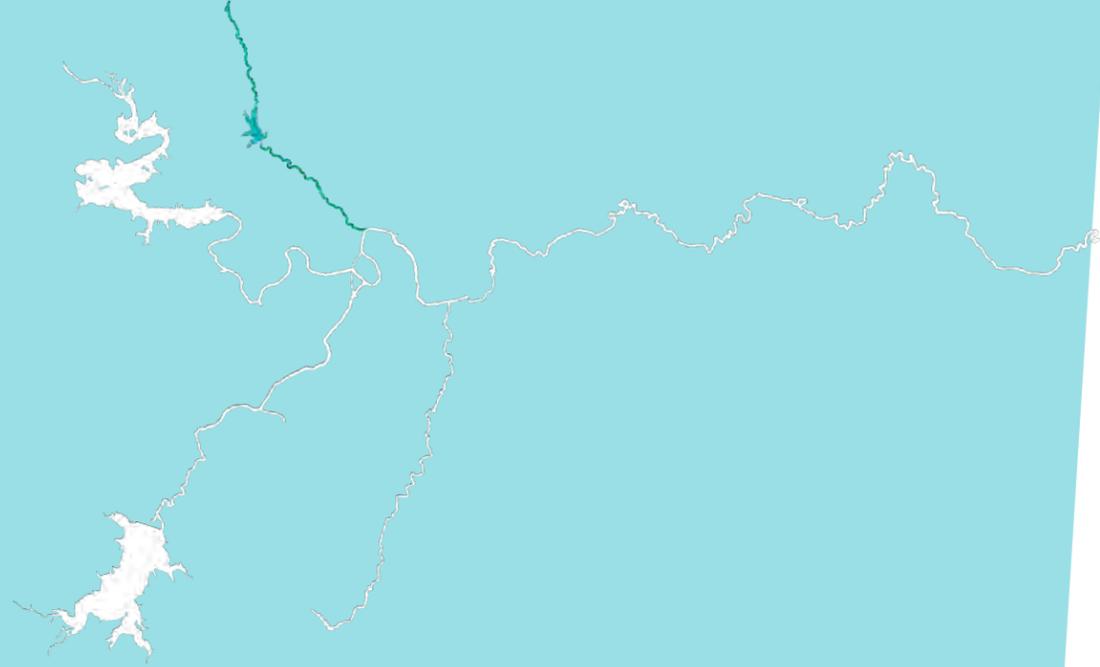


Image: Trinity River Vision Authority



Image: Trinity River Vision Authority

MARINE CREEK



VISION

Marine Creek is a family-oriented recreational amenity with a semi-rural setting. It provides access to the Fort Worth Historic Stockyards and fosters an equestrian and ranch-themed aesthetic.

Marine Creek provides well-marked connections for a variety of modes of travel, including canoes and kayaks, and is easily accessible from nearby neighborhoods. Marine Creek is well connected to Panther Island, Downtown, and Marine Creek Lake. It is both a local amenity and regional attraction.

Context and Opportunities

Marine Creek is a northern tributary of the Trinity River system, running along the Historic Stockyards and into the Lower West Fork river segment. Significant population growth has occurred along Marine Creek in recent years—it is the fastest growing area of Fort Worth. Homes in these neighborhoods are predominantly single-family residences with a semi-rural aesthetic. It is important for Marine Creek and its associated trails to be accessible from neighborhoods in North Fort Worth, and to provide family-friendly recreational amenities for nearby residents.

Marine Creek runs along the Historic Stockyards, providing an opportunity for increased visual and physical connections from the Trinity Trails to this regional destination. The existing connection between the Historic Stockyards and Downtown is limited: a small, informal dirt horse path without signage connects Marine Creek to the Trinity River. The official route recognized by TRWD is an on-street bike lane along NE 23rd Street. Establishing a larger off-street trail link and improving wayfinding would strengthen ties between Downtown, the Historic Stockyards, and Marine Creek.

A Master Plan to redevelop approximately 70 acres of the Historic Stockyards is underway. The project will include 800,000 square feet of new development, including a hotel along Marine Creek, animal exhibition areas, retail, restaurant and office space, residential buildings, and areas for festivals and events. It will be important to coordinate with developers and the City of Fort Worth to ensure these plans enhance Marine Creek and improve access for community members.

Currently, this river segment provides continuous trail connectivity from NE 23rd Street to Sansom Park Drive in Buck Sansom Park. However, there is an approximately 1.5-mile trail gap between Buck Sansom Park and the Marine Creek Lake looped trail. This connection is critical to provide neighborhoods north of Highway 820 connectivity to the Trinity Trails. It would be the first such Trinity Trail connection to north Fort Worth neighborhoods anywhere outside of 820.

TRWD has made several improvements at Marine Creek Lake in recent years, including adding trails and trailheads. Adjacent to the Historic Stockyards, a portion of the Panther Island Project includes a dam adjacent to the confluence of the Trinity River and Marine Creek. This project will create a navigable water connection between the Trinity River and Marine Creek, just upstream of the proposed hydraulic dam and lock system at Samuels Avenue. The project would offer water recreation opportunities for residents and visitors who want to paddle or boat from Panther Island into the Stockyards.

Marine Creek has the potential to become a beloved amenity used by the growing North Fort Worth population, and potentially a destination for horse-lovers, tourists visiting the Stockyards, and community members throughout Tarrant County.

Projects

KEY PROJECT

Marine Creek - Trinity River Connection

This is a broad-reaching project to establish a connected network of trails and waterways, and to celebrate the confluence of Marine Creek and the Trinity River. It also includes the creation of wayfinding improvements to guide visitors from the trail system to the Historic Stockyards.

Project Lead: TRVA

Partners: TRWD, City of Fort Worth, Streams & Valleys

Implementation Timeframe: Short-term

Trail Connection from Buck Sansom Park to Marine Creek Lake:

This project was included in the 2009 Trinity River Master Plan. It will provide a continuous trail linkage between Buck Sansom Park to Marine Creek Lake.

Project Lead: City of Fort Worth

Implementation Timeframe: Medium-term

Neighborhood Connection and Signage at N. Main Street:

The current trail connection from the neighborhood west of Marine Creek is not well-marked, and it includes an on-street linkage along Ellis Avenue from the Main Street underpass. A clearer connection to the underpass, including safe on-street bike lanes or an alternative off-street route, will improve connectivity to the Stockyards area and encourage more biking along Marine Creek.

Project Lead: City of Fort Worth

Implementation Timeframe: Short-term

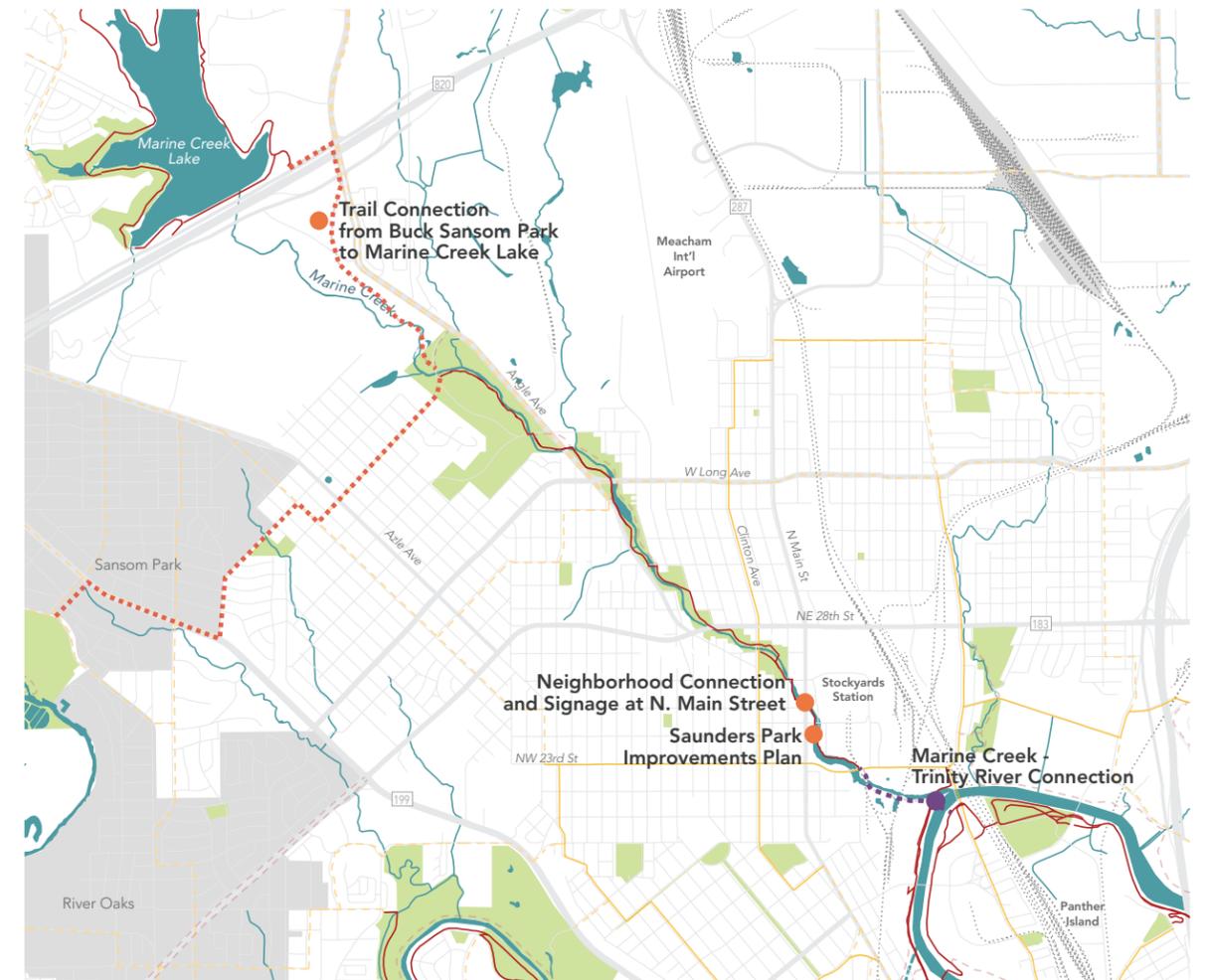
Saunders Park Improvements Plan:

This park is in a prime location to serve as a tourist destination, providing visitors to the Stockyards with a connection to the river system's natural amenities. Working with area developers, a plan should be established to renovate the park and explore the potential for transforming the existing stone terraces into an outdoor amphitheater for performances, events and festivals along the creek. The plan should be completed in coordination with the Stockyards Master Plan and should include design, cost, and funding information.

Project Lead: City of Fort Worth/Private Developers

Partners: Streams & Valleys, Majestic Realty Group

Implementation Timeframe: Medium-term



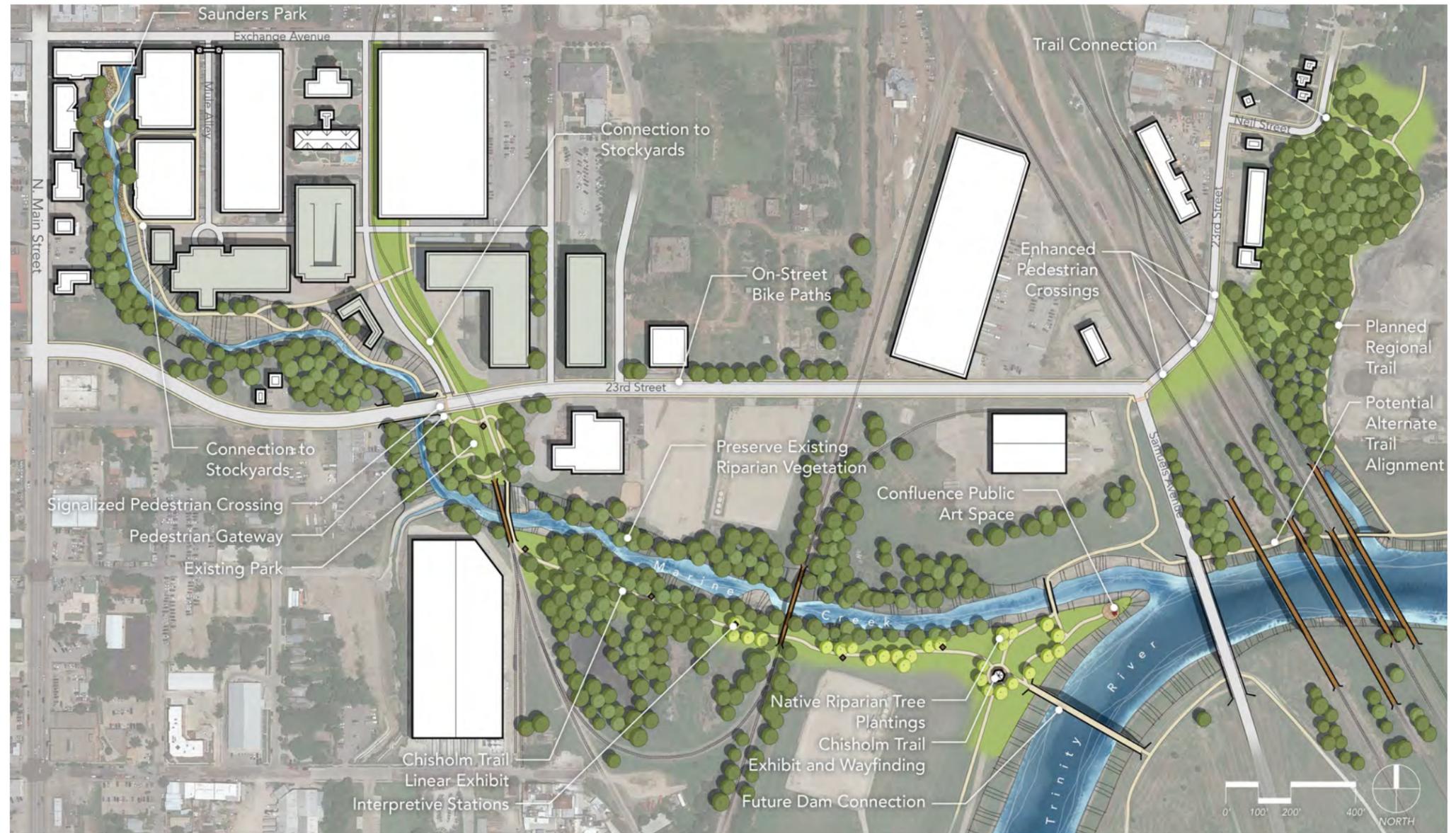
- Proposed Project
- - - - Proposed Trail Connection
- Key Project
- - - - Key Trail Connection

Marine Creek - Trinity River Connection

Although there is a beautiful trail that runs along most of Marine Creek, the connection between the Lower West Fork and Marine Creek itself is incomplete and difficult to navigate. The current connection takes trail users across the creek to NE 23rd Street, which eventually leads back towards the Stockyards, providing an indirect and counterintuitive route. There is also an informal horse trail to the west, but it is unmarked and not suitable for most bicycles.

This project recognizes the potential of formalizing the current horse trail linkage from the Trinity Trails along the Lower West Fork to Marine Creek. A direct link from the Trinity Trails to Marine Creek will facilitate access between Downtown and the Stockyards and improve connectivity for the fast-growing neighborhoods to the north along Marine Creek.

The Marine Creek - Trinity River Connection project will also create a navigable watercourse above the proposed dam near Samuels Avenue, establishing a paddling and boating path between Downtown and Marine Creek.

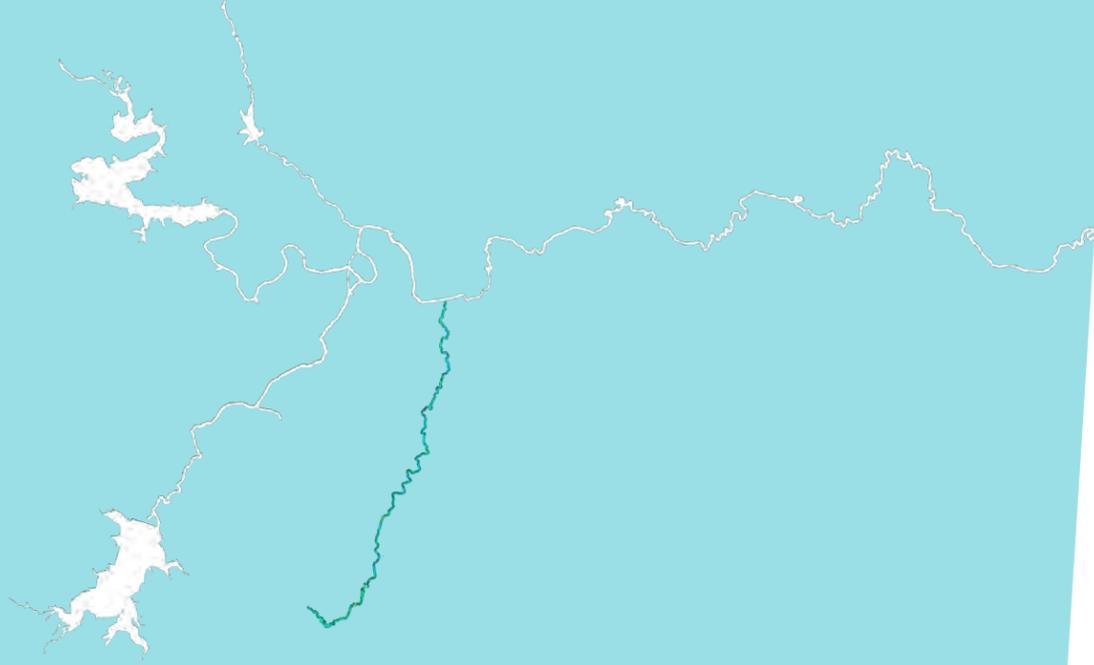




This project includes the creation of wayfinding improvements towards the Stockyards with historic interpretive signage, a visitor pavilion, and creative floodable sculptures at the peninsula between the two waterways. While this peninsula will eventually be removed with the addition of a dam at this location, the temporary art installation will be an important way to activate the site until the dam is installed. The artwork would be moved to elsewhere along the river once the dam is in place.



SYCAMORE CREEK



VISION

Sycamore Creek is a family friendly destination with large recreation spaces and activities for all users. It is safe, well-lit, and well-used by community members throughout Fort Worth. It is connected to West Fork East and Lake Arlington, and provides a gateway to the Texas Wesleyan University. Sycamore Creek is accessible and serves the surrounding neighborhoods with context-sensitive amenities, while also bringing diverse groups of people together from across the region.

Context and Opportunities

Sycamore Creek is a significant and relatively long tributary flowing into the West Fork East segment of the Trinity River in East Fort Worth, just north of I-30, between Riverside Drive and Beach Street. Neighborhoods along Sycamore Creek from I-30 southward to I-20 are diverse communities and are mostly residential in nature. While the Sycamore Creek corridor in this area is naturally beautiful, it is less well used than other river segments. However, it is home to large recreational resources, such as Cobb Park and Sycamore Park, which are popular with nearby residents.

As part of the Cobb Park Master Plan, the portion of the park south of Highway 287 recently underwent large-scale renovations, including a new 4,000 square foot playground, three gazebos, and entry monuments. Safety improvements have included thinning tree growth to improve visibility and adding security lighting. Cobb Park North is slated for improvements in the coming years, with sports fields, picnic areas, and trailheads. Sycamore Park, just north of E. Rosedale Street, contains several community facilities, including softball fields used by the nearby Texas Wesleyan softball team. The Sycamore Community Center is at the corner of S. Beach Street and E. Rosedale Street, and the Sycamore Golf Course sits just north across E. Vickery Boulevard. Improved access to these amenities from East Fort Worth neighborhoods is needed to increase usage of the Sycamore Creek recreational network.

In addition to the two major parks, residents of East Fort

Worth utilize Lake Arlington as a recreational destination. The City of Arlington is currently implementing the Lake Arlington Master Plan, which consists of recreational and trail improvements, as well as docks, piers, retaining walls, and habitat improvements. Elected and appointed officials have advocated for connections between Lake Arlington and Sycamore Creek, and Mobility 2045 adopted by the Regional Transportation Council identifies an on-street connection from the southern tip of Lake Arlington to Sycamore Creek.

Sycamore Creek poses one of the most challenging and important connectivity projects for the Trinity River system. Trails along the creek stop at E. Vickery Boulevard, leaving an approximate 1.2-mile gap between the Sycamore Creek trails and the Trinity River. Several barriers need crossings to close this gap, but the benefits of connecting the two river segments are worth the effort. Direct access between Sycamore Creek and West Fork East would give East Fort Worth residents access to broader Trinity River resources, and Sycamore Creek usage would increase with recreationalists from other river segments.

Sycamore Creek is an underutilized resource with some of Fort Worth's largest parks lining most of its banks. Economic development, connectivity improvements, and strategic projects are necessary to shift public perception of this river segment, allowing it to become a fully vibrant recreational amenity for the entire community.

Projects

KEY PROJECT

Sycamore Creek - Trinity River Connection

Connectivity between Sycamore Creek and the Trinity River is currently limited, but critical to create a truly equitable river network. The first phase of this project includes an on-street alignment from the confluence of Sycamore Creek and West Fork East along Scott Avenue, down Hardwood Street and Conner Avenue, and west on E. Vickery Boulevard to reconnect with the trail system at Sycamore Park. Potential additional phases include a similar on-street treatment along Riverside Drive, and eventually an off-street path through Sycamore Golf Course.

Project Lead: City of Fort Worth
 Partner: TxDOT
 Implementation Timeframe:
 Phase 1: Short-term
 Phase 2: Medium-term
 Phase 3: Long-term

Cobb Park North Improvements: This project is included in the Cobb Park Master Plan and needs support and advocacy for implementation. The northern portion of the park includes a wide open grassy area with little shade, and an underutilized playground. The Master Plan calls for baseball fields, basketball courts, and a new park entrance.

Project Lead: City of Fort Worth
 Implementation Timeframe: Short-term

Lake Arlington – Sycamore Creek On-Street Connection: This project will establish a water-based recreation network for East Fort Worth by linking Lake Arlington with Sycamore Creek. It includes safe and clearly-marked on-street bike lanes between the two resources, with signage at both ends of the connection. NCTCOG’s southern route should be considered in addition to a more direct route between the Lake and Sycamore Creek’s parks. An alignment study is needed to identify a specific path.

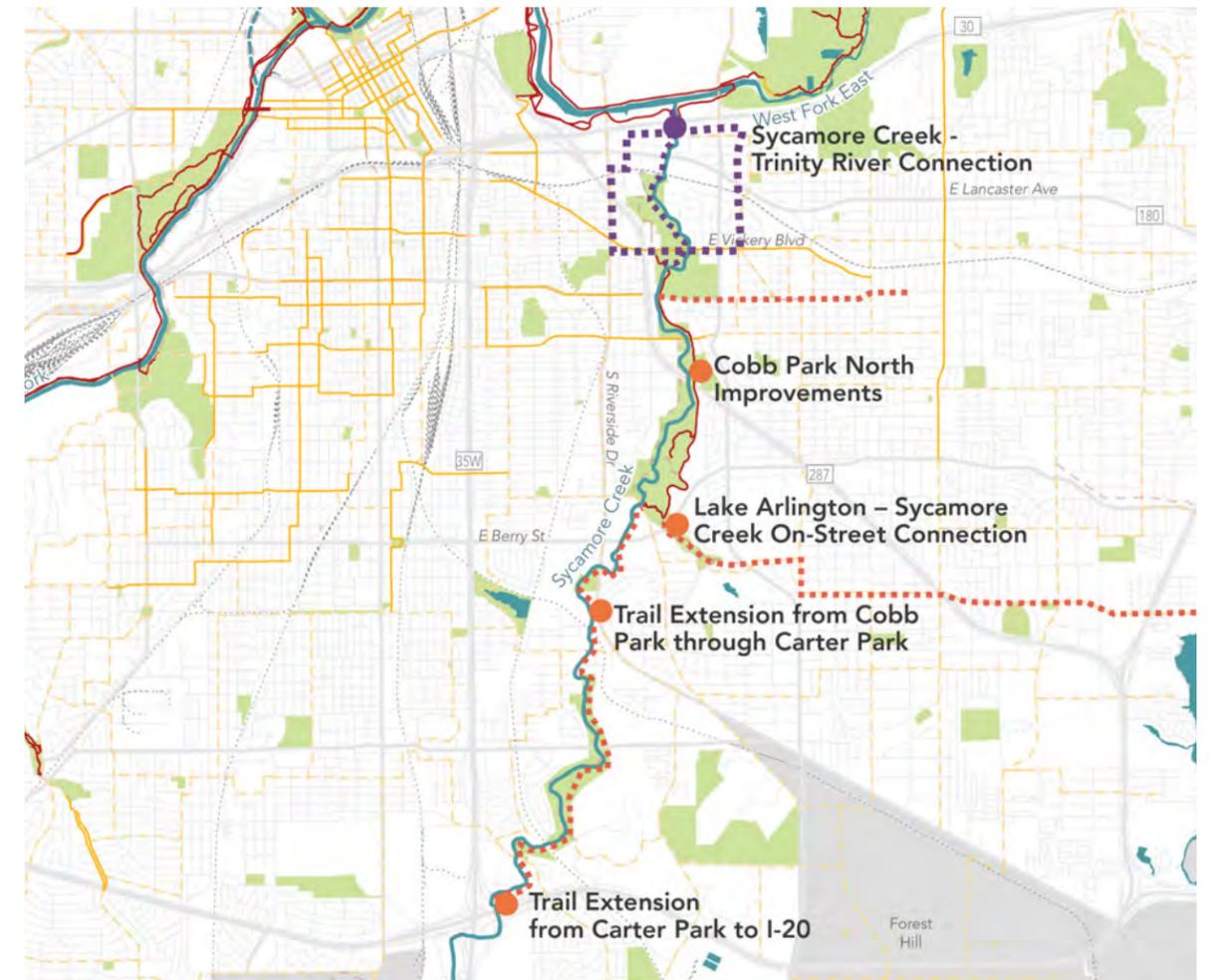
Project Lead: City of Fort Worth
 Partners: NCTCOG, TxDOT
 Implementation Timeframe: Long-term

Trail Extension from Cobb Park through Carter Park: Trails along Sycamore Creek currently terminate at the southern end of Cobb Park. This project will extend the trail system to connect through Carter Park, linking additional neighborhoods to the recreational network.

Project Lead: City of Fort Worth
 Implementation Timeframe: Long-term

Trail Extension from Carter Park to I-20: Develop a plan to extend the Trinity Trail system from Carter Park to Interstate 20, providing connections between parks and neighborhoods in southeast Fort Worth to the river network.

Project Lead: City of Fort Worth
 Implementation Timeframe: Long-term



- Proposed Project
- ⋯ Proposed Trail Connection
- Key Project
- ⋯ Key Trail Connection

Sycamore Creek - Trinity River Connection

The northern edge of the Trinity Trails network along Sycamore Creek begins in Sycamore Park at E. Vickery Boulevard. The trail then runs continuously south, ending at the southern border of Cobb Park. Although the trails through these two parks are well-maintained and run through diverse natural settings, there is no easy route to connect with West Fork East. From its confluence at the Trinity River, the creek runs under Highway 30, alongside several private properties, under E. Lancaster Avenue and railroad tracks, and then through Sycamore Creek Golf Course before reaching the trailhead at Sycamore Park.

Connectivity between Sycamore Creek and the Trinity River is critical to establish a truly integrated, accessible, and equitable river network. Improving connectivity between these two waterways will increase use of both Sycamore Park and Cobb Park and would open up a much larger recreational network for East Fort Worth residents. The first phase of this project includes an on-street alignment from West Fork East along Scott Avenue, down Hardwood Street and Conner Avenue, and west on E. Vickery Boulevard to reconnect with the trail system at Sycamore Park.





The first phase of the Sycamore Creek - Trinity River Connection includes a Complete Streets treatment along Conner Avenue, with a protected bike lane and creative murals and lighting under E. Lancaster Avenue and the railroad bridge. It will be important to engage community partners and to identify a potential neighborhood group, such as the Near East Side Neighborhood Association or East Fort Worth, Inc., to champion this project. The corridor is included as a Regional Veloweb alignment in Mobility 2045.



WEST FORK EAST



VISION

West Fork East is a lush, natural environment that offers ecological resources and scenic amenities for families and community members in East Fort Worth and Arlington. It provides continuous trail connections from Fort Worth through Arlington to Dallas, attracting cyclists from across the state. West Fork East is home to a large-scale, well-used recreational asset in Gateway Park, where residents and visitors make the most of the park's diverse activities and events.

Context and Opportunities

West Fork East is one of the least well-utilized reaches of the river, and it contains some key trail gaps in an otherwise strong network. This river segment runs through both East Fort Worth and the City of Arlington, creating a need for inter-jurisdictional cooperation to improve connectivity and access. Building a continuous trail to Arlington, and eventually Dallas, is a key opportunity to increase utilization and establish a regional recreational and active transportation network. A major trail gap is located along the Trinity Lakes development site, east of Interstate Highway 820. Funding for this section is included in the City of Fort Worth 2018 Bond Program. Another challenging linkage exists at the border between the City of Fort Worth and the City of Arlington. The Park & Recreation Departments from both cities are working together to identify potential connection points.

In addition to Trinity Trail gap closures, connections are needed between West Fork East and other local amenities. The Arlington Parks and Recreation Department is planning a trail connection between the northern edge of Lake Arlington and West Fork East along Village Creek. West Fork East could also connect to the well-used Cotton Belt Trail to the north, and local employers such as Bell Helicopter. Improved neighborhood bike routes would encourage local trail usage, active transportation, and healthy lifestyles. Coordination between the different jurisdictions along this river segment is important to form a regional approach to connectivity. West Fork East runs through lower- and middle-income neighborhoods, in addition to industrial areas. However, it has not been impacted by development or flood control infrastructure and contains some of the lushest and most natural sections of the river network, with large open spaces renowned for bird-watching activities. Industrial uses and waste treatment centers have created environmental remediation opportunities along West Fork East, and could provide spaces for large-scale habitat restoration, particularly at the Village Creek Drying Beds.

Closer to Downtown Fort Worth, West Fork East is home to one of the largest recreational amenities in the City: Gateway Park. The City of Fort Worth is currently implementing the Gateway Park Master plan, which will provide new amenities and exciting improvements to this 1,000-acre park. Amenities include 15 miles of new trails, a mountain biking course, covered basketball courts, soccer and softball fields, disc golf, an expanded dog park, a skate park, an outdoor amphitheater, a splash pad, and picnic areas. The park will also improve access to water recreation facilities, with enhancements to the Trinity River Rowing Club facility and the potential for a whitewater course for kayaking and canoeing. These dramatic improvements should be highlighted to ensure community members take full advantage of them.

Safety improvements are also necessary along West Fork East to encourage use and attract recreationalists. While it is important to maintain the segment's lush aesthetic, visibility along the trail system is a priority. Lighting should be improved, and a more coordinated maintenance effort is needed to reduce the amount of trash and debris that collects along this segment. Neighborhood groups such as Texas Blossoms and East Fort Worth, Inc. could be involved in stewardship and river clean-ups along the river to foster a sense of ownership and bring visibility to West Fork East as a central community amenity.

West Fork East is an underutilized segment of the Trinity River, partially because of its limited connectivity. However, it contains some of the last remaining open spaces along the river, creating possibilities for dramatic ecological projects. West Fork East should capitalize on its unique natural environment and be bolstered as a major environmental destination.

Projects

KEY PROJECT

Wetland Habitat Preservation + Restoration at Village Creek Drying Beds

The Village Creek Drying Beds already provide world-class bird-watching opportunities, but the City of Fort Worth Wastewater Treatment Plant site could be enhanced as an environmental and bird-watching destination, while still maintaining the city’s important utility functions. This project includes strategic environmental restoration efforts, improved connectivity to the nearby River Legacy Park, and enhanced visitor amenities.

Project Lead: Streams & Valleys
 Partners: City of Fort Worth, River Legacy Park
 Implementation Timeframe: Medium-term

Connection to Bell Helicopter and Bell Station: Bell Helicopter is a major employment center for the Fort Worth Region. Improving trail connectivity to this area will encourage active transportation and utilization of the river system as a commuting network. The manufacturer’s proximity to Bell Station on the Trinity Railway Express also allows for multi-modal transportation options. The City of Hurst should be involved in identifying the specific alignment to link the Trinity Trails to the Bell Station area.

Project Lead: City of Fort Worth
 Partners: Streams & Valleys, City of Hurst
 Implementation Timeframe: Long-term

Trinity Trail – East Fort Worth Extension 1: This project includes an off-street, approximately two-mile trail connection between the east end of Fort Worth’s new Quannah Parker Park Trail at Handley-Ederville Road, and the west edge of River Trails Park. This project represents the western section of the Trinity Trails extension towards Arlington and Dallas.

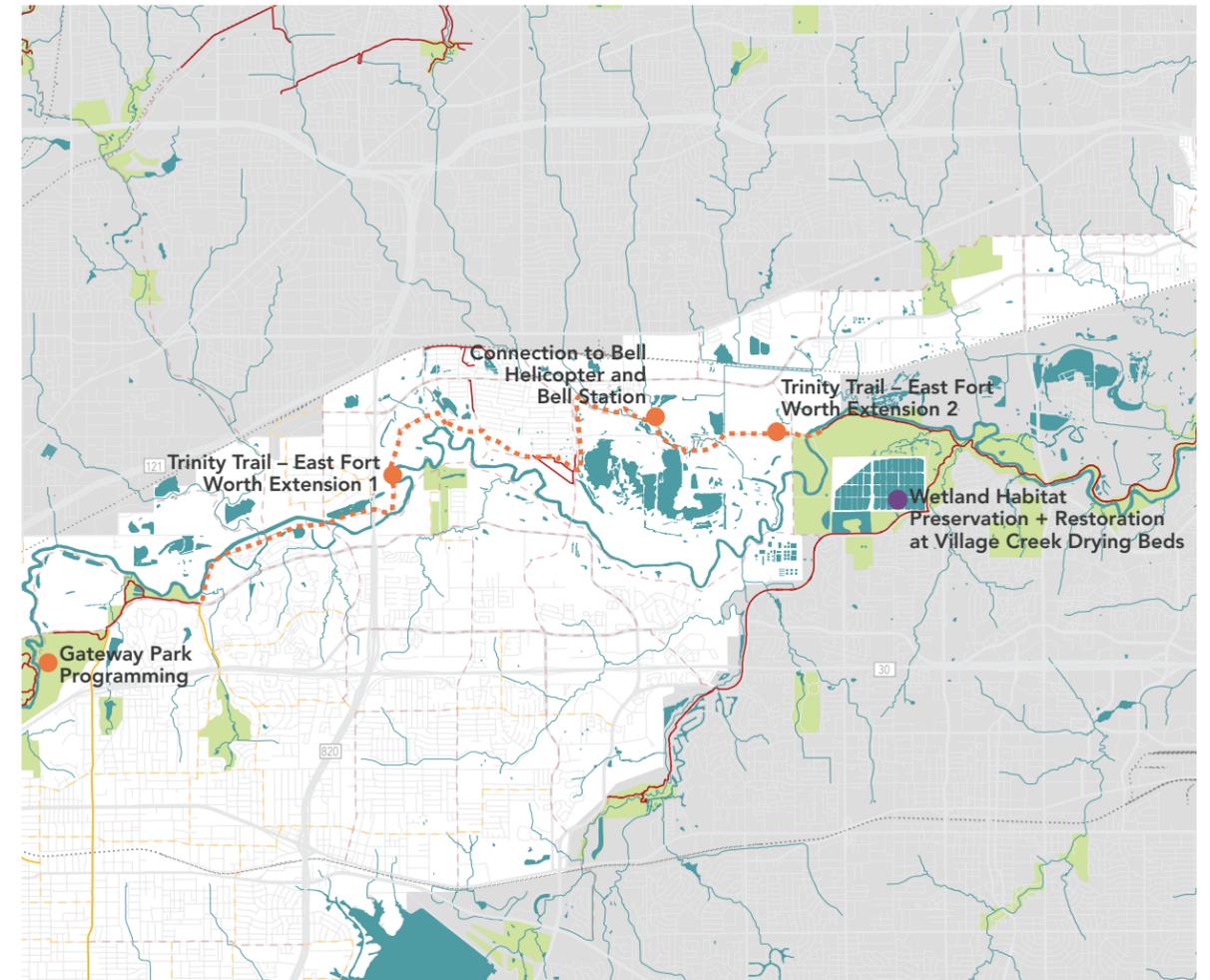
Project Lead: City of Fort Worth
 Partner: TRWD
 Implementation Timeframe: Medium-term

Trinity Trail – East Fort Worth Extension 2: This connectivity project is a priority for both the cities of Arlington and Fort Worth. PARD is currently working to acquire property along the Trinity Lakes development site, one of the largest trail gaps remaining within Fort Worth. PARD has also been working with the Arlington Parks and Recreation Department to identify potential linkages at the border between the two cities. Challenging crossings pose barriers, and safety improvements are needed for a navigable trail connection, but widespread public support exists for the project. An alignment study is required to identify the exact path. This section was funded as part of the City of Fort Worth 2018 Bond Program and construction is estimated to begin in 2020.

Project Lead: City of Fort Worth
 Partners: Streams & Valleys and Arlington Parks and Recreation Department
 Implementation Timeframe: Short-term

Gateway Park Programming: Given the large investment and exciting improvements in Gateway Park, PARD and Streams & Valleys should emphasize programming and activities to make community members aware of the new amenities and ensure the park is well used. Drawing visitors from across Fort Worth to Gateway Park can also shift public perception of the area and activate West Fork East as a whole.

Project Lead: Streams & Valleys
 Partners: City of Fort Worth
 Implementation Timeframe: Short-term



- Proposed Project
- - - - Proposed Trail Connection
- Key Project
- - - - Key Trail Connection

Wetland Habitat Preservation + Restoration at Village Creek Drying Beds

The Village Creek Drying Beds are located directly south of River Legacy Park, and northeast of the Village Creek Waste Water Treatment Plant. These solid waste treatment drying beds are used and maintained by the City of Fort Worth, and the settling ponds are well known as a prime location for birding. The gates are currently open to the public from 7:30 am to 4:30 pm on most days, with the entrance just off NW Green Oaks Boulevard. Despite its popularity as a bird-watching destination, the area has not been enhanced for visitors, and the site's proximity to River Legacy Park could provide additional programming and nature exploration opportunities.

This site could be enhanced as a regional environmental destination, while still maintaining its important utility functions for the city. This project includes establishing trail connections from the Trinity Trail system to River Legacy Park, creating opportunities for coordinated educational programming, and establishing the area as a large-scale environmental activity center.





Improvements to the Drying Beds will include restoring riparian vegetation and creating open water and seasonal habitats. Visitor amenities could be added to encourage bird-watching and nature exploration. These improvements include a boardwalk network around water bodies, bird blinds, observation towers, overlooks, and a small parking area. Improvements shall be constructed in a manner that will allow for removal or changes so that the site's use by the Fort Worth Wastewater Treatment Plant may be ensured as required. It is emblematic of the type of open space preservation that should occur along West Fork East, and the concept could be used as a model for additional sites between Fort Worth and Dallas where industrial features may effectively be integrated with natural amenities.



SYSTEM WIDE



Several projects not specifically connected to a given river segment would help to greatly enhance the overall Trinity River experience.

Projects

KEY PROJECT

River Loop Trail

This long-term project establishes connections between each of the major Trinity River segments, allowing residents throughout Fort Worth to more easily access the river network. The River Loop Trail will enable recreationalists to travel between the different segments directly rather than connecting at the Downtown confluence. Since the Trinity Trails system is almost complete, this project represents the next phase of connectivity improvements for the river system. The River Loop Trail will consist of primarily on-street bike lanes, clearly marked and branded as part of the Trinity Trails network. Other proposed projects described in this section contribute to this concept, including the Bomber Spur and the bikeway between Marion and Buck Sansom Parks. Additional connections between the other river segments should be identified as well, and distinct signage and branding could help establish a River Loop identity. This project will require coordination with multiple entities, including the City of Fort Worth Transportation and Public Works Department, and multiple jurisdictions throughout Tarrant County.

Project Lead: Streams & Valleys
Partners: City of Fort Worth,
adjacent jurisdictions
Implementation Timeframe: Long-term

Parallel Trails: Trails on both banks of the river will provide more diverse paths of travel for trail users, and will promote more equitable access to neighborhoods. Parallel trails will alleviate trail congestion and create opportunities for loops and bridges. Specific locations and prioritization of these new trails will need to be determined by TRWD.

Project Lead: TRWD

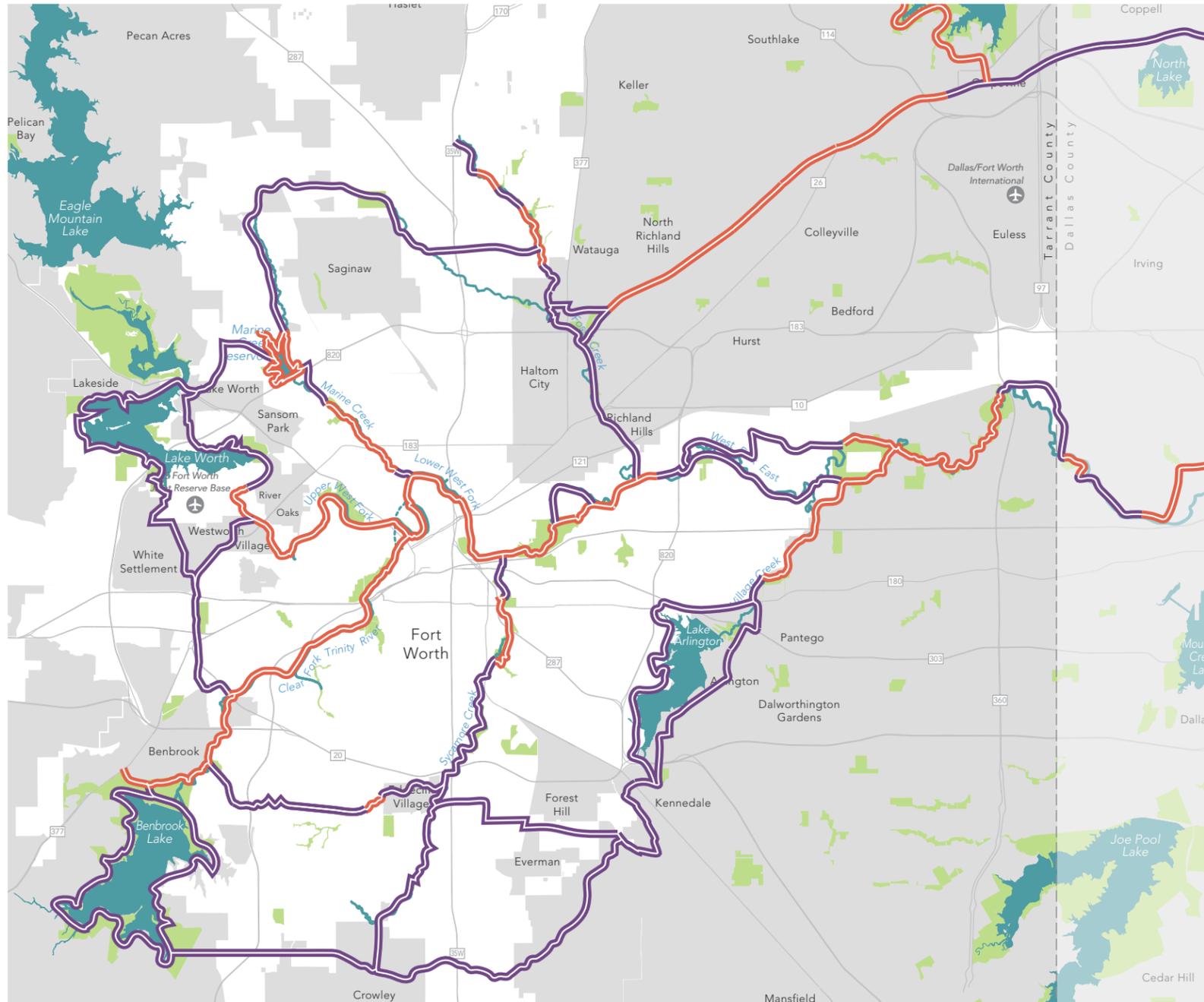
Implementation Timeframe: Medium-term

Wider and Separated Use Trails: In several locations throughout the river system, trails suffer from user conflict and safety issues. Widening trails and creating separate trails for different users (e.g. distinct bicycle and pedestrian paths), will help minimize these congestion issues. TRWD will need to prioritize locations for wider and separated use trails.

Project Lead: TRWD

Partner: City of Fort Worth

Implementation Timeframe: Medium-term



The River Loop Trail represents a fully-integrated connectivity network that provides safe on-street access to the river from every corner of Fort Worth.

-  Existing Trail
-  Proposed Connection



ADVOCACY + SUPPORT



Several projects will not be led by any of The River Partners, but will be important projects to expand the reach of the Trinity River system and make it a multi-faceted asset for all Tarrant County community members. The advocacy and support needed to push these projects forward will be led by Streams & Valleys.

Projects

Fossil Creek Connection: Fossil Creek is a smaller tributary north of West Fork East that runs through other jurisdictions including Haltom City and North Richland Hills. Several stakeholders have suggested a trail connection along this creek to West Fork East. This connection will require coordination and cooperation between multiple jurisdictions, necessitating the support and convening efforts of Streams & Valleys. This project will enable a connection to the Cotton Belt Trail (see below).

Project Lead: Streams & Valleys

Partners: City of Fort Worth, adjacent jurisdictions

Implementation Timeframe: Long-term

Village Creek Connection: Village Creek is a smaller tributary south of West Fork East that runs through the City of Arlington. The Arlington Parks and Recreation Department is currently developing a trail along Village Creek that connects to Lake Arlington. Streams & Valleys will support and advocate for this project, and will ensure that trail linkages are also made between Village Creek and West Fork East.

Project Lead: Streams & Valleys

Partners: City of Fort Worth, City of Arlington

Implementation Timeframe: Medium-term

Equestrian Trails: Creating equestrian trails along less well-traveled segments of the river will encourage use in underutilized areas and will improve river access for a specific recreational user group. Opportunities for horseback riding are currently limited along the river and providing additional riding trail will diversify the system's recreational offerings. Note: equestrian trail cannot be provided through PARD.

Project Lead: Streams & Valleys

Partners: TRWD

Implementation Timeframe: Medium-term

Kinderplatz Nature Education Space: This project site is located on the parcel of land adjacent to (and owned by) Kinderplatz of Fine Arts Preschool, at Clearfork Main Street and South Hulen Street. The space will be developed as a nature area and educational facility with trails, play elements, and educational signage utilized by the preschool and partner organizations. The area could be used for education programs and informal passive recreation, providing access to a natural condition along a primarily developed segment of the river. Because this land is on private property, Streams & Valleys will lead the effort to move this project forward.

Project Lead: Kinderplatz of Fine Arts

Partner: Streams & Valleys

Implementation Timeframe: Short-term

Cotton Belt Trail Connection: This project will link the Trinity Trails system to the well-used Cotton Belt Trail through Northeast Fort Worth. Like the Bomber Spur, this 11.2-mile trail follows an abandoned rail line (the St. Louis Southwestern Railway), and is used by long-distance cyclists throughout the region. Streams & Valleys will need to convene and establish communication between the cities of North Richland Hills, Colleyville, and Hurst to move this project forward.

Project Lead: Streams & Valleys

Partners: City of Fort Worth, adjacent jurisdictions

Implementation Timeframe: Long-term

Cobb Park and Sycamore Programming: This project does not involve physical changes to the parks, but will increase activity and usage of the spaces. A joint effort between Streams & Valleys, PARD, and local neighborhood groups could establish new events in both parks, distributing congestion from Clear Fork and improving public perception of Sycamore Creek.

Project Lead: Streams & Valleys

Partner: City of Fort Worth

Implementation Timeframe: Short-term

Branch Waters Connectivity: This project will utilize the entire Trinity River network in the Dallas-Fort Worth Metroplex, including reservoirs, lakes, rivers, creeks, ravines, swales, and trails to establish an interconnected urban and natural environment. This project will represent a broad vision that seamlessly integrates waterways and developed areas; where community members can easily walk between urban and natural environments. Several sub-projects will make up this larger concept, including new trail systems, parks, and sustainable development patterns. This project needs advocacy and support to carry the vision forward as other river projects are implemented.

Project Lead: Streams & Valleys (advocacy)

Partner: Kevin Sloan Studio (implementation)

Implementation Timeframe: Long-term





IMPLEMENTATION

Confluence: The Trinity River Strategic Master Plan is the result of extensive collaboration between The River Partners (Streams & Valleys, TRWD, and the City of Fort Worth), as well as TRVA, NCTCOG and a variety of civic and business leaders, community stakeholders, and elected officials. The implementation of the plan will require **continued coordination and information-sharing between these engaged partners.**

This chapter articulates a clear pathway to accomplish the plan goals. This approach will ensure it is a “living plan” that evolves over time in response to changing local and regional trends and needs. The chapter contains five sections:

- Plan Implementation + Administration
- Roles + Responsibilities
- Funding + Financing
- Project Prioritization + Ranking
- Project Implementation Matrix

Plan Implementation + Administration

The River Partners are committed to **ongoing collaboration to accomplish the goals of this plan**, and to ensuring the proposed projects, policies, and programs remain relevant and practical. Projects currently proposed in the plan will be modified and new projects will be added as funding conditions change and priorities shift. The three major committees involved in drafting *Confluence* will have a continued role in implementing and updating the plan throughout its 10-year lifespan. An annual event focused on river planning will ensure that this important document remains a top priority for the City, County, and region.

Annual Confluence Event

A key component of Plan Implementation is an annual “Confluence Event,” which will serve as an opportunity to bring local, regional, and national river experts together to showcase the Trinity River and discuss best practices for recreation, river-oriented development, and watershed management. This event can include a series of speakers, panels, demonstrations, and activities on a variety of river-oriented topics to keep the Trinity River on the cutting edge of metropolitan waterways. In preparation for this event, Streams & Valleys should provide an Annual Progress Report to update stakeholders and community members on project implementation and recent milestones.

The Confluence Event should also include an annual convening – “The Confluence Strategic Plan Implementation Session” – of the Trinity River Strategic Master Plan Technical Committee, Working Committee, and Task Force. The Technical Committee will update on plan implementation, and discuss needed modifications to the project list, plan priorities, and implementation strategies.

Technical Committee

The Trinity River Strategic Master Plan Technical Committee will continue to be a small and efficient group of staff representatives from PARD, TWRD, NCTCOG, and Streams & Valleys. Technical Committee members have deep knowledge of day-to-day work involved in implementing *Confluence*. The Technical Committee will communicate frequently to ensure projects, programs, and policies continue to move forward. This group will have access to an online “live” version of the Project Implementation Matrix and will update it on a regular basis as progress is made or issues arise. The Technical Committee will hold frequent calls or meetings to review active projects and policy updates and ensure that the Project Implementation Matrix remains up to date. Annually, the committee will also hold a longer “retreat-style” session to prepare for the Confluence Plan Implementation Session.

Working Committee

The Trinity River Strategic Master Plan Working Committee will continue to be comprised of representatives from TRWD, PARD, City of Fort Worth Planning and Development Department, NCTCOG, Sundance Square, and Streams & Valleys. This group should meet quarterly to review plan implementation and discuss recent policy or funding updates that may affect plan concepts. One of these quarterly meetings should be the Confluence Implementation Session with the Technical Committee and Trinity Task Force. The other meetings can be facilitated by Streams & Valleys, who will provide an implementation update and ensure that the ideas discussed by the Working Committee are communicated to the Technical Committee and reflected in the Project Implementation Matrix.

Trinity Task Force

The Trinity River Strategic Master Plan Task Force members should include elected officials, agency heads, policy makers, property owners, and members of the corporate community. These community leaders will continue to provide strategic input on direction and plan implementation. This group should convene biannually, including once during the Confluence Plan Implementation Session. During this session, the Task Force should receive an update from the Technical Committee on plan progress, as well as a copy of the Annual Progress Report. The group should also discuss other ideas and potential updates or new projects to ensure the continued relevance of the plan.





Roles + Responsibilities

Each of the Leading Implementation Partners will play a unique yet critical role in implementing *Confluence*. This section outlines the **roles and responsibilities of each partner** in ensuring that the Trinity River lives up to its full potential and achieves the goals outlined in this document.

LEADING IMPLEMENTATION PARTNERS

STREAMS & VALLEYS

Streams & Valleys (S&V) advocates for a healthy Trinity River watershed, bringing together community members and policy-makers to protect, enhance, and enjoy the river, its tributaries and trail systems, and its diverse and dynamic river-oriented development.

Streams & Valleys provides an independent voice to foster inclusive processes, and offers political agility to enact creative and innovative solutions. Streams & Valleys is the “keeper of the vision” and “the voice of the river.” The group functions as an educator, advocate, convener, project expeditor, fundraiser, and event producer.

Streams & Valleys will play a critical role in implementing *Confluence* by managing and monitoring plan progress, leading inter-agency communication, facilitating project prioritization and tracking, and building community leadership and involvement.

TARRANT REGIONAL WATER DISTRICT

Tarrant Regional Water District (TRWD) ensures that Tarrant County has access to a reliable and sustainable water supply, is protected from major damaging floods, and benefits from an outstanding variety of recreational opportunities.

Created in 1924, TRWD provides a regional lens to the Trinity River system, which allows for a holistic view of needs and priorities throughout the watershed. The group functions as a project manager, funder and developer of major projects, maintainer of the river, major landholder, thought partner around regional issues, and community educator.

Confluence cannot be implemented without TRWD’s technical expertise, project and maintenance orientation, and funding capabilities. TRWD will continue to be a leader on the Technical Committee, participating in project tracking and helping to identify funding sources and strategies to implement the river projects.

CITY OF FORT WORTH PARK & RECREATION DEPARTMENT

City of Fort Worth Park & Recreation Department (PAR) enriches the lives of Fort Worth citizens by providing high quality recreational facilities and community service programs.

PAR provides a recreation-focused perspective to the Trinity River system, which ensures that new recreation opportunities are available along the river, and that these amenities are enhanced and maintained. The group functions as the maintainer and operator of river-based recreation facilities, educational programmer, designer and developer of park spaces along the river, and local project funder.

PAR will play a key role in implementing *Confluence* as a content leader on the Technical Committee, and by monitoring and implementing projects within its jurisdiction. PAR will also help identify funding sources (with local capital allocations and grants) and will advocate for Trinity River recreational projects to be included in local bond programs.

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

North Central Texas Council of Governments (NCTCOG), as it relates to *Confluence*, fosters regional collaboration on interjurisdictional efforts and projects focused on active transportation, bikeways, and trails.

NCTCOG is the Metropolitan Planning Organization (MPO) for the 16-county region of North Central Texas centered around Dallas and Fort Worth. The Council provides a wide-reaching regional perspective to the Master Plan and can address the needs of multiple jurisdictions throughout the region. This view will be particularly important when implementing river projects that cross city boundaries. It will also help inform broader prioritization efforts. NCTCOG functions as a resource allocator, funder and implementer of projects, regional voice, and inter-agency communicator.

NCTCOG will help implement *Confluence* as an active transportation leader and inter-jurisdictional voice on the Technical Committee. NCTCOG will provide insights on regional trail and transportation efforts, and will help identify large-scale funding and grant opportunities for project development.

PROJECT LEAD KEY

The lead group or agency that is responsible for each individual river project is identified on the Project Implementation Matrix using the following acronyms:

- S&V** Streams & Valleys
- TRWD** Tarrant Regional Water District
- CFW** City of Fort Worth
- PAR** Park & Recreation Department
- TPW** Transportation & Public Works
- P&D** Planning & Development
- NCTCOG** North Central Texas Council of Governments
- TRVA** Trinity River Vision Authority
- DFWI** Downtown Fort Worth, Inc.



Funding + Financing

The funding sources needed to implement *Confluence* projects will vary by the ownership and purpose of each project. This is usually the agency best suited to fund, construct, and maintain the improvement. This section of the plan identifies the current funding roles of the four entities with the most direct role in implementation: Streams & Valleys, City of Fort Worth, NCTCOG, and TRWD. This section also identifies some of the **key funding sources and tools** to be considered. Many of the trail extensions and new trail projects built over the past 10 years have been a result of a long standing partnership involving the City of Fort Worth Park & Recreation Department and the Tarrant Regional Water District. Streams & Valleys will **continue its role as a convener and “Friend of the River”** that brings these parties together to identify and fund projects, programming, and maintenance efforts.

Organizational Funding

Each organization involved in the implementation of *Confluence* has different governance structures, planning processes, and funding processes. Working together, these partners will collaborate on solutions to fund and finance the projects outlined in this document.

Streams & Valleys

Streams & Valleys is a tax exempt non-profit organization that currently has an operating budget of approximately \$300,000 per year. The budget supports activities and events organized and promoted by Streams & Valleys, two part-time staff, office space, and general operating expenses. The organization’s operating revenue comes primarily from donations and interest earnings from approximately \$1.0 million in assets. Any grant funding it receives is passed through to contribute to project construction funding or to specific programs.

Streams & Valleys has been highly successful in raising private funds from individuals and corporate donors. Streams & Valleys has played a critical role as a “Friends of the River” organization through contributing some of the matching funds needed for grants and bringing eligible grant recipient partners together – such as the City of Fort Worth and other local jurisdictions – to pursue state and federal grants primarily for alternative transportation projects (trail connections and improvements).

ORGANIZATIONAL FUNDING STRATEGY

Tarrant Regional Water District (TRWD)

TRWD is a water control and improvement district authorized by the Texas Constitution (Title 16 Section 59). It is a governmental body with a locally elected Board of Directors with the powers of taxation and eminent domain and with voter approval may issue general obligation debt. TRWD levies a property tax of \$0.0194 (1.94 cents) per \$100 of valuation. The TRWD Board annually sets this property tax rate. TRWD's primary responsibility is maintaining the federal floodway to Army Corps of Engineers specifications (levees, low water dams, drainage outfalls, and channel maintenance).

Funding for new facilities or enhancements is limited because current funding is allocated to maintenance of the floodway, trails, and trailheads. The district is developing a criteria-based prioritization process for recreation projects. While recreation is identified as a core mission of TRWD, the organization and its funding and budget practices continue to evolve.

City of Fort Worth

The City of Fort Worth utilizes several funding sources in the development of park, trail, and recreation projects, including bond programs, gas well revenue, grants, and donations. On May 5, 2018, Fort Worth voters approved the 2018 Bond Program. This program included \$84,180,600 for Park & Recreation Improvements. Of that amount, \$7,500,000 is allocated for walks and trails. Additionally, the City has been successful in partnering with Streams & Valleys to pursue trail and other alternative transportation grants that benefit the Trinity River system and Fort Worth residents.

NCTCOG

A core function of NCTCOG is managing the region's Long Range Transportation Plan (LRTP), Mobility 2040. The Transportation Improvement Program (TIP) is a shorter-term plan and funding document that lists two to three years of funded transportation projects that will help implement the LRTP. Funding for these projects comes from Federal, State, and local sources. The LRTP identifies and supports project types and policy areas relevant to the Trinity River Greenway such as complete streets, infill development and revitalization, shifting travel to transit and active transportation, and building out the Regional Veloweb.

One of NCTCOG's most important functions is managing the distribution of federal and some state transportation funds through the current federal surface transportation funding and authorization bill known as the FAST Act (Fixing America's Surface Transportation Act). The FAST Act includes money for alternative transportation programs. These federal funds are first distributed to State Departments of Transportation and then to regional Metropolitan Planning Organizations (MPOs). NCTCOG has approximately \$23 million available for alternative transportation over a three-year funding cycle (FY 2017, 2018, and 2019). Funding is made available through a competitive "Call for Projects" process each year around February.

As transportation funding programs change over time, NCTCOG staff are a resource for understanding current programs and funding availability. S&V is not an eligible recipient of Transportation Alternative Set-Aside funds and will need to partner with a municipality or county to identify projects, pursue funding, and raise matching funds. Like any grant program, funding is competitive with many more projects seeking funding than there are dollars available.

KEY STRATEGY

Build on Streams & Valley's history and success as a "Friend of the River" by bringing together funding and implementation partners to identify creative and strategic funding mechanisms for project implementation.

Why it's important:

The Trinity River system covers a large area across multiple jurisdictions. Streams & Valleys has the benefit of a holistic and wide-reaching purview over the river, while local municipalities and specific government agencies are more focused on their immediate jurisdiction and goals. A regional approach to identifying needs, priorities, and funding is needed. Streams & Valleys has the ability to convene and connect funding partners that may not otherwise coordinate.



Land + Development-Based Funding

Texas law allows property-based funding tools that could be applicable along the Trinity River. These tools should be explored as opportunities to implement them arise, particularly as river-oriented development continues to occur.

Public Improvement Districts (PID) and Municipal Management Districts (MMD)

PIDs and MMDs are assessment districts formed in a defined geographic area to provide specific types of improvements or maintenance efforts that are financed by special assessments or taxes on properties within the area. PIDs can be applied to residential and commercial property, while MMDs can only be applied to commercial property to enhance a business area. Several PIDs already exist in Fort Worth, including Camp Bowie (landscaping and lighting maintenance and improvements), and Downtown Fort Worth (sanitation, landscaping, planning, security, and holiday lights). PIDs and MMDs can be used for building and/or maintaining a wide range of public facilities and infrastructure including roads, trails, parking lots, bridges, lighting, art, and utilities. Forming a PID requires a petition to City Council from a majority of property owners. MMDs are approved by the Texas Commission on Environmental Quality through a similar petition from property owners.

The formation requirements for PIDs and MMDs suggest that they are best applied in a targeted area where the benefits of funded improvements are clear to property owners. In addition, they are easier to form in newly developing areas where a single or small number of land owners can form the district.

LAND + DEVELOPMENT BASED FUNDING STRATEGY

Tax Increment Financing (TIF)

TIF is a mechanism by which new property tax revenue created by new development or rising property values is directed to a Tax Increment Reinvestment Zone (TIRZ) rather than to the taxing authorities which overlap the TIRZ. In a geographic area subject to TIF, the base year assessed value is set or “frozen” at the value of the year in which the TIF is established. After this date, a portion or increment of the tax revenues generated by increases in assessed value are directed to the TIF for approved TIF Plan project expenses. Under Texas law, each affected taxing entity must agree to its revenues being included in a TIF. To establish a TIF, a city council must determine that TIF formulation criteria are met, generally including a finding of “blight.” TRZs are similar but are used to fund transportation projects and can contribute to local match funding for federally funded projects.

The City of Fort Worth formed a large TIF on Panther Island to raise local matching funds for the Panther Island/Central City project. Streams & Valleys and the City of Fort Worth could explore using TIF in other areas along the Trinity River system that are early in their revitalization and redevelopment cycle. TIF could also be used for connections and enhancements to the Trinity Trails system as part of a larger redevelopment plan.

Connections with New Development

In areas where new real estate development is occurring, there may be opportunities to work with land owners and developers to create new or enhance existing connections to the river system. It is the role of local jurisdictions, which have the authority to implement developer agreements and land use requirements, to implement these regulations. However, Streams & Valleys also has a role in communicating and working with land owners and developers to identify areas of mutual benefit. The organization can encourage local jurisdictions to be conscious of opportunities to improve the Trinity River network in areas where new development is occurring.

KEY STRATEGY

Monitor proposed development along the corridor and explore the possibility of using TIF and special district tools in newly developing areas to fund enhanced maintenance or capital improvements to the Trinity River system.

Why it's important:

The City, TRWD, and Streams & Valleys have limited resources to fund projects along the Trinity River. A high-quality river network improves the value of adjacent property. In newly developing areas, some of this value can be captured and channeled back to the river system for a mutually beneficial program.

Project Prioritization + Ranking

The Trinity River Strategic Master Plan Technical Committee conducted an extensive process to **identify and prioritize the 70+ Trinity River conceptual projects** outlined in this plan. These projects have not been designed, therefore, estimates of costs are intended only to assist discussion and initial prioritization. The Technical Committee ranked the importance of each project based on the 10 Goal Areas of the plan (see Chapter 2). These rankings were used to establish priorities based solely on each project’s benefit to the river system and the greater Fort Worth and Tarrant County communities.

Additional factors such as project cost, available funding, organizational capacity, and community support will fluctuate over time. However, these additional considerations are included in the Project Implementation Matrix for each river segment and are expected to influence decision making regarding which projects are pursued during plan implementation (see following pages).

Following are the scoring criteria used to rank each project based on the Goal Areas. The Technical Committee used the criteria to rank how an individual project supports each Goal Area. Those rankings were then averaged to achieve an overall score, which is included in each Project Implementation Matrix.

GOAL AREA SCORING CRITERIA



Community

4. Encourages the formation of volunteer groups
3. Fosters a sense of community and positive ownership
2. Promotes equitable trail and amenity access
1. Enables “chance encounters” among community members
0. Does not promote community involvement, build community cohesion, or enable equitable access to the river



Economic Development

4. Promotes development that encourages public river access, increases local property values, and increases equity
3. Promotes neighborhood stability
2. Improves river access and encourages use of the river along underutilized areas
1. Creates aesthetic improvements along the river corridor
0. Does not provide economic benefit



Connectivity

4. Closes major gaps in the Veloweb and furthers the creation of a fully-integrated bicycle, pedestrian, and trail network
3. Creates connections to municipalities outside Fort Worth
2. Creates connections to major destinations within the Fort Worth region
1. Creates connections between the Trinity River and nearby neighborhoods (within one-half mile) using on-street access
0. Does not improve connectivity



Education

4. Provides facilities or programs dedicated to river education
3. Provides active educational programming
2. Incorporates unstructured education with interpretive signage, wayfinding, and orientation
1. Provides opportunities for passive enjoyment of nature and unstructured education without programming or signage
0. Does not provide educational benefit



Environment

- 4. Fosters healthy, vibrant habitat and preserves large areas of open space
- 3. Provides some environmental restoration and natural services, including air quality benefits from reduced vehicle miles traveled
- 2. Assists with the eradication of invasive species and promoting baseline habitat for native species
- 1. Improves the aesthetics and availability of open space
- 0. Does not provide environmental benefit



Health

- 4. Increases active recreation and active transportation opportunities, particularly for underserved populations and those with high incidences of chronic disease associated with unhealthy lifestyles
- 3. Extends active recreation facilities, increases overall access to the river and trail system, and encourages active transportation
- 2. Strengthens and improves active recreation facilities and increases access to outdoor activities
- 1. Preserves existing active recreation amenities and maintains current access to outdoor activities
- 0. Does not provide health benefits



Sense of Place

- 4. Develops a unique and imageable location, builds identity through physical markers, supports flagship events, and tells community stories
- 3. Promotes gathering and community identification of the river through interactive spaces and public art
- 2. Increases river segment branding, identification, and/or signage
- 1. Creates opportunities for the community to experience and visually identify with the river network
- 0. Does not create a sense of identity along the river



Flood Control

- 4. Promotes dedicated flood mitigation and water retention with new flood control facilities or improvements to existing facilities
- 3. Reduces impermeable surfaces and improves stormwater runoff filtration
- 2. Preserves permeable surfaces and stormwater runoff filtration
- 1. Preserves open space for flood storage and supports TRWD flood control efforts
- 0. Does not improve flood capacity



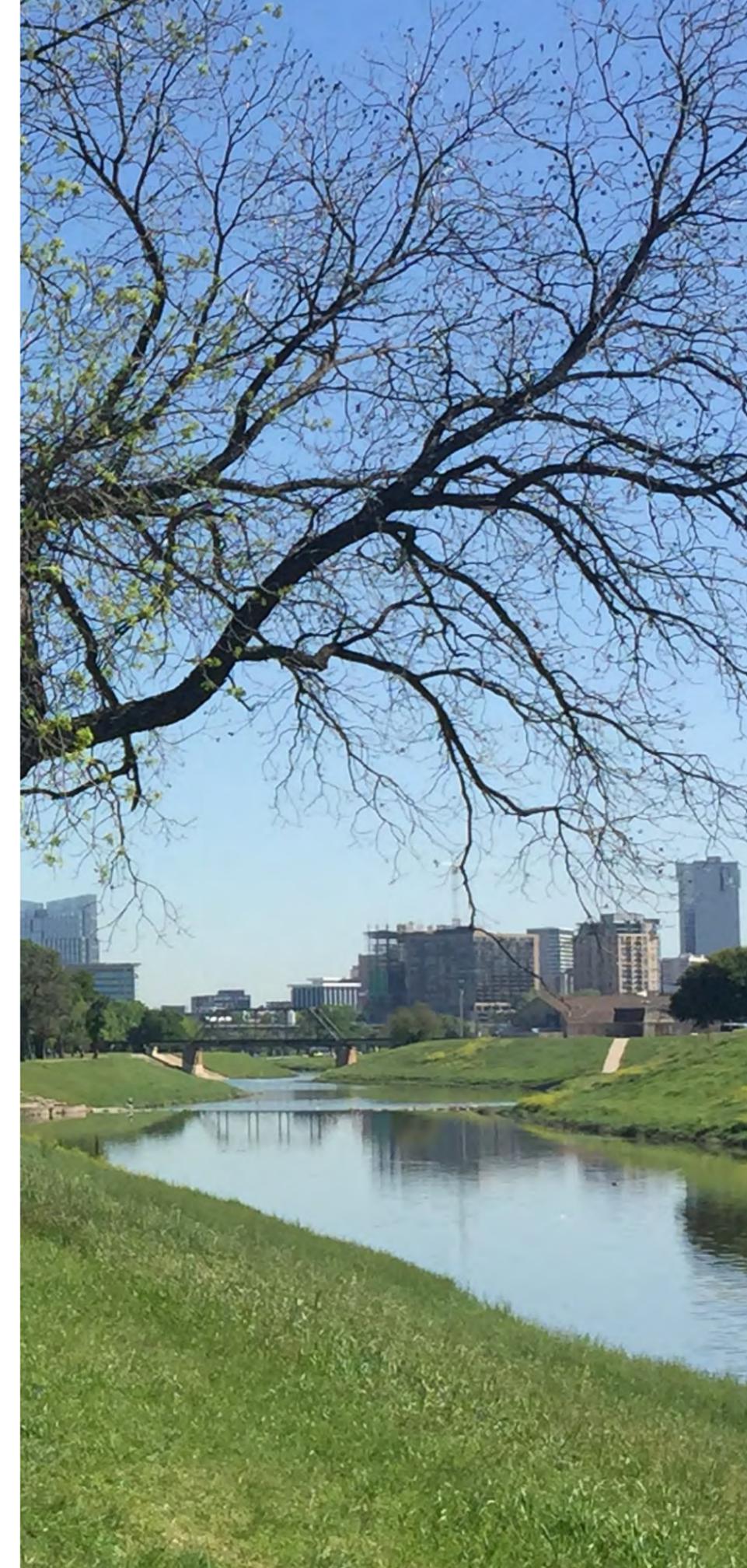
Recreation

- 4. Provides both on and off-trail recreational opportunities for larger and multi-generational groups and underserved populations (including ADA accessible facilities)
- 3. Provides off-trail recreation opportunities, particularly water-based recreation such as kayaking, fishing, and paddling
- 2. Provides access to additional recreation facilities along trails and within parks adjacent to the river system
- 1. Increases trail mileage and recreational opportunities for bicyclists, pedestrians, joggers, and other trail users
- 0. Does not provide recreational benefit



Water Quality

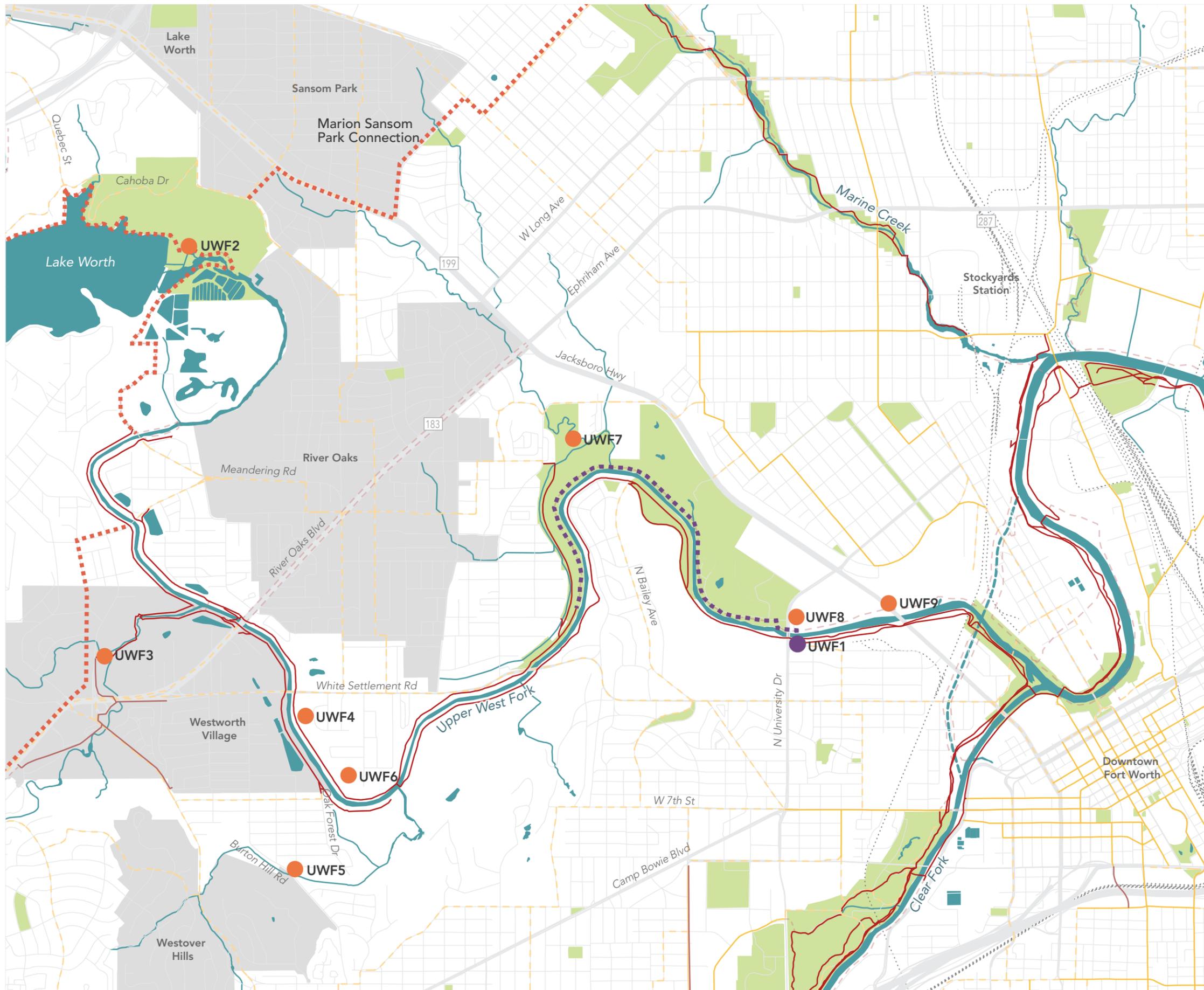
- 4. Extends water quality improvement programs, increases stormwater runoff treatment, and engages community members in water quality initiatives and actions
- 3. Reduces impermeable surfaces and actively improves biofiltration
- 2. Preserves existing permeable surfaces and treatment of stormwater runoff
- 1. Preserves open space and supports iSWM efforts and TRWD water quality programs
- 0. Does not improve water quality



UPPER WEST FORK PROJECTS

Project	Project Name	Project Description	Project Type	Score	Lead Group/ Agency	TRWD	CFW	S&V	Organizational Capacity	Community Support	Cost	Current Funding
UWF1	University Drive Trail Bridge and Rockwood Park Floodable Open Space	Build a pedestrian bridge parallel to the downstream side of the University Drive Bridge, and provide on-street bicycle and pedestrian routes to the trail from neighborhoods to the north. Create a floodable open space along the northern bank adjacent to the golf course to increase flood capacity along eroding banks.	Public Works	2.6	CFW PARD / CFW TPW / TRWD	Advisor	Lead	Partner	Some	Neutral	\$\$\$\$\$	No
UWF2	Lake Worth Trail	Implement Phases I and II of PARD's ongoing Lake Worth Trail project.	Trail	2.3	CFW PARD	Partner	Lead	Partner	Ample	Strong	\$\$\$\$\$	Partial
UWF3	Naval Air Station Joint Reserve Base Trail/ Connection to Camp Carter Visitors Center	Create a connection that serves the NASJRB, offers a connection to Airfield Falls, Farmers Branch, and access to the new Camp Carter Visitor Center.	Trail	1.8	TRWD	Lead	-	Partner	Some	Neutral	\$	No
UWF4	Crystal Springs Trailhead	Provides a trailhead with Class III amenities on left bank with access for Crystal Springs Development.	Trail	1.5	TRWD	Lead	-	-	Some	Weak	\$\$	No
UWF5	Oak Forest Trailhead	Create a trailhead at Oak Forest Road to access the existing designated nature area.	Trail	1.5	TRWD	Lead	Advisor	-	Some	Neutral	\$\$	No
UWF6	River District Access	Create access points for the entire River District community with multiple connections that allow residents to access all trail and river amenities.	Trail	1.5	TRWD	Lead	-	-	Some	Strong	\$\$	Partial
UWF7	Anderson Campbell Park Connection	Create an access point to the Trinity Trails from Anderson Campbell Park for residents of the Brookside neighborhood.	Trail	1.5	TRWD	Lead	Advisor	-	Little to none	Weak	\$	No
UWF8	Class I trailhead at University Drive	Establish a Class I trailhead on the northeast side of the river at University Drive.	Trail	1.7	CFW / TRWD	Advisor	Lead	Partner	Some	Neutral	\$\$\$	No
UWF9	Connection to Highway 199	Create a trail or on-street connection between SH 199 and the river. Highway 199 is being redesigned to include bike facilities, which should connect to the Trinity Trails and include signage.	Trail/ On-Street	1.6	CFW / TRWD	Advisor	Lead	Spark Plug	Some	Neutral	\$\$\$\$	No

Upper West Fork Projects



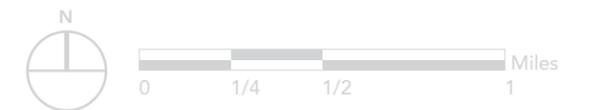
- Trinity River
- Water Bodies
- Parks
- Other Cities/Towns
- Freeways/Highways
- Local Streets
- Rail Lines
- Panther Island Bypass Channel

Bikeways

- Off-Street, Existing
- Off-Street, Funded
- Off-Street, Planned
- On-Street, Existing
- On-Street, Funded
- On-Street, Planned

Opportunity Sites

- Proposed Project
- Proposed Trail Connection
- Key Project
- Key Trail Connection

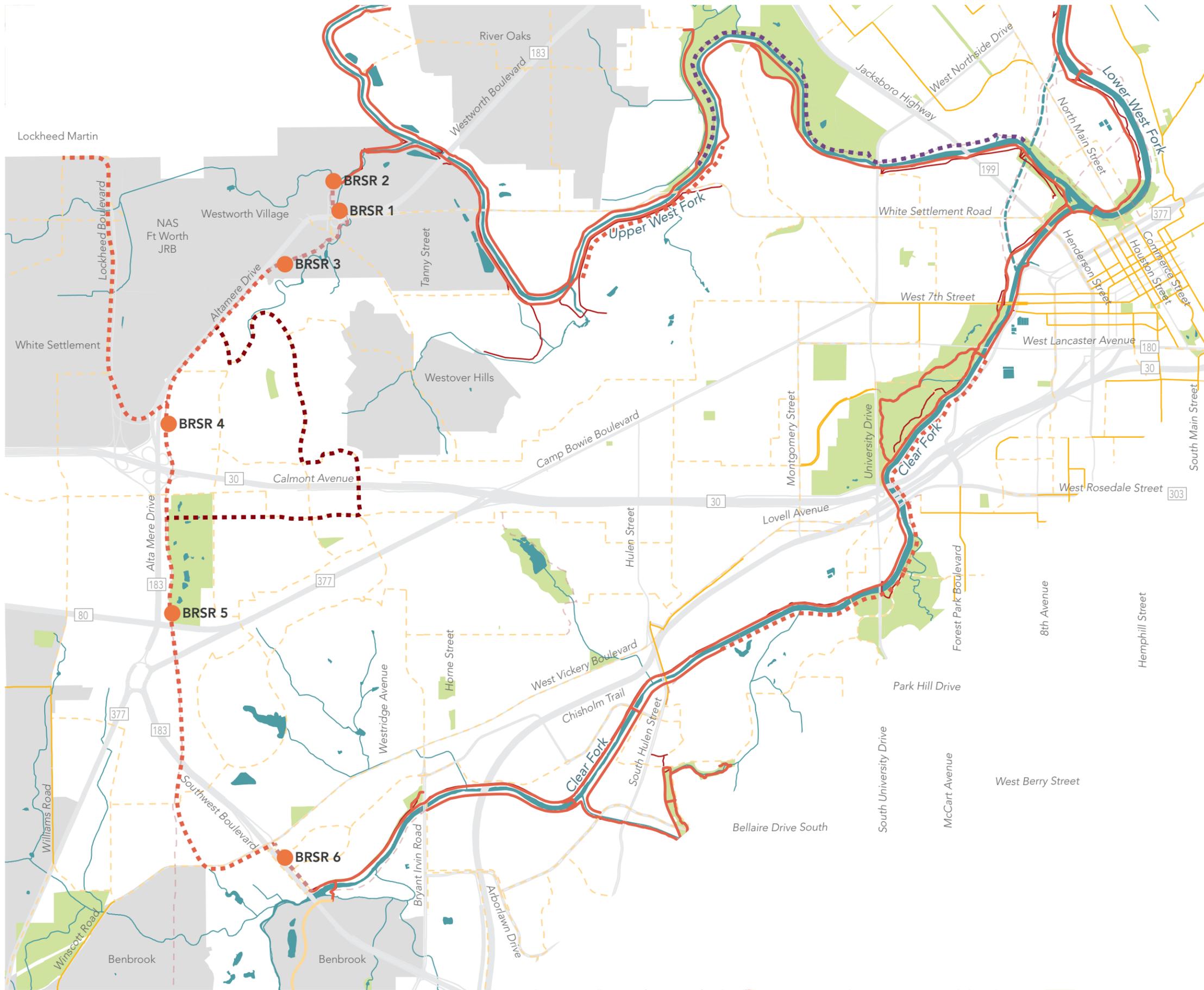


Source: North Central Texas Council of Governments, 2016.
Map prepared by MIG, Inc., 2016.

BOMBER SPUR PROJECTS

Project	Project Name	Project Description	Project Type	Score	Lead Group/ Agency	TRWD	CFW	S&V	Organizational Capacity	Community Support	Cost	Current Funding
BRSR	Bomber Spur	Create 7+ miles of a signed, off-street trail system connecting the Clear Fork Trinity Trail at SW Blvd to West Fork Trinity at Westworth Village and the Naval Air Station Joint Reserve Base.	Trail	2.6	S&V	-	Partner	Lead	Ample	Strong	\$\$\$\$\$	No
BRSR1	Section 1: Westworth Village Residential	Implement the planned on-street connection between the proposed Bomber Spur and the Upper West Fork Trinity Trails through Westworth Village. (Note: this project is planned and funded)	On-Street	2.6	NCTCOG / Westworth Village	Partner	Advisor	Convener	Ample	Strong	\$\$\$\$\$	Yes
BRSR2	Section 2: Airfield Falls Connection	Create a trail connection from Airfield Falls to YMCA Camp Carter.	Trail	2.6	S&V	Partner	Advisor	Lead	Ample	Strong	\$\$\$\$\$	No
BRSR3	Section 3: Westworth Village East Commercial	Create an on-street alignment along SH 183/Westworth Blvd to Altamere Drive.	Trail	2.6	S&V	-	Advisor	Lead	Ample	Strong	\$\$\$\$\$	No
BRSR4	Section 4: Fort Worth West Commercial	Create an on-street alignment along SH 183/Altamere, crossing I-30.	Trail	2.6	S&V	-	Partner	Lead	Ample	Strong	\$\$\$\$\$	No
BRSR5	Section 5: Fort Worth Residential South	Create an off-street trail along the former Bomber Spur Railroad route to Vickery Boulevard.	Trail	2.6	S&V	-	Partner	Lead	Ample	Strong	\$\$\$\$\$	No
BRSR6	Section 6: On-Street Connection to Clear Fork	Establish an on-street connection between the proposed Bomber Spur and the Clear Fork Trinity Trails. (Note: exact alignment to be determined)	On-Street	2.1	S&V	Advisor	Partner	Lead	Ample	Strong	\$\$\$\$\$	No

Bomber Spur Projects



- Trinity River
 - Water Bodies
 - Parks
 - Other Cities/Towns
 - Freeways/Highways
 - Major Roads
 - Trail
 - On Street Connection
 - Panther Island Bypass Channel
-
- Opportunity Sites**
- Proposed Trail Connection (Long Term)
 - Proposed Bikeway Connection (Short Term)
 - Proposed Trail Connection (Funded)
 - Key Trail Connection
 - Proposed Project



Source: North Central Texas Council of Governments, 2016.
 Map prepared by MIG, Inc., 2016.

CLEAR FORK PROJECTS

Project	Project Name	Project Description	Project Type	Score	Lead Group/ Agency	TRWD	CFW	S&V	Organizational Capacity	Community Support	Cost	Current Funding
CF1	Zoo Trail Connection and Oxbow Kayak Loop	Dredge the oxbow just north of the Fort Worth Zoo, near the Miniature Railroad stop to create a navigable waterway, a trail connection along the inside of the miniature railroad tracks, and a pedestrian connection to the Zoo for educational programming.	Multi-Benefit	3	CFW PARD	Advisor	Lead	Convener	Some	Neutral	\$\$\$\$	No
CF2	Forest Park Boulevard Enhancements	Design and impelment streetscape improvements along Forest Park Boulevard near the Phyllis Tilley Bridge, including on-street parking pockets, pedestrian crossings, low-maintenance, drought-tolerant plantings, and a bioswale.	Multi-Benefit	2.5	S&V	-	Partner	Lead	Ample	Strong	\$\$	No
CF3	Trail Extension to Longhorn Park	Extend the Clear Fork Trinity Trails from current terminus along Benbrook Lake to Longhorn Park (south of Pecan). Future stages of this project include an overlook for Benbrook Lake, shoreline access, picnic areas, and a loop around Benbrook Lake.	Trail	1.7	CFW PARD / City of Benbrook	-	Lead	-	Some	Neutral	\$\$\$\$	No
CF4	Nature area at the southern end of the Trinity Trails along Clear Fork	Explore possibilities for a nature area with wildflowers, nature paths, and educational signage within the large open field and wooded area near the intersection of Winscott Road and Lakeview Drive, where the Trinity Trail system ends.	Recreation	1.5	S&V	-	Advisor	Lead	Some	Neutral	\$\$\$	No
CF5	Trail along Oxbow near Waterside Development	Add a path along the oxbow just north of Highway 183. (Note: there is already a trail along the river at this point, this project is along the oxbow itself.)	Trail	1.7	S&V	Advisor	-	Lead	Ample	Strong	\$\$\$	No
CF6	Linkage along Bryant Irvin Road	Add a pedestrian bridge on south side of vehicular bridge.	Trail	1.3	S&V	Advisor	-	Lead	Ample	Strong	\$\$\$\$\$	No
CF7	River Park/Bryant Irvin Trailhead Upgrade	Upgrade the trailhead at the Bryant Irvin bridge, on the north side of the river to full Class I Standards.	Trail	1.1	TRWD	Lead	-	-	Ample	Strong	-	-
CF8	Riverglen Trailhead	Establish a Class III Trailhead with access to the Clearfork Main Street Pedestrian Bridge.	Trail	1.9	TRWD	Lead	-	-	Some	Strong	\$\$	Full
CF9	Rogers Road to Mistletoe Trail	Connect Mistletoe Heights, Berkeley, Park Hill and various other neighborhoods to the Trinity Trails while alleviating congestion along the leftbank high traffic narrow trails. This project stretches from Rogers Road to the Rosedale underpass.	Trail	1.5	TRWD	Lead	Partner	-	Some	Neutral	\$\$\$	Partial
CF10	I-30/SH 121/Rosedale Underpass Work	Add security lighting, parking, and other trailhead amenities at the Rosedale Underpass. This location may eventually connect with an alternate bike route on Vickery Boulevard.	Trail	0.6	CFW PARD /TRWD	Partner	Lead	Convener	Some	Strong	\$\$\$\$	Full
CF11	Eastbank Trail to Tilley Bridge	Connect Mistletoe Heights, Berkeley, Park Hill and various other neighborhoods to the Trinity Trails. This project completes the Eastbank extension to Downtown, and alleviates congestion on leftbank trails.	Trail	1.5	TRWD	Lead	Partner	Partner	Ample	Strong	\$\$\$\$	Full

Clear Fork Projects

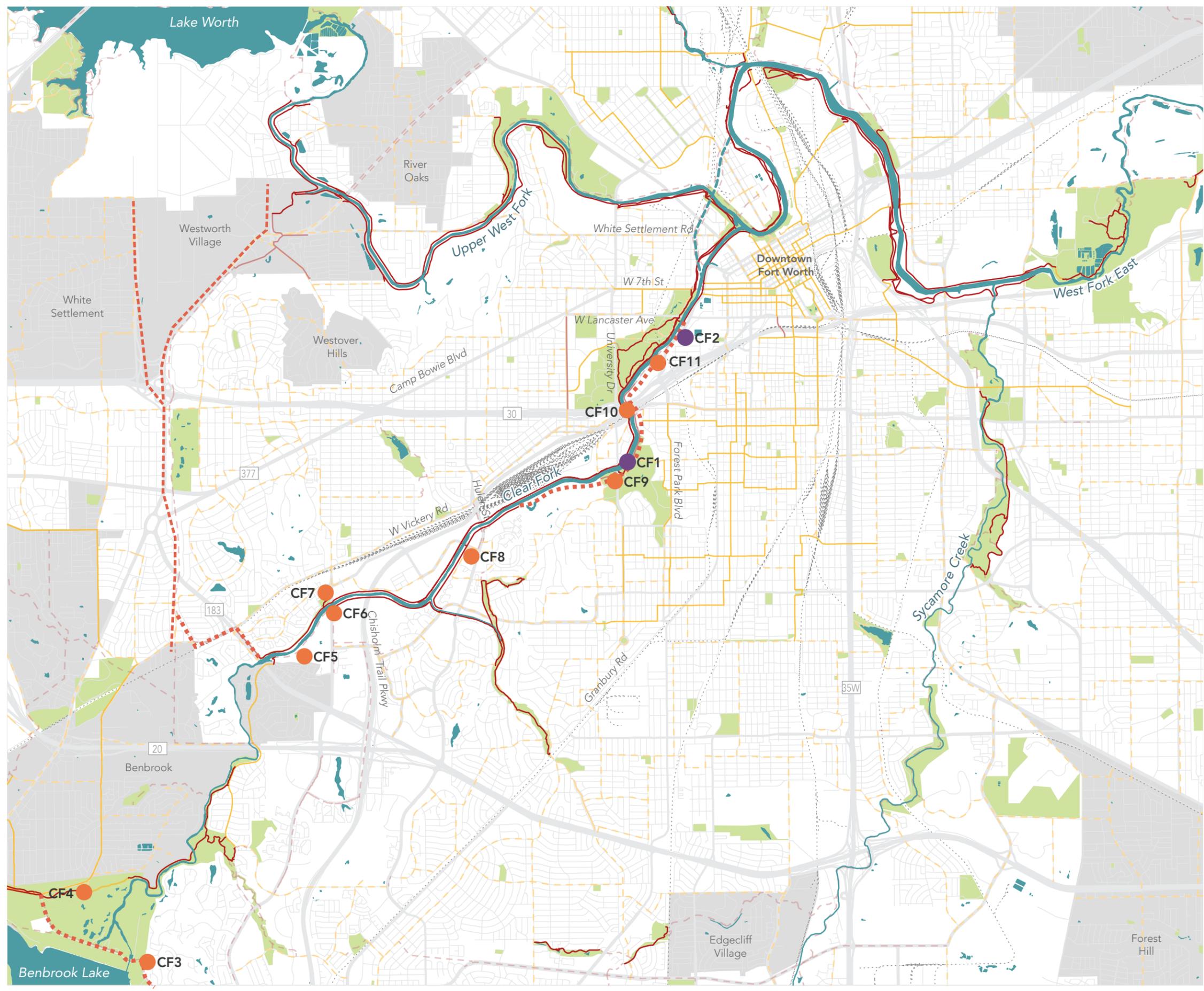
-  Trinity River
-  Water Bodies
-  Parks
-  Other Cities/Towns
-  Freeways/Highways
-  Local Streets
-  Rail Lines
-  Panther Island Bypass Channel

Bikeways

-  Off-Street, Existing
-  Off-Street, Funded
-  Off-Street, Planned
-  On-Street, Existing
-  On-Street, Funded
-  On-Street, Planned

Opportunity Sites

-  Proposed Project
-  Proposed Trail Connection
-  Key Project
-  Key Trail Connection



Source: North Central Texas Council of Governments, 2016.
Map prepared by MIG, Inc., 2016.

LOWER WEST FORK PROJECTS

Project	Project Name	Project Description	Project Type	Score	Lead Group/ Agency	TRWD	CFW	S&V	Organizational Capacity	Community Support	Cost	Current Funding
LWF1	Panther Island / Central City Project	Support the continued development of the TRVA Panther Island/Center City Project.	Multi-Benefit	3	TRVA	Advisor	Advisor	-	Ample	Strong	\$\$\$\$\$	Full
LWF2	Panther Island Pavilion Improvements	Improve Panther Island Pavilion and program for expanded use with placemaking elements such as food trucks, shaded seating, temporary landscaping, and permeable paving. Maximize the functionality of the space until the Panther Island project is complete.	Recreation	1.7	TRVA	Advisor	-	-	Ample	Strong	\$\$\$\$	Partial
LWF3	Heritage Plaza Renovation	Implement the approved plan for renovation.	Park	1.9	CFW / DFWI	Advisor	Partner	Convener	Some	Neutral	\$\$\$\$	Partial
LWF4	Auto/Pedestrian/Bike Bridge from Northeast Corner of Panther Island	Fund and construct a bicycle, pedestrian, and automobile bridge connection at the northeast edge of Panther Island near the baseball stadium.	Public Works	1.7	CFW P&D / CFW TPW / CFW PARD	-	Lead	-	Some	Neutral	\$\$\$\$\$	No
LWF5	Samuels Avenue to Riverside Park Connection	Create two miles of trail from Samuels Avenue to Riverside Park on the northeast side of the river. This includes the 3,200 foot segment contributed by developers. It will allow residents on the eastside of the river to connect to downtown via the Trinity Trails.	Trail	1.5	TRWD	Lead	-	-	Some	Strong	\$\$\$\$	No

Lower West Fork Projects

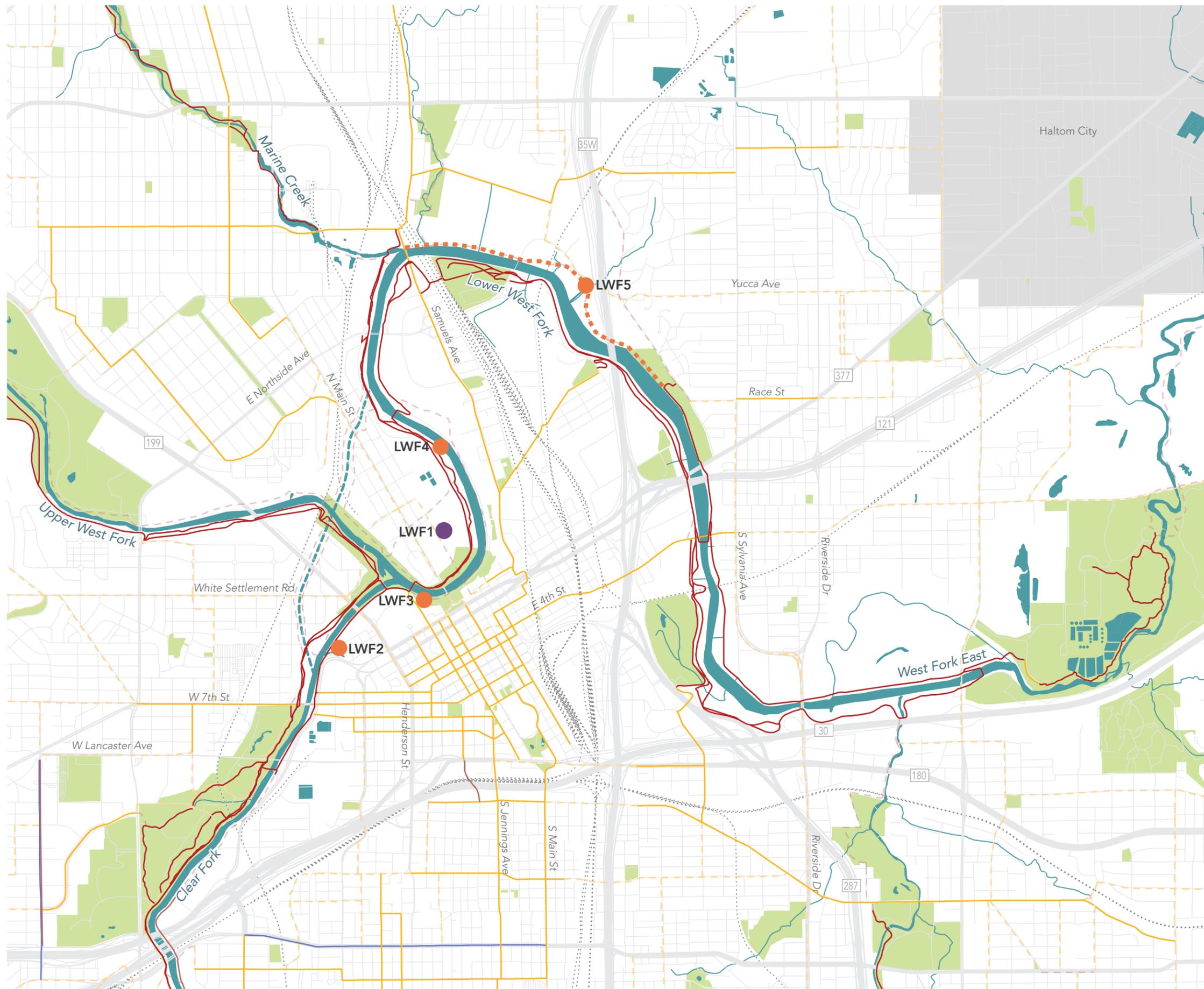
-  Trinity River
-  Water Bodies
-  Parks
-  Other Cities/Towns
-  Freeways/Highways
-  Local Streets
-  Rail Lines
-  Panther Island Bypass Channel

Bikeways

-  Off-Street, Existing
-  Off-Street, Funded
-  Off-Street, Planned
-  On-Street, Existing
-  On-Street, Funded
-  On-Street, Planned

Opportunity Sites

-  Proposed Project
-  Proposed Trail Connection
-  Key Project
-  Key Trail Connection

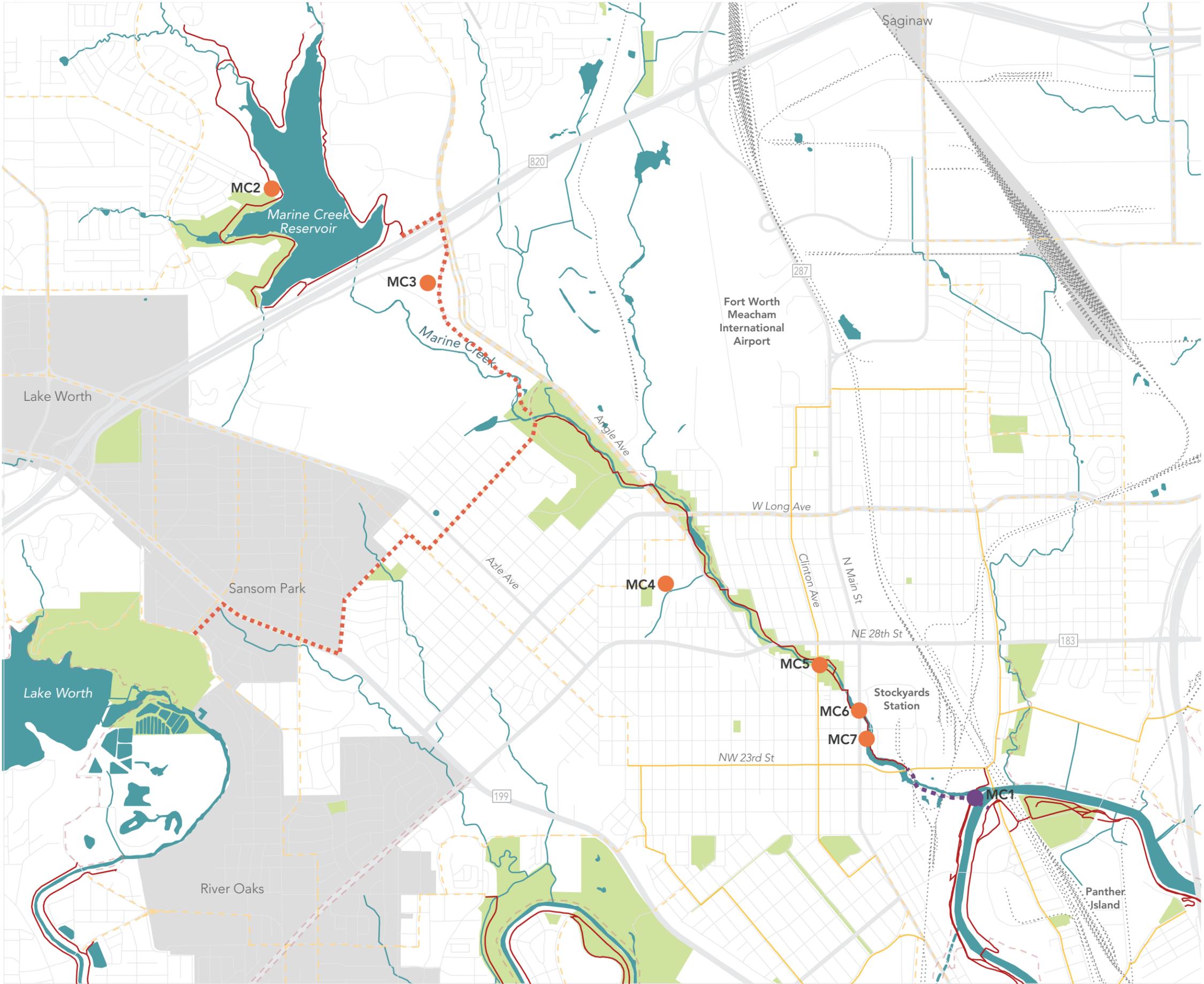


Source: North Central Texas Council of Governments, 2016.
 Map prepared by MIG, Inc., 2016.

MARINE CREEK PROJECTS

Project	Project Name	Project Description	Project Type	Score	Lead Group/ Agency	TRWD	CFW	S&V	Organizational Capacity	Community Support	Cost	Current Funding
MC1	Marine Creek - Trinity River Connectivity	(1) Formalize trail linkages between the Lower West Fork Trinity Trails, Marine Creek Trails, and the Stockyards area (2) provide wayfinding/historic/interpretive trail signage in/around Stockyards area (3) add temporary iconic floodable sculptures and/or visitor pavilion at peninsula or along Marine Creek until the peninsula is removed with the TRVA dam (5) Improve on-street access to Trinity Trails from neighborhoods to the east.	Multi-Benefit	2.7	TRVA	Advisor	Advisor	Convener	Ample	Strong	\$\$\$\$	No
MC2	Ten Mile Bridge Trailhead	Provides trailhead with Class I amenities to access fishing opportunities on Marine Creek Lake.	Trail	1.5	TRWD	Lead	-	-	Some	Strong	\$\$	Full
MC3	Trail Connection from Buck Sansom Park to Marine Creek Lake	Provide a trail connection from the north end of Buck Sansom Park to southeast corner of Marine Creek Lake loop trail per the City of Fort Worth Park & Recreation Department's ongoing trail gap study.	Trail	2.3	CFW PARD	-	Lead	-	Ample	Strong	\$\$\$\$	Full
MC4	Neighborhood Connection and Signage from North Tri-Ethnic Community Center	Add an on-street connection and improve signage to link the North Tri-Ethnic Community Center on Roosevelt Avenue to Marine Creek.	On-Street	1.5	CFW TPW	-	Lead	-	Some	Neutral	\$	No
MC5	Rodeo Park Trailhead Upgrade	Add a restroom to bring the trailhead at Rodeo Park up to Class I standards.	Trail	0.7	CFW PARD	-	Lead	-	Some	Neutral	\$	No
MC6	Neighborhood Connection and Signage between North Main Street and Marine Creek	Add on-street bike and pedestrian facilities and signage to link North Main Street to the Trinity Trails.	On-Street	1.6	CFW PARD / CFW TPW	-	Lead	-	Some	Neutral	\$	No
MC7	Saunders Park Improvements Plan	Develop a plan for improvements to Saunders Park, and coordinate with ongoing Stockyards Master Plan updates to promote increased park utilization and programming.	Park	1.8	CFW PARD	-	Lead	Convener	Some	Neutral	\$	No

Marine Creek Projects



- Trinity River
- Water Bodies
- Parks
- Other Cities/Towns
- Freeways/Highways
- Local Streets
- Rail Lines
- Panther Island Bypass Channel

Bikeways

- Off-Street, Existing
- Off-Street, Funded
- Off-Street, Planned
- On-Street, Existing
- On-Street, Funded
- On-Street, Planned

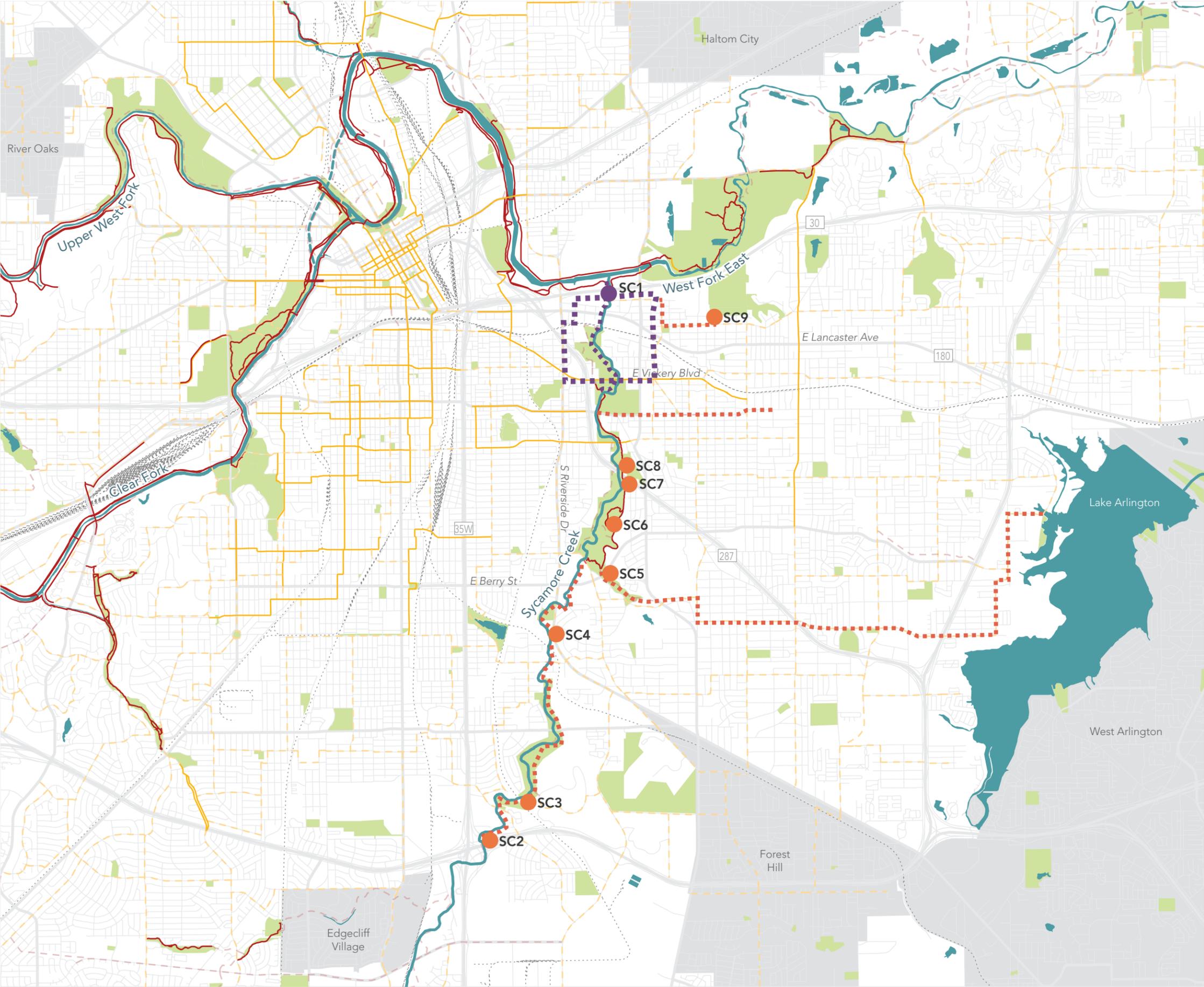
Opportunity Sites

- Proposed Project
- Proposed Trail Connection
- Key Project
- Key Trail Connection

SYCAMORE CREEK PROJECTS

Project	Project Name	Project Description	Project Type	Score	Lead Group/ Agency	TRWD	CFW	S&V	Organizational Capacity	Community Support	Cost	Current Funding
SC1	Sycamore Creek/Trinity River Connection	Develop a plan for connecting the Trinity Trails (at Sycamore Creek on north side of I-30) to Sycamore Park (south of I-30). Initial phases should focus on on-street connections, and later phases should consider route(s) which provide (1) crossing of Lancaster Avenue and Union Pacific railroad and (2) provide a trailhead south of I-30.	Trail	2.6	CFW PARD	-	Lead	-	Some	Neutral	\$\$\$\$	No
SC2	Trail extension from Carter Park to I-20	Develop plan for extension of the trail system to connect parks and neighborhoods between Carter Park and I-20.	Trail	1.9	CFW PARD	-	Lead	-	Some	Neutral	\$\$\$\$	No
SC3	Class II Trailhead in Carter Park	Create a Class II Trailhead in Carter Park.	Trail	0.9	CFW PARD	-	Lead	-	Some	Neutral	\$\$\$	No
SC4	Trail Extension from Cobb Park through Carter Park	Develop plan for extension of trail system from Cobb Park southward through Carter Park.	Trail	1.6	CFW PARD	-	Lead	-	Some	Neutral	\$\$\$\$	No
SC5	Lake Arlington - Sycamore Creek Connection	Establish a well-signed, on-street connection between Lake Arlington and Sycamore Creek. Consider NCTCOG's southern Veloweb route in addition to a more direct route between the lake and Sycamore Creek's parks.	On-Street	2.4	CFW P&D / CFW TPW	-	Lead	-	Some	Neutral	\$\$\$\$	No
SC6	Cobb Park Lighting Improvements	Add security lighting in currently unlighted high-use areas.	Multi-Benefit	1.3	CFW PARD	-	Lead	-	Some	Neutral	\$\$\$\$	No
SC7	Highway 287 Underpass Improvements through Cobb Park	Improve the Highway 287 underbridge area through Cobb Park by adding lighting and repainting.	Multi-Benefit	1.2	CFW PARD	-	Lead	-	Some	Neutral	\$\$\$	No
SC8	Cobb Park North Improvements	Implement existing park (master plan) for recreation facilities and improvements in Cobb Park North.	Park	1.8	CFW P&D	-	Lead	-	Some	Neutral	\$\$\$\$	No
SC9	Bikeway between Tandy Hills Nature Area and Sycamore Creek Greenway	Establish an on-street bike route and sidewalks from Sycamore Park to the Tandy Hills Nature Area.	On-Street	1.5	CFW / CFW TPW	-	Lead	-	Some	Neutral	\$\$\$	No

Sycamore Creek Projects



- Trinity River
- Water Bodies
- Parks
- Other Cities/Towns
- Freeways/Highways
- Local Streets
- Rail Lines
- Panther Island Bypass Channel

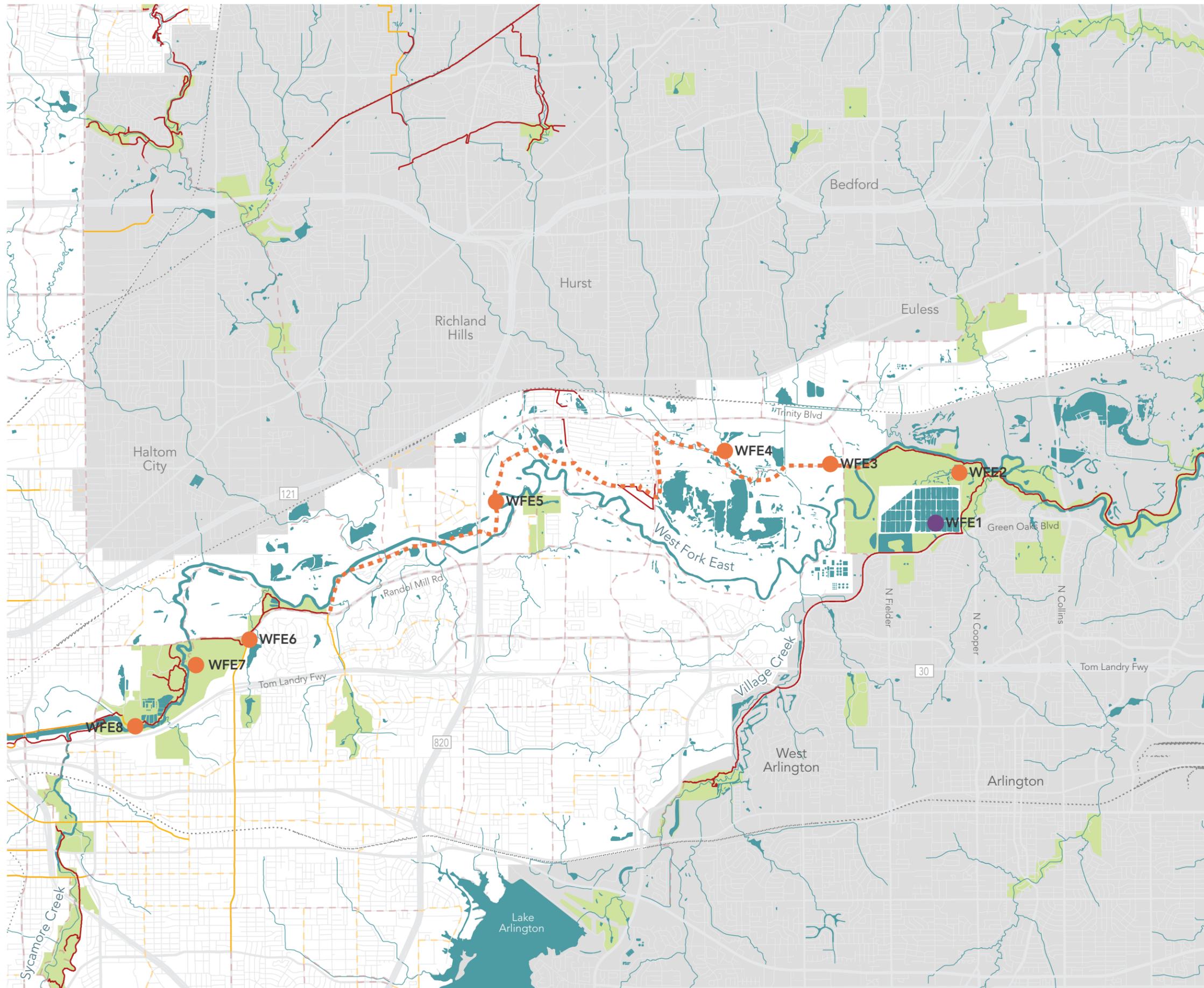
- Bikeways**
- Off-Street, Existing
 - Off-Street, Planned
 - On-Street, Existing
 - On-Street, Planned

- Opportunity Sites**
- Proposed Project
 - Proposed Trail Connection
 - Key Project
 - Key Trail Connection

WEST FORK EAST PROJECTS

Project	Project Name	Project Description	Project Type	Score	Lead Group/ Agency	TRWD	CFW	S&V	Organizational Capacity	Community Support	Cost	Current Funding
WFE1	Wetland Habitat Preservation and Restoration at Village Creek Drying Beds	Transform Village Creek Drying Beds into an engineered wetland used to polish sewage effluent and provide habitat for birds. Provide low impact, formalized facilities for birdwatching and walking, and provide trails around the site that connect to Arlington's River Legacy Park.	Multi-Benefit	3.3	S&V	-	Advisor	Spark Plug	Ample	Strong	\$\$	No
WFE2	Erosion Repair at River Legacy Park	Consider approach to erosion control or managed retreat from river banks throughout River Legacy Park.	Maintenance	1.2	S&V	-	-	Lead	Some	Neutral	\$\$\$\$	No
WFE3	Trinity Trail - East Fort Worth Extension 2	Provide an off-street 4-mile main trail connection between Fort Worth and Arlington. The trail would connect from the east end of Trinity Trail - East Fort Worth Extension I at the east edge of River Trails Park to the west edge of River Legacy Park in Arlington.	Trail	2.4	CFW PARD	-	Partner	Convener	Ample	Strong	\$\$\$\$	Full
WFE4	Connection to Bell Helicopter and Bell Station	Establish a clear, safe, and well-signed on-street connection between the Trinity Trails and Bell Helicopter to encourage active transportation and utilization of the river system as a commuting network, particularly from Bell Station on the Trinity Railway Express.	On-Street	2.1	CFW P&D / CFW PARD / CFW TPW	-	Lead	Convener	Some	Neutral	\$\$	No
WFE5	Trinity Trail East Fort Worth Extension 1	Provide 2+ miles of off-street trail connection between the east end of Fort Worth's new Quanah Parker Park Trail (at Handley-Ederville Rd) and the west edge of River Trails Park.	Trail	1.9	CFW PARD	Advisor	Lead	-	Ample	Strong	\$\$\$\$	Full
WFE6	Oakland Blvd Sidewalk and E. 1st Street Intersection Pedestrian and Bicycle Improvements	Improve pedestrian/bicycle conditions along Oakland Boulevard and particularly at the E. 1st Street intersection with an improved crosswalk, striping, signage improvements, and a signal.	On-Street	1.1	CFW TPW	-	Lead	-	Some	Neutral	\$\$\$	No
WFE7	Gateway Park Programming	Emphasize programming and activities to build awareness of Gateway Park improvements and new amenities.	Programming	2.2	S&V	-	Partner	Lead	Some	Neutral	\$\$	No
WFE8	Rowing Club Improvements	Improve existing Rowing Club facilities and water access.	Recreation	1.8	TRVA	Advisor	-	Convener	Ample	Neutral	\$\$\$	No

West Fork East Projects



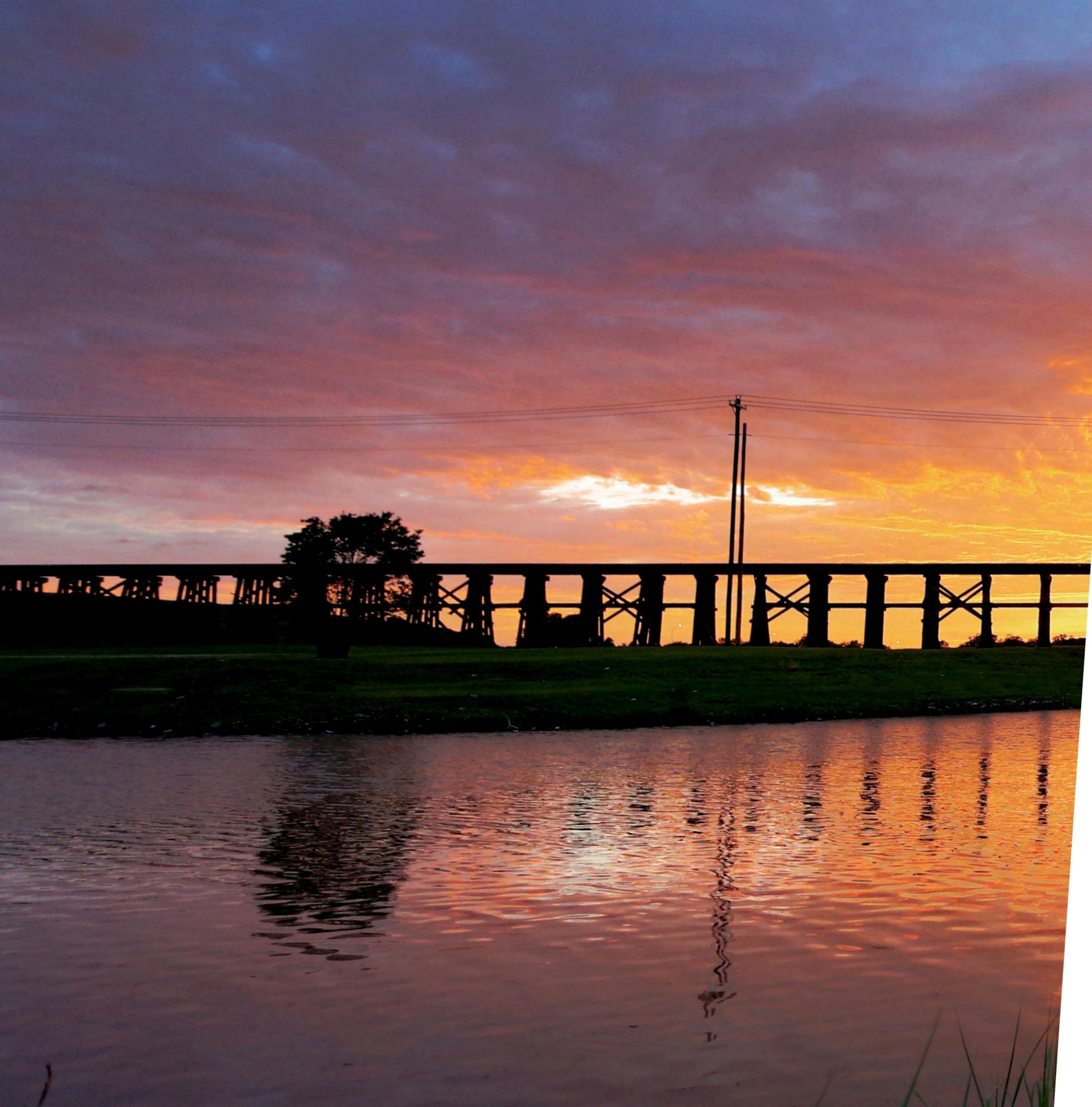
-  Trinity River
 -  Water Bodies
 -  Parks
 -  Other Cities/Towns
 -  Freeways/Highways
 -  Local Streets
 -  Rail Lines
- Bikeways**
-  Off-Street, Existing
 -  Off-Street, Funded
 -  Off-Street, Planned
 -  On-Street, Existing
 -  On-Street, Funded
 -  On-Street, Planned
- Opportunity Sites**
-  Proposed Project
 -  Proposed Trail Connection
 -  Key Project
 -  Key Trail Connection

SYSTEM WIDE PROJECTS

Project	Project Name	Project Description	Project Type	Score	Lead Group/ Agency	TRWD	CFW	S&V	Organizational Capacity	Community Support	Cost	Current Funding
SW1	River Loop Trail	Establish connections between each of the major Trinity River segments, allowing residents throughout Fort Worth to more easily access the river network.	On-Street	2.5	S&V	-	Partner	Lead	Some	Neutral	\$\$\$\$	No
SW2	Parallel Trails	Wherever possible, create trails along both sides of the river to distribute trail traffic.	Trail	1.5	TRWD	Lead	-	-	Ample	Strong	\$\$\$\$	No
SW3	Wider and Separated Use Trails	Widen trail surfaces and/or create separated trails for bicyclists and pedestrians along congested segments of the trail system.	Trail	1.5	TRWD	Lead	Partner	-	Some	Strong	\$\$\$\$\$	No
SW4	Biofiltration Planting	Establish areas of planting that filter and cleanse stormwater runoff to improve water quality.	Environmental	1.2	S&V	Partner	Partner	Lead	Some	Neutral	\$\$	No
SW5	Wayfinding and Signage Improvements	Improve signage between neighborhoods and the trail system to encourage use and highlight trailheads for local community access.	Wayfinding	1.4	S&V	-	-	-	Some	Neutral	\$	No
SW6	Trash Collection in Key areas	Develop a program and methodology for regular water borne waste removal.	Maintenance	1	TRWD	Lead	Partner	Advocate, Support	Some	Strong	\$\$\$	Partial
SW7	River Sustainability Membership Program	Create "River Lover" program similar to Blue Zones, in which participants agree to certain criteria to help ensure the long-term health of the Trinity River System.	Programming	2	S&V	-	-	Lead	Ample	Strong	\$	No
SW8	Natural Environment Enhancement	Identify natural areas for preservation, enhancement, and re-wilding throughout the river system.	Multi-Benefit	3.3	S&V	-	Advisor	Spark Plug	Ample	Strong	\$\$	No

ADVOCACY + SUPPORT

Project	Project Name	Project Description	Project Type	Score	Lead Group/ Agency	TRWD	CFW	S&V	Organizational Capacity	Community Support
AS1	Kinderplatz Nature Education Space	Support Kinderplatz of Fine Arts in creating nature trails and an education space on the small triangular site across Clearfork Main Street from the school. This project will be funded by private donations to Kinderplatz.	Education	2.4	S&V	Advisor	-	Lead	Ample	Strong
AS2	Equestrian Trails	Create facilities for equestrian trails along lower-traffic segments of the trail system.	Trail	1.5	S&V	Partner	Advisor	Lead	Ample	Strong
AS3	Cobb Park and Sycamore Park Programming	Program Cobb Park and Sycamore Park with events to encourage use by a wide range of regional residents.	Programming	2.4	S&V	-	Advisor	Lead	Ample	Strong
AS4	Fossil Creek Connection	Coordinate with Haltom City and North Richland Hills to connect the Trinity River to Fossil Creek.	Trail	1.9	S&V / CFW PARD	-	Partner	Lead	Ample	Strong
AS5	Cotton Belt Trail Connection	Link the Trinity Trails system to the Cotton Belt System through Northeast Fort Worth. Coordinate with cities of North Richland Hills, Colleyville and Hurst.	Trail	1.8	S&V	-	-	Lead	Ample	Strong
AS6	Village Creek Connection	Support the Arlington Parks and Recreation Department project to develop a trail along Village Creek that connects to Lake Arlington. Ensure trail linkages are also made between Village Creek and West Fork East.	Trail	1.9	S&V / City of Arlington	-	Partner	Lead	Ample	Strong
AS7	Branch Waters Connectivity	Link all waterways in the Trinity River Watershed.	Multi-Benefit	2	S&V	-	-	Lead	Ample	Neutral



A Note of Appreciation

In September 2016, the River Partners began updating The Trinity River Strategic Masterplan.

The following individuals, corporations, and foundations generously gave their time, financial resources, and expertise to ensure the successful completion of this expansive and comprehensive project. In addition, hundreds of community stakeholders, neighborhood representatives, city staff members, and friends shared their thoughts and dreams for the future of our beloved river. Because of all of them, **Confluence** is finally a reality.

We are certain this master plan will help lead our city into the next decade — and Streams & Valleys and the River Partners into the next half century. We are focused on connecting people and places and look forward to rallying around the Trinity River with friends old and new.

With tremendous gratitude,

Stacey Pierce

Stacey Pierce

Executive Director, Streams & Valleys

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Victor Vandergriff *Texas Department of
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The Honorable Jeff Williams *City of Arlington*

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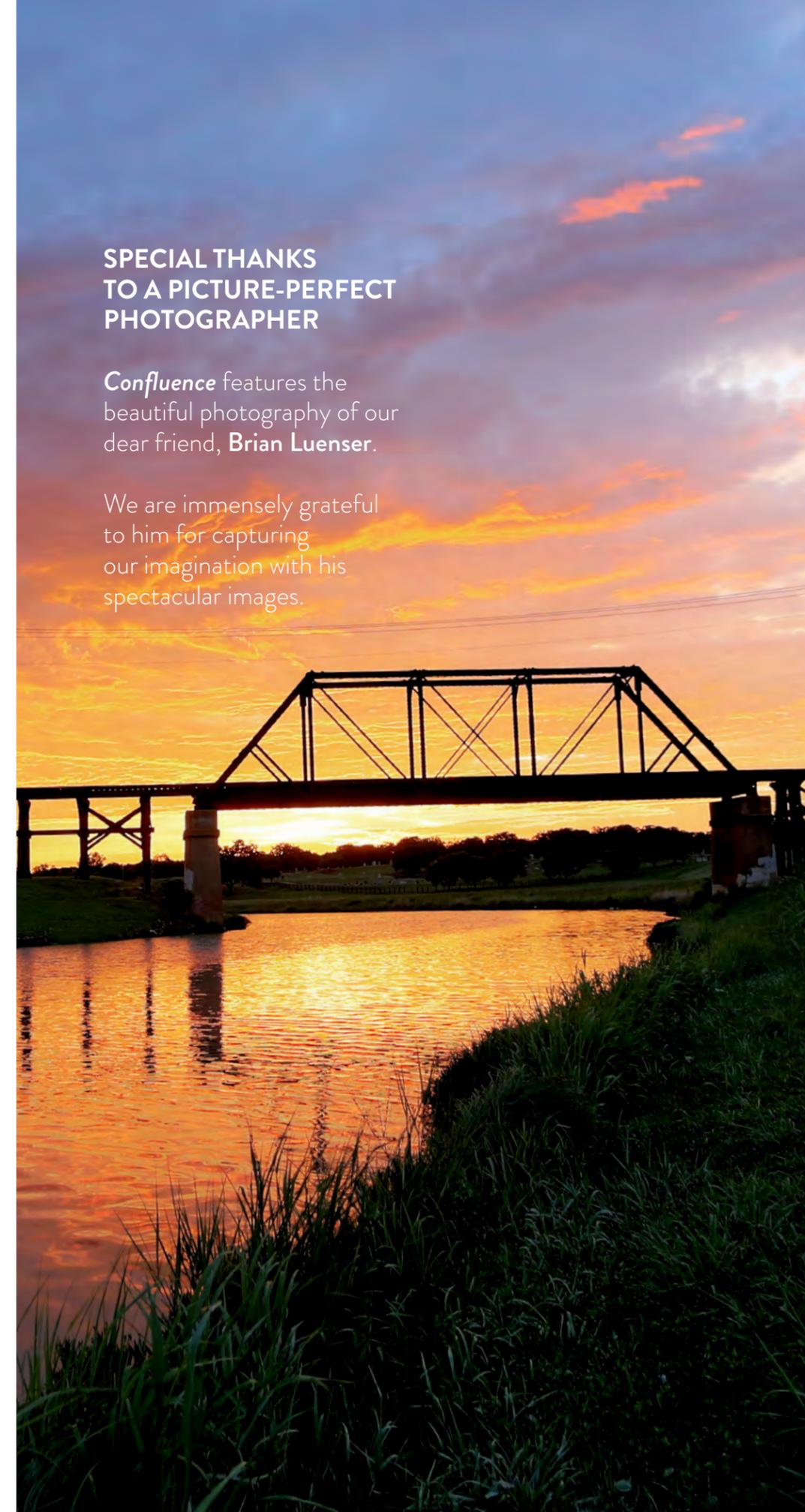
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Brian Duffany *EPS*

SPECIAL THANKS TO A PICTURE-PERFECT PHOTOGRAPHER

Confluence features the beautiful photography of our dear friend, **Brian Luenser**.

We are immensely grateful to him for capturing our imagination with his spectacular images.



A

Active Transportation: Nonmotorized forms of transportation involving physical activity, such as walking and cycling.

ADA (Americans with Disabilities Act): the civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private place that are open to the general public. In the context of this plan, “ADA Access” refers to the accessibility of river and trail amenities for people with disabilities.

American Association of State Highway and Transportation Officials (AASHTO): a standards-setting body which publishes specifications, test protocols and guidelines which are used in highway design and construction throughout the United States. This body also represents air, rail, water, and public transportation as well.

Army Corps / United States Army Corps of Engineers (USACE): A United States federal agency under the Department of Defense associated with engineering, design, and construction management of dams, canals, and flood protection, as well as hydropower throughout the United States. The Army Corps is responsible for the levee system along the banks of the Trinity River.

B

Bike Lane: A corridor expressly reserved by markings for bicycles existing on a street or roadway in addition to any lanes for use by motorized vehicles (Class II Bikeway).

Bike Path: A paved route not on a street or roadway and expressly reserved for bicycles. Bike paths may parallel roads but typically are separated from them (Class I Bikeway).

Bike Route: A bicycle facility shared with motorists and identified by signs or pavement marking symbols. A bike route does not have lane stripes (Class III Bikeway).

Bikeways: A term that encompasses bicycle lanes, bicycle paths, and bicycle routes.

Branch: a stream or segment of a river that flows into a larger main stem of a river or lake. Also called a “fork” or “tributary.”

C

Capital Improvement Program (CIP): A proposed timetable or schedule of future capital improvements (i.e., government acquisition of real property, major construction project, or acquisition of long lasting, expensive equipment) to be carried out during a specific period, together with cost estimates and the anticipated means of financing each project.

Channel (river): a type of landform that contains a narrow body of water, most commonly confining a river, delta, or straight.

Channelization: (1) The straightening and/or deepening of a watercourse for purposes of storm-runoff control or ease of navigation. Channelization often includes lining of stream banks with a retaining material such as concrete. (2) At the intersection of roadways, the directional separation of traffic lanes through the use of curbs or raised islands that limit the paths.

City: City, with a capital “C,” generally refers to the government or administration of the City of Fort Worth (or another city). City, with a lower case “c,” may mean any city or the general boundaries of Fort Worth (or another city).

Commercial (land use): buildings or land intended for commercial uses and businesses such as offices, retail, restaurants, or other places of commerce.

Complete Streets: A comprehensive approach to the practice and related policies of mobility planning. The complete street concept recognizes that transportation corridors have multiple users with different abilities and mode preferences (e.g., pedestrians, bicyclists, transit riders, and drivers) that need to be accounted for.

Conservation: The management of natural resources to prevent waste, destruction, or neglect.

Confluence: The junction of two rivers, or location where two bodies of water flow into one.

Creek: Natural stream of water smaller than a river.

D

Dallas-Fort Worth Metroplex: Officially designated the “Dallas-Fort Worth-Arlington, Texas Metropolitan Statistical Area.” This area encompasses 13 counties in Texas, and serves as the cultural and economic hub of the region of North and North Central Texas.

Dam: A barrier to obstruct the flow of water, especially one made of earth, rock, masonry, and/or concrete, built across a stream or river.

Daylighting: The redirection of a stream into an above-ground channel. Daylighting is intended to improve the riparian environment for a stream which had been previously diverted into a culvert, pipe, or a drainage system.

Density: The intensity of development on a given parcel, such as the number of dwelling units per unit of land, or ratio of building square footage to land.

Design Guidelines: A set of design parameters for development which apply within a design district, subdistrict, or overlay zone. The guidelines are usually adopted public statements of intent and are used to evaluate the acceptability of a project’s design.

Developer: An individual or business that prepares raw land for the construction of buildings or causes to be built physical building space for use primarily by others, and in which the preparation of the land or the creation of the building space is in itself a business and is not incidental to another business or activity.

Development: Any human-caused change to improved or unimproved real estate that requires a permit or approval from any agency of the city or county, including but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of materials.

Development Agreement: A contractual agreement between a developer and the City that clearly establishes the developer’s responsibility to provide a certain type of development, streets, and sewer improvements, and any other mutually agreed to terms and responsibilities as a precondition for securing approval of a project.

Dallas Water Utilities Department (DWU): The department within the City of Dallas responsible for providing water and wastewater services throughout the city.

E

Easement: A recorded right or interest in the land that belongs to someone else and which entitles the holder to some use, privilege, or benefit out of or over said land.

Ecology: The relationship between plant and animal populations in a given area.

Ecosystem: A naturally occurring assemblage of organisms (plant, animal, and other living organisms) living together with their environment, functioning as a loose unit; also referred to as a biotic community.

Endangered Species: A species of animal or plant is considered to be endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes.

End of Trip Facilities: Dedicated places that support people using non-motorized modes of travel to their destination rather than driving or taking public transport. These include bicycle racks, lockers, showers, and changing rooms where cyclists, joggers, and walkers can clean off and secure their belongings.

Environment: The sum of all external conditions and influences affecting the life, development, and ultimately, the survival of an organism.

Erosion: 1) The loosening and transportation of rock and soil debris by wind, rain, or running water; 2) the gradual wearing away of the upper layers of the Earth.

F

Federal Emergency Management Agency (FEMA): An agency of the U.S. Department of Homeland Security, responsible for coordinating responses to a disaster that has occurred in the United States and that overwhelms the resources of local and state authorities. Also the agency under which the National Flood Insurance Program is administered.

Flood Control: Methods used to reduce or prevent the detrimental effects of flood waters. See also “Flood Management.”

Flood Management: Methods used to reduce or prevent the detrimental effects of flood waters. See also “Flood Control.”

Floodplain: A lowland or relatively flat area adjoining the banks of a river or stream which is subject to a one percent or greater chance of flooding in any given year (i.e., 100-year flood).

Floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Fork (river): A stream or segment of a river that flows into a larger main stem of a river or lake. Also called a “branch” or “tributary.”

Form Based Zoning: Also called “Form Based Code,” a means of regulating land development to achieve a specific urban form rather than a focus on land use. It is an alternative to traditional “Euclidian” zoning codes.

Fragmentation (habitat): The emergence of discontinuities in an organism’s preferred environment, causing ecosystem decay.

G

Grading: Any excavating, filling of land, or combination thereof.

Green Building: The practice of increasing the efficiency with which buildings and their sites use and harvest energy, water, and materials, and reducing building impacts on human health and the environment through better siting, design, construction, operation, maintenance, and removal—the complete building life cycle.

Green Infrastructure: The use of natural systems to provide critical infrastructure services for communities, protecting them against flooding or excessive heat, or helping to improve air and water quality.

Greenhouse Gases: Gases in the Earth’s atmosphere that produce the greenhouse effect. Changes in the concentration of certain greenhouse gases, due to human activity such as fossil fuel burning, increase the risk of global climate change. Greenhouse gases include carbon dioxide, methane, nitrous oxide, halogenated fluorocarbons, ozone, perfluorinated carbons, and hydro fluorocarbons.

Groundwater: The supply of fresh water under the ground surface in an aquifer or soil that forms a natural reservoir.

Groundwater Recharge: The natural process of infiltration and percolation of rainwater from land areas or streams through permeable soils into water-holding rocks that provide underground storage (aquifers).

H

Habitat: The physical location or type of environment in which an organism or biological population lives or occurs.

Historic: An historic building or site is one that is noteworthy for its significance in local, State, or national history or culture, its architecture or design, or its works of art, memorabilia, or artifacts.

Household: According to the Census, a household is all persons living in a dwelling unit, whether or not they are related. Both a single person living in an apartment and a family living in a house are considered households.

Household Income: The total income of all the people living in a household. Households are usually described as very low income, low income, moderate income, and above moderate income for that household size, based on their position relative to the county median income.

Housing Unit: A room or group of rooms used by one or more individuals living separately from others in the structure, with direct access to the outside or to a public hall and containing separate toilet and kitchen facilities.

Impervious surfaces: Artificial structures—such as pavements (roads, sidewalks, driveways, and parking lots) that are covered by impenetrable materials such as asphalt, concrete, brick, stone, and rooftops.

Industrial (land use): The manufacture, production, and processing of consumer goods. Industrial is often divided into “heavy industrial” uses, such as construction yards, quarrying, and factories; and “light industrial” uses, such as research and development and less intensive warehousing and manufacturing.

Infill Development: Development that occurs on: 1) vacant land (usually individual lots or previously passed-over properties) or 2) land that has been previously developed within areas that are already largely developed.

Infrastructure: The physical systems and services which support development and population, such as roadways, railroads, water, sewer, natural gas, electrical generation and transmission, telephone, cable television, storm drainage, and others.

Infiltration: Groundwater that enters sanitary sewer systems through cracks and/or leaks in the sanitary sewer pipes.

Inflow: Stormwater that enters into sanitary sewer systems at points of direct connection to the systems.

Interagency: Indicates consultation between or among two or more discrete agencies in regard to a specific program.

Invasive Species: Species that are non-native to the ecosystem or whose introduction causes or is likely to cause environmental harm.

Integrated Stormwater Management (iSWM): A program for stormwater management that addresses water quality protection, streambank protection, flood mitigation, stormwater runoff, and other environmental factors.

J

Jurisdiction: the territory over which authority to govern is exercised.

L

Landscaping: Planting, including but not limited to, trees, shrubs, and ground covers which are suitably designed, selected, installed, and maintained to enhance a site or right-of-way.

Land Use: A description of how land is occupied or used.

Land Use Designation: A system for classifying and designating the appropriate use of properties.

Land Use Plan: A plan showing the allowed location, extent, and intensity of development of land to be used in the future for varying types of residential, commercial, industrial, agricultural, recreational, and other public and private purposes or combination of purposes.

Levee: An embankment built to prevent the overflow of a river.

Low Impact Development: Development that uses or mimics natural processes that result in the infiltration, evapotranspiration or use of stormwater to protect water quality and associated aquatic habitat.

M

Marshes: Type of wetland which is subject to frequent or continuous inundation. Typically, the water is shallow and features grasses, rushes, reeds, typhas, sedges, and other herbaceous plants.

Median Income: The annual income for each household size within a region is defined annually by HUD. Half of the households in the region have incomes above the median and half have incomes below the median.

Mitigation: Programs or efforts intended to offset known impacts to an existing natural resource.

Mixed Use: Different types of complementary land uses located in proximity to one or more buildings and/or developments within the same district, planned and constructed to complement each other. Such uses may include, but are not limited to, residential, office, retail, public, or entertainment uses.

Multimodal: The utilization of all available modes of travel that enhance the movement of people and goods, including, but not limited to, highway, transit, nonmotorized; and demand management strategies including, but not limited to, telecommuting. The availability and practicality of specific multimodal systems, projects, and strategies may vary by county and region in accordance with the size and complexity of different urbanized areas.

Municipal Services: Services traditionally provided by local government, including water and sewer, roads, parks, schools, and police and fire protection. See also “public services.”

N

National Environmental Policy Act (NEPA): An act passed in 1974 establishing federal legislation for national environmental policy, a council on environmental quality, and the requirements for environmental impact statements.

National Flood Insurance Program (NFIP): A federal program which authorizes the sale of federally subsidized flood insurance in communities where such flood insurance is not available privately.

National Pollutant Discharge Elimination System (NPDES): As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The State Water Resources Control Board issues permits to jurisdictions with the objectives to attain and protect the beneficial uses of water bodies in the State; reduce pollutants in stormwater to the maximum extent practicable; and to evaluate compliance with the objectives and requirements contained in the permit.

Native Species: Species that are indigenous to a given region or ecosystem, and whose existence in that region is the result of only natural processes with no human intervention.

Neighborhood: A geographically localized community within a city or county.

Neighborhood Park: City- or county-owned land intended to serve the recreation needs of people living or working within a one-half mile radius of the park.

O

Open space: Land without buildings. This is a general, descriptive term that places no restrictions on the use of the land.

Ordinance: A law or regulation set forth and adopted by a governmental authority, usually a city or county.

Outdoor Recreation Use: A privately or publicly owned or operated use providing facilities for outdoor recreation activities.

Overlay: A land use designation or a zoning designation that modifies the basic underlying designation in some specific manner.

P

Parcel: The basic unit of land entitlement. A designated area of land established by plat, subdivision, or otherwise legally defined and permitted to be used or built upon.

Park & Recreation Department (PARD): The City of Fort Worth Department responsible for operating and maintaining parks and public spaces within the City's jurisdiction, as well as recreational programming and events.

Park, Public: Land that is publicly owned or controlled for providing parks, recreation, or open-space for public use.

Parking, Public: An open area, excluding a street or other public way, used for the parking of automobiles and available to the public, whether for free or for compensation.

Pollution: The presence of matter or energy whose nature, location, or quantity produces undesired environmental effects.

Potable Water: Water that is of sufficiently high quality so that it can be consumed or used without risk of immediate or long-term harm.

Public: Of the people as a whole, or for the use and benefit of all.

Public Facilities: Institutional, academic, governmental, and community service uses, either owned publicly or operated by non-profit organizations, including private hospitals and cemeteries.

Public Private Partnership: A cooperative arrangement between two or more public and private sector parties to implement a project, program, or other effort.

Public Services: Services traditionally provided by local government, including water and sewer, roads, parks, schools, and police and fire protection. See "Municipal Services."

Public Space: Land or structures that are open to anyone without restrictions; may include public or private property; also referred to as "public realm."

R

Rainwater Harvesting: Techniques used to collect, store and reuse rainwater for landscape irrigation and other uses.

Recycled Water: Former wastewater (sewage) that has been treated to remove solids and certain impurities, and then allowed to recharge the aquifer rather than being discharged to surface water. This recharging is often done by using the treated wastewater for irrigation.

Redevelop: To demolish existing buildings; or to increase the overall floor area existing on a property; or both; irrespective of whether a change occurs in land use.

Regional: Pertaining to activities or economies at a scale greater than that of a single jurisdiction and affecting a broad homogeneous area.

Regional Veloweb: The North Central Texas Council of Government's (NCTCOG) plan within the Mobility 2040 plan to establish an active transportation network consisting of 7,030 miles of regional shared-use paths.

Regulation: A rule or order prescribed for managing government.

Renewable Energy: The term renewable energy generally refers to electricity supplied from renewable energy sources, such as wind and solar power, geothermal, hydropower and various forms of biomass. These energy sources are considered renewable sources because their fuel sources are continuously replenished.

Residential (land use): Land in which housing is the primary use, including single-family and multi-family structures.

Restoration (environmental): The process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.

Rezoning: An amendment to the map and/or text of a zoning ordinance to effect a change in the nature, density, or intensity of uses allowed in a zoning district and/or on a designated parcel or land area.

Right-of-Way: Any place which is dedicated to use by the public for pedestrian and vehicular travel. A right-of-way may include, but is not limited to, a street, sidewalk, curb, and gutter. A right-of-way may be a crossing, intersection, parkway, median, highway, alley, lane, mall, court, way, avenue, boulevard, road, roadway, railway, viaduct, subway, tunnel, bridge, thoroughfare, park square, or other similar public way.

Riparian: Relating to or living on or located on the bank of bodies or courses of water.

Riverbank: the slope border a river. Also simplified to "bank."

River System: The larger network of streams, lakes, and rivers that make up a river’s watershed. In this plan, the “river system” refers to the Trinity River’s main branches and tributaries within Tarrant County.

S

Sanitary Sewer: A system of subterranean conduits that carries refuse liquids or waste matter to a plant where the sewage is treated, as contrasted with storm drainage systems (that carry surface water) and septic tanks or leach fields (that hold refuse liquids and waste matter on site).

Sensitive Species: Includes those plant and animal species considered threatened or endangered by the U.S. Fish and Wildlife Service, according to Section 3 of the Federal Endangered Species Act.

Sewer: Any pipe or conduit used to collect and carry away wastewater from the generating source to a treatment plant or discharge outfall.

Signage: a system of signs

Soil: Naturally occurring superficial deposits overlying bedrock.

Solar Energy: Energy from the sun that is converted into thermal or electrical energy.

Solid Waste: All solid, semi-solid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semi-solid wastes, and other discarded solid and semisolid waste.

Stormwater Runoff: Stormwater from city streets and adjacent domestic or commercial properties that carries pollutants of various kinds into the sewer systems and receiving waters.

Streams & Valleys (S&V): The nonprofit organization that plans and coordinates recreation enhancements, beautification efforts and public recognition of the Trinity River and its tributaries in Fort Worth and Tarrant County through volunteer recruiting, fundraising, development, and event programming.

Streetscape: The visual elements of a street, including the road, adjoining buildings, sidewalks, street furniture, trees and open spaces, etc. that combine to form the street’s character.

Sustainability: The ability to meet the needs of the present economy, society, and environment while preserving the ability of future generations to meet their needs.

Sustainable Development: A building approach which integrates building materials and methods that promote environmental quality, economic vitality, and social benefit through the design, construction, and operation of the built environment. Sustainable building merges sound, environmentally responsible practices into one discipline that looks at the environmental, economic, and social effects of a building or built project as a whole. Sustainable building design encompasses the following broad topics: efficient management of energy and water resources, management of material resources and waste, protection of environmental quality, protection of health and indoor environmental quality, reinforcement of natural systems, and the integration of the design approach.

T

Texas Commission on Environmental Quality (TCEQ): The environmental agency for the State of Texas.

Topography: Configuration of a surface, including its relief and the position of natural and human-made features.

Traffic Calming: The combination of policies and measures that reduce the negative effects of motorized vehicle use by improving livability in the surrounding neighborhood. With traffic calming, accessibility and mobility are not reduced; they are modified to fit needs of neighborhood. Traffic calming achieves this by modifying the design of streets to serve a broad range of transportation, social, and environmental purposes.

Trailhead: An entry point to a trail, or a location where the trail begins.

Transit, Public: A system of regularly scheduled buses and/or trains available to the public on a fee-per ride basis. Also called mass transit.

Transit-Oriented Development (TOD): Moderate- to higher-density development located within an easy walk of a major transit stop, generally with a mix of residential, employment, and shopping opportunities designed for pedestrians without excluding the auto. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use.

Transportation Demand Management (TDM): A strategy for reducing demand on the road system by reducing the number of vehicles using the roadways and/or increasing the number of persons per vehicle. TDM attempts to reduce the number of persons who drive alone on the roadway during the commute period and to increase the number in carpools, vanpools, buses and trains, walking, and biking.

Trees, Street: Trees strategically planted—usually in parkway strips, medians, or along streets—to enhance the visual quality of a street.

Tributary: A stream or segment of a river that flows into a larger main stem of a river or lake. Also called a “branch” or “fork.”

Trinity River Vision Authority (TRVA): The agency responsible for the implementation of the Panther Island/Central City project as well as the Gateway Park Master Plan.

Tarrant Regional Water District (TRWD):

The regional agency charged with supplying water, providing flood protection, and providing recreational amenities to Tarrant County community members.

Texas Department of Transportation (TxDOT):

The Department of Transportation for the State of Texas.

U

Urban Design: The attempt to give form, in terms of both beauty and function, to selected urban areas or to whole cities. Urban design is concerned with the location, mass, and design of various urban components and combines elements of urban planning, architecture, and landscape architecture.

Urban Form: Urban form addresses the relationship between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. Urban form guidelines endeavor to create a predictable public realm primarily by controlling physical form, with a lesser focus on land use.

V

Vacant: Lands or buildings that are not actively used for any purpose.

Vegetated: covered with vegetation or plant life.

Vegetation: Unique groupings of plants determined primarily on elevation and climate.

Vehicle Miles Traveled (VMT): The total distance traveled in miles by all motor vehicles of a specific group within a given area at a given time.

Viewshed: The area within view from a defined observation point.

W

Walkable: A measure of how friendly an area is for pedestrians. Factors affecting walkability include, but are not limited to, land use mix; street connectivity; residential density (residential units per area of residential use); “transparency” which includes amount of glass in windows and doors, as well as orientation and proximity of homes and buildings to watch over the street; plenty of places to go to near the majority of homes; placemaking, street designs that work for people, not just cars; and nonresidential floor area ratio.

Water Conservation: Using water wisely and efficiently so that it is not wasted.

Water-Efficient Landscaping: Landscaping designed to minimize water use and maximize energy efficiency.

Water Quality: The physical, chemical, and biological characteristics of water. It is most frequently used by reference to a set of standards against which compliance can be assessed. The most common standards used to assess water quality relate to drinking water, safety of human contact, and for health of ecosystems.

Watershed: The total area above a given point on a watercourse that contributes water to its flow; the entire region drained by a waterway or watercourse that drains into a lake or reservoir.

Waterway: Any navigable body of water

Wayfinding: All of the ways in which people orient themselves in physical space and navigate from place to place, including signage and other graphic communication.

Wetlands: An area of land whose soil is saturated with moisture either permanently or seasonally.

Wildlife: The native fauna or animals of a region or ecosystem.

Z

Zoning: A police power measure, enacted primarily by units of local government, in which the community is divided into districts or zones within which permitted and special uses are established as are regulations governing lot size, building bulk, placement and other development standards. Requirements vary from district to district, but they must be uniform within the same district. The Zoning Ordinance consists of a map and text.

Zoning Map: The officially adopted zoning map of the City specifying the location of zoning districts within all geographic areas of the city.



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