

**GGN**



**Site Analysis and Existing Conditions,  
Opportunities & Challenges Report**

Master Plan for John Treviño Jr. Metropolitan Park  
City of Austin Parks and Recreation Department, Texas  
June 14, 2019

# Site Analysis & Existing Conditions, Opportunities & Challenges (ECOC) Report

June 14, 2019

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# Executive Summary

## Purpose of Document



Treviño Park master planning team on initial site visit, March 2019

### Purpose

This Existing Conditions, Opportunities and Challenges report (ECOC) compiles and summarizes the team's initial research and analysis to inform the master planning process for John Treviño Jr. Metropolitan Park at Morrison Ranch. Through the creation of this document, we seek to gain an understanding of the existing conditions on the site and broader context to serve as a basis for structuring and evaluating master plan concepts and scenarios. This document also serves as an introduction to the elements and character of the Treviño Park site for the majority of Austinites who have yet to experience the land's beauty and potential.

### Analysis of Context

The ECOC report begins by looking at the Treviño Park site and Morrison Ranch in the context of broader systems – the hydrology of the Colorado River, ecological communities, and the historical patterns of human development and land use that make up the first layers of the site's story. Recent information on demographics, land use, and transportation patterns, along with the planning documents and initiatives that represent the projected future unfolding of these patterns provide important context to inform Treviño Park's place within the broader context of Austin's evolution as a city. Other parks that share similarities with Treviño Park – scale, ecology, relationship to water – are analyzed for lessons they might offer.

# Executive Summary

## Purpose of Document



### Understanding of Site

Zooming in to the scale of the Treviño Park site itself, the report explores the history, land use and cultural heritage of the Morrison Ranch parcel. Transportation and utility connections are evaluated, as well as the spatial character and views within the site. Ecological analysis begins with the topography, hydrology, geology, and soil that constitute the physical underpinnings of the site. An in-depth survey of the plant and animal communities present on site helps develop a detailed understanding of the site's ecological character and how it may influence the future development of the Treviño Park.

### A Place Full of Potential

Throughout the report, the team has identified key opportunities and challenges created by the site's context, contents, and character. The outcome of this research and information-gathering process is to transform the perception of the site from a mute or empty condition waiting for program into a complex and "full" place with a broad range of potential. The master plan will build on the team's and the community's understanding of the site's potential to develop a vision for John Treviño Jr. Metropolitan Park as a valuable asset for all Austinites to experience and enjoy.

# A Life of Public Service

John Treviño Jr.



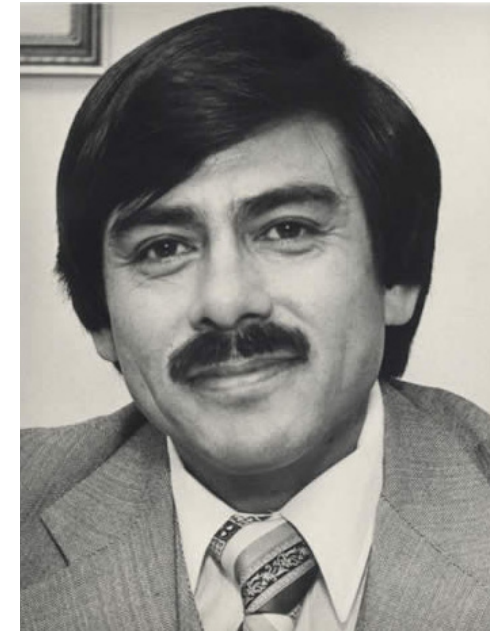
John Treviño Jr. at City of Austin park naming ceremony in 2017 (Image credit: BetoATX)



John Treviño Jr. in 1975 (Image Credit: SomosPrimos)

“On the Austin City Council, Mayor Treviño created opportunities for small and minority-owned businesses, pressured the city to increase the hiring of women and people of color, led efforts to increase access to health care for the poor and needy, pushed for a more equitable distribution of social services, and promoted better representation of women and people of color on boards and commissions.”

- Steve Adler, Mayor, City of Austin



John Treviño Jr. (October 18, 1937 - April 4, 2017) was born and raised in Austin, Texas. As a young boy, Treviño worked a number of odd jobs to help support his family. At the age of 17, with permission from his father, he served in the US Army's 82nd Airborne Division as a paratrooper. Upon his return home, he volunteered his time to a Catholic social service agency dedicated to serving the needy, and it was there that he was inspired to do more for his community.

In 1965, Mr. Treviño became the director of the East First Neighborhood Center in Austin. In this position, he organized citizenship classes, led a citywide cleanup effort, led initiatives resulting in the current Austin Tenant's Council and Meals on Wheels Program, and also advocated for federal funding for improvements in inner-city neighborhoods.

In the 1970s, Mr. Treviño teamed up with other Hispanic leaders such as Gus Garcia, Richard Moya, and Gonzalo Barrientos, to create a lasting Chicano footprint in Texas

politics. In 1975, Mr. Treviño became the first Latino elected to the Austin City Council. In 1988, Mr. Treviño became Acting Mayor, making him the first Latino mayor in the history of Austin. As the Mayor and a City Council member, he consistently led initiatives to aid the under-represented, under-served, and under-privileged in Austin.

After leaving city hall in 1988, Mr. Treviño was recruited by the University of Texas at Austin, where he continued his efforts to help under-served populations through the development of the Historically Underutilized Business program.

In 2006, the City of Austin designated John Treviño Jr. Metropolitan Park at Morrison Ranch in his honor.

## City of Austin Planning and Regulation Context

### Urban Planning

In May 2019 the Austin City Council voted to proceed with the formulation of a new Land Development Code and map for adoption later in the year. The new land use code aims to provide more housing capacity to meet the Austin Strategic Housing Blueprint target (135,000 new housing units and 60,000 income-restricted units) by 2027. An amendment has been adopted to prevent mapping up-zonings on properties that already contain market-rate affordable housing units (maximum 80 percent median family income). New land use designations will likely affect the development of neighborhoods surrounding John Treviño Jr. Metro Park.

### Native Ecosystems and Stewardship

Even though the Blackland Prairie Ecosystem is one of the most endangered in Texas and in the Austin area, there is no comprehensive plan to conserve it. There are numerous organizations working on conserving components of it including: The Native Prairie Association of Texas, Wilbarger Creek Conservancy, and Pines and Prairies Land Trust along with Travis County and the City of Austin. That said, there is no overarching plan that has prioritized the needs of this ecosystem in Central Texas.

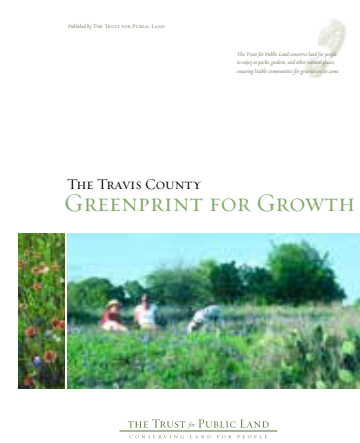
### The Colorado River

Many organizations have a stake in this reach of the Colorado River, including The Austin-Bastrop River Corridor Partnership, Travis County, and the Colorado River Land Trust. Existing plans and visions created by these organizations can help guide sustainable development for Treviño Park.

### Changes in the Floodplain and Watershed Protection

The City of Austin is currently proposing changes to its floodplain regulations (latest draft ordinance November 2018) based on a recently completed study by the National Weather Service known as "Atlas 14". The City of Austin is proposing a new interim 100-year floodplain based on what is currently the 500-year floodplain. This change means that the current floodplain regulations will apply to a larger portion of the site (up to and including what is currently identified as the 500-year floodplain on the site).

Austin's Watershed Protection Ordinance (20131017-046) improves creek and floodplain protection, prevents unsustainable public expense on drainage systems, simplifies development regulations where possible, and minimizes impact on ability to develop land. Floodplain modification within a critical water quality zone is prohibited except as allowed under LDC 25-8-261 (Critical Water Quality Zone Development).



## 2006 Travis County Greenprint for Growth

This partnership provides a regional vision for growth that preserves quality of living, natural and recreational resources, and economic prosperity. By combining GIS maps, local demographic and geographic data and community input, the report generates a visual analysis of Travis County's land and conservation priorities.



## 2013 The Geography of Opportunity in Austin and How it is Changing

This collaboration between Green Doors and the Kirwan Institute for the Study of Race and Ethnicity analyzes aspects of opportunity – education, economic mobility, and housing – to provide insight on demographic shifts and access. Key Findings:

- The Hispanic population, the fastest-growing segment of the population, is primarily located in low opportunity areas.
- Development in neighborhoods east of I-35 threatens to displace African American and Hispanic residents.
- Most affordable housing is located in low or very low opportunity neighborhoods.
- We need place-based investments in low opportunity areas.



## 2012 Imagine Austin Comprehensive Plan

The Imagine Austin Comprehensive Plan was adopted by the Austin City Council in 2012 and was most recently updated in 2018. The plan maps the actions the City of Austin should take to continue to be a city people want to live in and move to, and that is more equitable as it continues to grow. Six principles drive the plan:

- Grow as a compact, connected city.
- Integrate nature into the city.
- Provide paths to prosperity for all.
- Develop as an affordable and healthy community.
- Sustainably manage water, energy, and other environmental resources.
- Think creatively and work together.

# Ecology and Parks

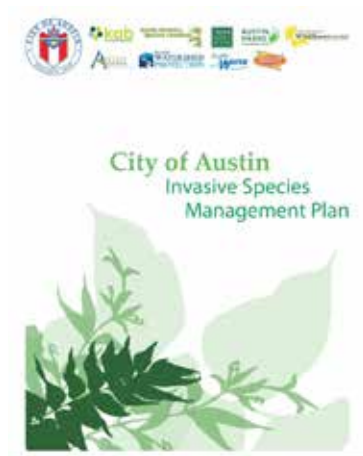
## Documents Evaluated



### 2006 Vision for the Austin-Bastrop River Corridor

In response to growing development pressures, a robust partnership of organizations has developed a vision for land conservation, public access to parks, environmental monitoring, and more sustainable development along the 60-mile stretch on the Colorado River between Longhorn Dam in Austin to Bastrop.

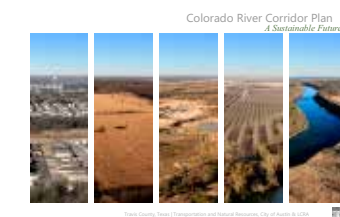
Historical bottomland forest conditions along the riverbanks have, over time, been replaced by pastures, orchards, housing developments, and gravel pits. The 2003 PARD purchase of Morrison Ranch (now Treviño Park) represents a significant milestone and opportunity for the park to protect and enhance delicate natural resources, support river-based recreational opportunities, and provide educational opportunities.



### 2012 City of Austin Invasive Species Management Plan

This plan calls for sustainable land management, the prevention of invasive species establishment, early detection and rapid response, standardized controls and monitoring, restoration and rehabilitation, and prioritization of resource allocation.

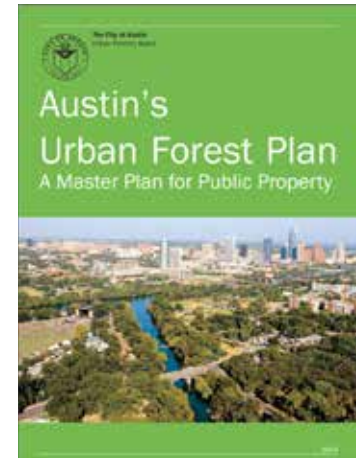
This document will be a relevant resource in considering preliminary action and continued maintenance for vegetation in the varied plant communities of the Treviño Park site.



### 2012 Colorado River Corridor Plan

Travis County and the City of Austin, along with technical assistance from the Lower Colorado River Authority, created the "Colorado River Corridor Plan" in 2012. In this plan, intergovernmental cooperation is proposed to protect local biodiversity; preserve and restore floodplains and natural areas; create parks, open spaces and greenways; enhance quality of life through long-term reclamation of mined sites; and enhance mobility through capital project development and new transportation alternatives.

The plan suggests public access to the river at Treviño Park as well as 6 other locations in the study area.



### 2013 City of Austin Urban Forest Plan

This plan calls for an urban forest that is part of a "contiguous and thriving ecosystem valued, protected, and cared for by the City and all of its citizens as an essential environmental, economic, and community asset". The plan calls for a diverse, multi-aged urban forest of native trees that is resilient in the face of drought, climate change, and other stressors. The plan also stresses the need for care and management, the preservation of significant trees, and the protection of wildlife habitat.

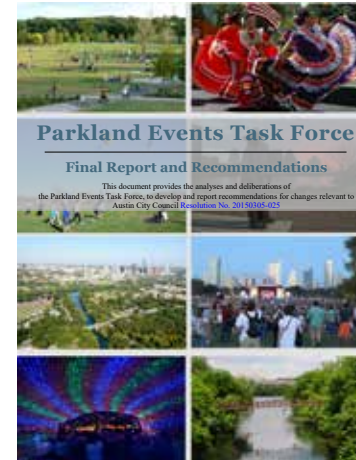
This document should be considered in the development of an ecologically sound site at Treviño Park.



### 2011-2016 Long Range Plan for Land, Facilities, and Programs

The City of Austin is currently working on an update to this plan. As of 2011, Master Plan and Level 1 development of Treviño Park were identified as a priority in East Austin. Treviño is classified as a metropolitan park, which is a city-wide service area that provides the greatest diversity of recreational experiences. These parks are generally natural resource-based and usually located along waterways.

Near term development of a connective park trail between Southern Walnut Creek Trail and Treviño Park has been prioritized by Austin's PARD, a significant future connection for those traveling to the site by non-vehicular methods such as biking and watercraft. Future term priorities include longer trails along both banks of the Colorado River, with Treviño Park situated centrally between connective nodes.



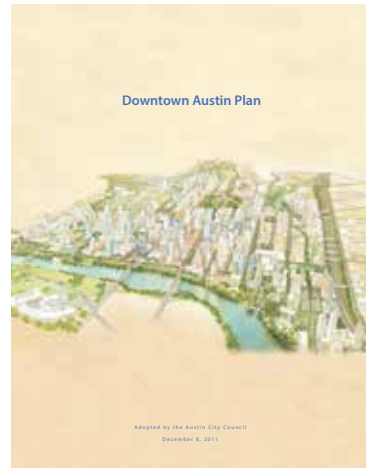
### 2016 Parkland Events Task Force (PETF) Final Report and Recommendations

Treviño Park, alongside Bolm Road Park, Onion Creek Metropolitan Park, and Walter E. Long Park, was identified as a potential site for events to help ensure that neighborhoods in East Austin have more equitable opportunities for cultural and neighborhood-oriented events and to serve as alternative sites for events at over-utilized urban parks near downtown Austin.

A needs assessment identified the following recreation most desired for Austin parks: walking/biking trails, swimming (pool and natural outdoor), cultural activities or arts, general fitness, nature and science center, museums, and community gardens.



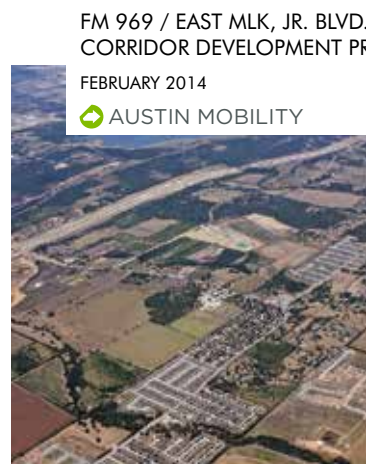
# Transportation and Access Documents Evaluated



## 2011 Downtown Austin Plan

The Austin Downtown Plan was adopted in 2011. The plan was a response to a growing and developing downtown the city wished to retain as a place that is an attractive community center. Their goals included making downtown a place that is multi-modal, compact, and easy and comfortable to walk throughout.

One of their goals specifically was to “[d]evelop a multi-modal transportation system that improves access to and mobility within Downtown.” Their recommendations for this included developing a way-finding system, installing more bike infrastructure, and improving the connection between East Austin and Downtown by redesigning I-35.



## 2014 FM 969/East MLK Jr. Blvd. Corridor Development Program

FM 969 between US 183 and Webberville was one of five corridors selected for the City of Austin Mobility Corridors Development Program to “improve safety, mobility, and quality of life” around them. FM 969 was selected because of anticipated growth in this area. The city expects transit service provided by Capital Metro to expand as demand increases. The plan makes a number of recommendations which include:

- Sidewalks and paths to be developed on Jonny Morris Road and FM 969 between US 183 and Decker Lane.
- Crosswalks at Regency Drive and Craigwood Drive
- Bike lanes along FM 969
- Updating intersections
- Widening FM 969 in the longer term



## 2014 Austin Bicycle Master Plan

Implementing elements of the Imagine Austin Comprehensive Plan, the 2014 Austin Bicycle Master Plan proposed the creation of a connected and protected active transportation network that would provide additional transportation options for Austin residents and visitors. The plan’s overarching goals were to significantly increase bicycle use and improve bicycle safety throughout Austin. The Austin City Council adopted the plan on November 6, 2014.

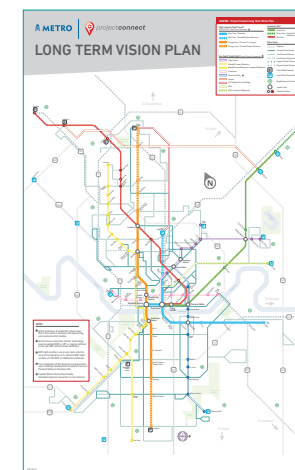
Highlighted within the plan is a feeder route along FM 969 west to the center city incorporating a shared use path.



## 2016 Austin Sidewalk Master Plan and ADA Transition Plan

The City of Austin 2016 Sidewalk Master Plan / ADA Transition Plan Update establishes asset management policies for sidewalks within the City of Austin right-of-way. As of November 2015, the citywide sidewalk network includes 2,580 miles of absent (missing) and 2,400 miles of existing sidewalk. The recommendations for the new sidewalk program in Austin are based on the guidance provided in the Imagine Austin Comprehensive Plan.

Identified new sidewalk program targets include addressing all very high and high priority sidewalks within ¼ mile of all identified schools, bus stops, and parks, including both sides of arterial and collector streets and one side of residential streets. Sidewalks are commonly absent in many areas adjacent to John Treviño Jr. Metropolitan Park.



## 2019 CapMetro Project Connect 2019

Capital Metro is currently working with the community to develop a new, comprehensive transit vision to improve existing transit services and develop new, high-capacity public transportation projects that provide efficient travel options into, out of, and around Central Texas. This vision is called Project Connect.

Project Connect is all about developing innovative solutions that move more people; a complete system of reliable and frequent transit with congestion-proof services that operate free from other traffic. Although currently in progress, Project Connect does highlight the MLK Jr Blvd Bus Rapid Transit alignment to Decker, which would terminate approximately ½ mile from the John Treviño Jr. Metropolitan Park.



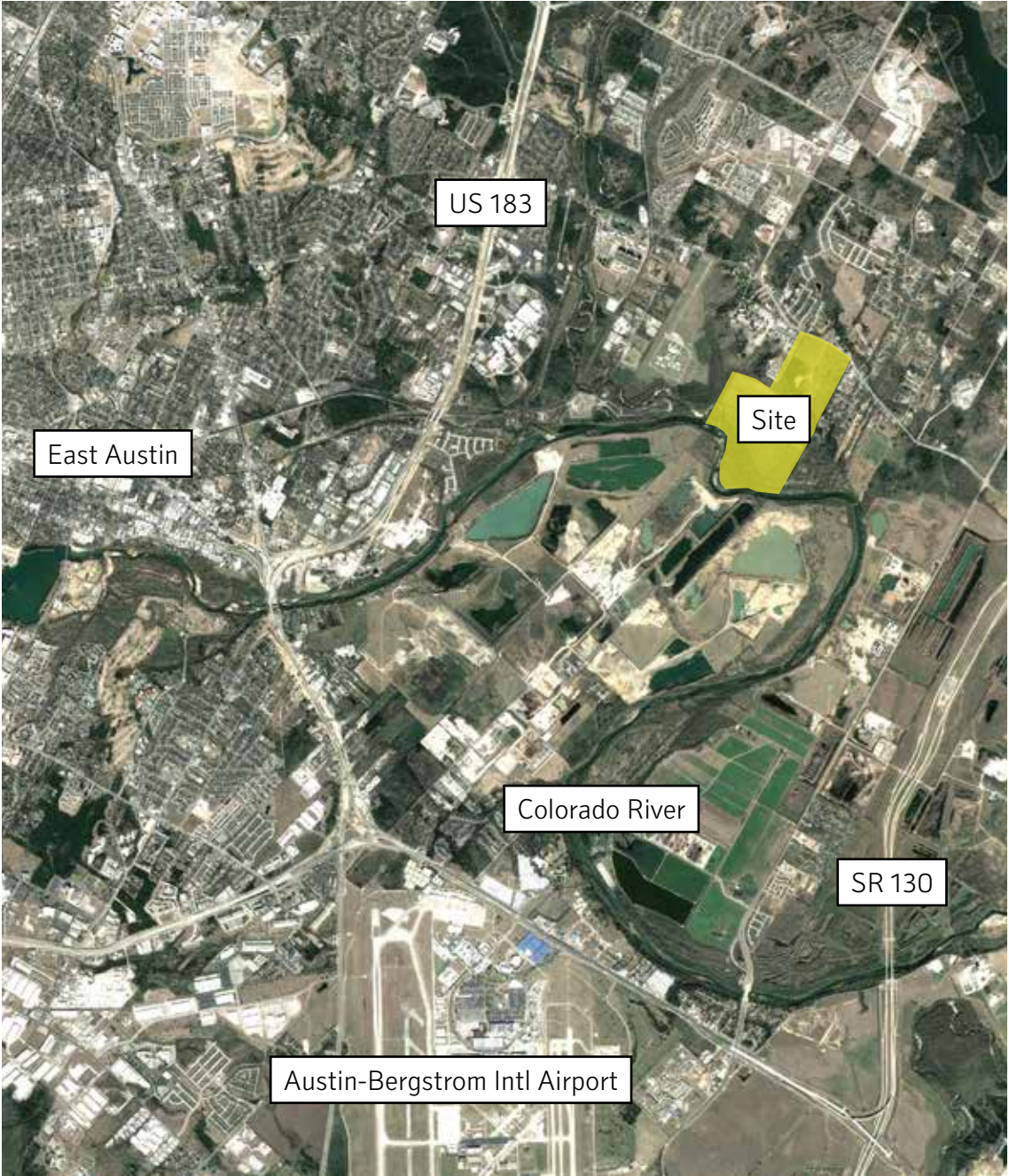
## 2019 (Draft) Austin Strategic Mobility Plan

Adopted by the City Council in April 2019, this plan addresses growing congestion in the City of Austin, and includes a set of policies intended to make the City multi-modal, thereby reducing the share of driving trips. By aggressively shifting the growth of total trips to other modes and strategically expanding roadway system capacity, where feasible, the City can responsibly manage congestion into the future.

Part of the strategy is to develop a more extensive system of transit, sidewalks, bike lanes and trails in conjunction with other City and agency plans such as Project Connect. Adjacent to the John Treviño Jr. Metropolitan Park, roadway FM 969 is a very high priority area for the development of pedestrian facilities in the plan.

# John Treviño Jr. Metropolitan Park

## Study Extents



Treviño Park is located east of US 183 along the northern bank of the Colorado River.



The Park site is comprised of 330 acres bounded by FM 969 directly at the north site edge and the Colorado River directly on the south edge.

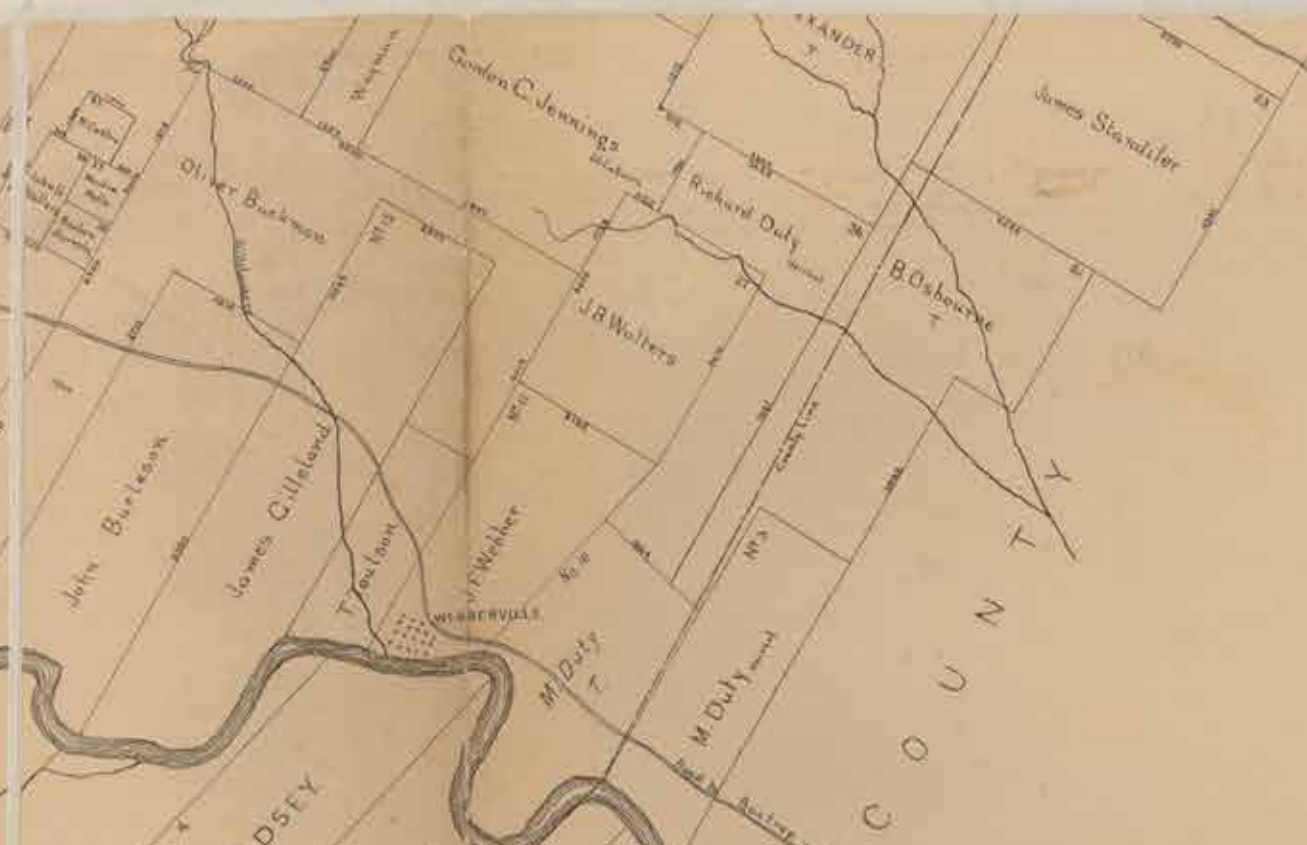
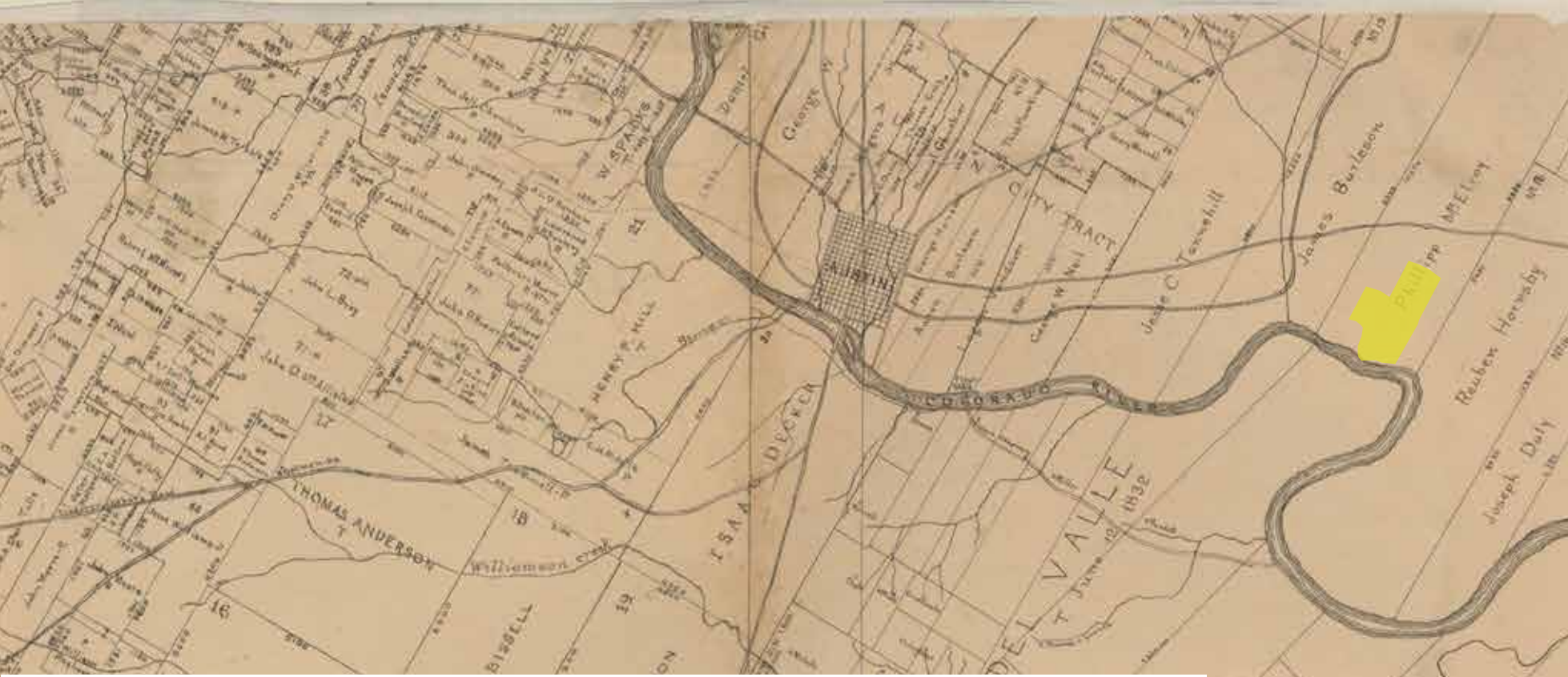
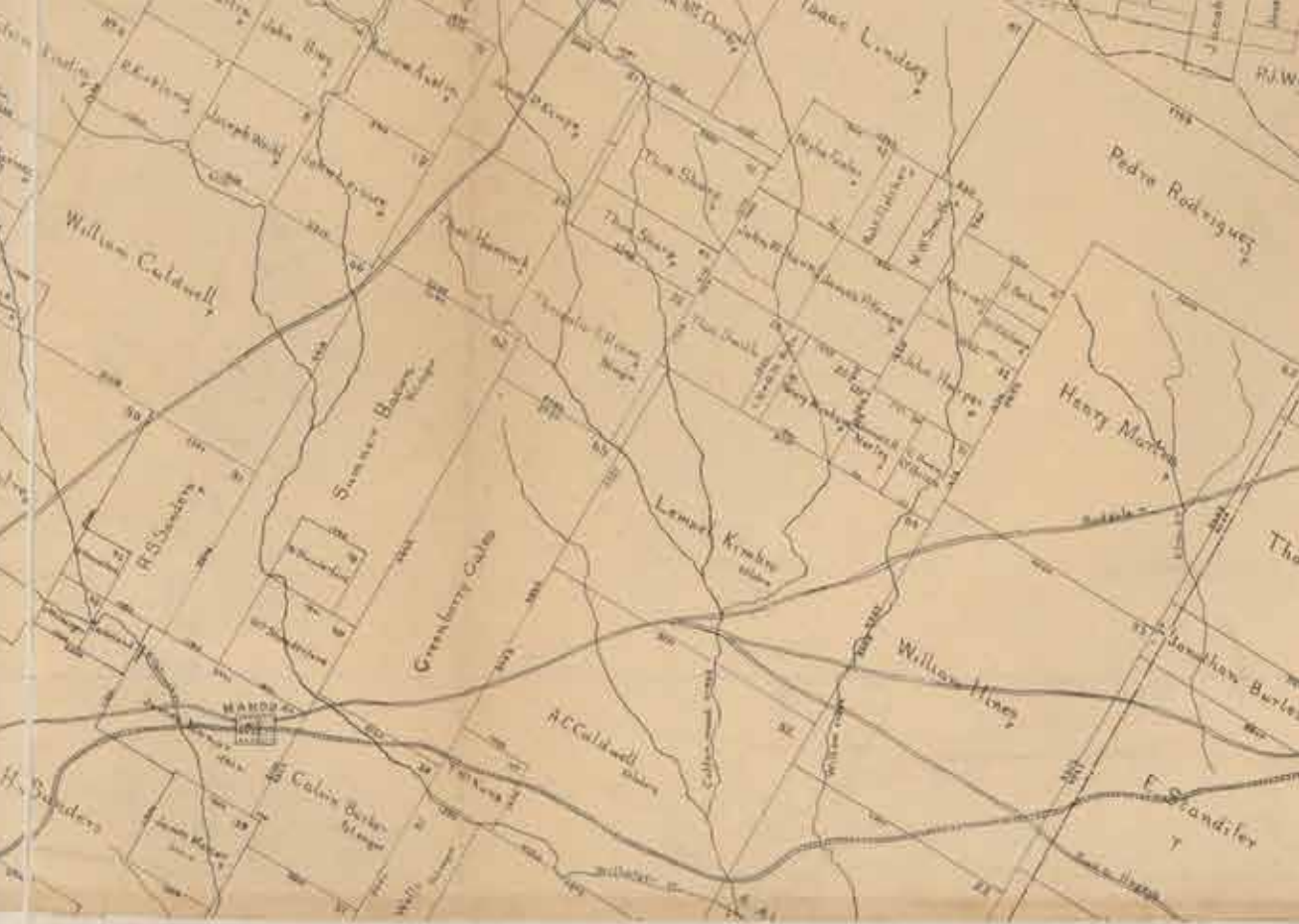
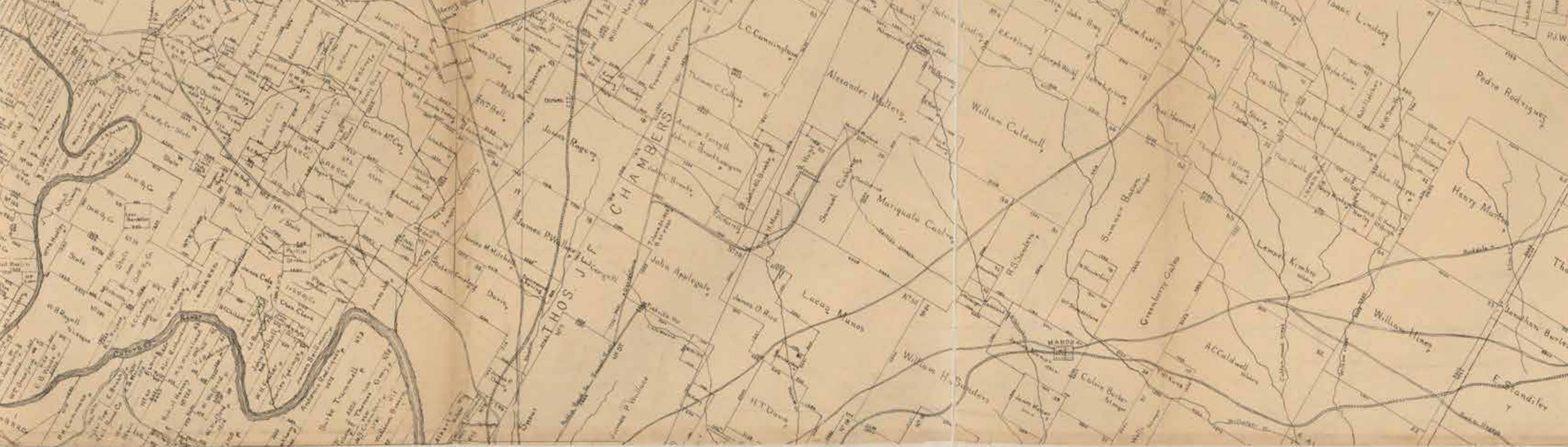
### Site Location

The extent of the primary Environmental Conditions, Opportunities and Constraints evaluation is 330.22 acres of metropolitan parkland purchased by the Austin Parks and Recreation Department in 2003. Formerly known as the Morrison Ranch, the area is located on the south side of FM 969 between US 183 and FM 973. The PARC-owned Colorado/Walnut Greenbelt and two charter school properties line the site's west edge, with residential subdivisions to the east. The Colorado River delineates the site's south edge, and the southwest corner is just downstream of the Walnut Creek confluence.

The property is split by a ridge running generally southwest to northeast. Two-thirds of the site lie in the 100-year flood plain. Elevation varies approximately 30 to 45 feet from the upland to lowland area. A paved entry drive from FM 969 splits into two dirt roads, lined with a handful of buildings and barn/shed structures.

### Site Information

- Address: FM 969 Rd., Austin, TX 78725
- Austin City Council Districts: 1 and 2



# Morrison Ranch in Context

Travis County Land Claim Map, 1880. (Image credit: Texas General Land Office)

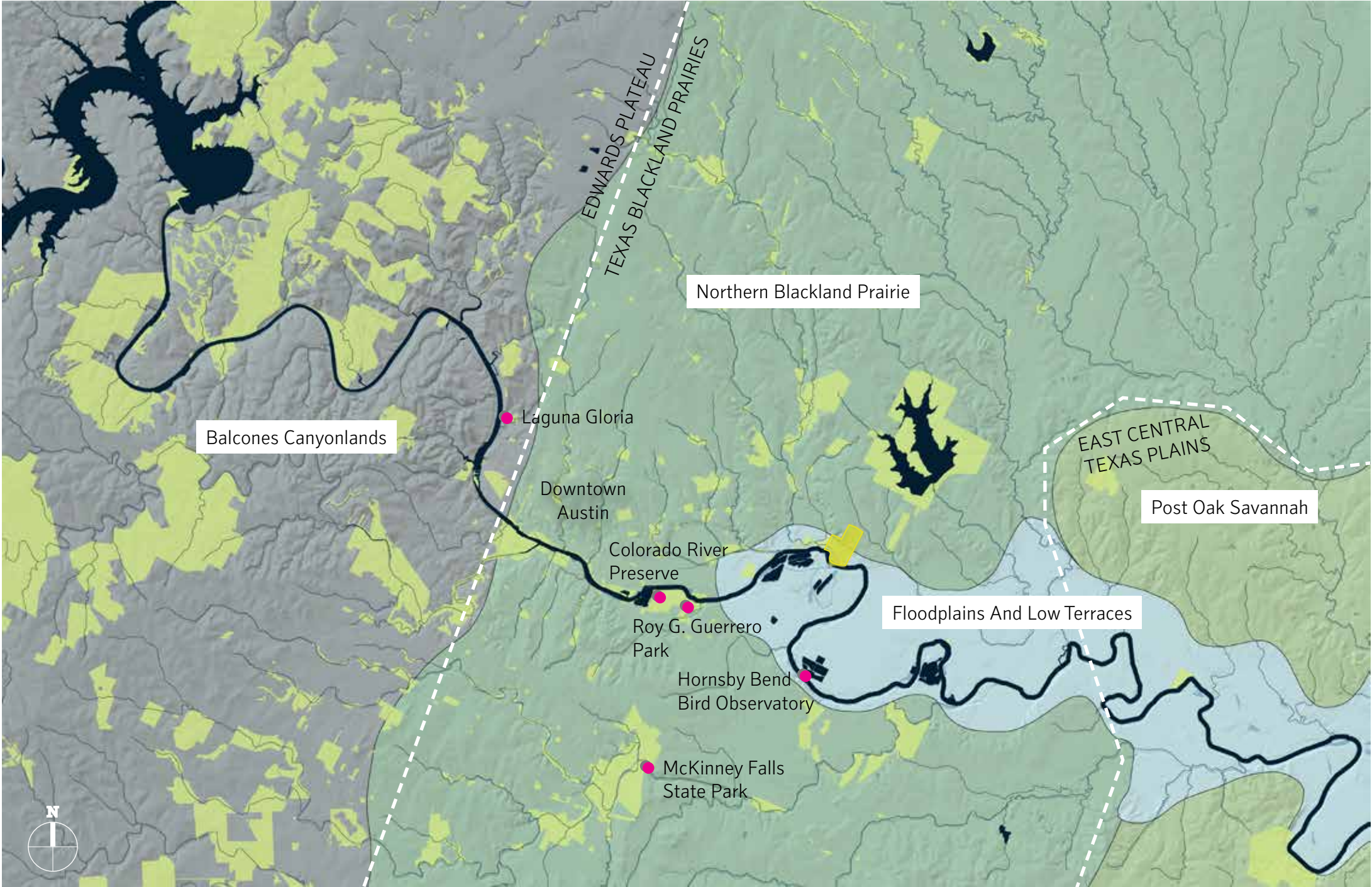


# Land

A view from the upper terrace area of John Treviño Metro Park. (Image credit: GGN)

# Ecological Communities

## Landscape Story



The site sits at the confluence of Blackland Prairie and Floodplain Terrace.

It is important to recognize the physical context of the site and its links to surrounding natural areas and the larger ecoregions. The study area lies within the Blackland Prairie, just east of the Edwards Plateau and Texas Hill Country. Treviño Park falls within the Level III Ecoregion Texas Blackland Prairies (32) and is further classified into the Level IV Ecoregion Floodplains and Low Terraces (32c). Given the location of the site, it is influenced floristically by both the Edwards Plateau to the west and the East Central Texas Plains to the east.

Unique to Austin and Travis County parks east of the city, Treviño has sizeable portions in both Blackland Prairie and in floodplain ecotypes. This provides opportunities for diverse recreational, educational, and experiential environments.

### Geographic Regions of Central Texas

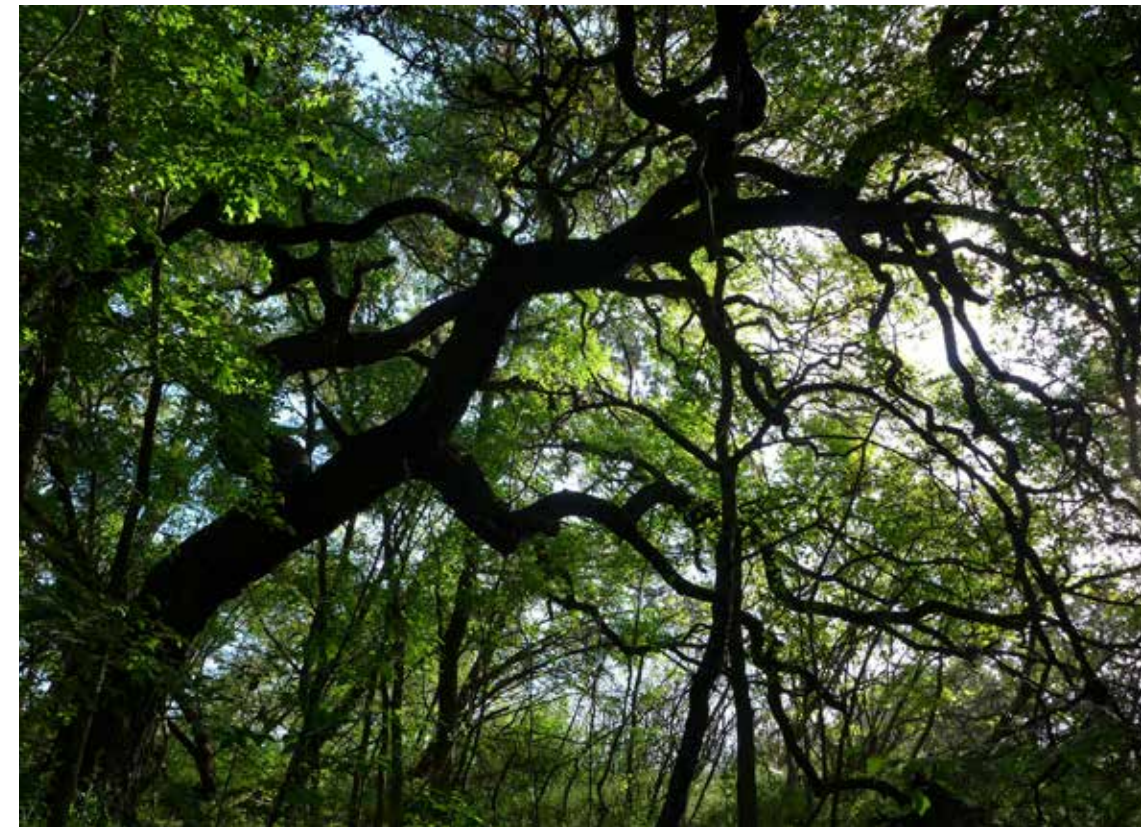
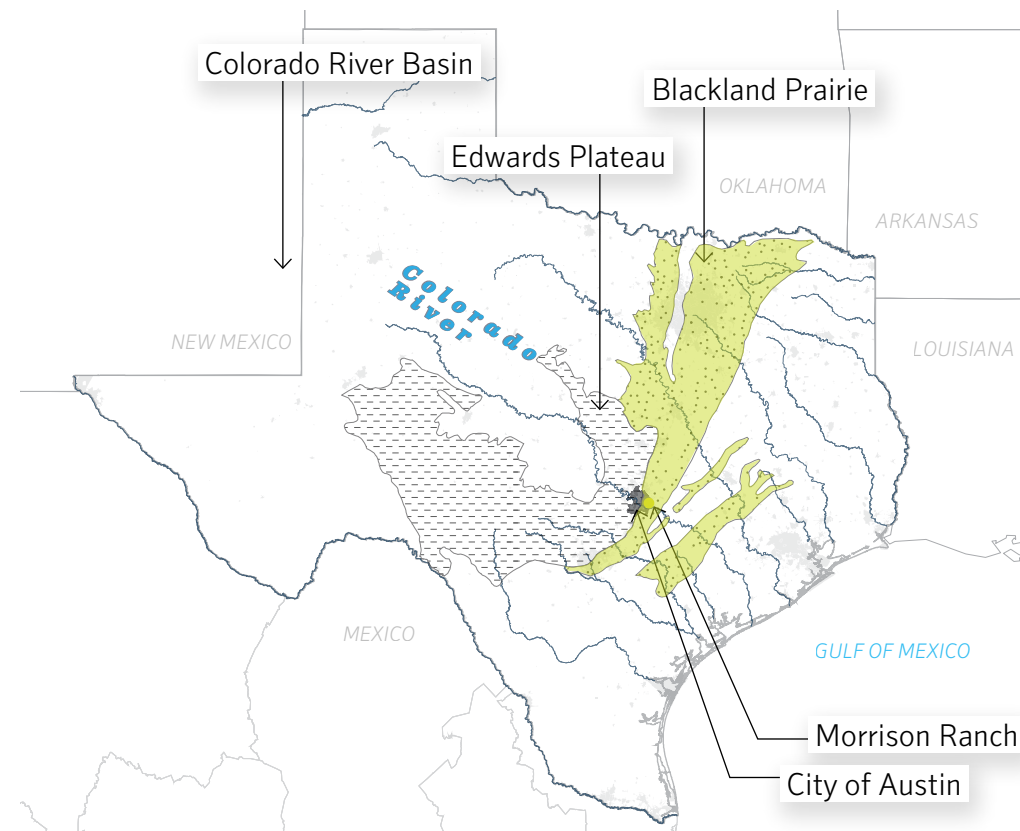
- Balcones Canyonlands
- Northern Blackland Prairie
- Floodplains and Low Terraces
- Post Oak Savannah
- Parks
- Birding locations
- John Treviño Jr. Metro Park



SCALE: 1" = 3 MILES Figure 1: The site in the context of the ecology of Texas (Source: City of Austin)

# Blackland Prairie

## Landscape Story



The Blackland Prairie is dominated by tallgrass on the uplands, with woodlands along the creeks and rivers.

The abundance of wildlife and beauty of the landscape compelled many early explorers to describe the grandeur and abundance of the Blackland Prairie. Their stories suggest there was an abundance of bison, black bear, panthers, and deer (Doughty 1983; Olmsted 1857).

Only remnants of what these settlers saw remain due to transformation of the native prairies into agricultural production (Diamond, True, and He 1997). The land transformation has been so great in the Blackland Prairie, much of which occurred by 1860, that there is limited information on rare species, remnant communities, and the overall historic condition of the environment (Diamond, True, and He 1997; Bezanson 2000).

Grasses commonly found in the prairie include: little bluestem, big bluestem, Indian grass, sideoats grama, and tall dropseed (Bryant 1986; Collins, Smeins, and Riskind 1975). These grassland areas are complemented by woodlands in the low-lying areas and along waterways that include: live oak, cedar, elm, cottonwood, pecan, green ash, box elder, and American elm. This ecological system was driven by grazing and fire events in the uplands that pushed back woody species and allowed the grasslands to thrive.

Due to agricultural production and more recent urbanization, less than 1% of the original vegetation of the Blackland Prairie remains today (Smeins and Diamond, 1983).

Live oak canopy in Treviño Park woodland creek areas (Image credit: GGN)

The site in the context of the ecology of Texas



Big Bluestem  
(Image credit: Jennifer Briggs)



Sideoats Grama  
(Image credit: Jacopo Werther)



Wildflower meadows in Treviño Park upland terrace (Image credit: GGN)

Scene on the Colorado River, Austin, Texas.

# River

# The Colorado River

## Landscape Story

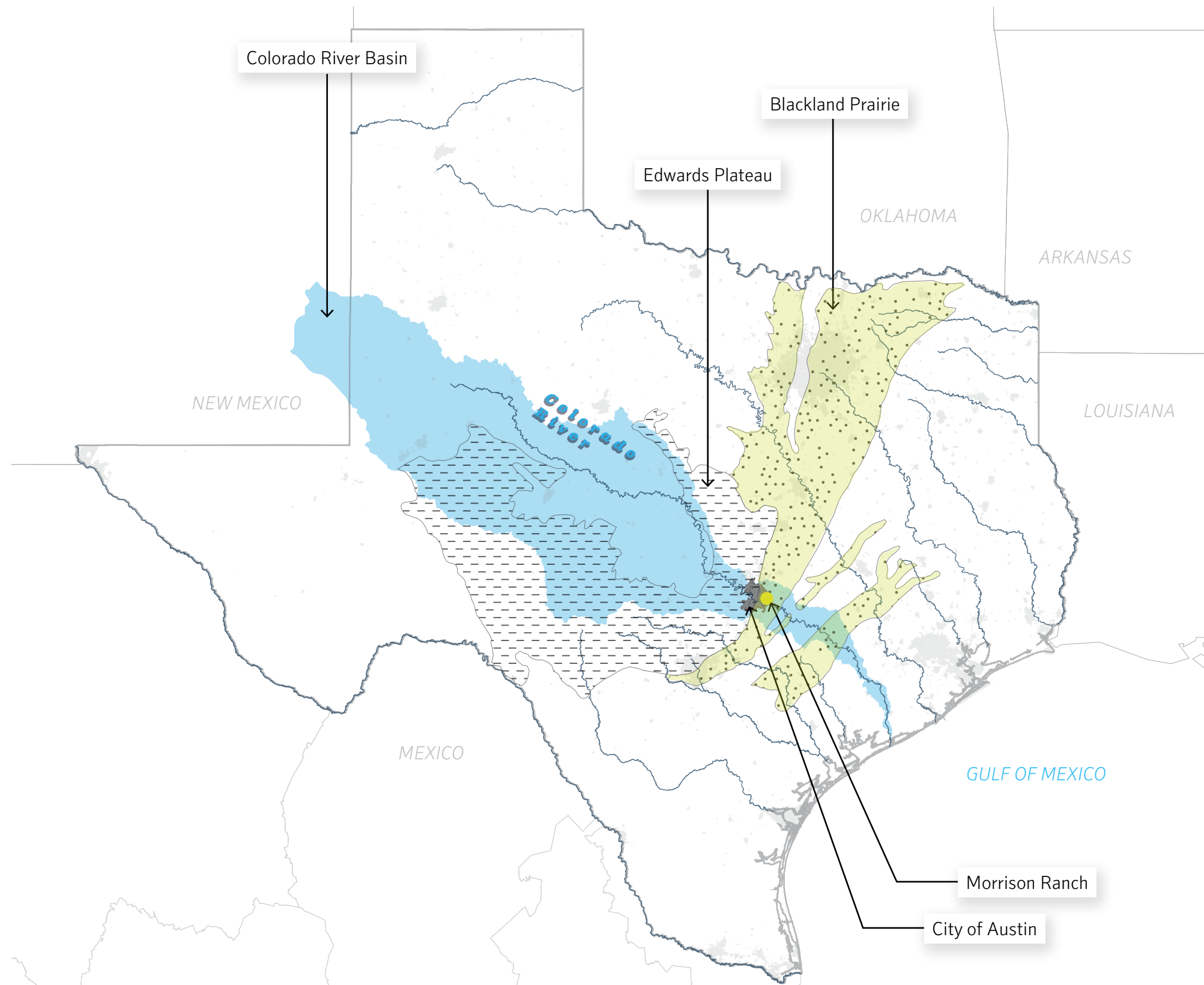


Figure 2: The site in the context of the ecology of Texas

Central Texas is defined by the way water passes through the landscape.

Within the Colorado River basin, water moves quickly off the Edwards Plateau, hits the Blackland Prairie, and erodes the softer soils that are characteristic to the area. This transition of soils, along with major rain events — some of the largest in the world — has resulted in a study area that is substantially defined by the floodplain.

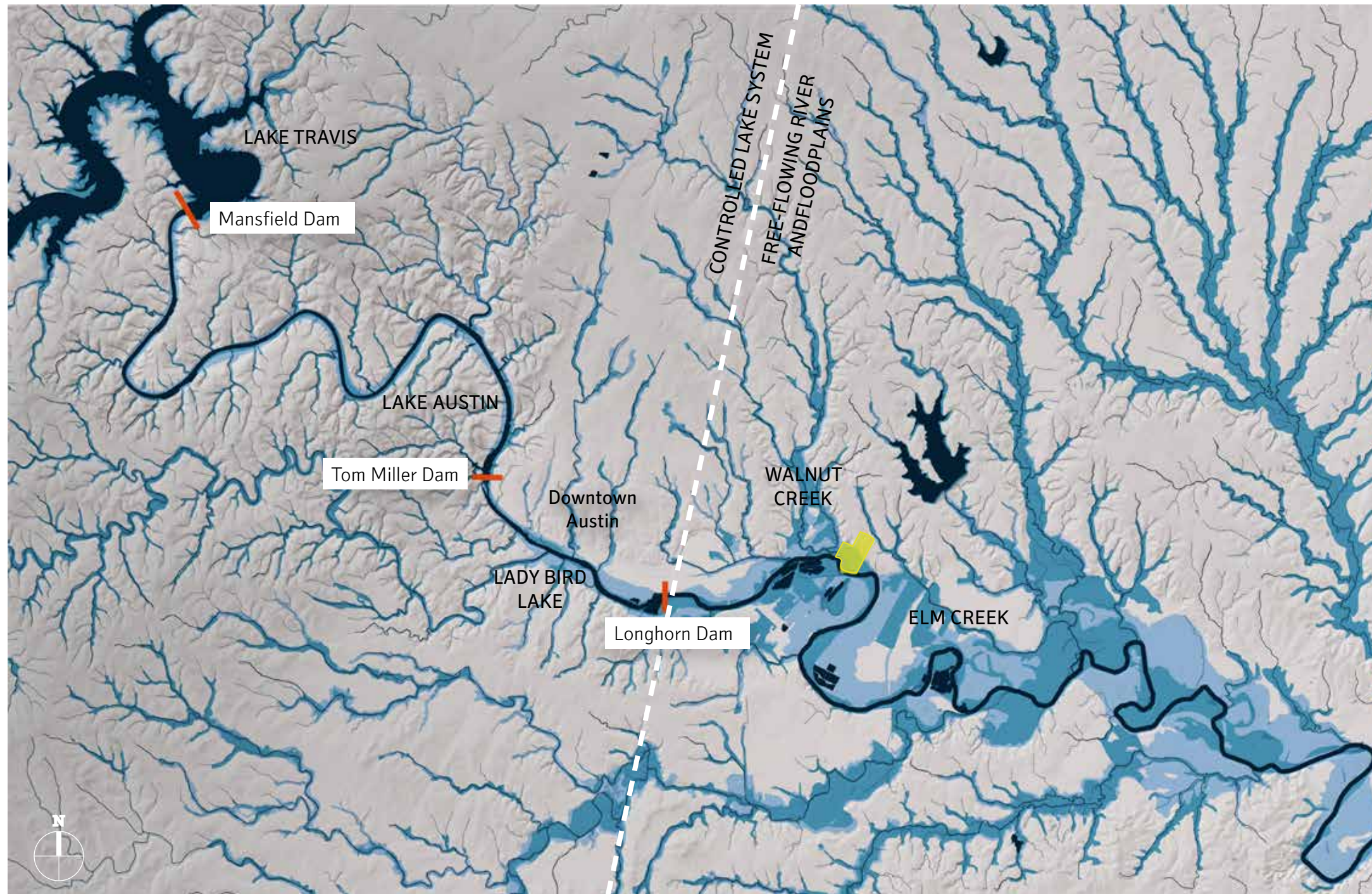
The Balcones Escarpment, a significant geological feature, provides a physical transition zone notable for diversity in terrain, soils, habitats, plants, and animals.

The site lies within the Colorado River Basin where water runs from eastern New Mexico to the Gulf Coast. The riparian areas at Treviño Park provide an important refuge for wildlife, creating connections along river corridors as well as numerous protected areas up and downstream. Wildlife comes to the site for the food, water, and shelter provided by the river and the surrounding natural areas. The river corridor is a flyway for migrating and resident bird populations, with popular birding sites both up and downstream of Treviño Park. The Audubon Society has listed parts of the Colorado corridor as nationally important, with over 344 bird species identified at Hornsby Bend (Anderson et al. 2006). The many natural areas in and around the city of Austin, whose primary function is to protect and enhance native flora and fauna, are part of the reason why the City of Austin was named the most wildlife-friendly city in the United States in 2015 by the National Wildlife Federation (Grant 2015).



# Two Sides of the River

## Landscape Story



Floods and dams in the Colorado River Basin shape the river.

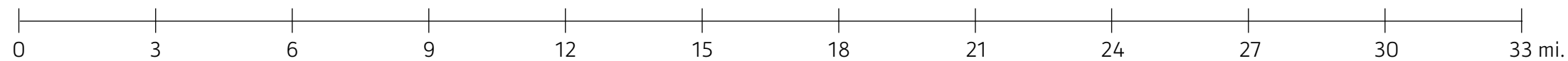
The Colorado River's course has changed considerably over time due to flashy rain events that are characteristic of the Central Texas climate. The force of those floodwaters on erodible soil could change the path of the river in just one event.

As is common in cities along major rivers, the steady flow of water that supports the life of the city can quickly transform into a force of destruction. As Austin grew, regular flooding had significant impacts, thwarting early attempts to build dams in an effort to bring industry to the city.

Floodwaters were dampened by the creation of the Highland Lakes in the 1940's and the completion of Town Lake (now Lady Bird Lake) in 1967. These upstream dams have dissipated the power of the Colorado River's flow, but it is still clear that the river is changing course.

### Legend

- Large waterbodies
- 100-year floodplain
- 500-year floodplain
- Dams
- John Treviño Jr. Metro Park



SCALE: 1" = 3 MILES

# The River is Not a Lake

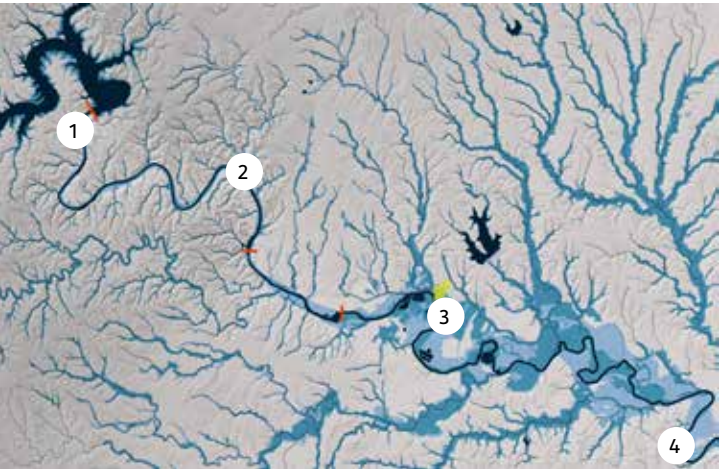
## Landscape Story



To the west, recreational lakes are created by the Highland dams beginning at Buchanan Dam. To the east, a “wild” and uncontrolled Colorado River system continues toward the Gulf of Mexico.



Key Map



Above: Lake Travis at Mansfield Dam; Below: Lake Austin

Above: Texas River School fishing pier access; Below: McKinney Roughs Nature Park

# Flood Control and River Flows

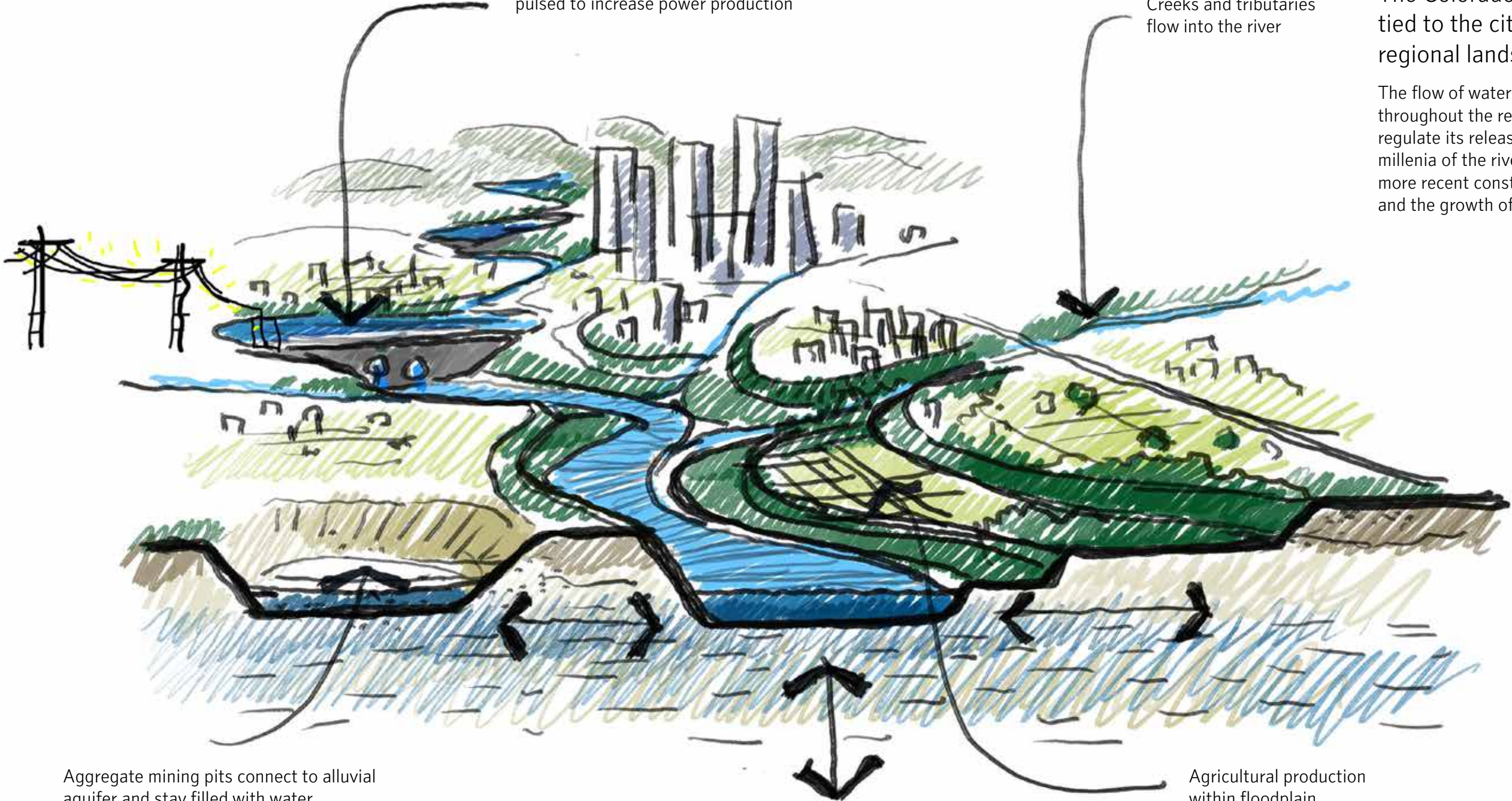
## Landscape Story

Dams collect water and control release to balance lake level and downstream water rights. Release is pulsed to increase power production

Creeks and tributaries flow into the river

The Colorado is an urban river closely tied to the city of Austin and the larger regional landscape.

The flow of water connects to a network of drainage throughout the region and the system of dams that regulate its release. The land itself has been shaped by millenia of the river's cycles and movement along with more recent constructions for industrial activity, farming, and the growth of the city.



Aggregate mining pits connect to alluvial aquifer and stay filled with water

Pulsing river regularly rises and falls, impacting both river level and flow rate

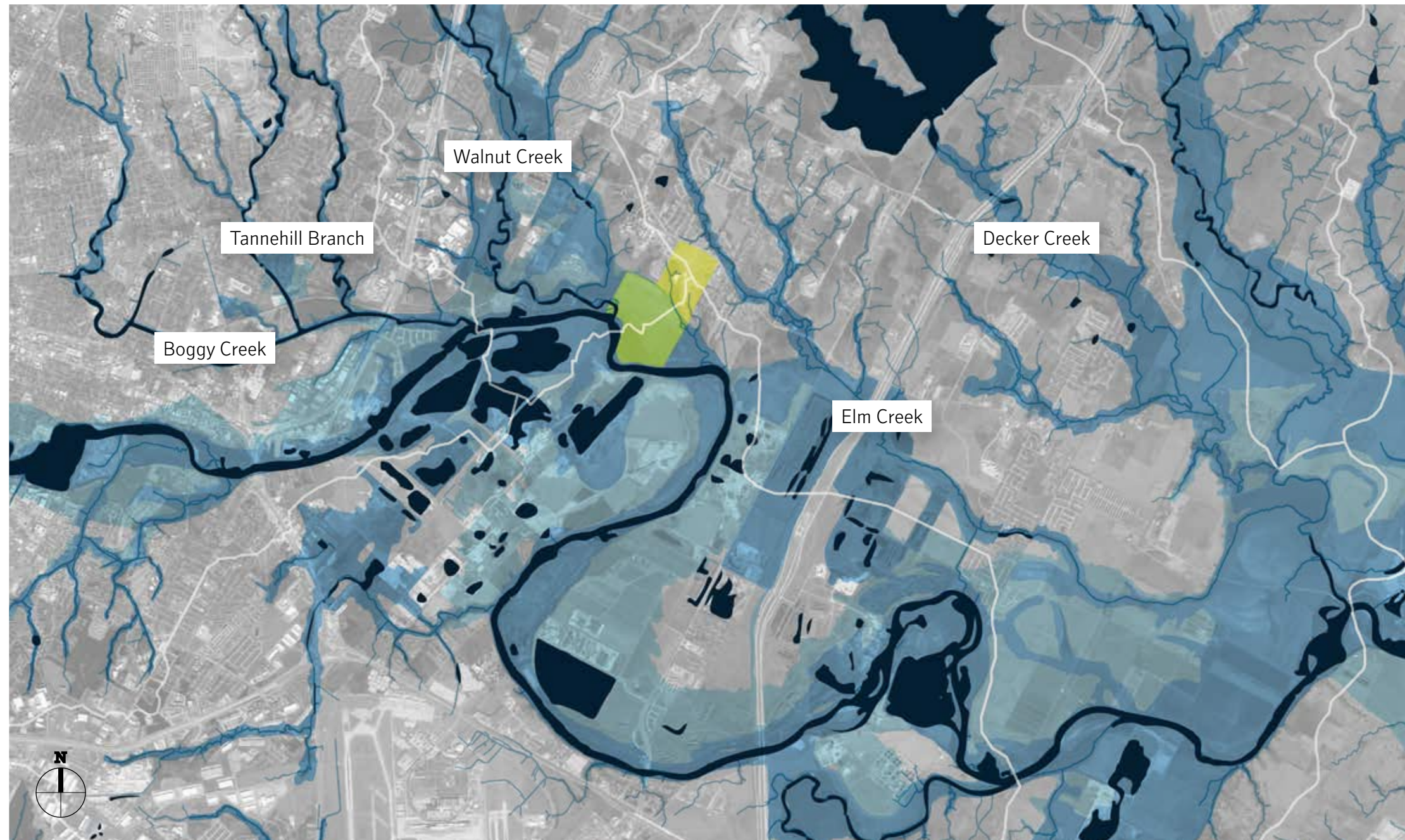
Agricultural production within floodplain

Upland soils

Alluvial soils + Alluvial aquifer

# Creek Systems in the Floodplain

## Landscape Story



The Colorado River is not a static channel.

In order to relate to the river, the park will need to engage the system of creeks and tributaries that feed the primary channel as well as the flood plains that attempt to classify its inevitable fluctuation. With climate change increasing the frequency and impacts of major storms, Austin is in the process of reevaluating floodplain designations. More than half of the park site sits within the current 100 year floodplain and the lowest portions of the park actively flood throughout the year.

### Legend

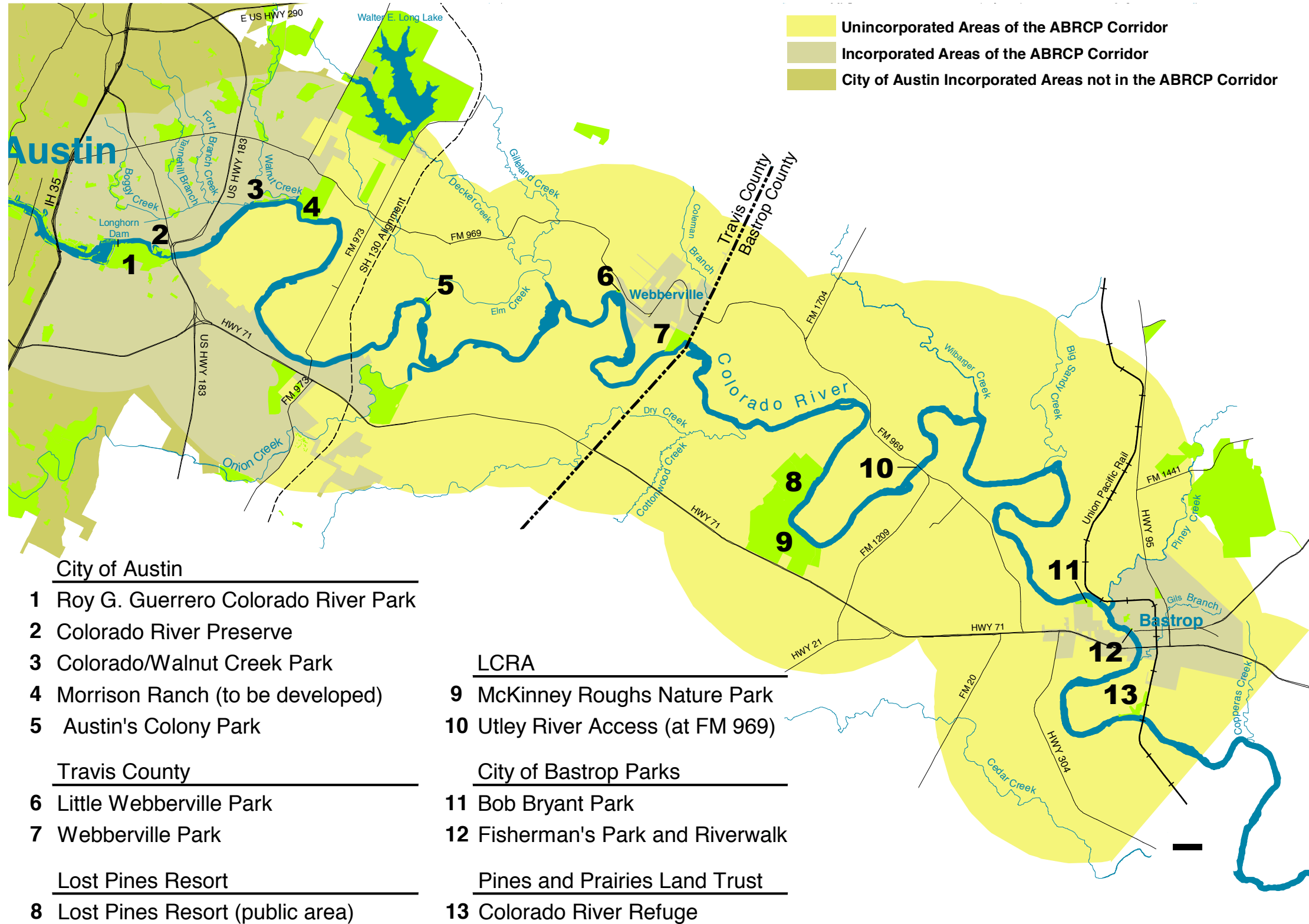
- Large waterbodies
- 100-year floodplain
- 500-year floodplain
- Watershed boundaries
- John Treviño Jr. Metro Park



SCALE: 1" = 1 MILE

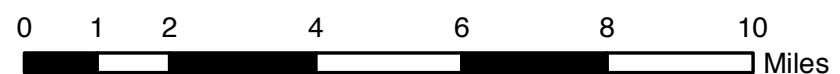
# Parks Along the Austin-Bastrop River Corridor


## Landscape Story



Treviño Park is one component of a larger chain of river parks that extend from Austin to Bastrop. The park will need to be considered as a part of this chain and in the context of continued development of the entire corridor.

Data Source: 2006 Vision for the Austin-Bastrop River Corridor



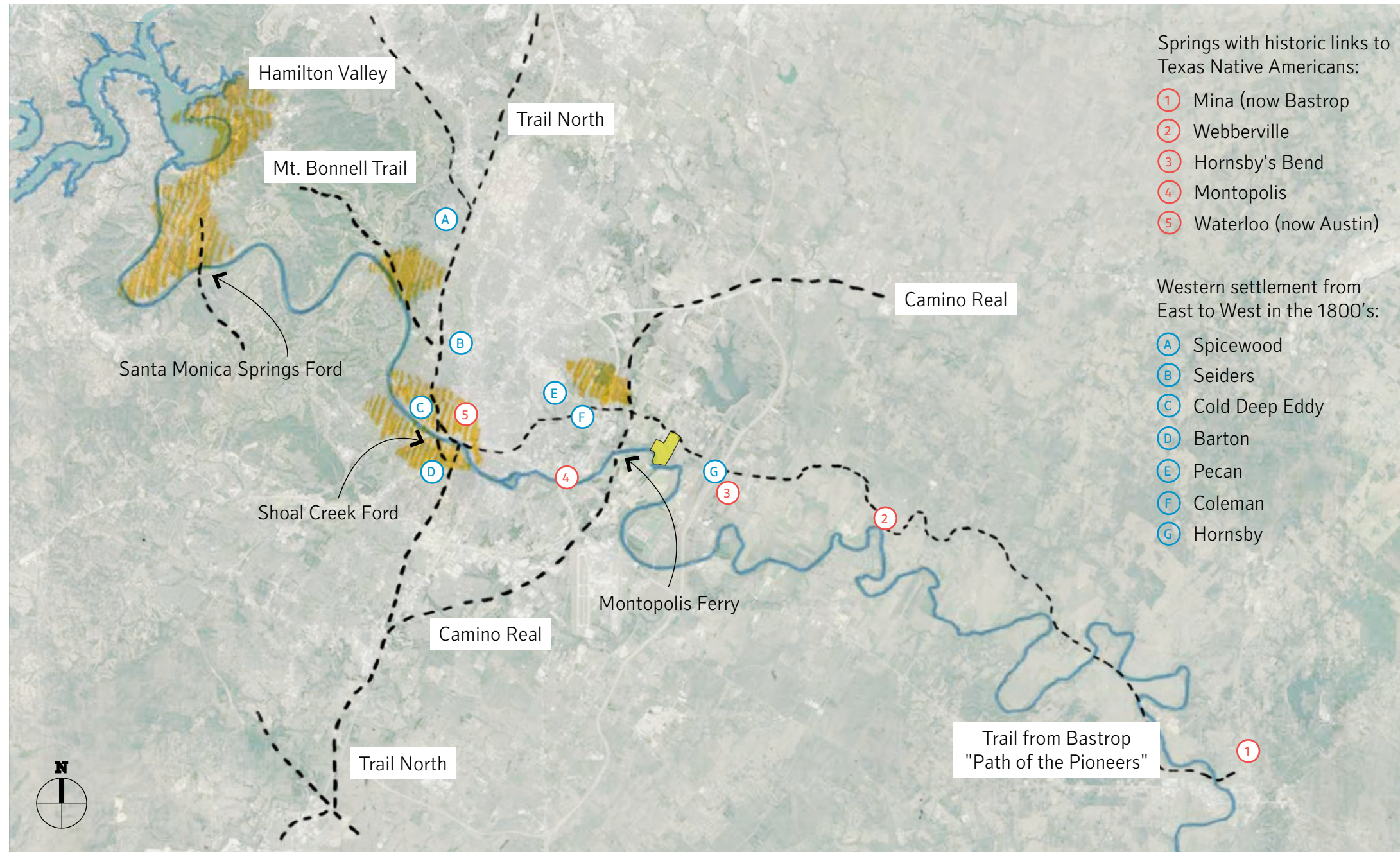


# Past

Early photo of Travis County grazing land, date unknown. (Image Credit: Austin History Center)

# Early Settlement Patterns

## Landscape Story



The Balcones fault zone and Colorado River are not only physical boundaries, but also cultural boundaries that have shaped the evolution of Austin over time.

Abundance of spring water from creeks and other drainage ways from the hill country supported lush riparian plant and animal communities, drawing people to settle along the Balcones fault zone.

Early inhabitants of the Austin area were nomadic hunter-gatherer tribes of Caddo, Tonkawa, Comanche, and Lipan Apache Indians who camped along creeks of the Colorado River. The Camino Real, also known as the Old San Antonio Road, may be more accurately described as a network of trails with branches off its main course. Early segments of these routes were previously links between American Indian settlements. Barton Springs was a gathering place for several American Indian tribes, as well as the location of three Spanish missions from 1730 to 1731.

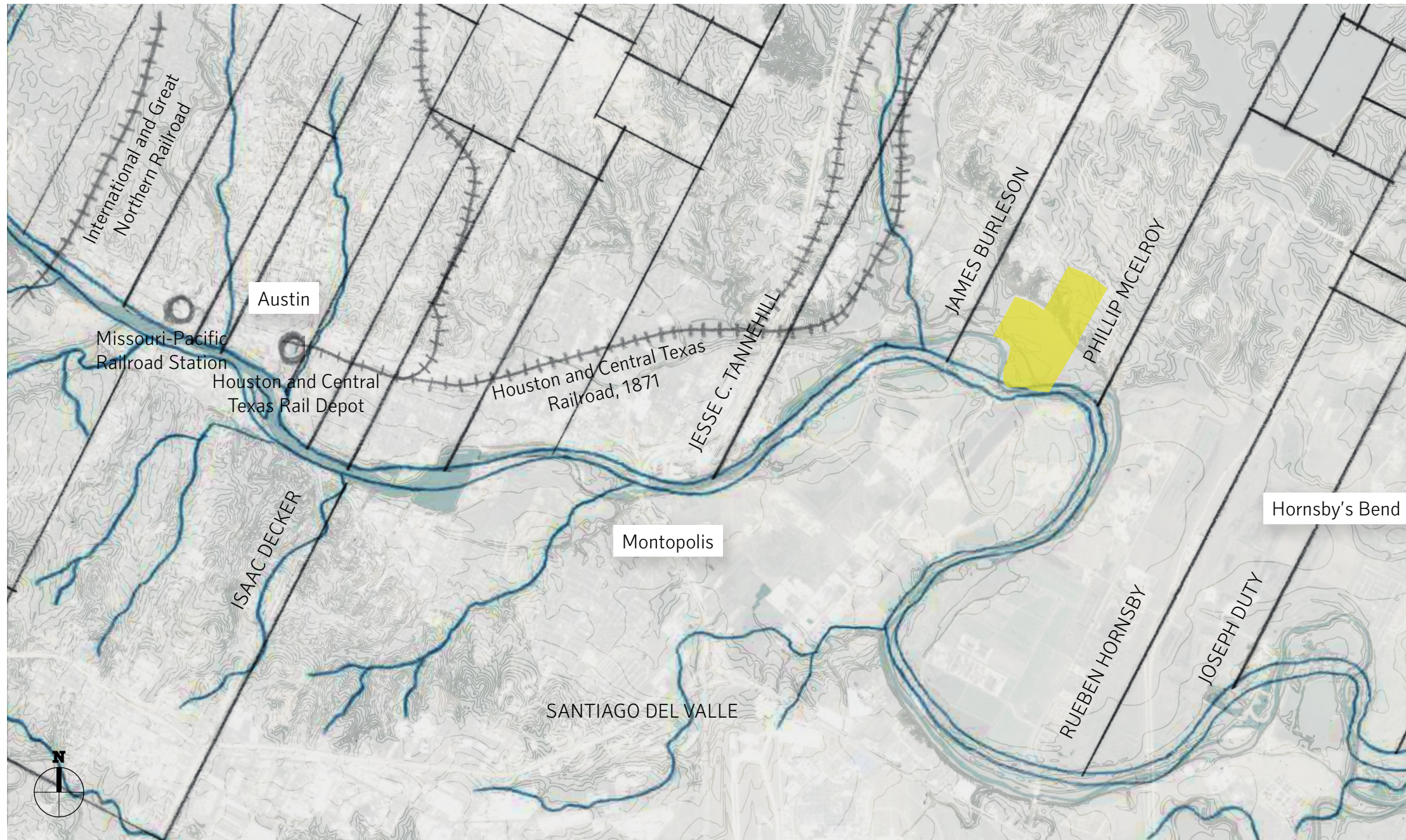
An early Spanish outpost in Mina (now Bastrop) became the anchor for the western transformation of the landscape. From this early outpost, Stephen F. Austin and others moved west establishing homesteads along the river in the 1820s. Of significance to Treviño Park is the plot settled by Reuben Hornsby in 1832 as the westernmost of these initial homesteads, a location that was considered the frontier of this era of development (Cutrer 2010). In 1839 Jesse Tannehill laid out plans for a town christened Montopolis near the river crossing west of Hornsby's. Further west, a hunting camp named Waterloo (now Austin) was designated the site of Texas' new capital.

Legend:  Early American Indian settlements    - - - Historical trails

(Data sources: City of Austin, Trails and Tales of Old Austin and Travis County)

# Rural Agriculture

## Landscape Story



1932 Colorado River form and land claim boundaries (Data source: Texas General Land Office)

### Agricultural subdivisions and lasting development patterns

The alluvial soils of the Blackland Prairie are incredibly fertile. For this reason, land in this region has been used for agriculture for long periods of time, resulting in the reduction of the original riparian forest to slivers of what it once was. Primary land uses in the area have historically been agriculture, with significant gravel extraction along the river's edges.

Western settlers received land for grazing and farming. These designations were generally linear parcels that extended out from the river. With the dominance of cotton as a crop in the early 1800s, soils were incrementally depleted until the 1870s to 1880s when farming communities made up the bulk of land use. A growing population of Mexican Americans living in the area surrounding Hornsby Bend worked as sharecroppers or ranch hands. More Mexican Americans lived in the Hornsby Bend area than lived in Austin during the later 1800s and 1900s.

Austin remained fairly isolated until the arrival of the Houston and Central Texas Railroad in 1871. Railroads significantly changed transportation routes and the development of towns and commerce. Austin became a major rail terminus, attracting farmers who could ship crops from Austin to eastern markets.

Agricultural practices typically ranged from pastoral to a combination of pastoral, crop, and garden farming. By the mid-1900s, much of this land came to be used for grazing.



Morrison Ranch

Montopolis Bridge over the Colorado, 1959. (Image Credit: Austin History Center)



John Treviño Jr. Metro Park

# Future

Aerial of the Colorado River north of Austin-Bergstrom International Airport, view toward Southeast (Image Credit: Joe Mabel)

# Where Are We Going?

## Landscape Story



First kick-of community meeting for the John Treviño Jr. Metro Park Master Plan on site (Image Credit: GGN)

John Treviño Jr.'s life and legacy mark an important era for Austin. A leader who broke barriers and fought for equity for all residents, Treviño's legacy must be integral to the future park.

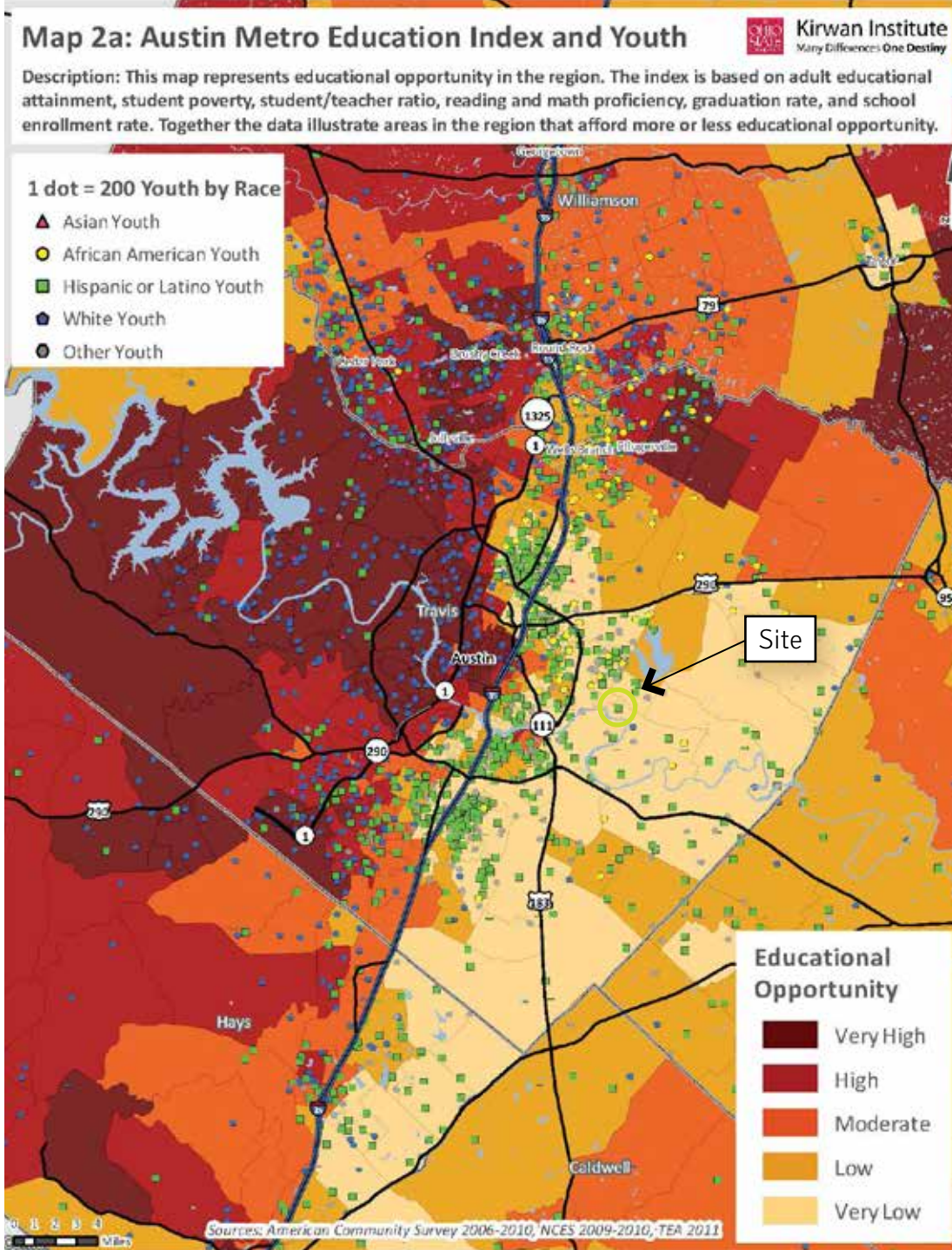
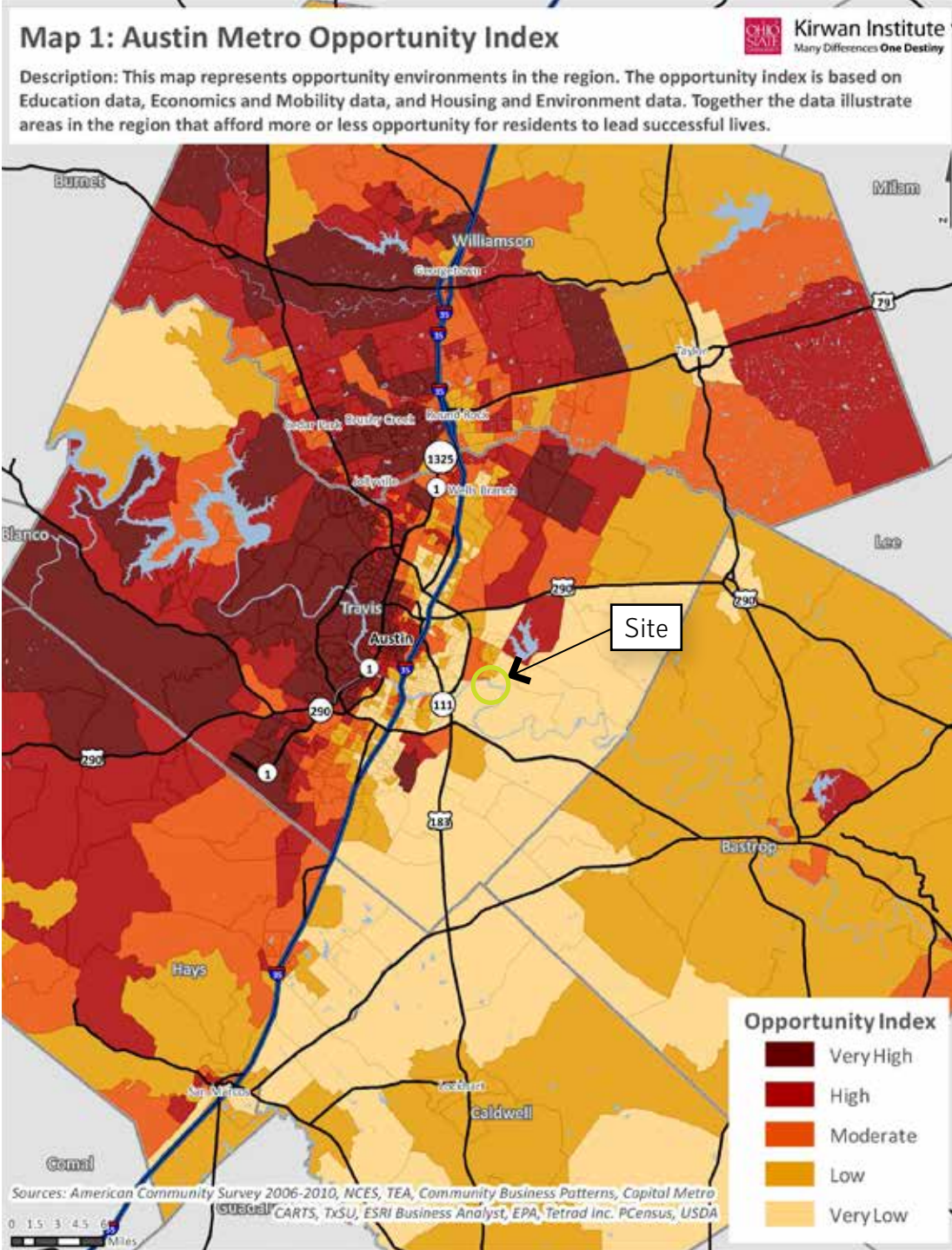
John Treviño Jr. dedicated his life to creating a healthier and more equitable city, particularly for those who have historically been denied equal rights and access to resources.

While racial segregation was banned by the Supreme Court in 1927, private property rights and zoning laws implemented through Austin's City Plan of 1928 resulted in segregation by dividing Austin into urban-industrial and residential-natural sections. In the 1930s, racially restrictive covenants on neighborhoods formalized these boundaries by restricting the areas where Hispanic and African American residents could buy or rent to primarily the east and south side. The later construction of I-35 over East Avenue in 1962 further reinforced this growing divide (Busch 2017). It is important to acknowledge the impacts of these histories, and to move forward with values that support equitable access to resources city-wide.

The City Plan of 1928 plan also aimed to enhance provision of public services and quality of life with improved access to parks. Carrying forward this idea of what a city planning process can provide for all of its citizens, the future development of John Treviño Metropolitan Park is an important opportunity to honor all that Treviño did for Austin and also highlight a new step forward for the future of the city and larger region.

# Opportunity and Education

## Landscape Story




Austin’s East-West divide is not only physical, but is also reflected in opportunity across several social indicators.

Opportunity is defined in the 2013 Geography of Opportunity in Austin and How It Is Changing report as “a situation or condition that places individuals in a position to be more likely to succeed or excel.” This includes factors such as education, social status, access to transportation, economic mobility, and housing. As of 2010, areas west of IH 35 are predominantly higher opportunity areas. Since 2000, there have been some areas of improvement toward the east between I-35 and 183.

Opportunity and education index maps of the City of Austin show a correlation between racial segregation and opportunity lines. The bulk of White and Asian populations live in high opportunity areas to the west, while the majority of Hispanic and African American populations live in lower opportunity areas. These low opportunity areas are also home to a large percentage of the youth population.

- Opportunities:
- Treviño Park represents an opportunity to provide an important amenity for an area that is currently underserved.
  - Education opportunities at the park could be a strong contribution to youth in the neighborhood.

 John Treviño Jr. Metro Park

Data Source: The Geography of Opportunity in Austin and How It Is Changing

# Demographics

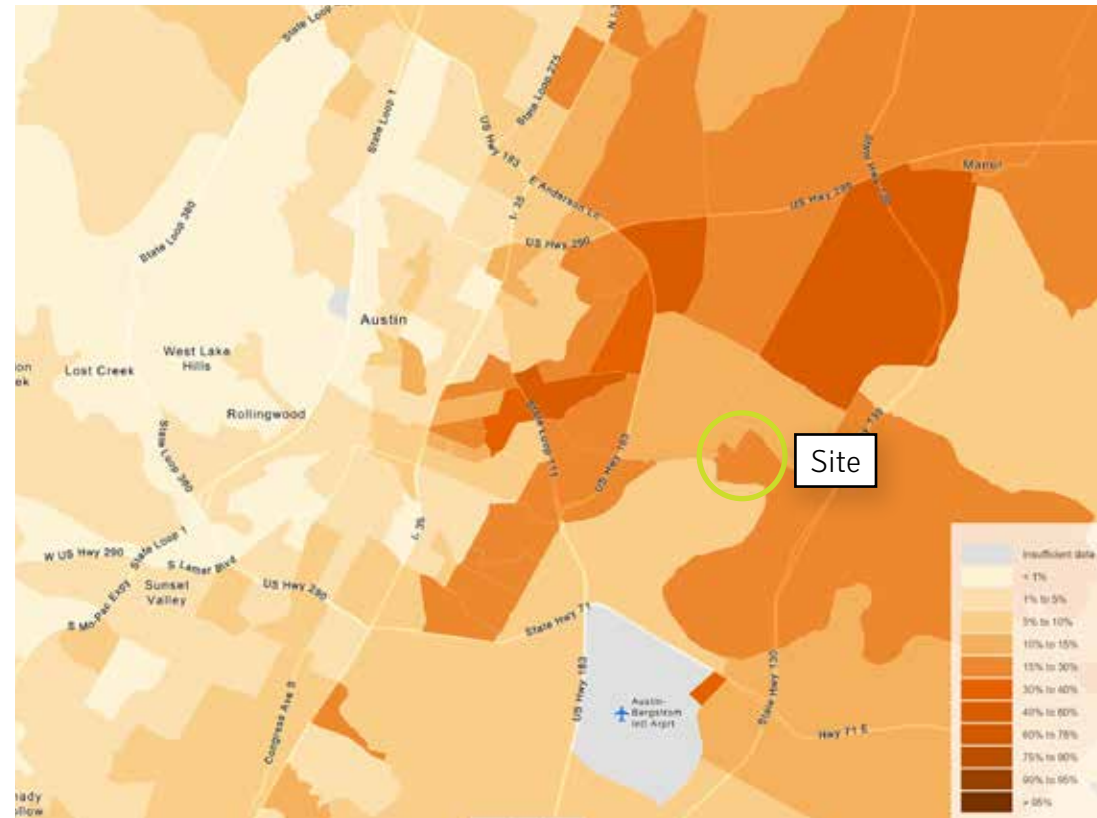
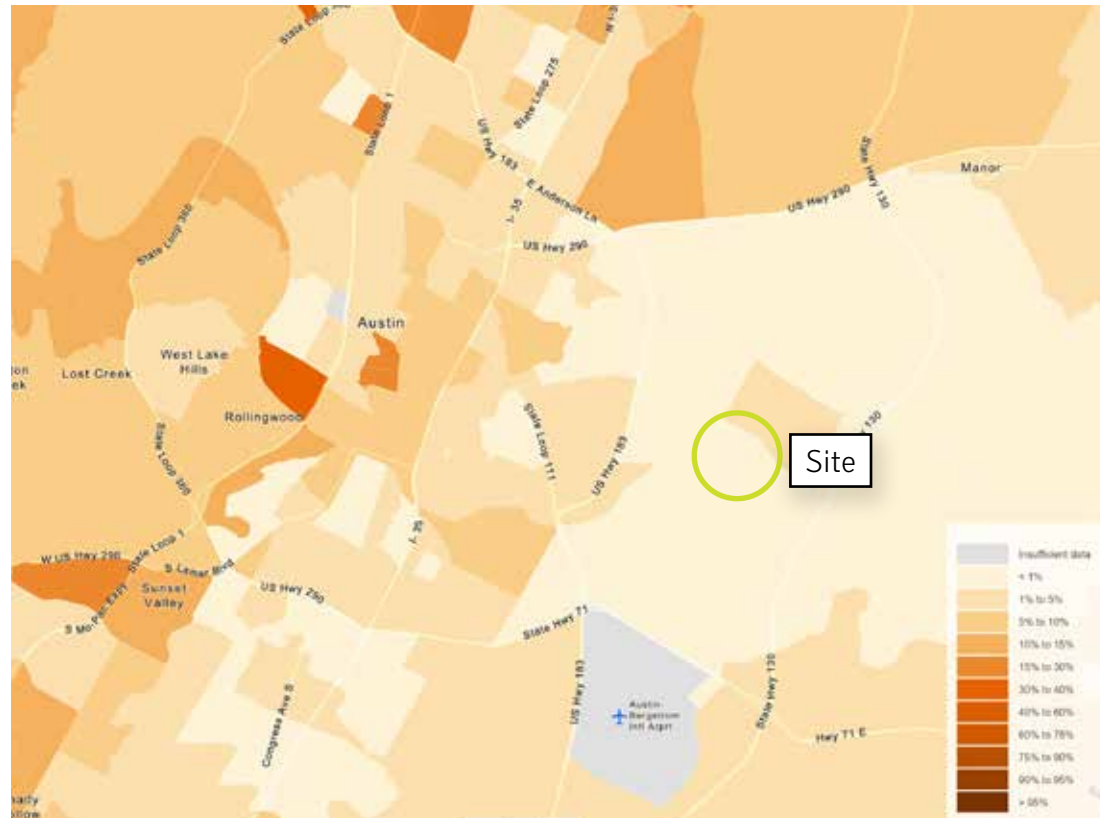
## Landscape Story

### Demographic character of East Austin

The city's Hispanic and Latino population primarily resides on the east side, where the neighborhoods of Bluff Springs, Del Valle, Franklin Park, McKinney, Montopolis, North lama, Southeast, and South John, had at least 70 percent of residents identify as Hispanic in 2015 (City of Austin).

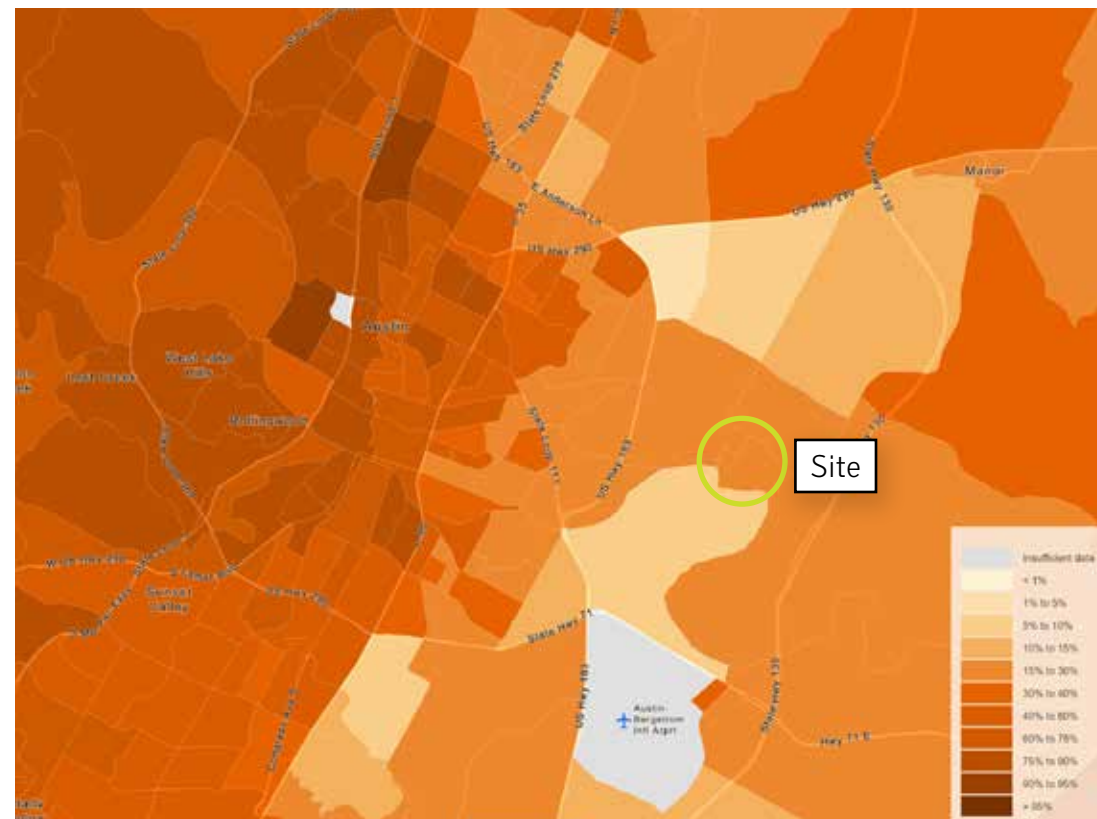
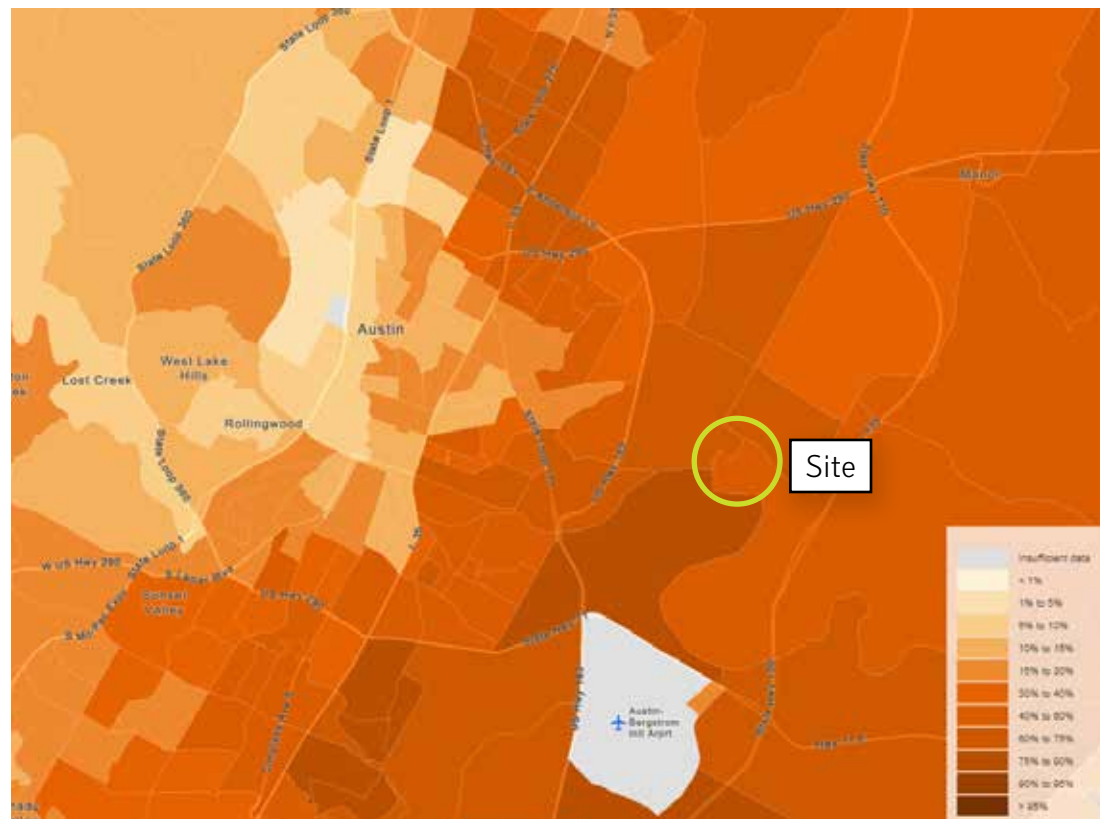
#### Opportunities:

- Create a space with a strong identity as a response to its neighborhood context




Total Population: Asian

Total Population: Black or African American



Total Population: Hispanic or Latino

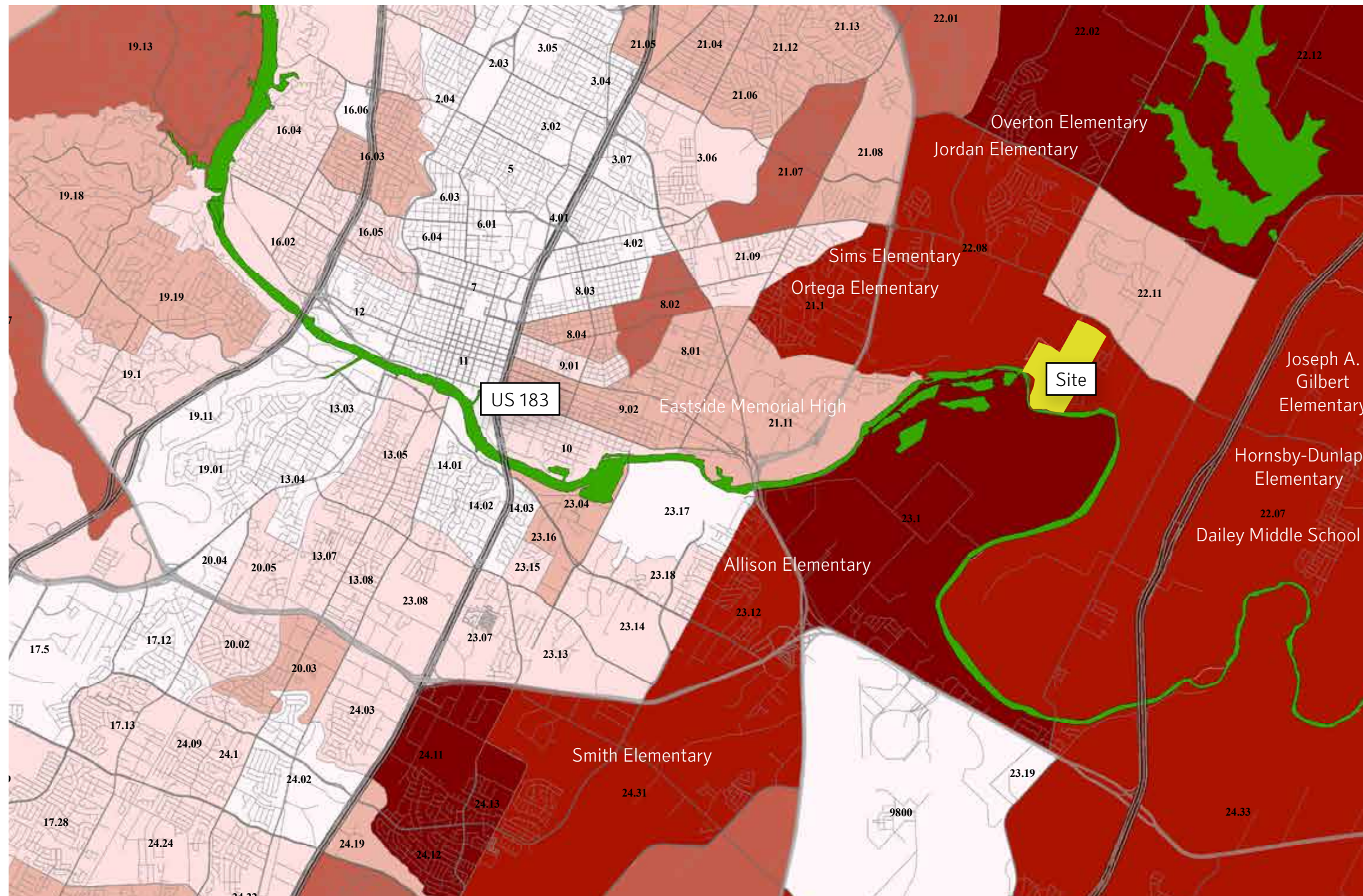
Total Population: White

 John Treviño Jr. Metro Park

Data Source: American Community Survey 2017 (5-year estimates) via Social Explorer

# Families

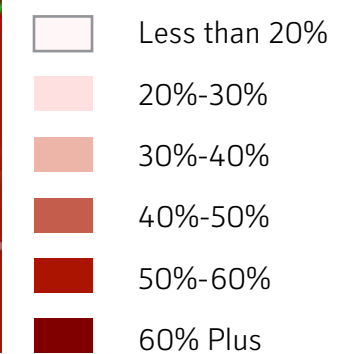
## Landscape Story



East of US 183, more than 30-40% of households have children. In the Treviño Park site area, 50-60% of households have children. Treviño Park is also situated between three school districts: Austin, Manor, and Del Valle Independent School Districts.

- Opportunities:
- Create a family-friendly park
  - Develop partnerships with neighboring schools and youth programs

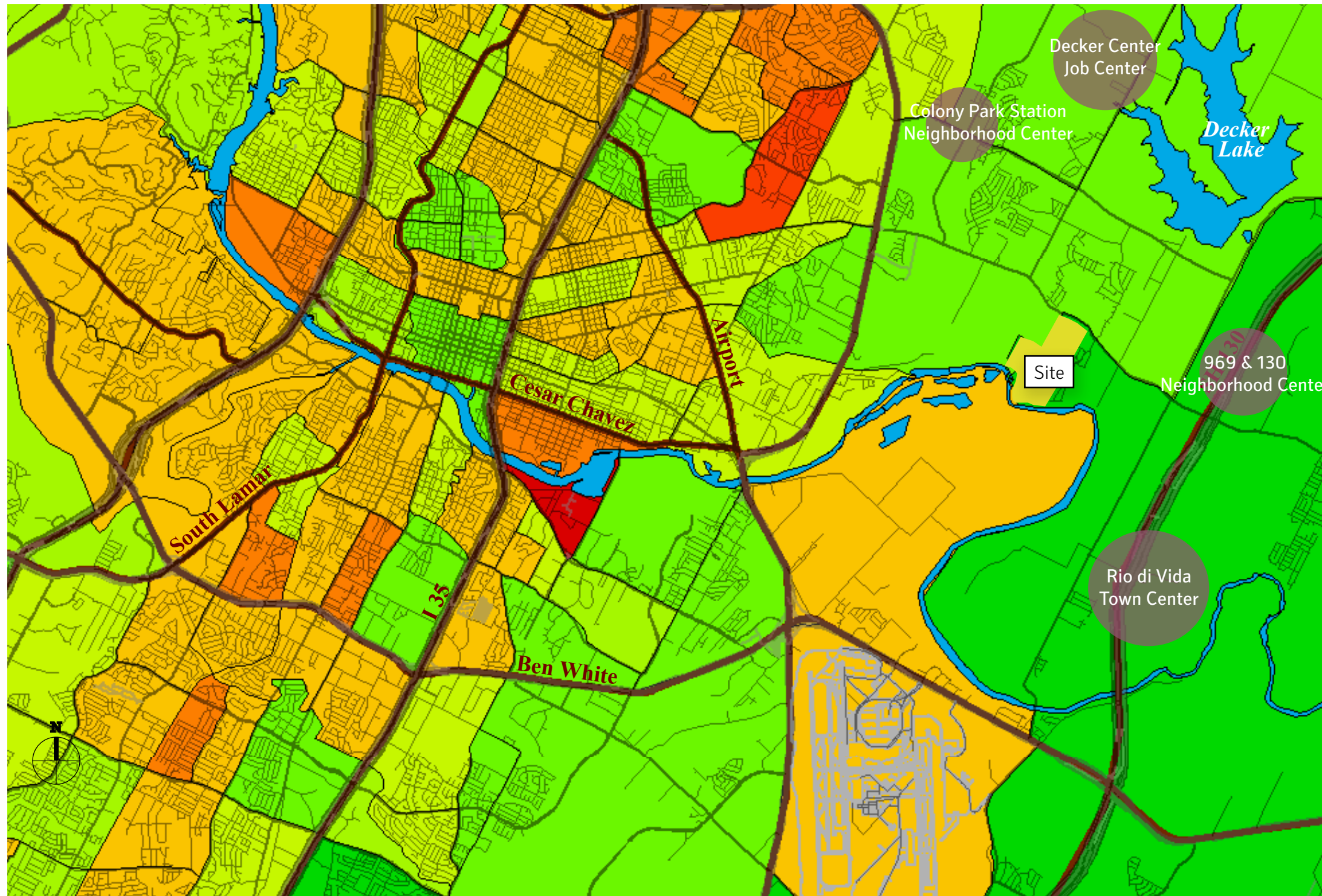
Percentage of Total Households from Households with Children



Households with Children concentrations (Data source: American Community Survey, 2007-11, 5-year composite estimates, Table B11005, census tracts. US Census Bureau)

# Population Growth

## Landscape Story



The census tracts north of the Colorado River between 183 and SH 130 are among the fastest-growing areas in Austin.

With considerable development already occurring in Central Austin, West Austin, and Williamson County to the North, the area between Austin and Bastrop is a natural choice to accommodate the area's rapidly increasing population. The Imagine Austin Comprehensive Plan has identified future activity centers and corridors that will "allow people to reside, work, shop, access services, people watch, recreate, and hang out without traveling far distances" (2012).

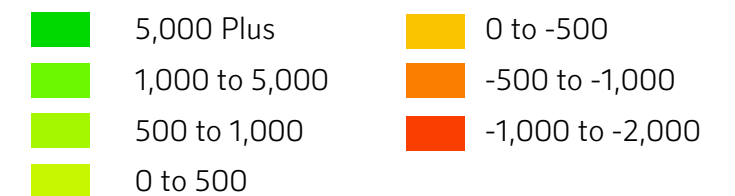
### Opportunities:

- Many new people will be moving to the area
- Park proximity to Imagine Austin centers

### Challenges:

- Loss of rural agricultural heritage in East Austin
- Development leading to fragmentation and degradation of Blackland Prairie habitat

Change in a Census Tract's Total Population from 2000 to 2010 at the 2000 tract-level



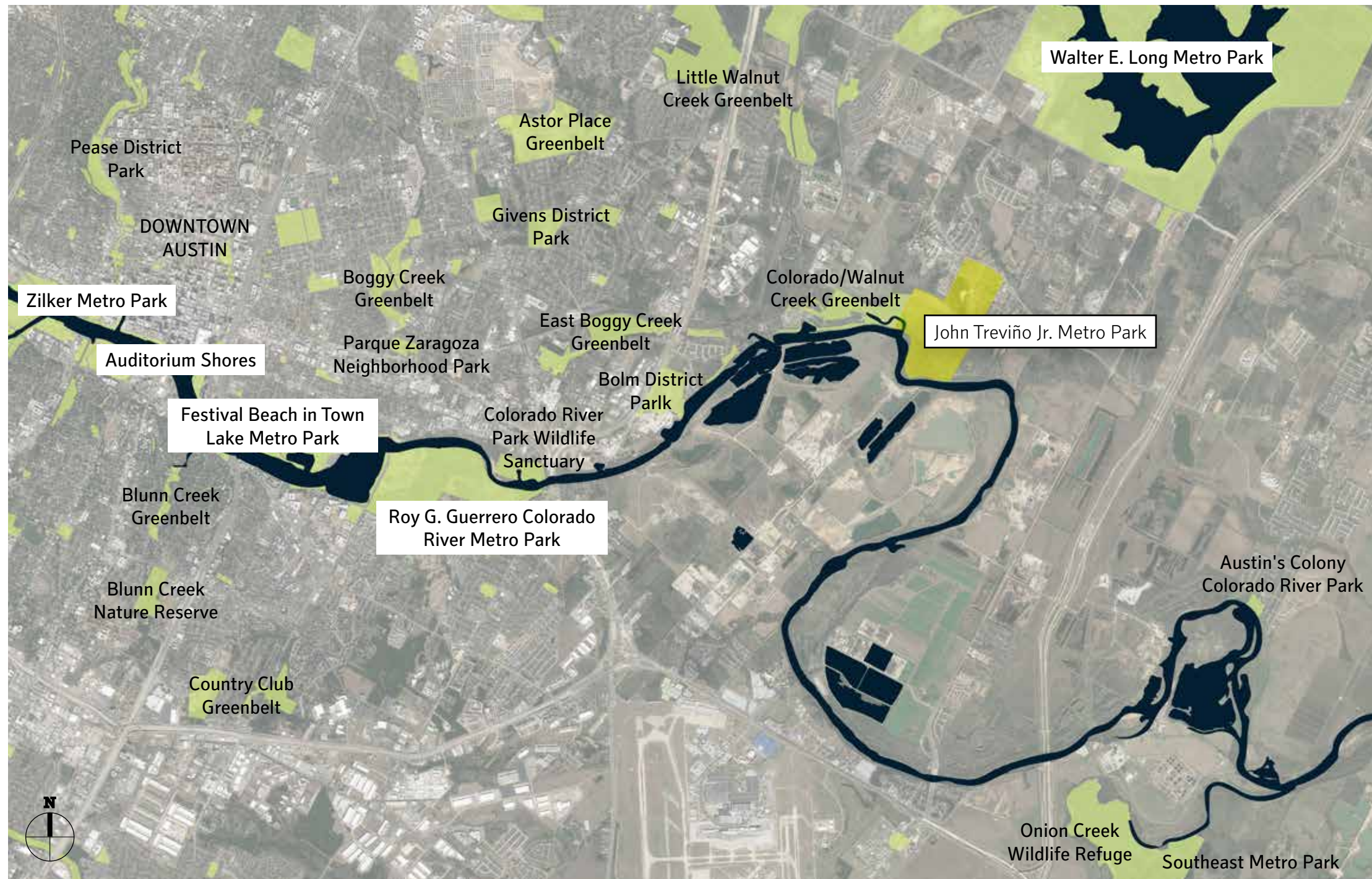
### Legend

■ Overlay of Imagine Austin Centers near site

Data Source: City of Austin Department of Planning and Zoning and 2012 Imagine Austin Plan

# Parks

## Landscape Story

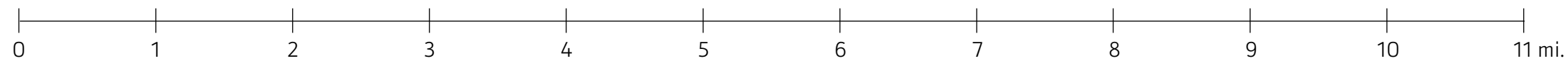


John Treviño Jr. Metro Park has multiple affiliations. As a Metropolitan Park its audience is city-wide and it is expected to have a diversity of recreational opportunities as well as natural resource values. PARD's Long Range Plan highlights the priority for Metropolitan Parks to "respond to demographic and cultural characteristics of neighborhoods" (2011). As a large park in a part of the city that historically has lacked public resources, it is an especially critical land resource for current and future residents of the surrounding neighborhoods. With a site that connects to the Colorado River, it is also a key component of the chain of river parks and connections. The future park will need to leverage each of these roles to maximize its impact.

The park falls within the PARD Planning Area 23. A 2010 inventory of the area shows that there are 2 volleyball courts, 2.97 trail miles, two playgrounds, along with a variety of picnic tables, picnic shelters, and BBQ pits. (PARD Long Range Plan, 2011).

### Opportunities:

- Leverage the overlapping roles of this park to connect residents to this unique place in the city
- Understand the Park as a part of a larger park network to ensure complimentary resources and opportunities

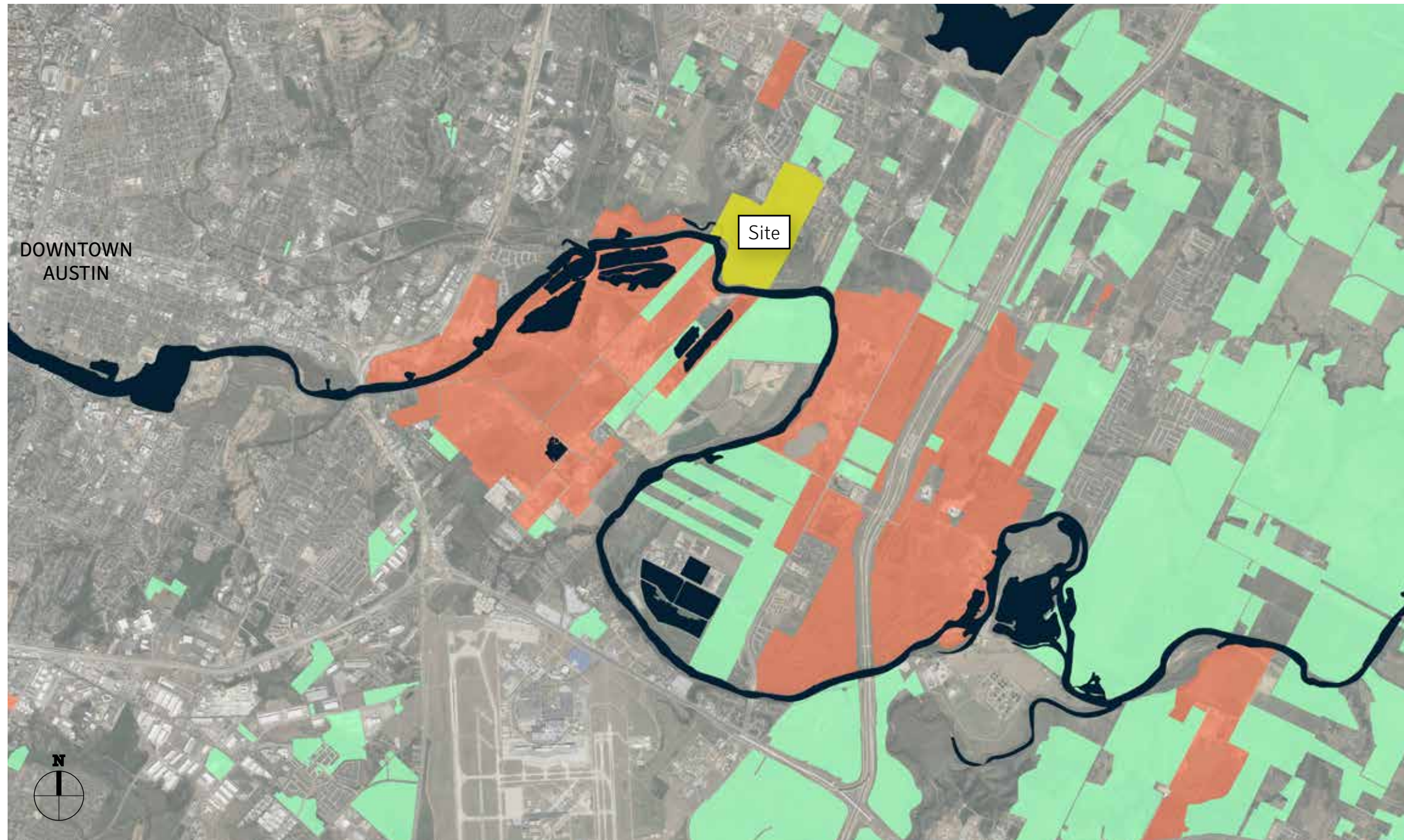


SCALE: 1" = 1 MILE



# Existing Land Use

## Landscape Story



Concentration of mining and agriculture east of 183

While land uses are varied and dense in the center of Austin, parcels become larger and more focused on industrial use towards the east. Beyond US 183 in the site area, land use is primarily concentrated in agricultural use while resource extraction (mining) dominates the Colorado River corridor.

**Opportunities:**

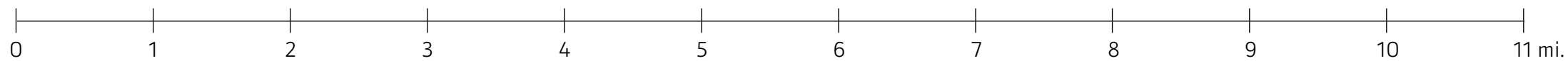
- Land becoming available for new uses as resource extraction comes to a close
- Leverage 183 pedestrian and bike improvements to increase connectivity along Colorado River

**Challenges**

- Connectivity across 183 expansion

**Legend**

- Agriculture
- Resource extraction

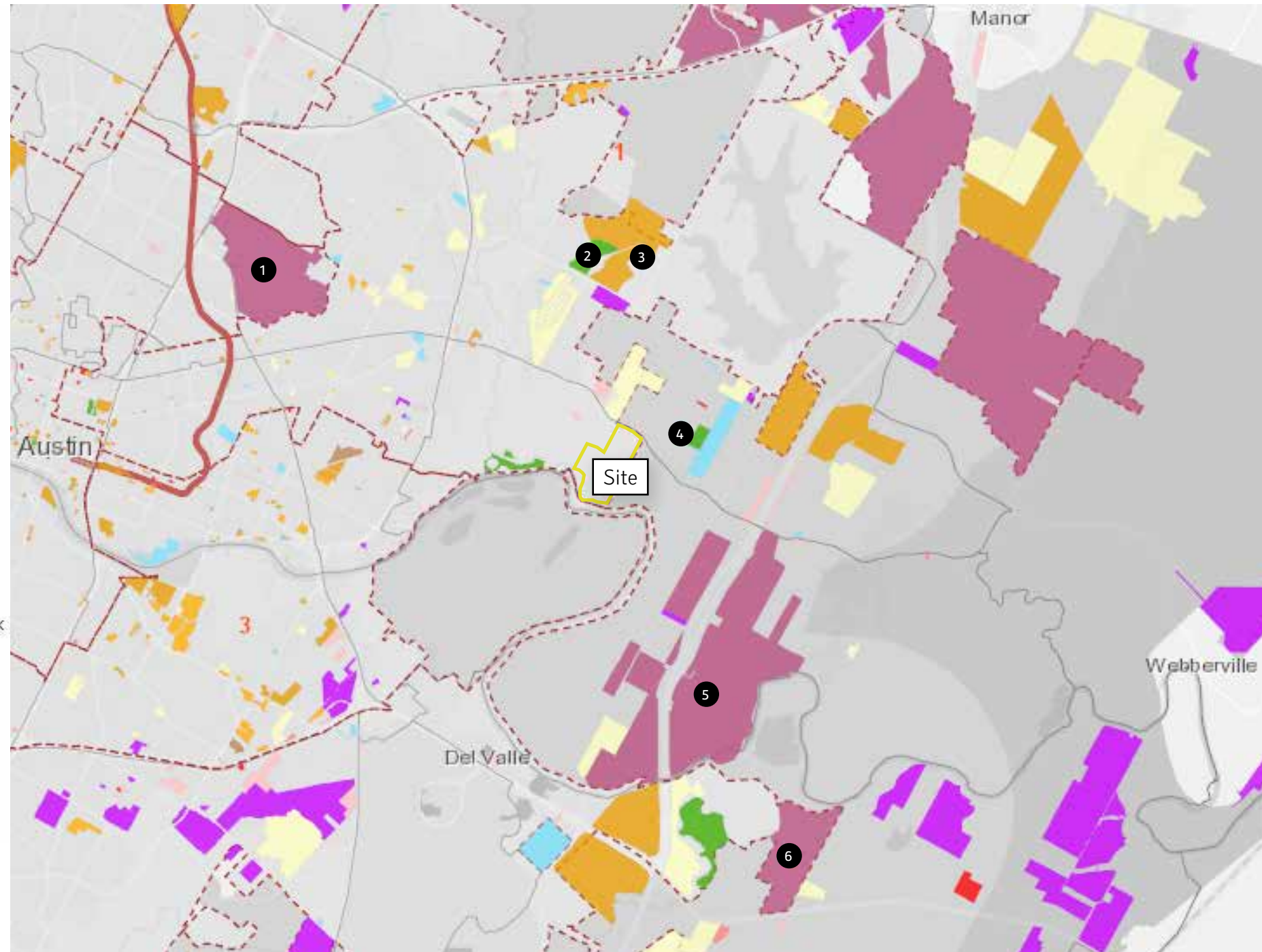


SCALE: 1" = 1 MILE Data Source: City of Austin

# Emerging Projects

## Landscape Story

### Emerging Projects



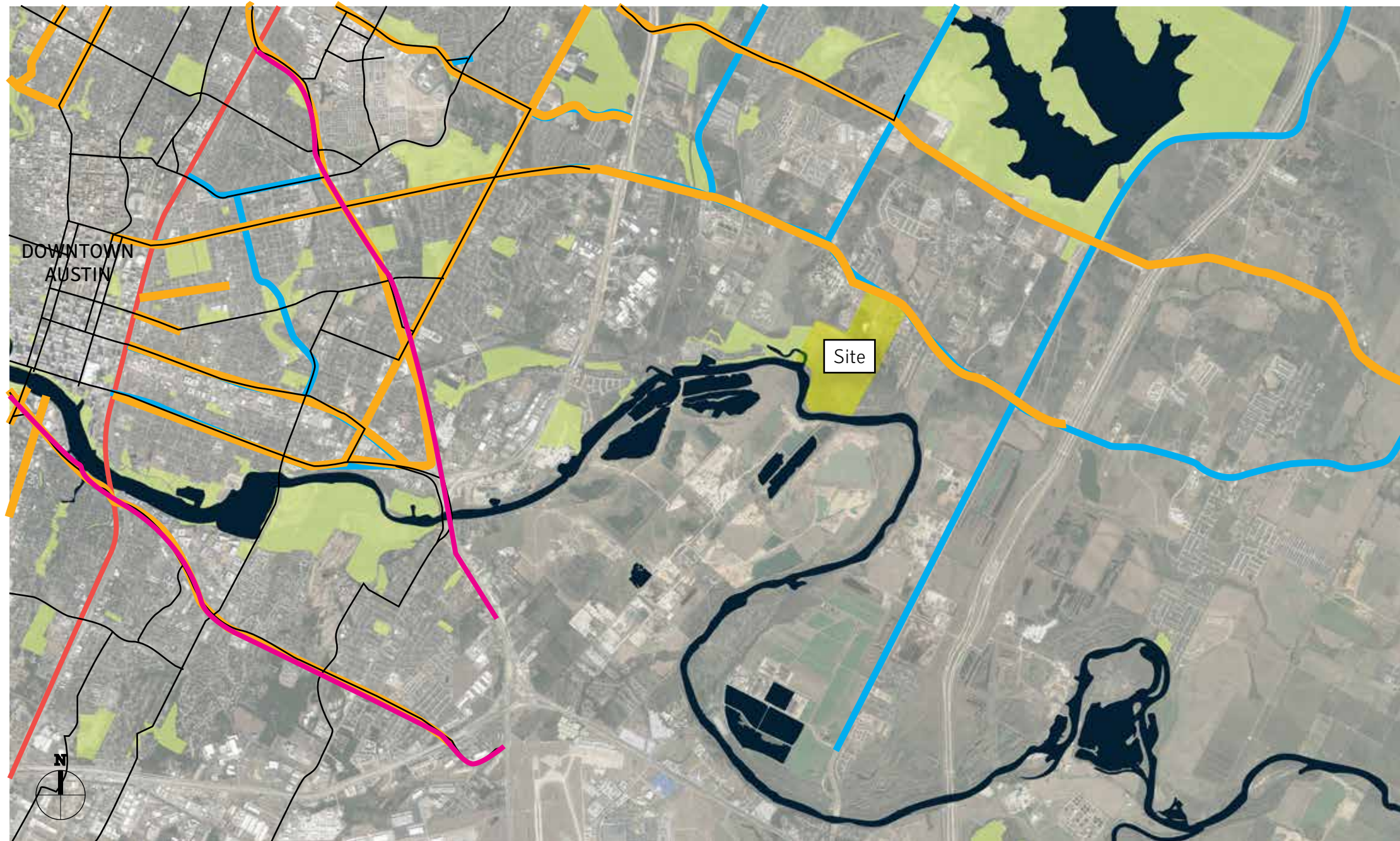
- 1** RMMA PUD\* (Mueller): Active  
 This former municipal airport, approximately 700 acres will include 4,900 single family and multi-family units, more than three million sq.ft of commercial space, and 790,000 sq.ft of retail.
- 2** Colony Park District Park Phase 1: In Review  
 Improvements proposed for the 70.34-acre park include a multi-purpose play field, baseball field, playground, pavilions, multi-use trails, pedestrian bridge, vehicular parking, lighting, water fountains, and landscaping and irrigation.
- 3** Colony Park PUD: Approved  
 The 208-acre site could have 2,488 residential units; around 960,000 sq.ft. of non residential space; and around 54 acres of open space.
- 4** Blue Bluff Rd. Restoration Plan: In Review  
 The fill on the 26.41-acre site will be removed.
- 5** Austin Green Water District PUD: In Review  
 Proposed creation of 2,126 acre Water District.
- 6** Watersedge PUD: Approved  
 This 419 acre site will include 1,254 single family homes, 323 apartments and 244 townhomes. 62 acres will be set aside for open space. Plans also include a shopping center with 388,900 sq.ft of retail space.

\*PUD: Proposed Unit Development

Data Source: City of Austin (accessed June 14, 2019)

# Street Improvement Plans

## Landscape Story



In the 2012 Imagine Austin Comprehensive Plan, activity corridors link activity centers and other key destinations to one another, allowing multi-modal travel throughout the city and region. FM 969 is identified as one of Imagine Austin's main corridors to centers along SH-130 in the east, meaning an increase in quality transit, housing, public space, and walkable destinations.

- |  |
|--|
| <p>Opportunities:</p> <ul style="list-style-type: none"> <li>• FM 969 designated as Imagine Austin corridor</li> </ul> <p>Challenges</p> <ul style="list-style-type: none"> <li>• Impact of development on FM 969 traffic</li> </ul> |
|--|

- Transit Priority Network
- Imagine Austin corridors (2012 Imagine Austin)
- Corridor plans with all ages and abilities bicycle facilities
- Highway Improvements
- Expanded Roadways



SCALE: 1" = 1 MILE Data Source: City of Austin

# Trail Access and Connectivity

## Landscape Story



As a part of Austin's Urban Trails Masterplan, the park will become directly accessible via two new trails. In the 2012 Imagine Austin Comprehensive Plan, FM 969 was identified as one of Imagine Austin's main multi-modal corridors to centers along SH 130 in the east.

- 1 Proposed FM 969 Trail from Tannehill Lane to Delta Post (12' wide, 6.34 miles)
- 2 Proposed Colorado River Trail from Airport Blvd to SH 130 (12' wide, 11.22 miles ); extends beyond City limits to South SH 130 NB (8.43 miles)
- 3 Existing Southern Walnut Creek Trail from FM 969 to Delwau Lane

**Opportunities:**

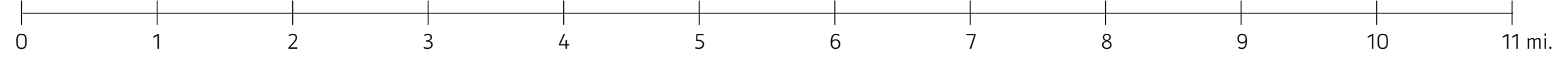
- Adjacency to existing and proposed trail connections, which will connect to other parts of the city

**Challenges:**

- Access to park is currently limited, with no bike or pedestrian trails

**Legend**

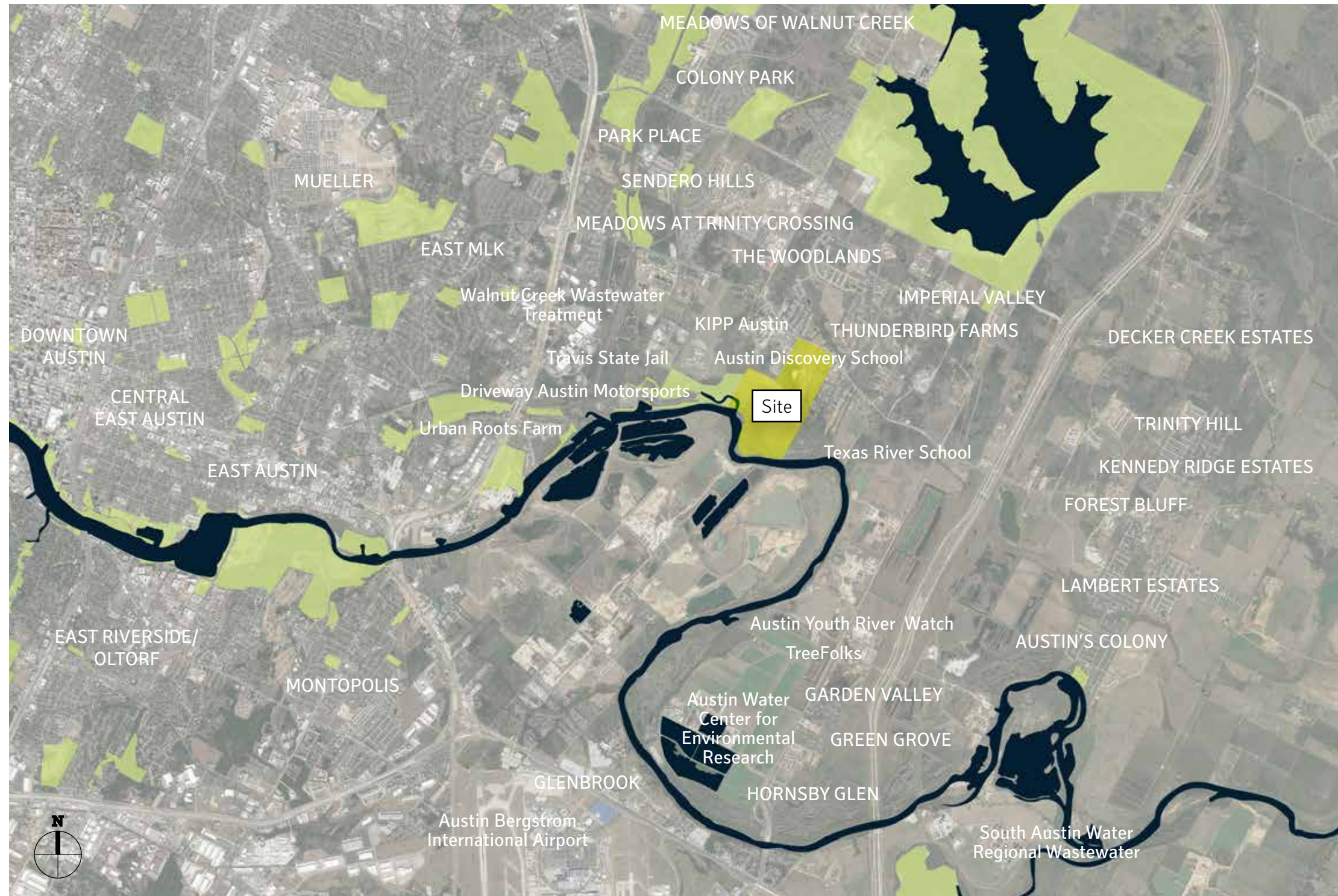
- Existing bicycle network
- Existing urban trail
- - - Proposed urban trail
- Bus stop



SCALE: 1" = 1 MILE Data Sources: City of Austin, 2014 Urban Trail Master Plan, 2019 Strategic Mobility Plan

# Neighbors

## Landscape Story



For the future park to uphold the legacy of John Trevino Jr., it must serve as a resource to those living around it.

The Park is located in a rich and diverse context that is rapidly changing as the city grows. The planning process will offer opportunities to connect with neighboring residents and will benefit from partnerships with surrounding organizations. The identity of the place, the nature of access, and the activities held within the park must all fit the people who are living here. More than just a passive piece of land, the future park can help strengthen community and serve as a point of connection among diverse residents. It can also strengthen the identity of this land and the river as Austin continues to grow.

### Opportunities:

- The park is an opportunity to feature the identity of the surrounding neighborhoods and residents
- Strong surrounding organizations and initiatives can foster partnerships that will enhance the park

### Challenges:

- Because the park site has not been accessible to residents, there is a limited familiarity and sense of connection to the place
- The success of the planning process will rely on developing connections with surrounding residents

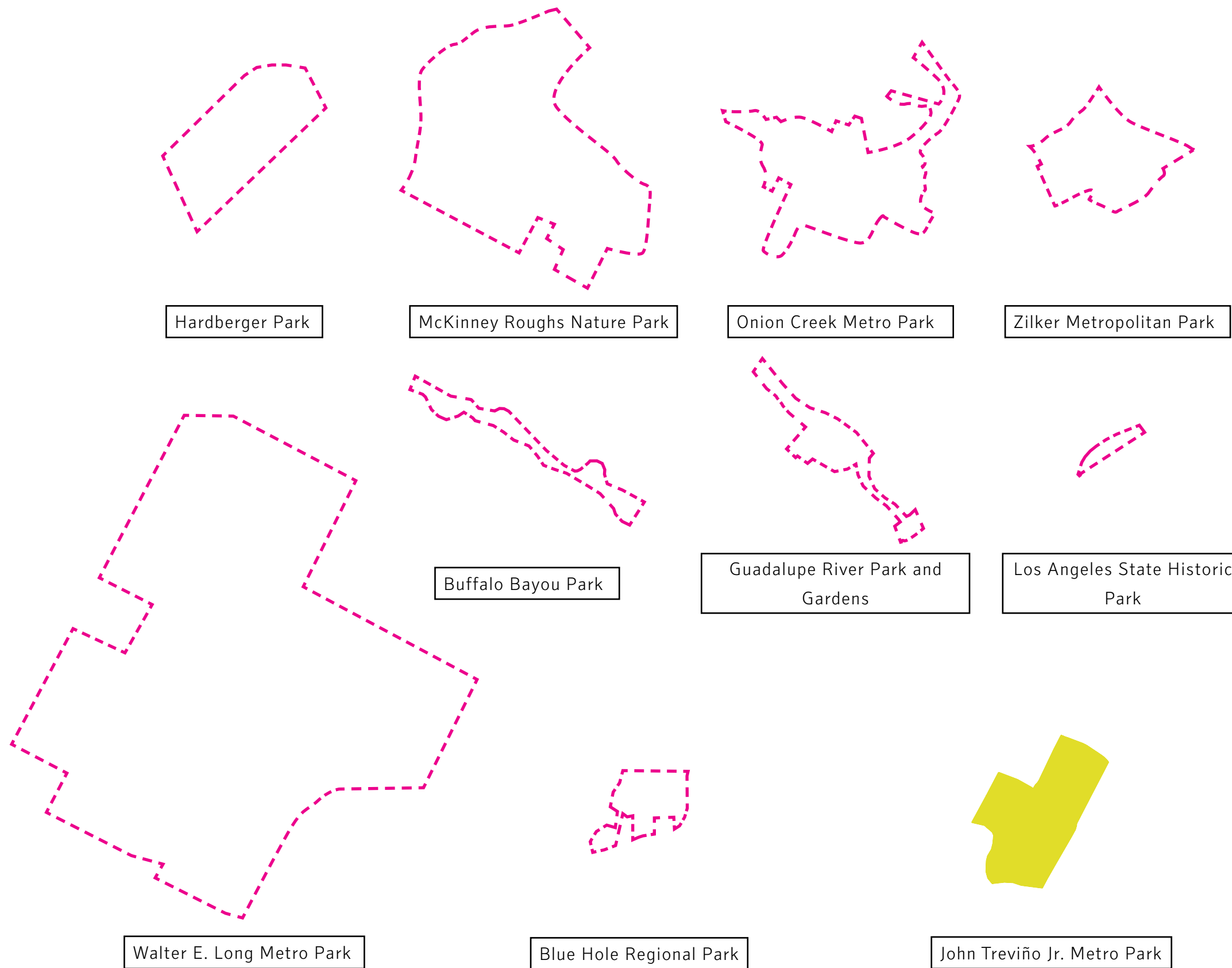
SCALE: 1" = 1 MILE

# Comparative Park Studies

- Hardberger Park, San Antonio, TX
- McKinney Roughs Nature Park , Austin, TX
- Onion Creek Metropolitan Park, Austin, TX
- Zilker Park, Austin, TX
- Walter E. Long Metropolitan Park, Austin, TX
- Buffalo Bayou Park, Houston, TX
- Guadalupe River Park and Gardens , San Jose, CA
- Los Angeles State Historic Park, Los Angeles, CA
- Blue Hole Regional Park, Wimberley, TX

# Benchmark Analysis

## Comparative Parks



John Treviño Jr. Metropolitan Park is a large metropolitan park situated on the edge of Austin's city limits. The site is largely located within a floodplain area on the Colorado River, and is associated with historical agricultural use.

Other parks in the city of Austin, other cities in Texas, elsewhere in the United States, and throughout the world were evaluated for their relevance to the Treviño Park project and the lessons they might have to offer. The comparative parks summarized here were selected for more detailed analysis because they share important similarities – ecological communities, flood plain conditions, agricultural heritage, community context – with Treviño Park. Where information was available, these parks were benchmarked in terms of existing and proposed visitor numbers, programs and facilities, operations and maintenance budget, funding sources, and possible revenue generation.

The following framework has been used to compare these precedent parks:

- Size and Location
- Program: Active and passive offerings and their placement throughout the site, amenities, facilities
- Park Character: Urban or rural context, consideration of nearby corridors, neighborhood demographics, access options
- Hydrology & Floodplain: Design for similar floodplain conditions – through mitigation, flexible and seasonal programming, or innovative material use
- Funding, Operations & Maintenance: Capital funding strategy, partnerships, revenue-generation programs, maintenance plans

# Hardberger Park: San Antonio

## Comparative Parks



Dog park at Hardberger Park



Trail and savanna at Hardberger Park



Trail and woodland at Hardberger Park



### Key

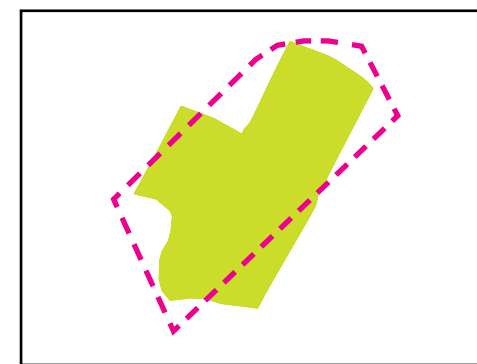
- Floodplain
- Site Boundary
- ➔ Key Entrances

### Active Programs

- A Hiking Trails
- B Basketball Courts
- C Play Area
- D Dog Park

### Passive Programs

- E Picnic Facilities
- F Creek Overlook
- G Public Transportation Stop
- H Visitor/Nature Center
- I Classroom



311 acres

**Size:** 311 acres

### History

At 311 acres, this site was the largest parcel of undeveloped land in San Antonio. The site was owned by Max and Minnie Voelcker, and was a working dairy farm. Some of the original buildings established by the Voelckers are still preserved in the park.

### Park Users

Located at the heart of a densely populated area, Hardberger Park attracts San Antonio residents and visitors alike.

### Floodplain Information

- 2% of Hardberger Park is located in a floodplain.
- The east side of the park is bordered by Salado Creek which was re-naturalized.
- Viewing structures for the creek were created over the edge of the surrounding bluffs.
- Where trails cross water, boardwalks have been built to preserve existing ecological communities
- 75% of the site has been dedicated to the preservation and restoration of the native landscape.

### Funding/O&M/Partners

Phil and Linda Hardberger, the Klesse Foundation (Bill and Margie Klesse), and the Voelcker Fund each gave a donation of \$1 million to go toward the Land Bridge at Hardberger Park.



# McKinney Roughs Nature Park: Austin, TX

## Comparative Parks



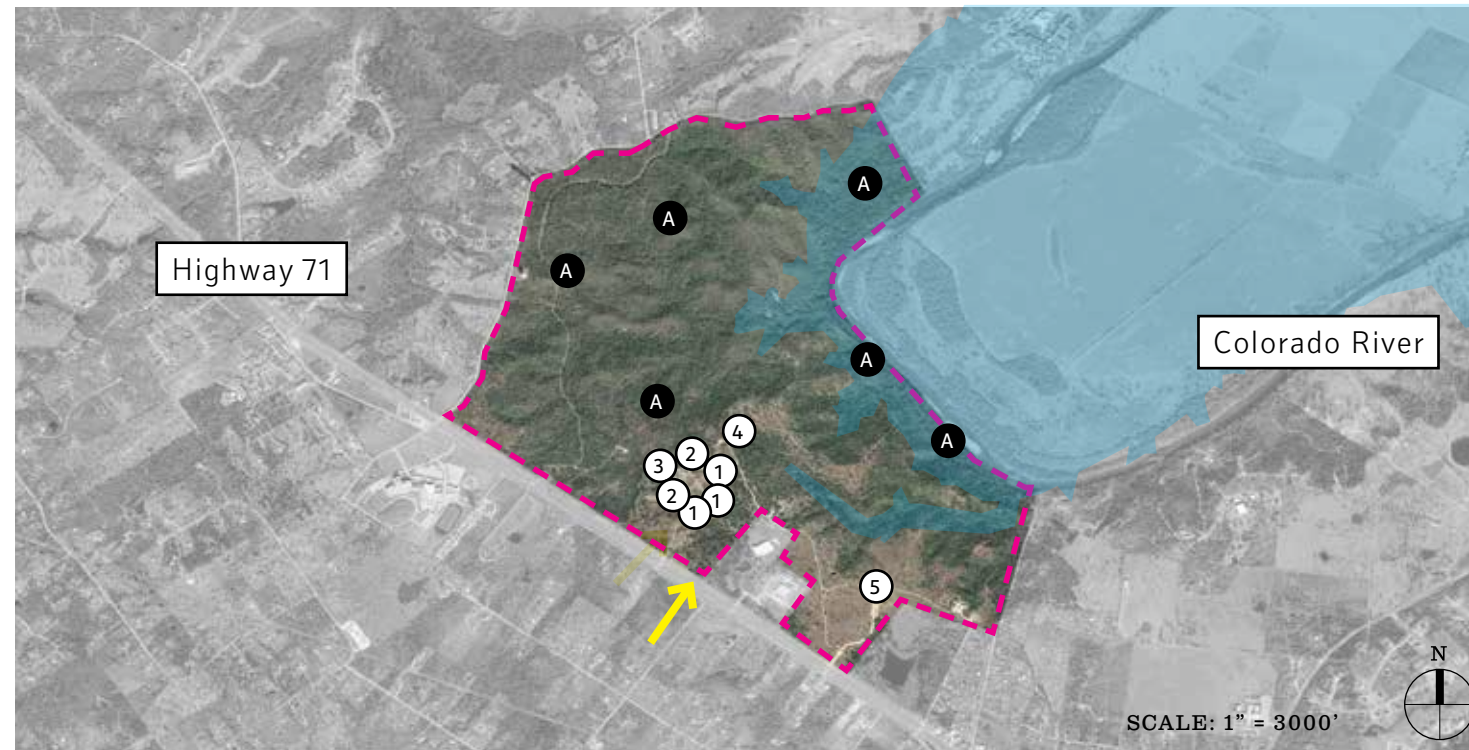
Hiking trail at McKinney Roughs Nature Park



Zip Lost Pines dual zip line tour



View of Colorado River from trail



### Key

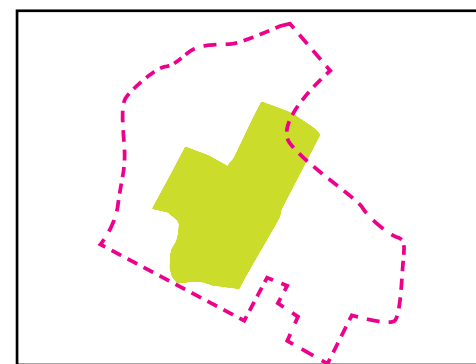
- Floodplain
- Site Boundary
- ➔ Key Entrances

### Active Programs

- A Hiking, Biking, Equestrian, and Interpretive Trails

### Revenue Generating Programs

- 1 Dormitories
- 2 Special Event Building
- 3 Classroom Building
- 4 Amphitheater
- 5 Zip Line Tour



1140 acres

Size: 1140 acres

### History

McKinney was home to the Windmill Ranch and was owned by the Wise Family. The Lower Colorado River Authority (LCRA) bought the land in the 1980s.

### Park Users

McKinney Roughs serves locals and visitors to Austin and surrounding communities, and is a place where people come to relax and hold private events. Day camps are offered at McKinney for children and teens.

### Floodplain Information

- 18% of McKinney Roughs Nature Park is located in a floodplain.
- The LCRA works to manage frequent flooding that takes place along the Colorado River.
- Trails throughout the park are made from alluvial gravels, sugar sand, and 'black gumbo' clay.

### Funding/O&M/Partners

McKinney Roughs is owned and operated by the LCRA. The LCRA produces and delivers electric power, manages the lower Colorado River, and supports community development.

Special event rentals, paid field trips, and park admission fees all contribute to McKinney Roughs Nature Park's funding.

# Onion Creek Metro Park: Austin, TX

## Comparative Parks



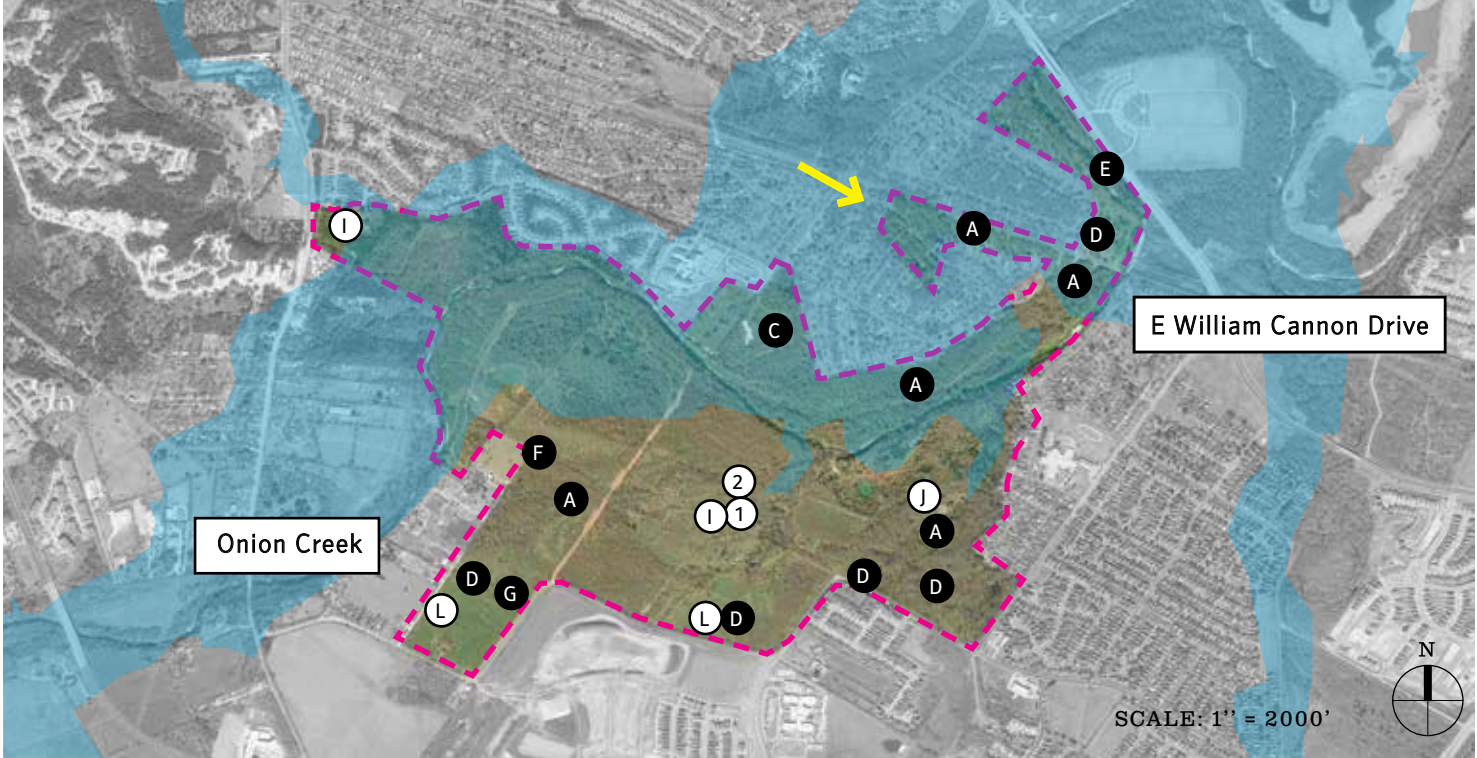
Existing trail at Onion Creek Metro Park



View of Onion Creek

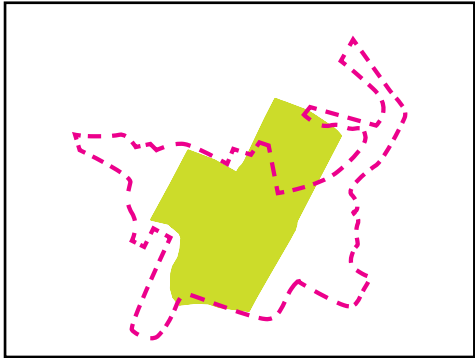


Horseback riding at Onion Creek Metro Park



**Key**

- Floodplain
- Site Boundary
- ➔ Key Entrances



555 acres

- Proposed Active Programs**
- A** Hiking/Equestrian Trails
  - B** Skatepark
  - C** Disc Golf
  - D** Playground
  - E** Off-Leash Dog Area
  - F** Equestrian Facility
  - G** Play Field
  - H** Bird Blinds

- Proposed Passive Programs**
- I** Picnic Area
  - J** Outdoor Classroom
  - K** Model Airplane Field
  - L** Pavilion

- Revenue Generating Programs**
- 1** Amphitheater
  - 2** Nature Center

**Size:** 555 acres

**History**

Onion Creek Metro Park is a regional park which is relatively flat, wooded, and underdeveloped. Onion Creek Metro Park was purchased by the City of Austin in the late 1990s, and is one of the largest city-owned parks in Austin.

**Park Users**

Onion Creek Metro Park is located in southeast Austin, an area that is rapidly growing to meet the city's housing demands.

**Floodplain Information**

- 53% of Onion Creek Metro Park is located in a floodplain.
- Onion Creek is Austin's largest watershed and is prone to frequent flooding problems
- It is proposed that low impact developmental strategies be used in the design of this park, including the use of native plantings to filter and treat stormwater, as well as the use of permeable materials instead of traditional hardscape surfaces. Increasing prairies and meadows will increase the site's potential for water recharge.

**Funding/O&M/Partners**

In 2013, the Texas Legislature created a Municipal Management District which provides funding for the Onion Creek Metro Park District through fees charged to homeowners in surrounding communities.

# Zilker Metropolitan Park: Austin, TX

## Comparative Parks



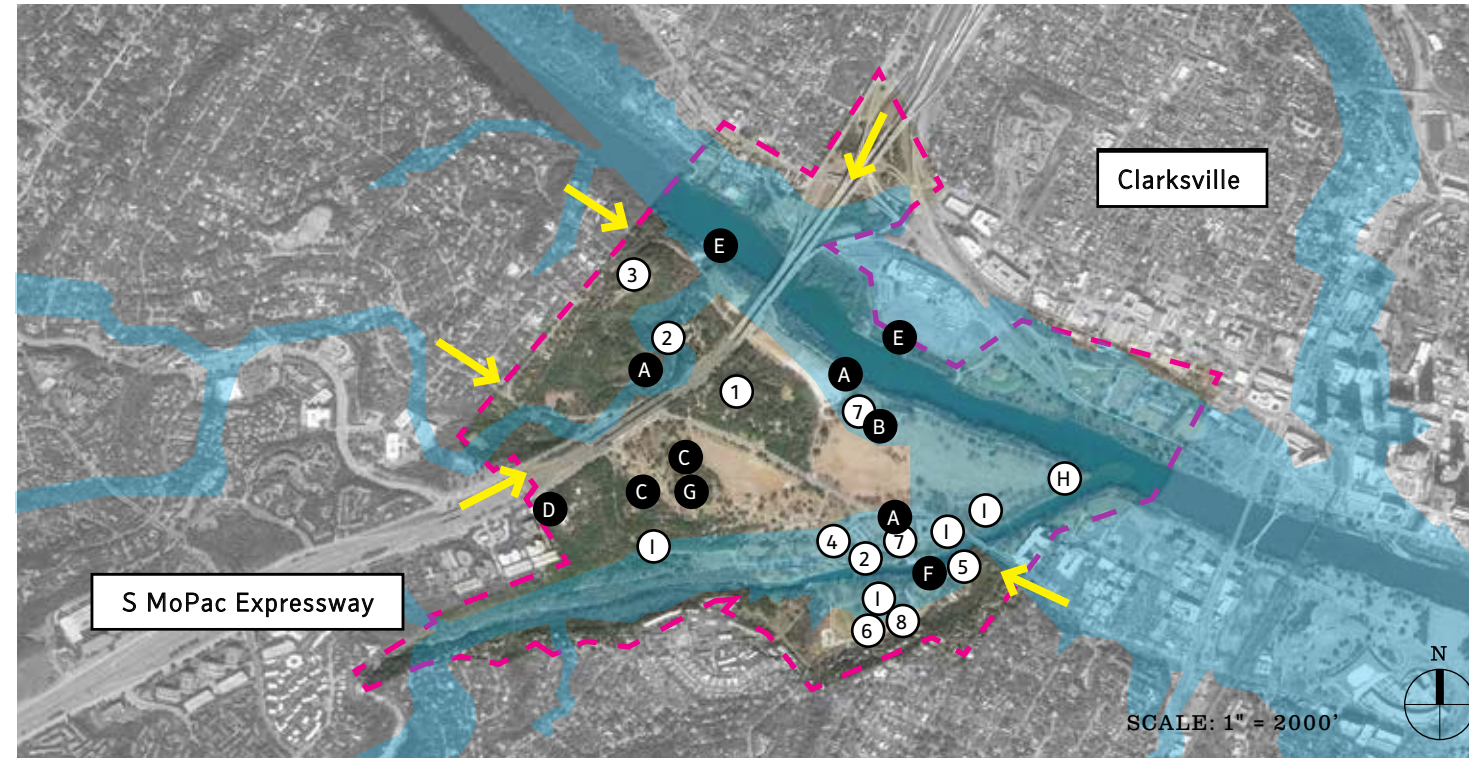
Aerial of Zilker and the Colorado River



Zilker Botanical Garden

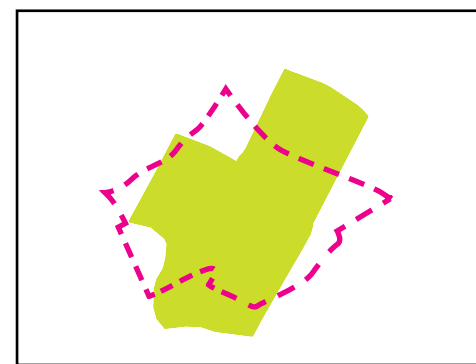


View of Austin from the lawn at Zilker



### Key

- Floodplain
- Site Boundary
- ➔ Key Entrances



350 acres

### Active Programs

- A** Walking and Biking Trails
- B** Volleyball Courts
- C** Disc Golf
- D** Recreation Center
- E** Rowing Center/Dock
- F** Playscape
- G** Polo Tables

### Passive Programs

- H** Gazebo
- I** Picnic Area

### Revenue Generating Programs

- 1** Zilker Botanical Garden
- 2** Nature/Education Center
- 3** Zilker Club House
- 4** Zilker Hillside Theater
- 5** Canoe Rental
- 6** Barton Springs Pool
- 7** Zilker Zephyr
- 8** Concession Stand

**Size:** 350 acres

### History

In 1918, A.J. Zilker deeded 35 acres of land to the City of Austin. In 1932, Zilker agreed to deed an additional 323 acres if the city would provide funding to the school system. The action was approved, and the land was developed into Zilker Park, which is now considered to be 'Austin's Most Loved Park.'

### Park Users

Zilker Metro Park is about a half hour walk from downtown Austin. It is also in walking distance of several hotels, and the attractions at the park bring in visitors from outside the Austin area.

### Floodplain Information

- 59% of Zilker Metro Park is located in a floodplain.
- The northern and western portions of the park were kept naturalistic, with lawns and groves of native trees.

### Funding/O&M/Partners

The Zilker Botanical Garden is a collaboration between PARD, The Zilker Botanical Garden Conservancy, and the Austin Area Garden Council. The Botanical Garden is open year round and attracts 300,000 visitors each year.

The Austin City Limits Festival is an annual music festival held in Zilker. Approximately 450,000 people attend the festival each year. After festivals, the turf at Zilker either is torn up or compacted from foot traffic.

PARD collects facility use fees for festival and event uses of the park, but by law these may only cover direct costs, not make a profit for PARD.

# Walter E. Long Metropolitan Park: Austin, TX

## Comparative Parks



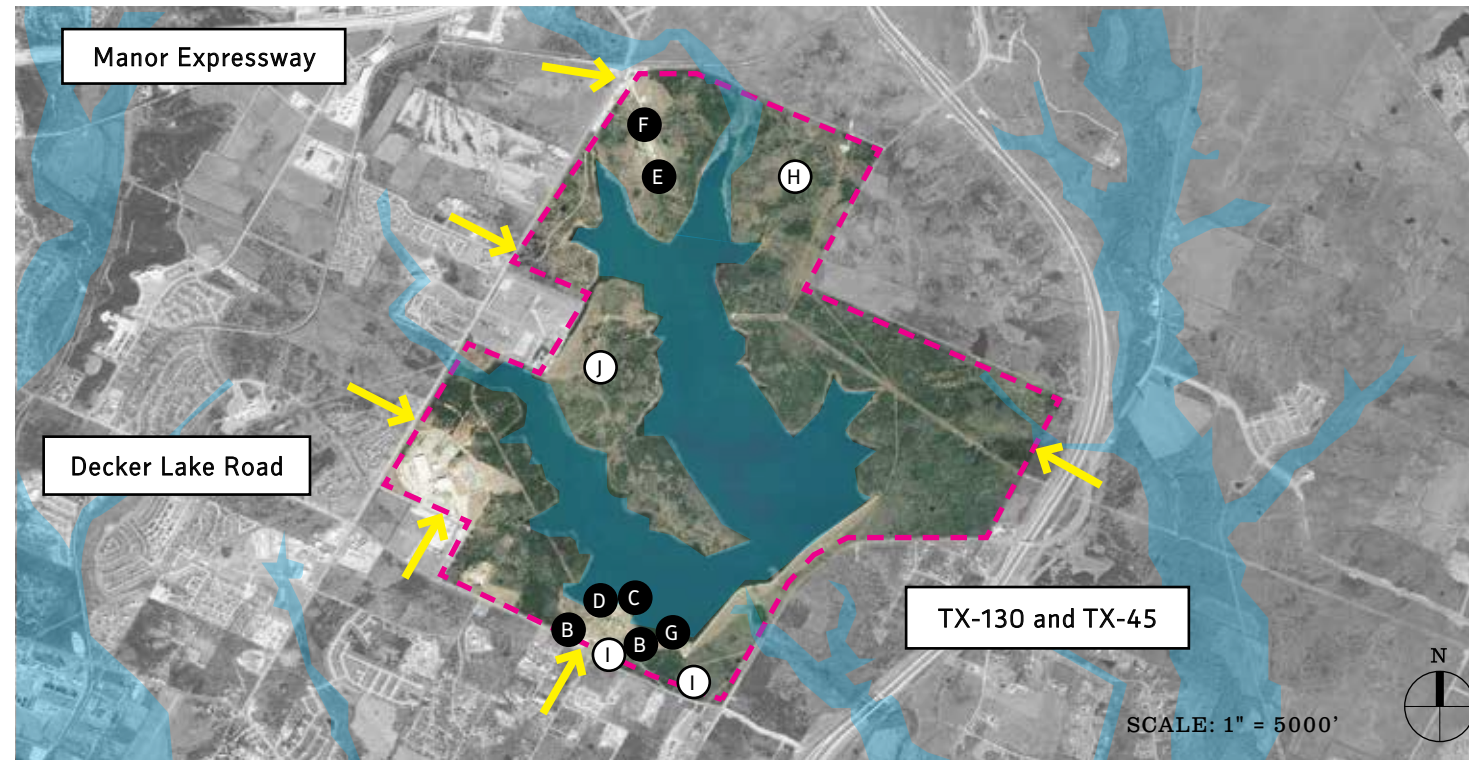
Picnic Area



View of Walter E. Long Lake

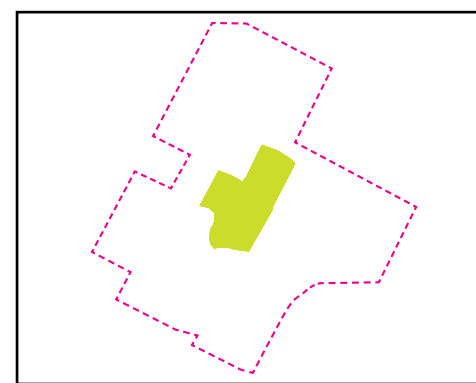


Boat Launch at Walter E. Long Lake



### Key

- Floodplain
- Site Boundary
- ➔ Key Entrances



3,695 acres

### Active Programs

- A** Hiking and Biking trails
- B** Volleyball Court
- C** Fishing Pier
- D** Boat Ramp
- E** Skeet Shooting
- F** Areoclub
- G** Swim Area

### Passive Programs

- H** Indian Wildgrass Sanctuary
- I** Picnic Area
- J** Decker Tallgrass Prairie Reserve

Size: 3,695 acres

### History

The site is currently underdeveloped and is going through the initial stages of redesign. Walter E. Long Metropolitan Park is the largest park in Austin. A significant feature is the Indian Wildgrass Sanctuary where 250 acres of Blackland Prairie is preserved.

### Park Users

The park is popular with locals for fishing, boating, and family picnics.

### Floodplain Information

- 1.5% of Walter E. Long Metro Park is located in a floodplain.
- Walter E. Long Lake, also known as Decker Lake is 1,165 acres. The lake holds more water than Lake Austin and Lady Bird Lake combined. The water in the lake remains at a near constant level.
- Water from the lake is used to generate electricity at Decker Power Plant. Because the plant is planned to be decommissioned, there is no mandated need for Walter E. Long Lake's water. Draining the lake and using it for alternative purposes has been considered.

### Funding/O&M/Partners

Fees are collected for entry into the park.

# Buffalo Bayou Park: Houston, TX

## Comparative Parks



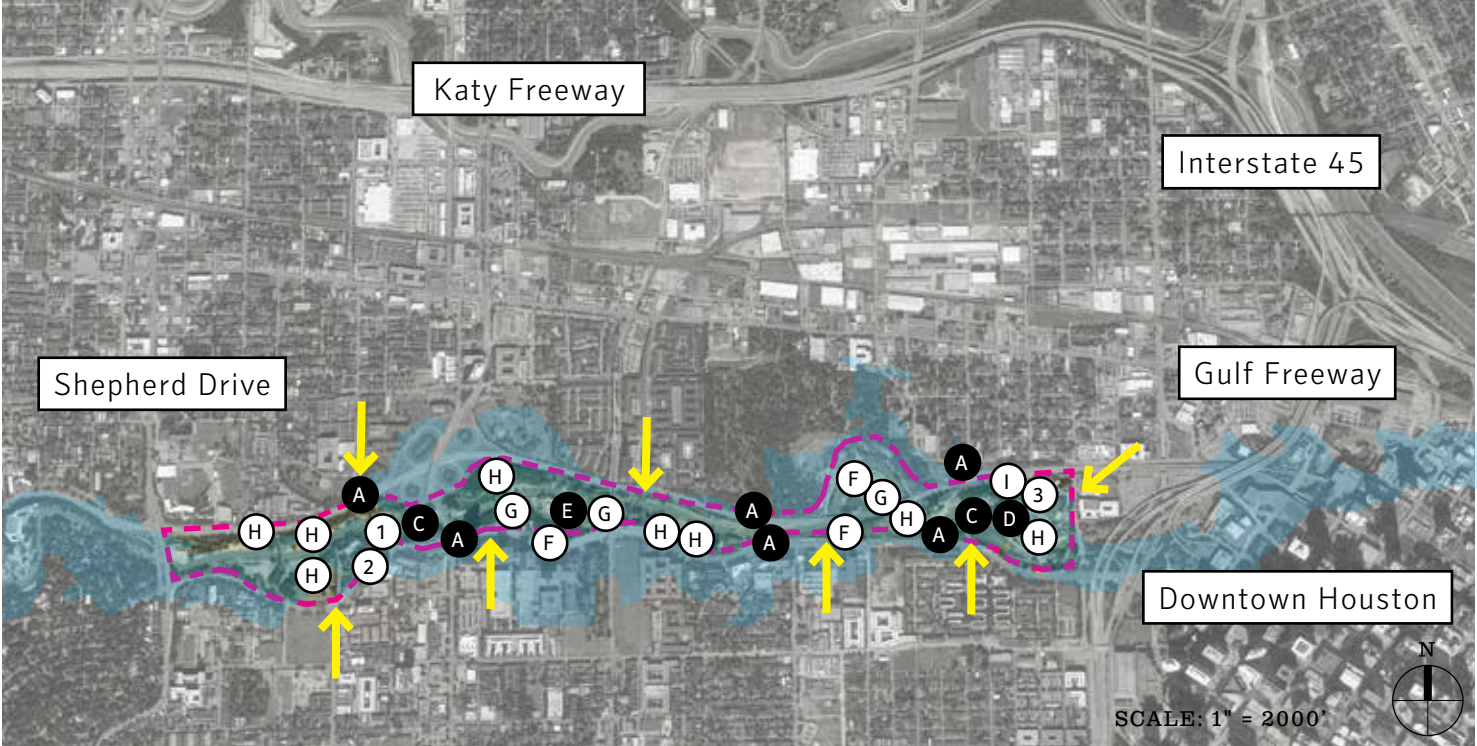
Lost Lake Visitor Center and the Dunlavy Event Space



Trails along Bayou and view of Downtown Houston



Workout party at Buffalo Bayou Park



Size: 160 acres

### History

In 1913, landscape architect Arthur Comey advised that land along the Buffalo Bayou be set aside and used as public parkland. However, the waterway continued to be used for shipping, and the riverbank was commercialized. Today, the site is a regional amenity.

### Park Users

Houston is home to 2.1 million people, 43% of whom are Hispanic. The park serves surrounding communities as well as visitors to downtown Houston.

### Floodplain Information

- The Buffalo Bayou is a 52-mile river that flows through the heart of Houston.
- 98% of Buffalo Bayou Park is located in a floodplain.
- Houston is less than 50% above sea level and has experienced severe flooding in the past.

### Funding/O&M/Partners

Buffalo Bayou Partners maintains and operates Buffalo Bayou Park. This partnership received a \$30 million catalyst gift from the Kinder Foundation. Annual funding is provided by the Downtown Tax Increment Reinvestment Zone #3.

### Key

- Floodplain
- Site Boundary
- ➔ Key Entrances

### Active Programs

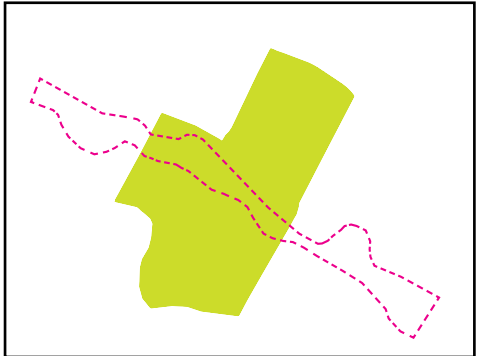
- A** Hiking/Biking Trails
- B** Skatepark
- C** Boat Launch
- D** Nature Play Area
- E** Dog Park

### Passive Programs

- F** Public Art
- G** Event Lawn/Plaza
- H** Nature Park/Garden
- I** Picnic Area

### Revenue Generating Programs

- 1** Restaurant
- 2** Paddle Craft/Bike Rental
- 3** Visitor Center/Event Space



160 acres

# Guadalupe River Park and Gardens: San Jose, CA

## Comparative Parks



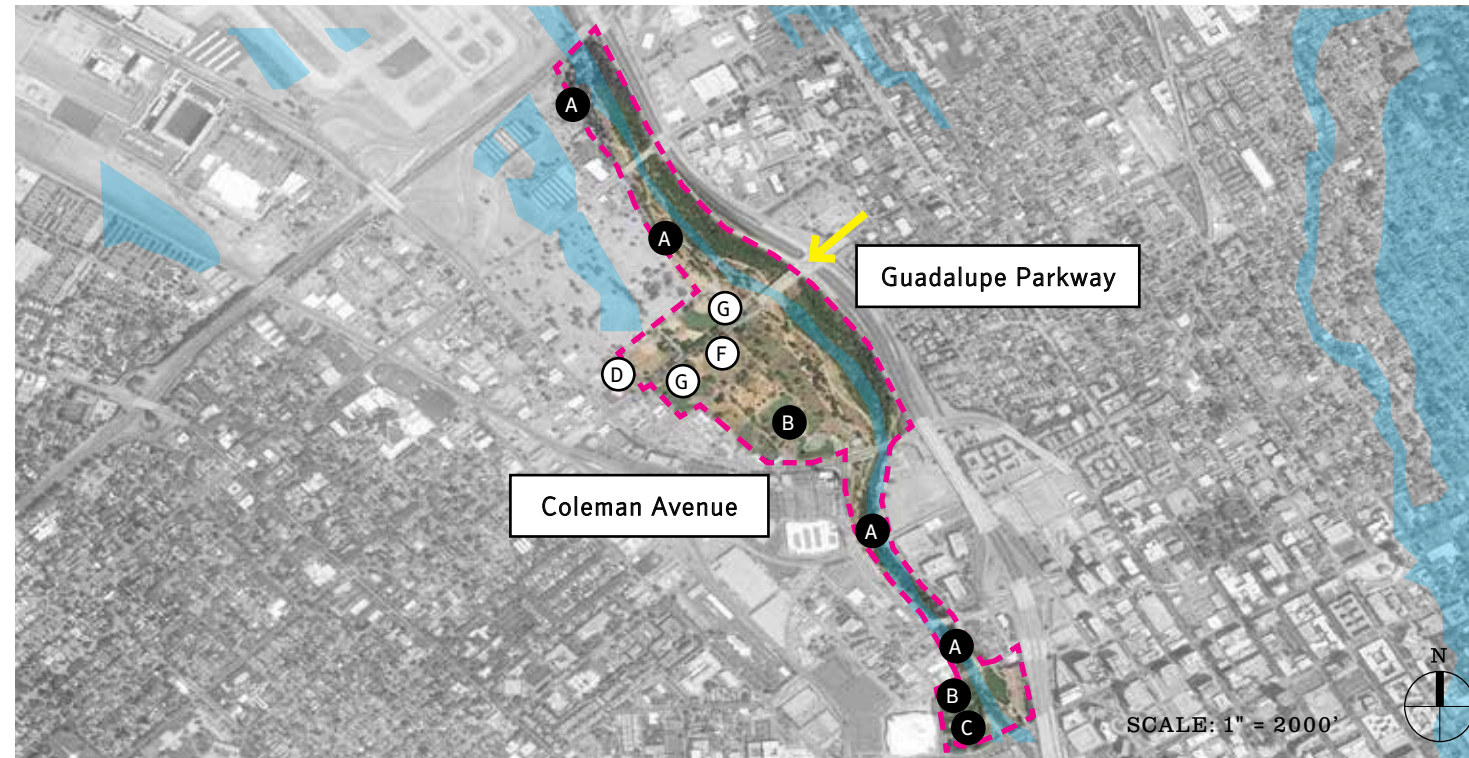
Walking Path at Guadalupe River Park



View of the Guadalupe River



Walking paths at Guadalupe River Park



### Key

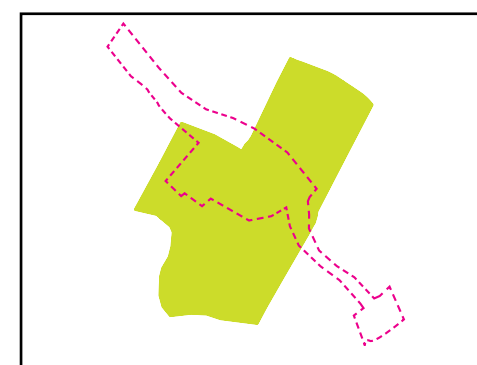
- Floodplain
- - - Site Boundary
- Key Entrances

### Active Programs

- A Walking/Biking Trail
- B Playground/Play Garden
- C Children's Carousel

### Passive Programs

- D Community Garden
- E Guadalupe Gardens
- F Heritage Rose Garden
- G Taylor Street Rock Garden
- H Historic Orchard



150 acres

Size: 150 acres

### History

For a period of time, San Jose was developed without utilizing or recognizing the potential of the Guadalupe River. Efforts are now being taken to control the river's flooding which has caused damage to adjacent homes and businesses. Guadalupe Park and Gardens is intended to reflect the history of San Jose and promote environmentally-sensitive gardening.

### Park Users

Guadalupe River Park is located in an densely populated urban area. This park provides play areas for children and places for the local community to gather.

### Floodplain Information

- 33% of Guadalupe Park and Gardens is located in a floodplain.
- Because the river is narrow flooding occurs rapidly. Design solutions had to be found which would withstand flood conditions but also allow for vegetation to grow.
- Guadalupe River Park is being developed by the City of San Jose and the Redevelopment Agency of the City of San Jose. They have been working with the Santa Clara Valley Water District and the U.S. Army Corps of Engineers to better manage flooding.

### Funding/O&M/Partners

The Guadalupe River Park Conservancy leads Guadalupe River Park through education, advocacy, and stewardship efforts. Every year the Conservancy hosts thousands of elementary school students on field trips, holds festivals such as Pumpkins in the Park, and coordinates volunteer hours.

# Los Angeles State Historic Park: Los Angeles, CA

## Comparative Parks



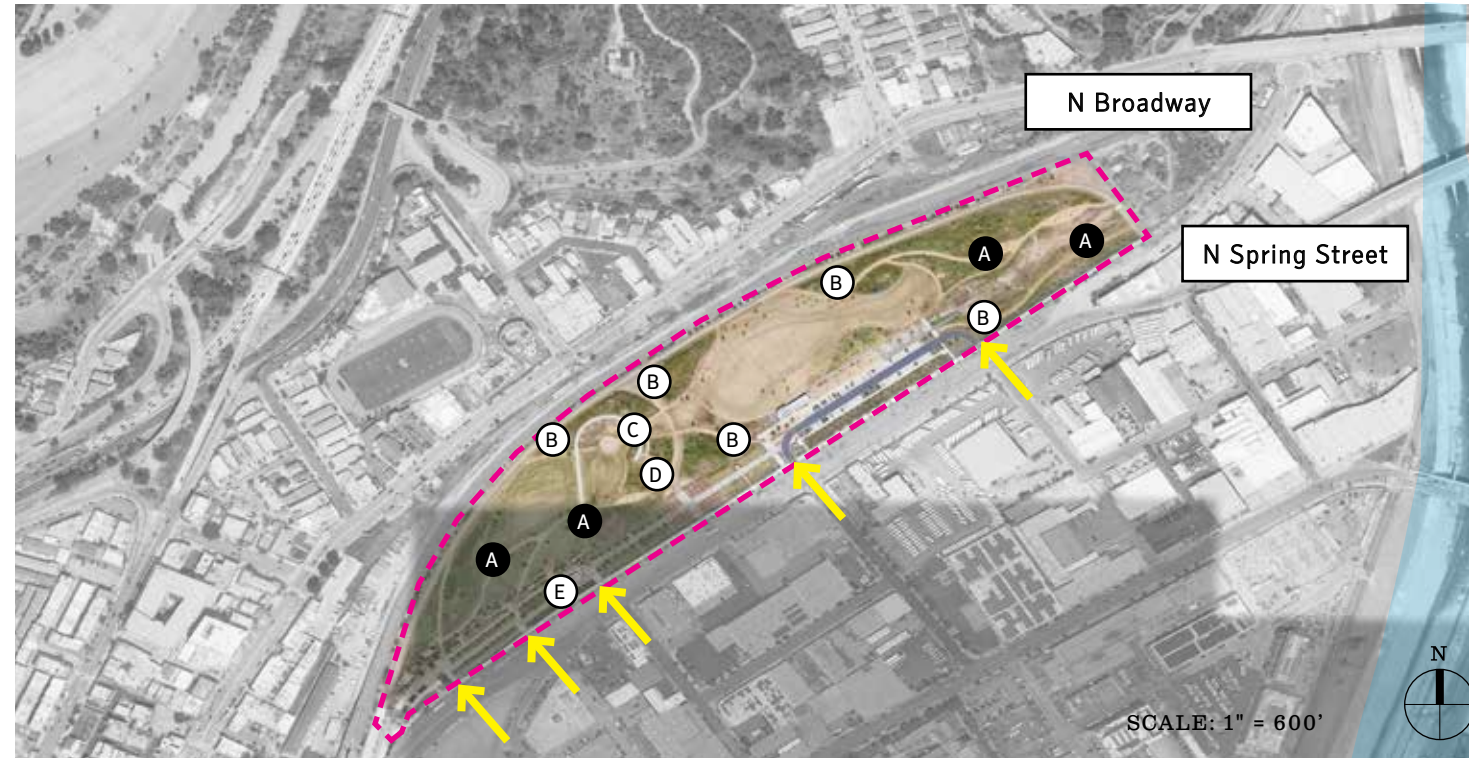
Bridge and path at Los Angeles State Historic Park



Festival at Los Angeles State Historic Park



View of Los Angeles from the park



### Key

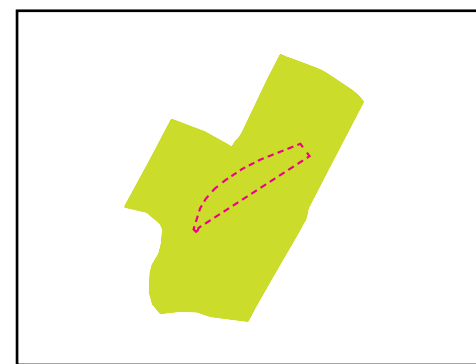
- Floodplain
- Site Boundary
- ➔ Key Entrances

### Active Programs

- A Walking and Biking

### Passive Programs

- B Picnic Area
- C Viewing Bridge
- D Monument
- E Welcome Pavilion



32 acres

Size: 32 acres

### History

Los Angeles State Historic Park is often referred to as "Central Park of Los Angeles." In 2006, California State Parks developed a temporary 13-acre portion of the park so the public could enjoy the park immediately. The park is part of a larger vision to reconnect urban centers with nature.

### Park Users

The Los Angeles State Historic Park is surrounded by highly developed and populated areas, and offers a quiet sanctuary to those in these areas.

### Floodplain Information

- Los Angeles State Historic Park is not located in a floodplain.
- The Los Angeles River is located near the park. Today, no part of the river remains in its original, native state. Every part of the river has been altered and engineered.

### Funding/O&M/Partners

The original design for the park was abandoned due to the financial crisis of 2008. The park was built later, using \$20.8 million in funding appropriated by the state to go toward parks and clean water-related initiatives.

# Blue Hole Regional Park: Wimberley, TX

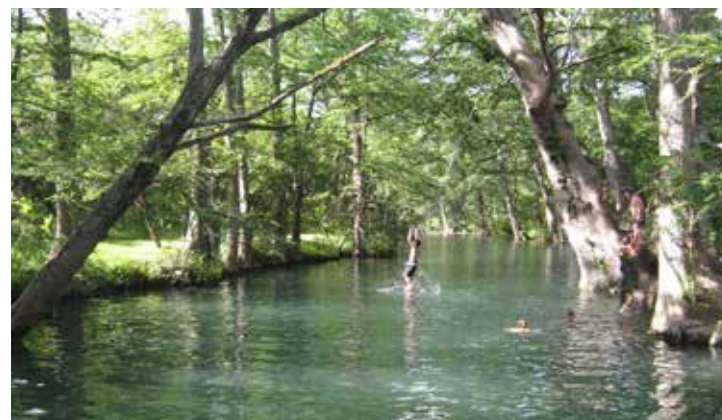
## Comparative Parks



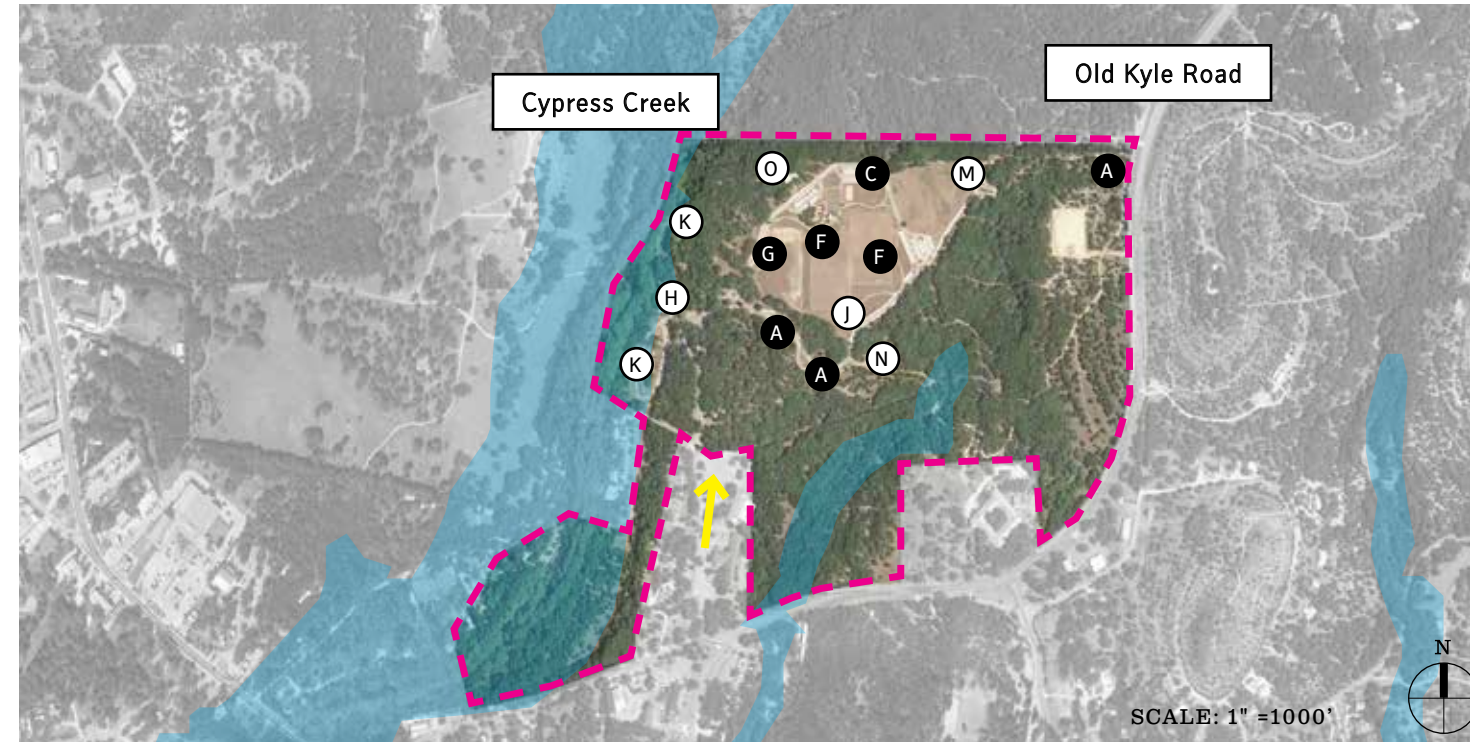
Entry sign at Blue Hole Regional Park



Lawn at Blue Hole Regional Park



Swimming area at Blue Hole Regional Park



Size: 126 acres

### History

The swimming hole at what is now Blue Hole Regional Park used to be a popular place for locals to swim. When it was proposed that the land be developed, money was raised so that the City of Wimberley could develop the land.

### Park Users

Blue Hole Regional Park is fairly isolated from large scale housing developments and urban communities. However, the swimming hole at Cypress Creek attracts those living in other areas.

### Floodplain Information

- 21.5% of Blue Hole Regional Park is located in a floodplain.
- The bank of Cypress Creek was stabilized through the addition of vegetation and amendment of existing soils.
- Cypress Creek is the largest watershed in Harris County.

### Funding/O&M/Partners

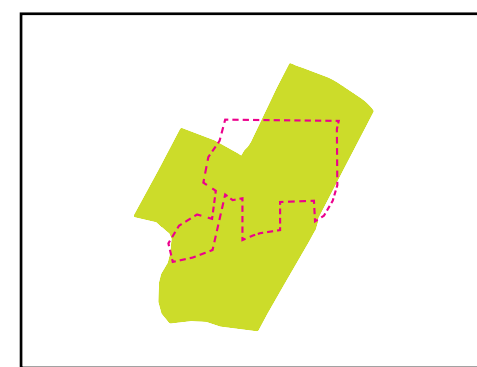
The initial funding to acquire parkland came from grants from the state of Texas Parks and Wildlife Department.

The non-profit organization Friends of the Blue Hole protects, develops, and raises funds for Blue Hole Regional Park. Yearly membership is offered to those who wish to support the park and its activities.

Operation and maintenance of the park is funded by entrance fees.

### Key

- Floodplain
- Site Boundary
- Key Entrances



126 acres

### Active Programs

- Hiking/Biking Trail
- Swimming Area
- Volleyball Court
- Basketball Court
- Play Area
- Recreation Field
- Tennis Courts

### Passive Programs

- Gatehouse
- Amphitheater
- Picnic Area
- Overlook
- Wildflower Meadows
- Great Lawn
- Group Camping
- Community Pavilion



# Benchmark Analysis

## Comparative Parks

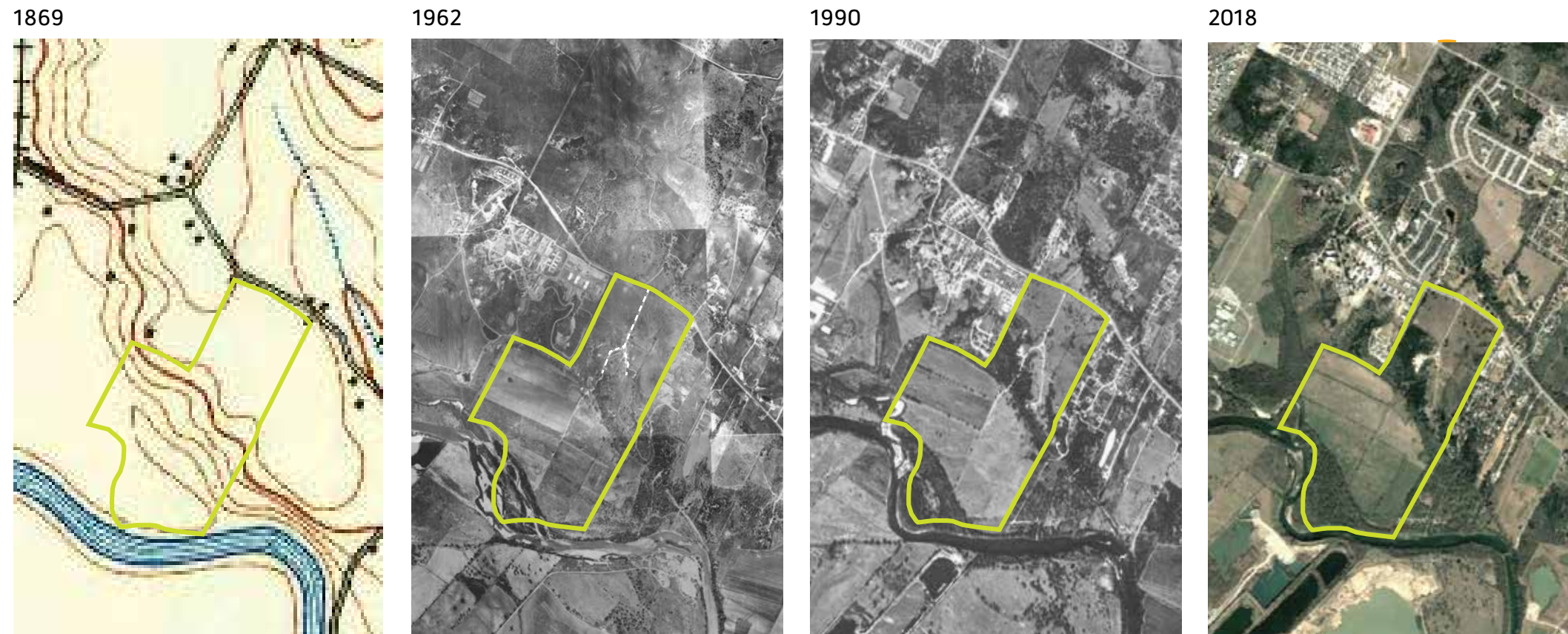
Park	Location	Acres	Visitation	Operator	Total O&M (Cost Year)	Cost Year	O&M / Acre (2019\$)	Funding Sources	Earned Income Sources	Notes	Source(s)
Hardberger Park	San Antonio, TX	311		City of San Antonio	Not available	2019	Not available	City	N/A	Budget information not available, other than the City's overall parks department budget	City of San Antonio
McKinney Roughs Nature Park	Cedar Creek, TX	1,140		Lower Colorado River Authority				Public (state, federal) Water and electric revenues	Entrance fees Hostels Facility rentals Paid programming / activities		Lower Colorado River Authority
Onion Creek Metropolitan Park	Austin, TX	555		City of Austin	Not available	2017	Not available	City		Budget information not available, other than the City's overall parks department budget	City of Austin
Zilker Park	Austin, TX	351	3,275,000	City of Austin	Not available	2017	Not available	City	Entrance fees Facility rentals Paid programming / activities	Budget information not available, other than the City's overall parks department budget	City of Austin
Walter E Long Metropolitan Park	Austin, TX	1,885		City of Austin	Not available	2017	Not available	City	Entrance fees Facility rentals Paid programming / activities	Note that the 1,885 acres does not include the 1,200 acre lake. O&M is park acres * (total City Parks and Rec general fund budget)/(total City park acreage)	City of Austin
Buffalo Bayou Park	Houston, TX	160	1,000,000	Buffalo Bayou Partnership	\$4,631,107	2016	\$30,681	Tax Increment Financing Fundraising	Facility Rentals Boat Rentals Paid programming / activities	Projected visitation	Buffalo Bayou Partnership 2016 Form 990
Guadalupe River Park and Gardens	San Jose, CA	150		Guadalupe River Park Conservancy	\$544,057	2016	\$3,845	Membership and sponsorship Government grant Private contributions	Paid programming / activities		Guadalupe River Park Conservancy 2016 Form 990
Los Angeles State Historic Park	Los Angeles, CA	32		State of California	\$1,200,000	2014	\$40,125	State	Special use permits	O&M budget is 2014 gross revenues, which we assume funded the park that year.	State of California Department of Parks & Recreation (website and interview)



**Morrison Ranch Site**

# Site History

## Existing Site



1869: Site is part of a larger parcel owned by Philip McElroy, likely used for agriculture

1962: Clusters of structures are built on site alongside dirt path

1990: Development expands north of site; J.R. Schneider Construction shares site use with Morrison family

2018: Development continues to expand north of site

The earliest inhabitants of what is now Austin were Native American Indians who camped and hunted along waterways.

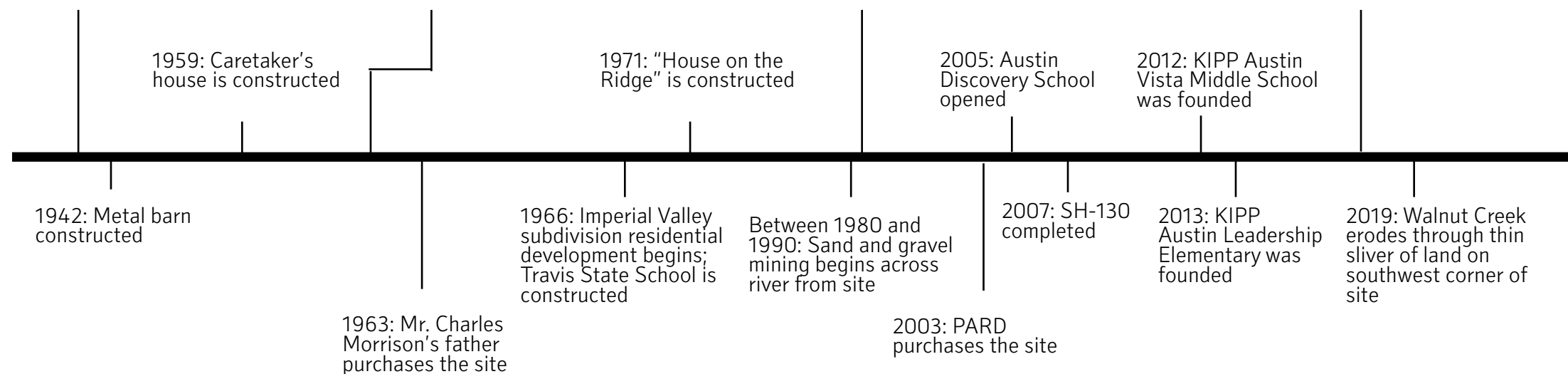
Western settlement of Austin began in the 1850s, but was sparse until after the Civil War. The earliest record of ownership on site is a league parcel under the name Phillip McElroy, shown in maps from the Travis County General Land Office in 1890.

Mr. Charles Morrison's father purchased the site in 1963 and the land was used for ranching until its purchase by the Parks and Recreation Department in 2003. Mr. Morrison believed the site to have been used for ranch land since at least 1942. The primarily vacant land was developed with a residence and several barns and sheds.

The land east of the site was vacant until between 1951 and 1966 when the development of residences began, now known as Imperial Valley Subdivision.

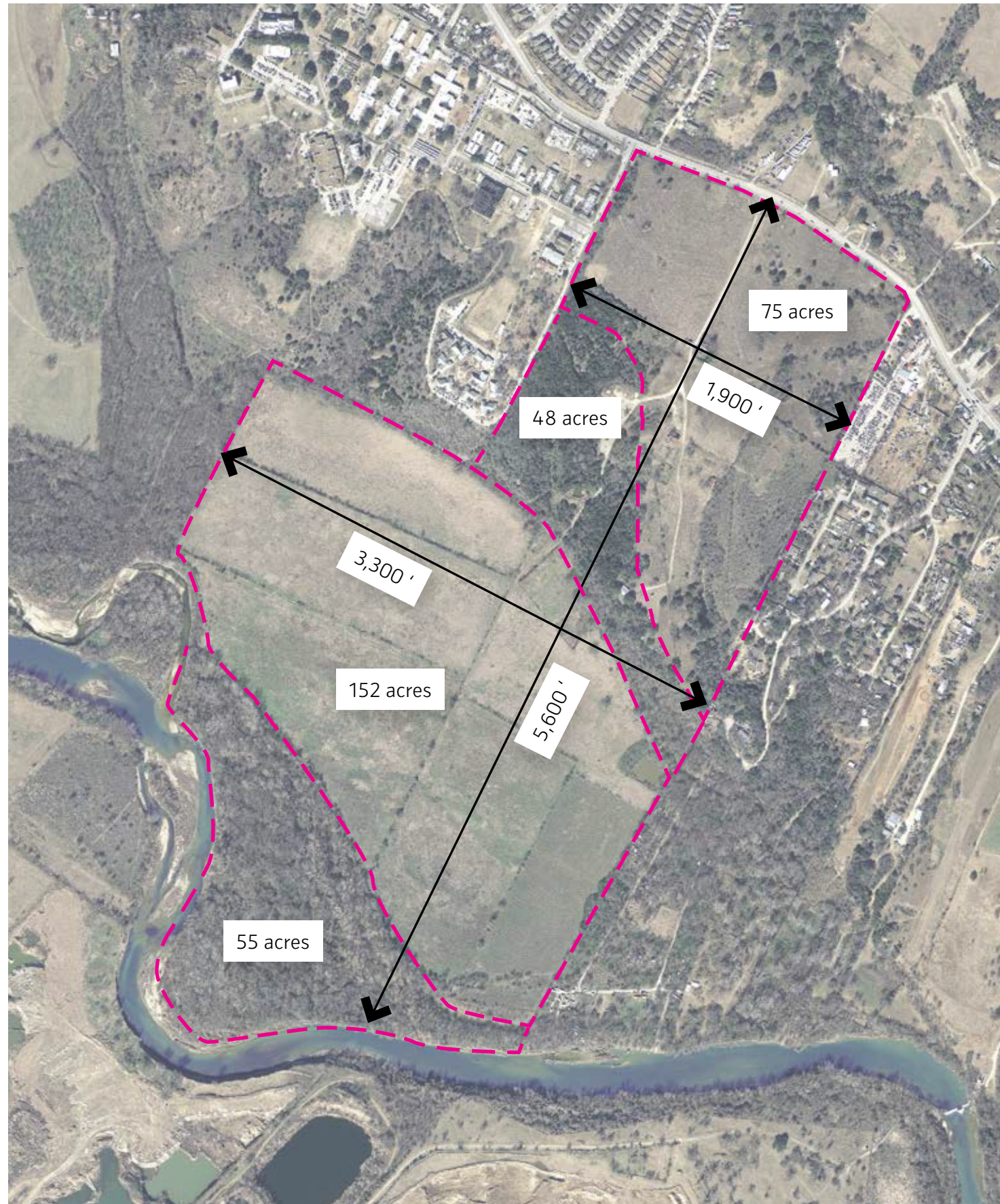
The land west of the site was undeveloped until between 1951 and 1966 when the former Travis State School was developed. In 2005, the Austin Discovery School was opened. In 2012, the KIPP Austin Vista Middle School was founded, and the following year, KIPP Austin Leadership Elementary was founded.

Development to the north of the site continues to grow with primarily single-family housing. Across the Colorado sand and gravel mining operations are on-going.



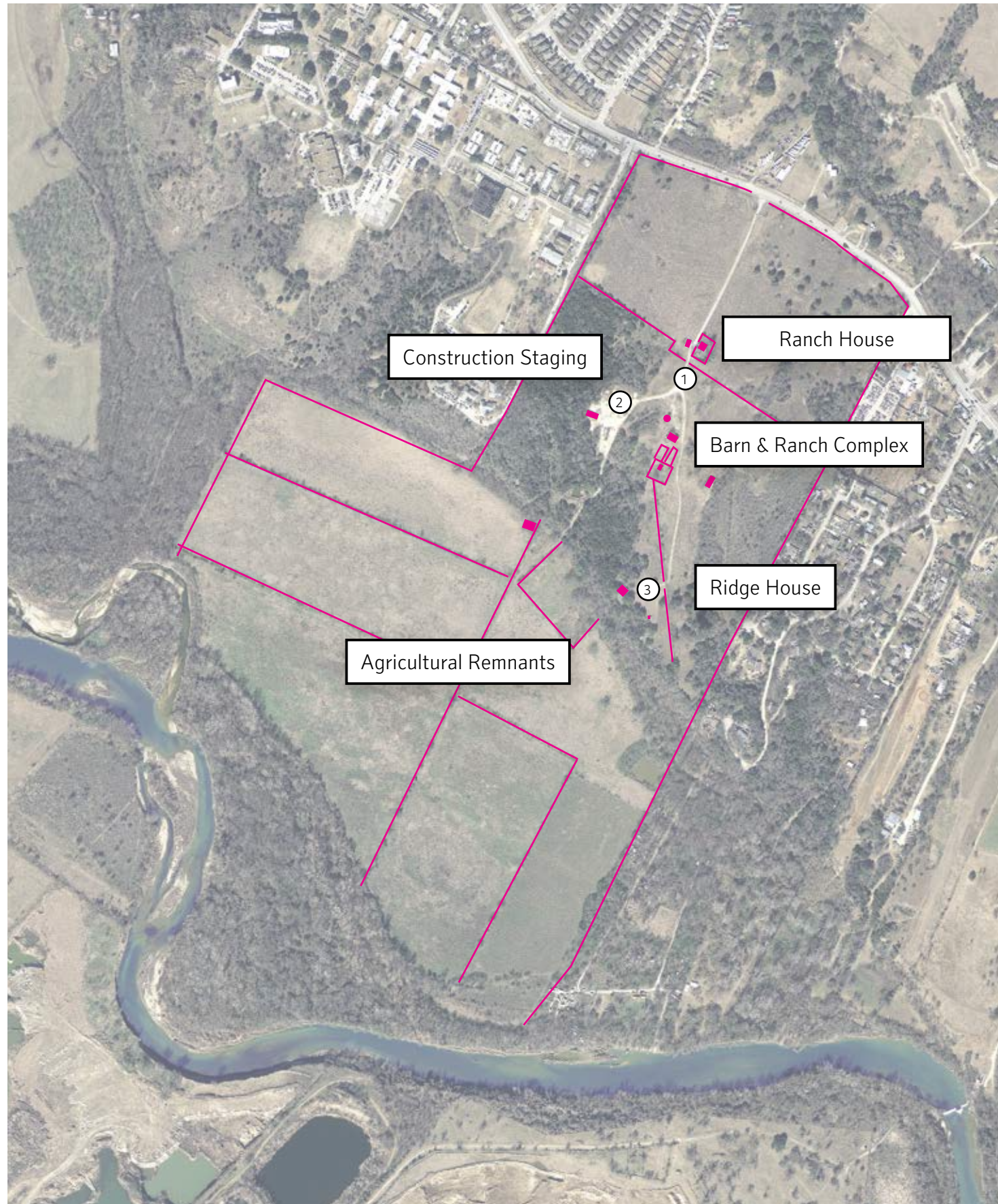
# Site Dimensions

Existing Site



# Site Heritage - Overview

## Existing Site



As former ranch and agricultural land the park site bears the legacy of this heritage throughout. Barns, houses, fences offer encounters with this past. Roads and drainage ponds and channels also mark where the land was shaped as a part of this production.



View of the main road as it passes the Ranch house toward a watertower and barn



Former construction site where concrete pads and a structure remain



Skeet shooting hut near the clearing by the ridge house



# Cultural Resources - Barn and Ranch Complex

## Existing Site



1



2



3

Caretaker's house, built 1959: Existing brick and frame house with cinderblock garage. Existing buildings in extreme disrepair. High cost to salvage and repair. 1062 SF + detached garage, demolition recommended.

Metal barn with concrete floor, likely built 1942: Recommend keeping, but fair amount of cost to bring up to current code and accessibility standards. 32'x36'.

Frame shed: In disrepair. High cost to salvage and repair to suitable condition, demolition recommended.

### Opportunities:

- Re-use metal barn with concrete floor as potential venue structure



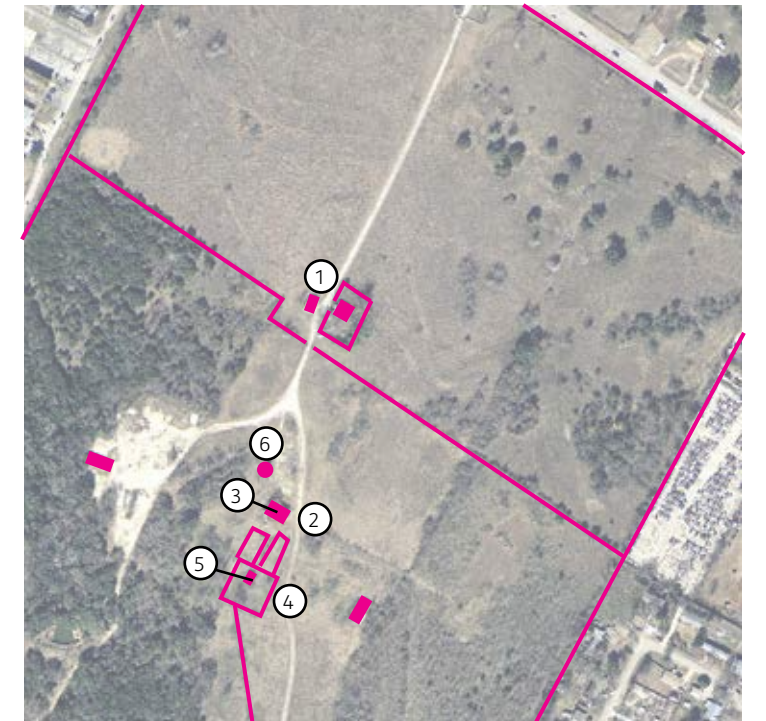
4



5



6



# Cultural Resources - House on the Ridge

## Existing Site

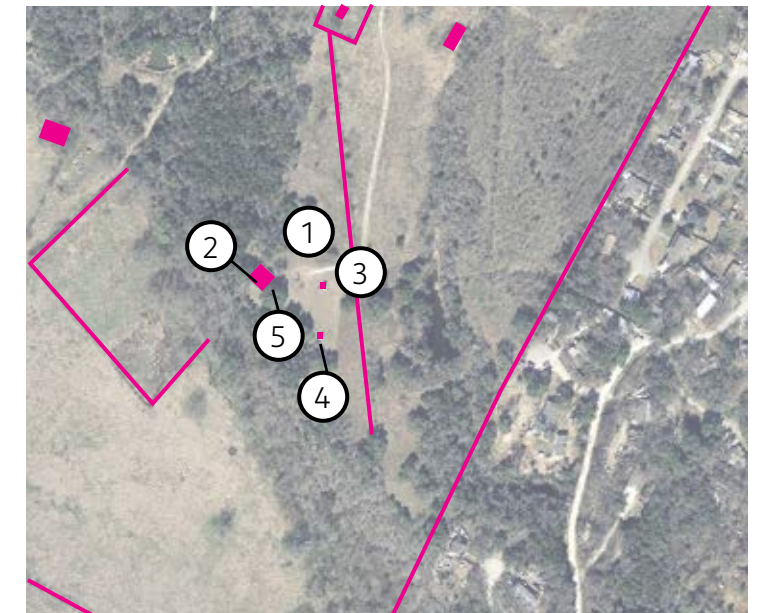


House on the Ridge, built 1971: Existing rock and frame house, fully functional and minimal repairs needed to bring up to code and accessibility. 1540 SF, recommend keeping.

Set of two frame sheds in main field area: Recommend keeping. Minimal cost for maintenance and no need to bring up to code or accessibility. 8'4"x8'4" each.

### Opportunities:

- Well-maintained House on the Ridge with sweeping vistas of Austin
- Tall frame sheds for potential artifacts or art use in landscape



Clockwise, from top left: House on the Ridge, deck on vista edge of house, stone fire pit and oak tree at house entrance, skeet shooting structure, frame shed

# Cultural Resources - Former Construction Staging

## Existing Site

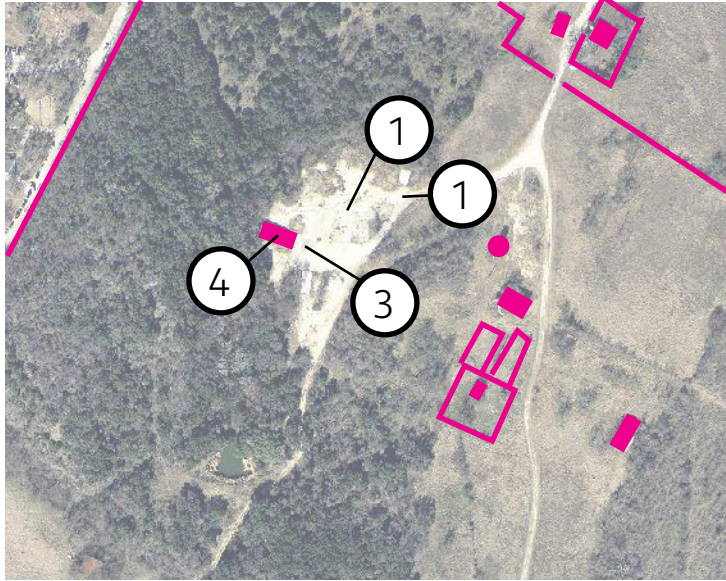


Metal barn with concrete floor: There may be potential for reuse as an unconditioned event space. Will likely require some cost to bring to current code and accessibility.

Other infrastructure: Patches of gravel/concrete paving, large poured concrete slab.

**Opportunities:**

- Re-use metal barn as unconditioned event space
- Re-use existing paved areas



Clockwise, from top left: Large concrete paving area with invasive plant encroachment; metal barn with concrete floor, metal barn interior, metal barn exterior



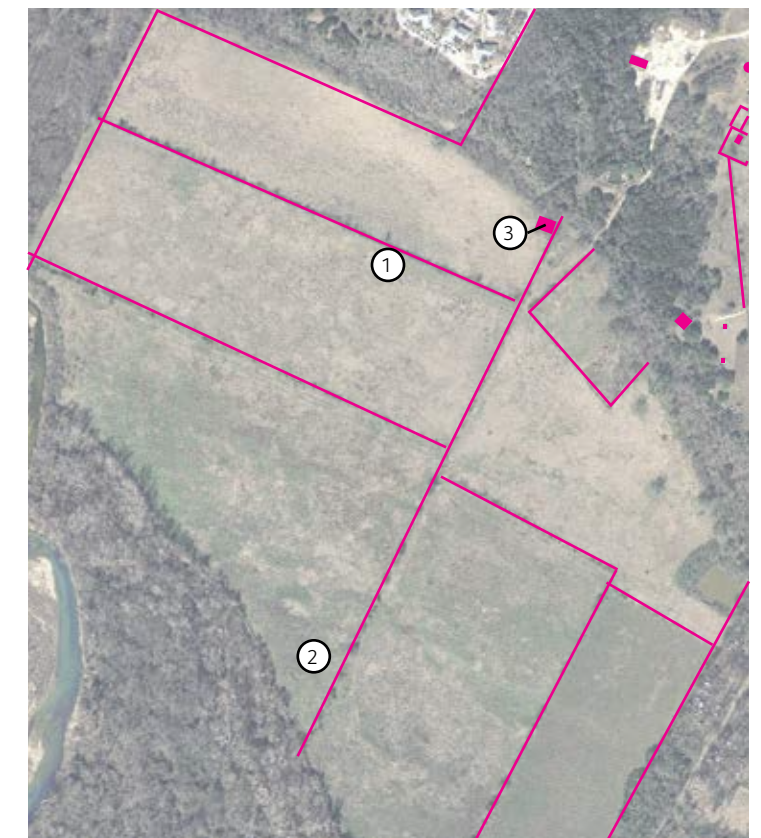
# Cultural Resources - Agricultural Heritage

## Existing Site



Lush vegetation growth around no-longer used infrastructure now serve as quiet moments of discovery that provide a glimpse into previous uses on the site. Planted hedgerows segment the former cropland area, forming separate landscape “rooms” that break down the scale of an otherwise vast and undifferentiated field.

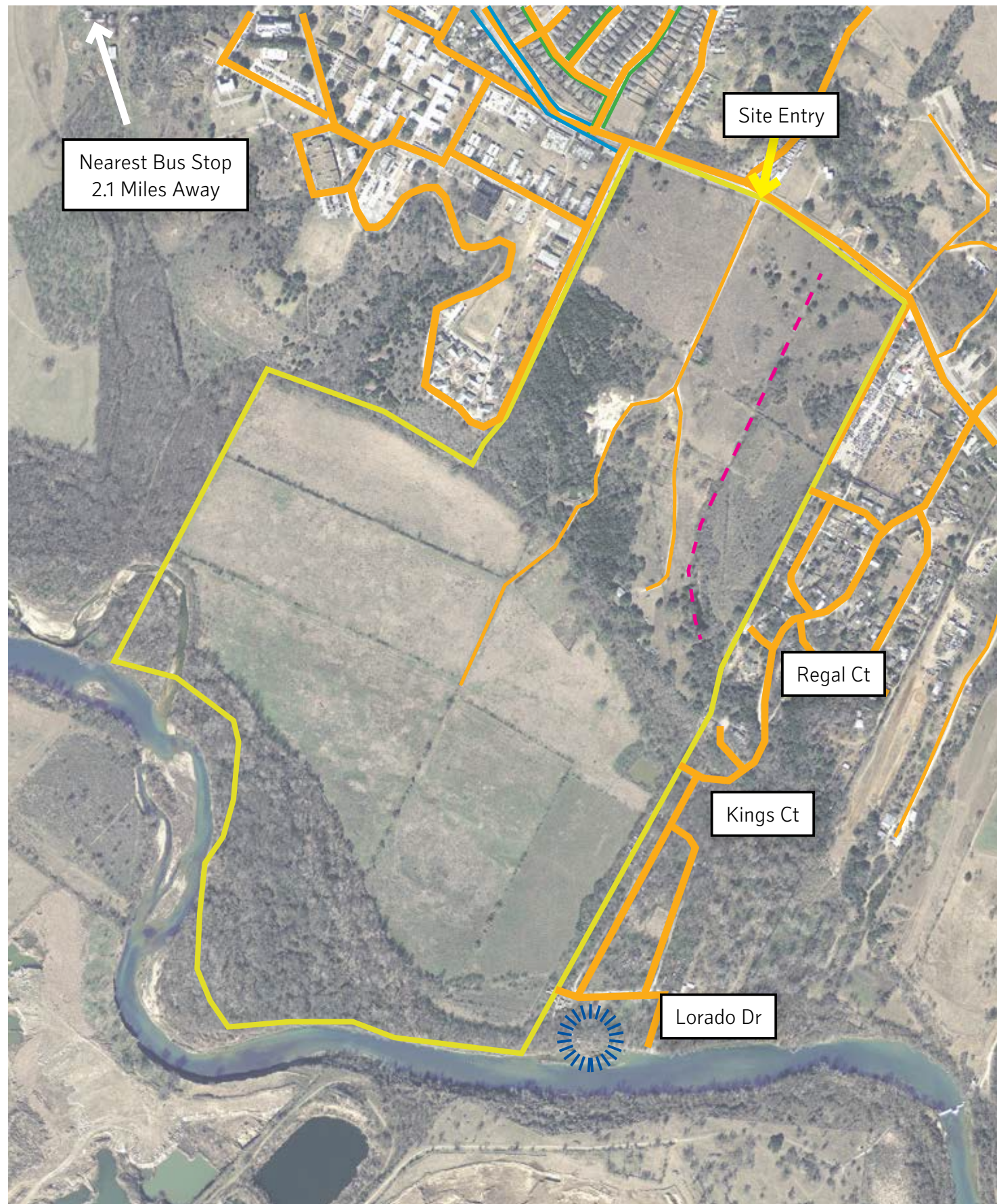
Metal barn: did not architecturally review; limited access.



Clockwise, from top: Remnant hedgerows in lower floodplain terrace; metal barn with hay bales; edge of riparian woodland on the left intersecting with hedgerows to the right

# Connections and Access - Transportation

## Existing Site



There are limited means of reaching John Treviño Jr. Metro Park at Morrison Ranch. To reach the park, existing infrastructure brings travelers to FM 969 which provides access to the single park entrance. There are local roads east and west of the park that could provide alternative entrances to the park in the future, however, to reach these alternative entrances, travelers would still need to travel along FM 969.

### Pedestrian

Pedestrian conditions around the park are lacking. FM 969 is largely without sidewalks, and there are few crosswalks along FM 969. There is a crosswalk at the signalized intersection with Blue Buff Road to the east of the park. Roads intersecting with FM 969 are also largely without sidewalks, however, there is an extensive sidewalk network within The Woodlands development northwest of the park.

### Transit

Capital Metro does not provide transit service to the park, the bus route that brings people closest is Route 237 which is nearly 2 miles from the park. For those traveling to the park from Downtown Austin, an additional trip would be needed to transfer to Route 237.

Capital Area Rural Transportation System (CARTS) serves rural communities around the capital area of Texas. Properties proximate to the park, and the park's frontage on FM 969 are included in CARTS' service area through the Travis County Country Bus service.

### Bicycle

FM 969/E Martin Luther King Jr Blvd has no dedicated bicycle conditions. Although there are no bike facilities along FM 969, there are segments of the roadway with a shoulder that bicyclists can utilize. Additionally, with a 50 MPH speed limit roadway conditions are not currently conducive to bicycling.

### Vehicle

Driving is the most convenient and easiest means of reaching the park. Those accessing the park by car will take FM 969. FM 969 extends eastward from downtown Austin. The road's configuration varies along the roadway, however, it is predominately a four-lane roadway, at times, with a center turn lane. The average annual daily traffic adjacent to the park in 2017 was 19,365 vehicles according to the Texas DOT.

There are no parking facilities on-site, nor is there on-street parking on FM 969.

### River

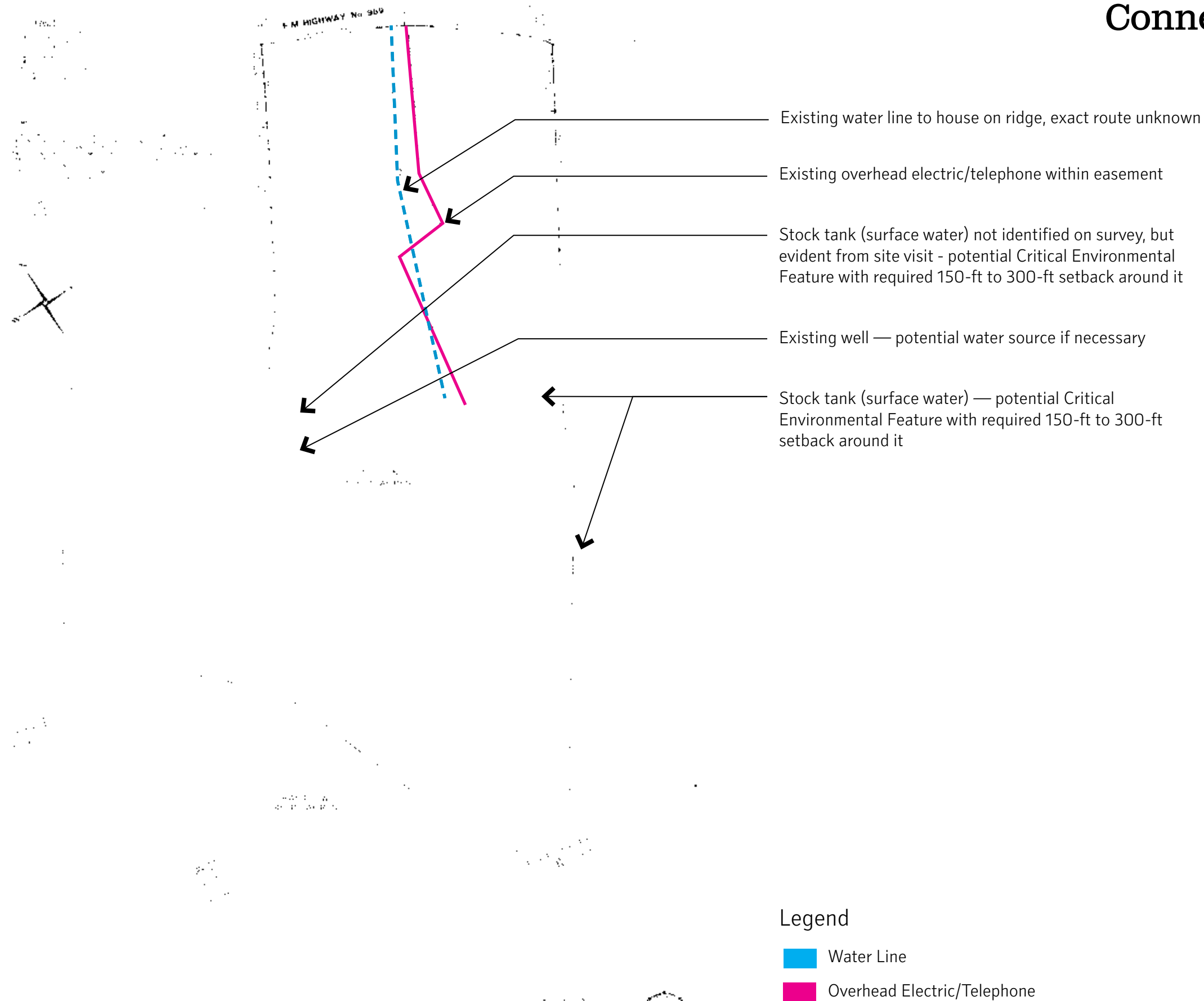
The Texas River School Camp to the southeast of the site has a boat launch and 225 feet of access to the Colorado River.

### Legend

- Paved Road
- Dirt Road
- Historic Road
- Bike Shoulder
- Sidewalk
- Private Boat Access

# Connections and Access - Utilities

## Existing Site



### Electrical Systems

Per the 2003 appraisal report, there appears to be an existing Austin Energy electric service line serving the site. The site is apparently encumbered with a five foot wide electric / telephone easement that extends from FM 969 southward to the two residences located within the site. This is depicted on the Holt Carson survey dated December 2002.

Per the 2003 Phase 1 Environmental Site Assessment, one unlabeled pole-mounted electrical transformer and six labeled pole-mounted electrical transformers were observed throughout the site. According to the identification markings on the transformers, they appear to be owned and maintained by Austin Energy.

Additional transformers and improvements to the existing electrical service lines will likely be required in order to serve any proposed improvements.

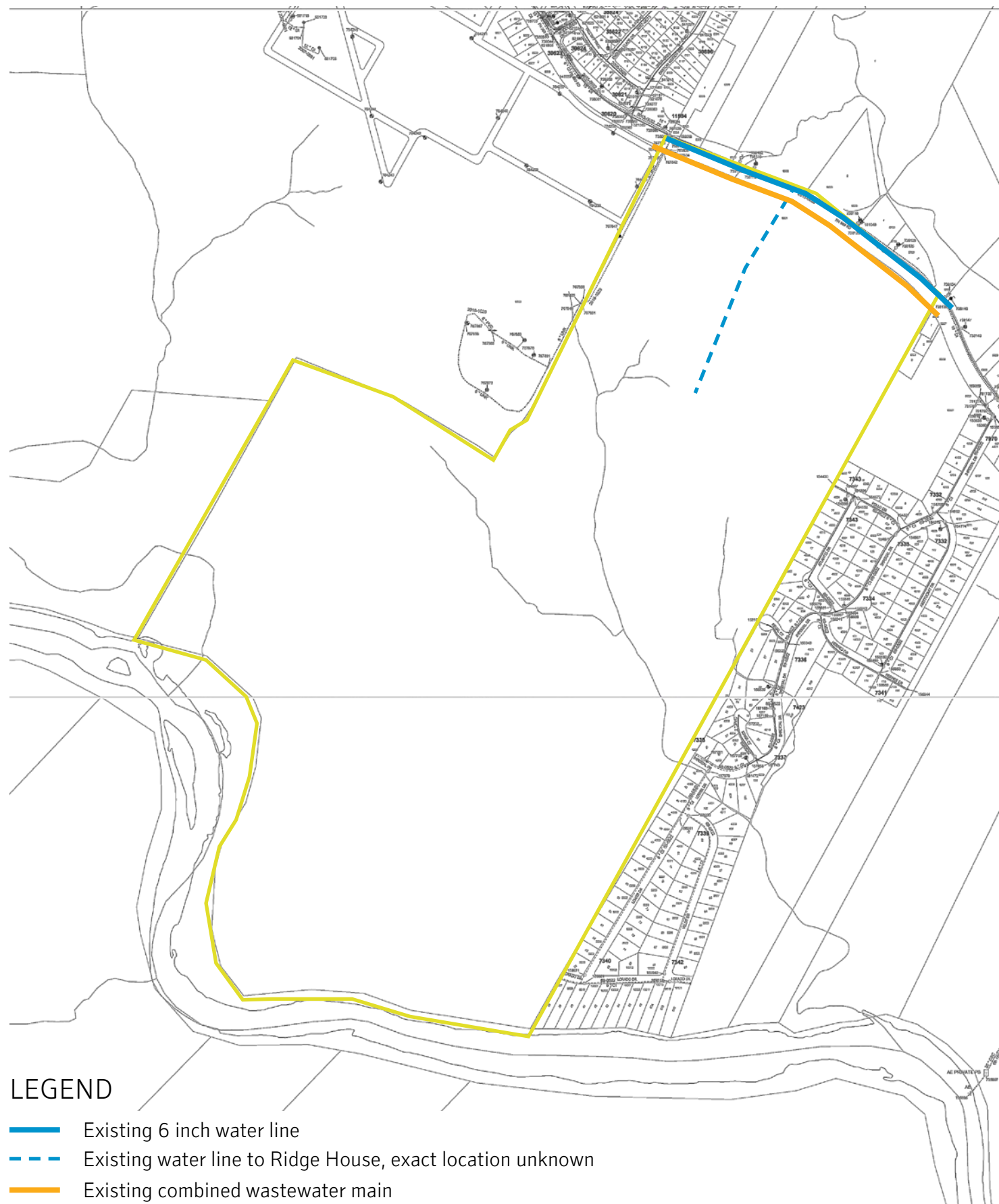
### Surface Water/Stock Tanks

Per the 2003 Phase 1 ESA, there are three surface water bodies (stock tanks) that were observed during the site reconnaissance. Two of these are identified on the Holt Carson survey dated December 2002. The Phase 1 ESA identifies one of the stock tanks as being spring fed.

An Environmental Resource Inventory (ERI) should be completed to confirm if any of the stock tanks could be categorized as Critical Environmental Features (CEF's) or wetlands. CEF's require buffer zone offsets between 150-ft and 300-ft from all edges of the CEF's. Development is restricted within these buffer zones per LDC 25-8-281. Wetlands require appropriate setbacks that preserve the wetland functions. Wetland protection requirements are outlined in LDC 25-8-282.

# Connections and Access - Water

## Existing Site



### LEGEND

- Existing 6 inch water line
- - - Existing water line to Ridge House, exact location unknown
- Existing combined wastewater main

### Water Line

There appears to be an existing 6-inch water line located along the north side of FM 969 along the subject site's frontage on FM 969. Per the 2003 appraisal report, an existing 6-inch water line extends into the subject site; however, it is expected to have limited capacity. It's not clear if this on-site water line (or the 6-inch water line in FM 969) is still active or if it has been abandoned. The 6-inch water line in FM 969 appears to show up as abandoned on Austin Water's online GIS records.

Per current Austin Water online GIS records, there appears to be a proposed (or possibly newly constructed) 16-inch public water main located along the north side of FM 969. This water main is identified as "W-2015-0032" per Austin Water's online GIS records. It appears this water main was designed sometime around 2015, thus it was not referenced in the 2003 appraisal report. It has not yet been confirmed if this water main has been constructed or is scheduled to be constructed.

A new water line service connection to the proposed (or newly constructed) 16-inch water main could be a viable option for providing increased domestic water service, fire suppression and irrigation to the subject site. Depending on existing system pressures in the area, the 16-inch main should be sufficient for a wide variety of park uses (such as typical parks buildings, restroom facilities, athletic fields, etc).

As discussed in the 2003 appraisal report, another opportunity for water service to the property could include the development of a well (or wells) from the underlying groundwater, and construction of the required pumps and storage facilities. These wells would be required to comply with Texas Commission on Environmental Quality (TCEQ) and City of Austin requirements.

### Combined Wastewater Main

Per the 2003 appraisal report, the site does not have any public wastewater service available on-site.

At the time of the 2003 appraisal report, on-site septic was apparently utilized; however, the report did not describe the location of the on-site septic facility. Additionally, per the Phase 1 Environmental Site Assessment report by HBC Terracon, the previous property owner was not aware of any septic systems or underground storage tanks on-site. Given that there are/were two residences on the property it would be very surprising to not have any septic or UST's on-site.

The 2003 appraisal report referenced that about 4,200 linear feet of 8-inch force main along FM 969 to the west of the subject site would be required to provide wastewater service to the site. Per the appraisal report, this force main would tie into an existing 12-inch gravity line located along FM 969 approximately 600 feet east of its intersection with Rogers Lane (near the intersection of FM 969 and Decker Lane), and a lift station would be required to be constructed on-site.

Per Austin Water's online GIS records, there do not appear to be any existing or proposed wastewater lines surrounding the subject property that could provide new wastewater service to the site.

There is an existing 12" ductile iron sludge line located along the subject site's frontage on FM 969. The existing sludge line gravity flows from west to east. This line is not available for providing wastewater service to the subject site.

Another opportunity for wastewater service to the subject property could be on-site septic systems with associated drainfields. Development of an on-site wastewater treatment plant using irrigation for discharge could be another option. Land application of treated wastewater effluent is prohibited within the 100-year floodplain and critical water quality zones.

# Expansive Views

## Existing Site



Views into and out of the park shape the overall experience. Subtle topography within upper site partially blocks vehicles on FM 959



Vista from the porch at the House on the Ridge connects the Austin skyline with views of Austin-Bergstrom International Airport, Downtown Austin, the State Capitol, and the University of Texas.



Dense bottomland riparian vegetation opens to views across the river at the bank's edge. Land opposite the site is obscured by topography and vegetation.



# Views Within the Site

Existing Site



Just north of the vista from the House on the Ridge, views are still expansive across generally flat topography along the plateau, yet are more intimate as the vegetation frames and delineates boundary edges in the distance.



The lower floodplain terrace is largely a flat plain, divided into several landscape “rooms” via planted hedgerows that break down the visual scale of the 155-acre expanse.

# Topography

## Existing Site

The site is divided into three topographic zones — an upper terrace, floodplain terrace, and riparian bottomlands. The shape of the site, defined by time, water, and the underlying substrates, guided the historic use of the site and will guide how the park is used in the future.

As seen in Figure 4, the 320-acre site has its high point along the main road entering the site, slightly upslope from the entrance to the park at 530 feet above sea level. This high point is part of a ridge that runs generally west to east and divides the site to areas sloping down to FM 969, and those sloping down to the Colorado River. The northern edge of the property goes down to 488 feet at the northeast corner and the lowest point of the property is at the southeast corner where the property meets the Colorado River at 400 feet above sea level. The property has three terraces with two major sloping areas between them.

of 800 feet. The terrace slopes down more steeply from the highest peak to both the eastern and western portions of the property, but extends southward, dropping approximately six feet in elevation over a 300-foot run to the interior of the property, forming a plateau-like landform in the center of the property where the "House on the Ridge" is located.

At the edge of this plateau, the land drops sharply to the 100-year floodplain, with a 60-foot drop and slopes ranging from 10 to 60%. The slope runs east to west with a south facing slope that is bisected by the creek and riparian areas coming from the uplands down the slope.

On the western section of the upper property, a creek that results in a riparian area that crosses from the western border to the center of the property reduces the intensity of the 100-year floodplain slope and brings greater topographic variation up into the northwestern portions of the property. On the eastern side, the upper terrace is bisected by a drainage that goes off property into the adjacent neighborhood, with the lowest elevation being 468 feet. These two drainage systems along with the major slope form the sides of the plateau-like landform previously described.

The upper terrace is former pastureland and savanna that gently slopes to FM 969 and has a change in elevation of 20 feet along the main road over a run

### Slope

- <5% (no color)
- 5 - 15%
- 15 - 25%
- 25 - 35%
- 35 - 60%
- 60 - 87%
- Site boundary
- \* 10' contours

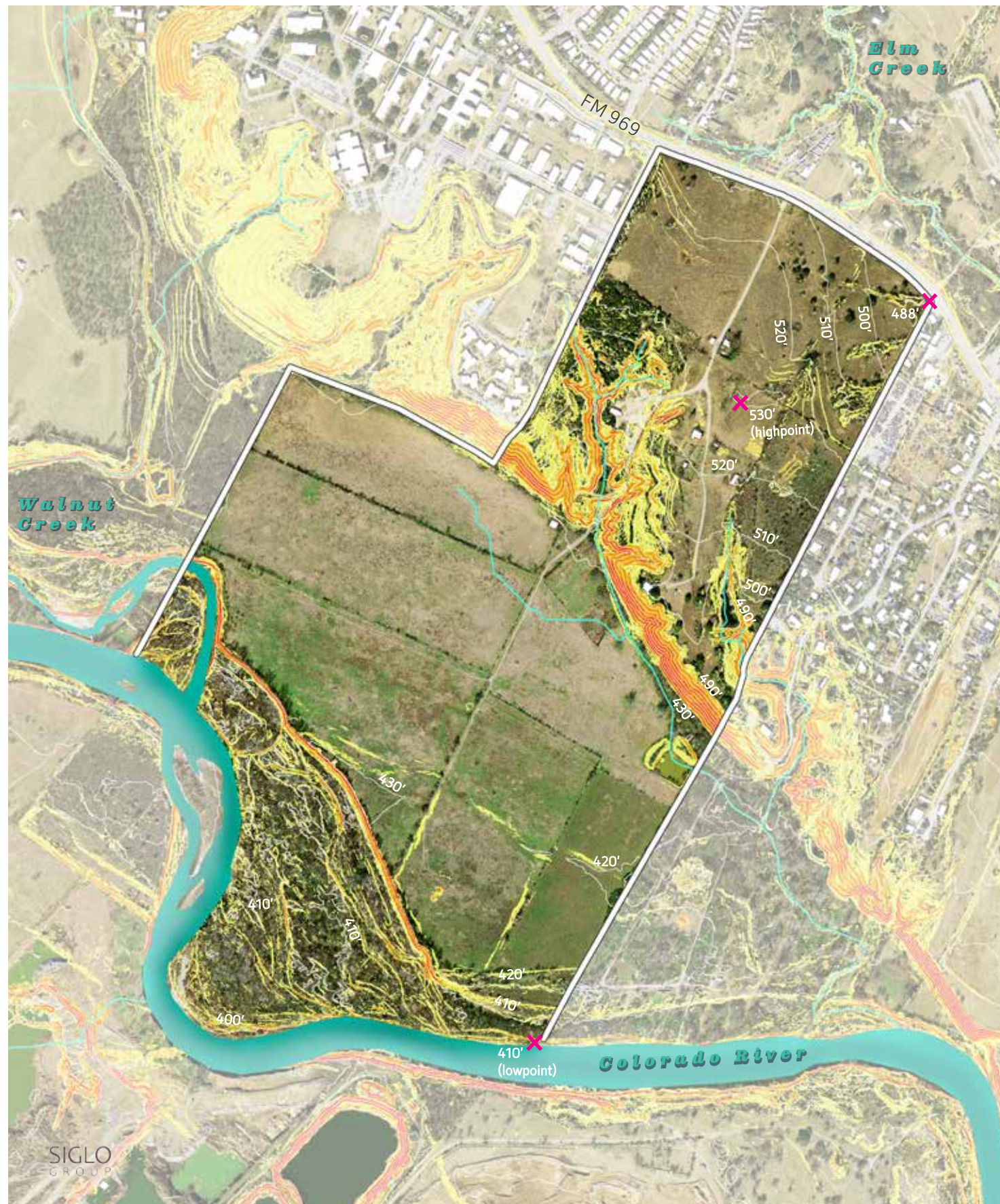
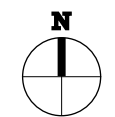
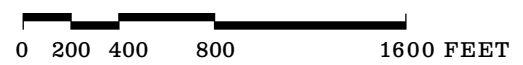


Figure 4: Site Topography



# Topography

## Existing Site



Figure 5: Views to downtown Austin from the edge of the floodplain terrace, overlooking the riparian bottomlands.

Below the sloping areas, the floodplain terrace – former cropland – expands over an 150-acre area with relatively little topographic change. The upper part is 430 feet above sea level, and the lower portions is 422 feet above sea level along the former ranch road. Micro variations in this area are due to hog activities, previous contouring of the fields, the location of roads and fence rows, and the flow of water in high water events.

Below the floodplain terrace, the site drops dramatically again by approximately 20 feet to the riparian bottomlands (Figure 5). This slope is heavily vegetated except for wildlife trails up its side. The steepest areas are found on the western edge, with the slope becoming gentle at the eastern boundary with slope percentages ranging from eight to 53%.

The riparian bottomlands are relatively flat, sandy areas with undulating surfaces. Like the floodplain terrace, this area has micro variations in topography as a result of high-water flow events, previous paths of the river, incredibly erodible sandy soils, deposition of soil in high flow events, and disturbances by hogs. As the property meets the river, there is substantial bank erosion on the western boundary as a result of high flow events coming out of Walnut Creek. This bank erosion is approximately an eight feet at the western border and moves down to almost no noticeable erosion at the eastern border.

### Opportunities

- Interesting and varied topography
- Views

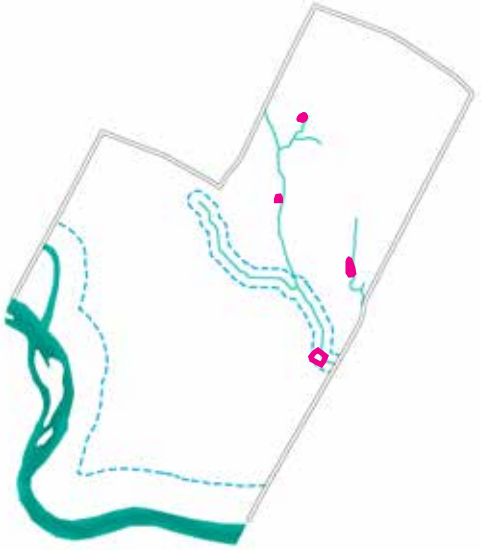
### Challenges

- Steep slopes make access challenging between upper plateau and lower floodplain
- Erosion is an issue on steep slopes

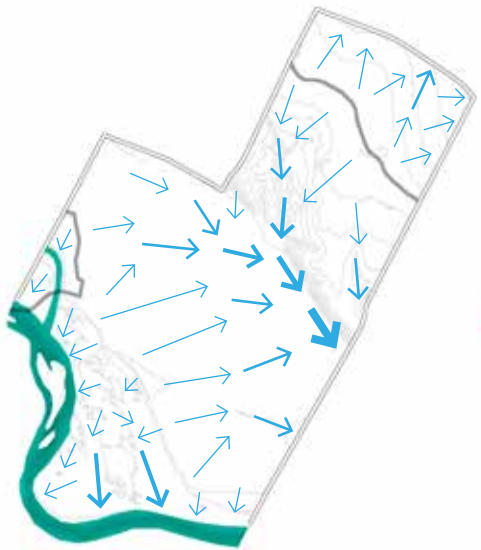


# Hydrology

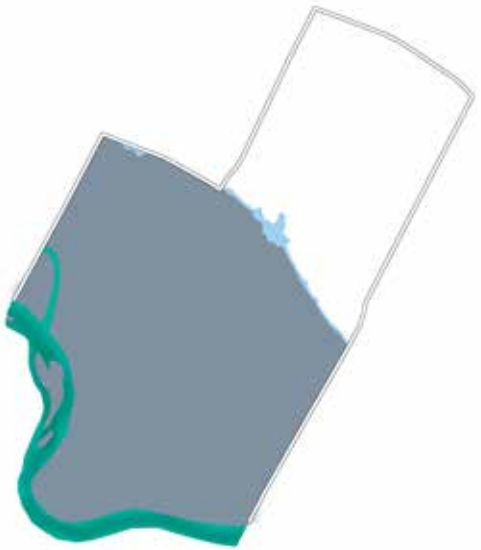
## Existing Site



**Waterways**  
 Drainage length: 6,900 feet  
 River frontage: 4,600 feet  
 Area within CWQZ: 48.5 acres  
 Ponds: 3 active, 1 dry



**Watersheds**  
 Walnut Creek: 8 acres  
 Elm Creek: 43 acres  
 Colorado River: 269 acres  
 Arrows = Flow direction and volume



**Floodplain**  
 100 year floodplain: 206 acres  
 500 year floodplain: 210 acres

Water from the site drains into three different watersheds - Walnut Creek, Elm Creek, and Colorado River.

With the ridgeline dividing the property from west to east in the upland field, 43 acres drain to the Colorado River by way of Elm Creek, 8 acres by way of Walnut Creek, and the remaining 269 acres drain directly to the Colorado River. As seen in Figure 6, precipitation that falls on the northern section of the site, near FM 969, generally sheet flows towards the road and eventually to Elm Creek with some moderately defined drainage paths in the northwest quadrant of the site. In addition, there is a small, remnant agricultural drainage ditch on the

Figure 6: Site hydrology (Source: City of Austin 2019)





Figure 7: Culvert near Discovery Center property line northeast side of the property that drains north toward the road.

The majority of the site drains south towards the Colorado River. Water sheet flows off the fields into the two drainage areas on the western and eastern boundaries of the property and down the large slope defining the 100-year floodplain. Within the sloping areas, there is a creek on the western boundary and another on the eastern boundary. The western creek originates just west of the site and is brought into the site through a culvert (Figure 7). The creek then

continues to flow down the sloping woodland to a stock tank (Pond 1, Figure 8) just west of the main road, half way down to the floodplain pastures. This creek continues along the bottom edge of the major slope on the property where it drains the slope and part of the 100-year floodplain terrace. The creek continues flowing eastward into another stock tank on the eastern board of the property (Pond 2). At the top of the western upland creek areas is an additional stock tank that no longer holds water (Dry Pond 1).

The eastern drainage, originating in the uplands on the east side of the property, flows into a third stock tank on the property (Pond 3). Below the pond, the flow pattern becomes more defined before leaving the property into the adjacent neighborhood, where it meets the main creek. The main creek finally drains into the Colorado River about 2,000 feet east of the property line.

The largest hydrologic influence on the site is the Colorado River, which borders the southwest edge of the property. The Colorado is a dynamic system that once regularly changed course (Figure 9). As discussed in the context section, dams on the river now regulate the flow, and the river is less volatile. However, tributaries to the river are carrying increasingly heavier flows as impervious surface is increased in nearby urban areas. The mouth of the 27,735 acre Walnut Creek watershed is just west of the Treviño Park property line. Up until very recently, the mouth of Walnut Creek was located within the west side of Treviño Park. The creek has since – within the last year – eroded through a narrow piece of land and now exits about 900 feet west of the property (see Figure 9, image 2). The old channel will transition into an oxbow that is only inundated at high water levels. Half of this oxbow is located within the property boundary. The high velocities coming out of Walnut Creek continue to drop sediment and cause erosion on the banks of the property as well as across the river. When comparing the river bank upstream



Figure 8: Stock tank/ "Pond #1"

and downstream from Walnut Creek, it is clear that high velocities at the confluence are causing bank erosion along this stretch of the Colorado (see Figure 9, images 1, 4, and 5). Dynamic sedimentary islands are also present right at the former mouth of the creek (Figure 9).

64.4 % of the site falls within the 100-year floodplain (about 430 feet elevation) and 65.6% within the 500-year floodplain (about 450 feet elevation). The bottom of the sloping woodland occurs right around the 100-year flood elevation. This means that the area of inundation between the 100 and 500 year floodplain is generally captured on the sloping surface and is therefore not as large or spread out. As floods become more frequent and bring more floodwaters, the area of the floodplain is not likely to change very much. However, frequency and duration of floods will have an effect on plant species composition as well as erosion and sediment deposition issues. Care must be taken to ensure that development in all areas below the uplands of the site is resilient to flooding.

#### Opportunities

- Access to the river via boat, allowing for the beginning and ending of trips that explore the Colorado River from the Site

#### Challenges

- Dynamic river movement and shifting channels pose challenges for built elements (like structures or trails) near the river
- Bank erosion due to high velocity flows from Walnut Creek



Figure 10: Canoers paddle downstream on the southwest edge of the site

# Hydrology

## Existing Site

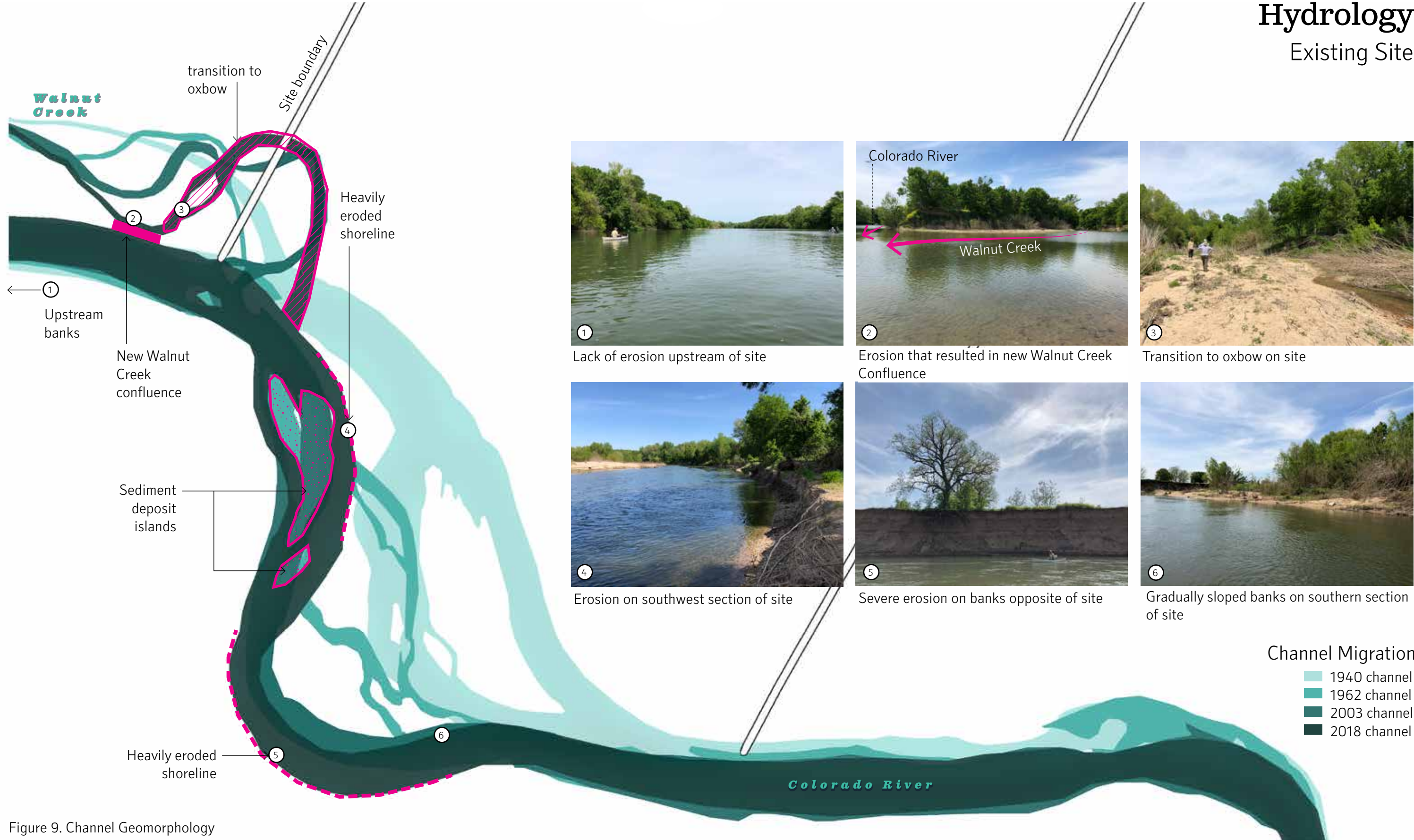
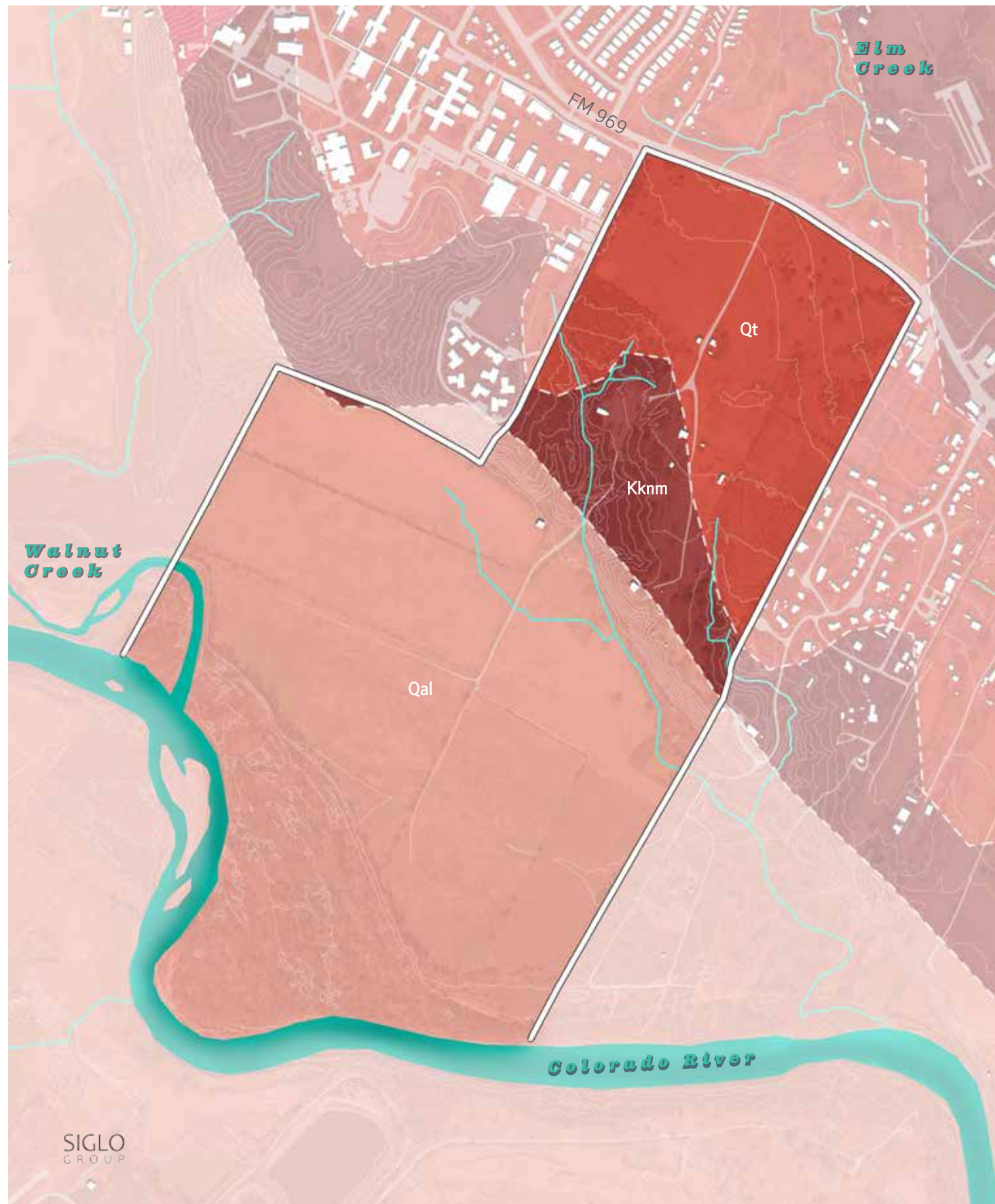


Figure 9. Channel Geomorphology

# Geology and Soil

## Existing Site



The geology and soils of the natural areas are defined by the Colorado River and its historic movement. The result is a mix of loamy and sandy soils in most areas.

As seen in Figure 11, three bedrock types underlie the study area based on the 15-minute GAT from Bureau of Economic Geology (2002):

- Qal: Quaternary Alluvium
- Qt: Fluviate terrace deposits
- Kknm: Kemp clay, Corsicana Marl, Neylandville formation and Marlbrook Marl

The majority of the site is underlain by the alluvium deposits of the Qal and Qt layers. These are not bedrock at all, but deposits made by the Colorado River during flood events over millions of years. They are highly variable. Some areas are dominated by sand and others by loamy clay or gravel deposits. The floodplain terrace that bisects the site is an exception, with a substrate composed of clay and marl rather than alluvium.

### Legend

- Qt: Fluviate terrace deposits
- Kknm: Kemp clay, Corsicana Marl, Neylandville formation, and Marlbrook Marl
- Qal: Alluvium
- Site boundary

There are numerous soil types that occur on the Treviño site as seen in Figure 12. Each help dictate, along with hydrology and topography, what types of plants may occur in these various areas.

### Orif Series

Riverwash, (Rw): This soil covers the riparian area along the river and primarily consists of Orif soils, which are very deep, well drained, rapidly permeable soils of limestone origin. Slopes range from 0 to 3 percent. These areas are often flooded and without stable vegetation may change shape or disappear after flood events.

### Gaddy Series

Lincoln loamy fine sand (Ln): This soil is found in a small section in the southeast corner of the 100-year floodplain and adjacent to the River Wash soils below. Gaddy soils have a slope of less than 1% and are well drained, deep sandy loams found in floodplains.

### Bergstrom Series

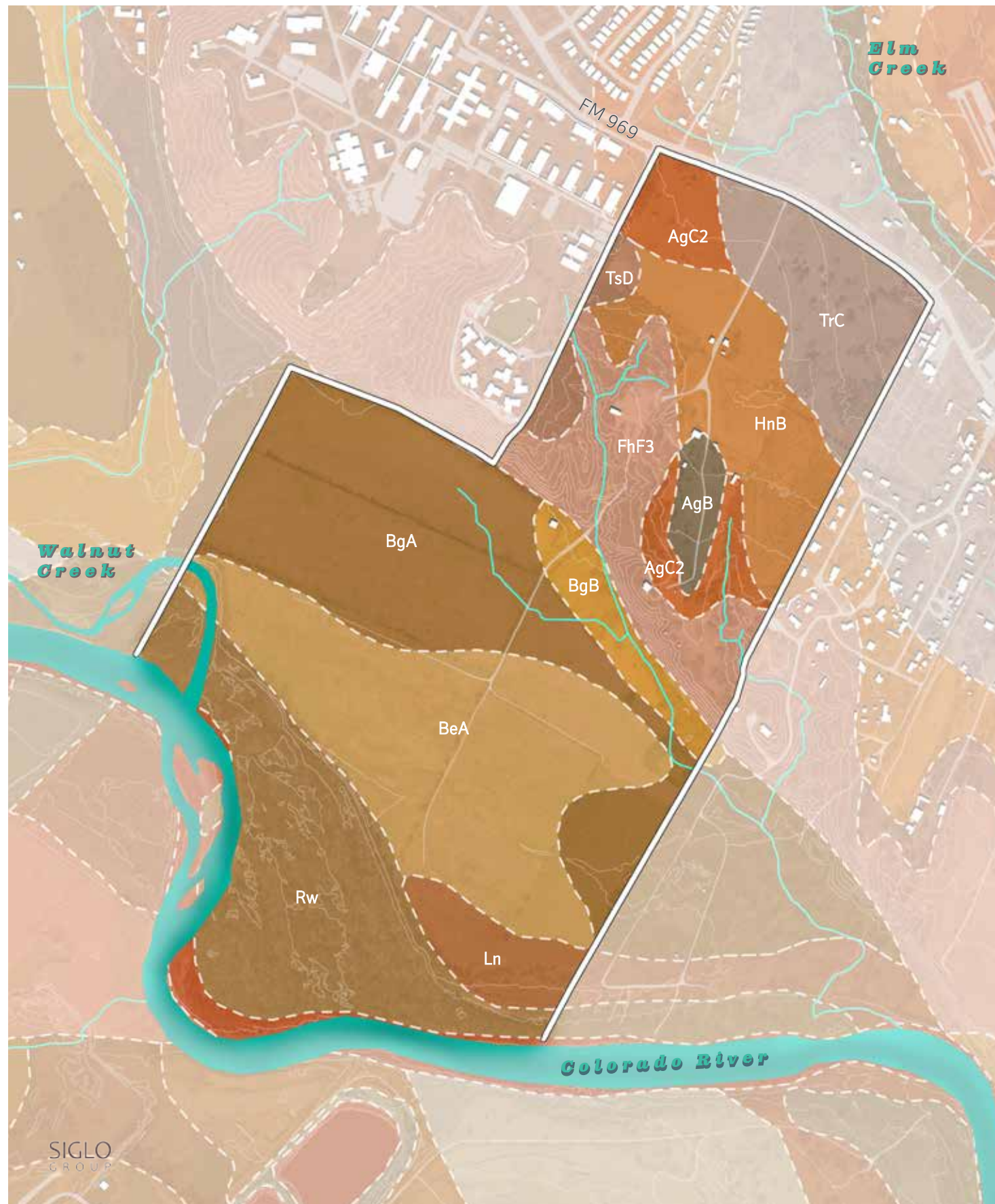
Bergstrom Silt Loam (BeA), Bergstrom Silty Clay (BgA), & Bergstrom Silty Clay Loam (BgB): The Bergstrom series soils are found throughout the 100-year floodplain and only differ slightly. All consist of very deep, well drained, moderately permeable soils. The BeA soils, found in the southern half of the floodplain, have less than 1% slope and lower clay content of the other two. The BgB soils have a slope of 1 to 3 percent, and are found on the northernmost portion of the 100-year floodplain, essentially from the main park road eastward. The remaining portion houses BgA soils, which only differ from the BgA soils in their slope, which is less than 1%.

Figure 11: Site Geology



# Geology and Soil

## Existing Site



### Ferris-Heiden Series

Ferris-Heiden complex (FhF3): This series is made up of Ferris (60%) and Heiden (35%) soils and encompasses the sloped areas dividing the upper terrace and the floodplain. This soil complex is found in areas with 8 to 20% slopes, and can be severely eroded. Soils are clayey in texture, well drained, and very slowly permeable. Occasionally outcrops of sandstone or marl can be found, the latter can be seen along upper slope east of main residence.

### Travis Series

Travis Gravelly Soils (TsD) & Travis Soils (TrC): The Travis series is found on two sections of Treviño. Both are clayey-loam and consist of very deep, well drained, slowly permeable soils. The TsD series, with slopes of 1 to 8 percent, is located on the western edge bordering the Discovery School, while the TrC series, slopes 1 to 5 percent, covers a large portion of the northern grassy uplands.

### Altoga Series

Altoga Silty Clay (AgC2 & AgB): On the upland above the sloping areas, both Altoga series soils can be found. These silty-clay soils are very deep, well drained, moderately permeable soils derived from mudstone. AgC2 occurs in the area nearest the main residence and continues eastward, covering the upper portion of the drainage that feeds the upland pond. Additionally, this soil type is found in the northwest corner of the property. This soil type has a slope of 3 to 6 percent and is moderately eroded, while AgB has a slope of 1 to 3 percent and typically shows little erosion. The AgB series is limited to an area extending southward from the main barn to the primary residence.

### Houston Black Series

Houston Black Clay (HnB): Houston Black soils are found throughout the central portion of the uplands, encompassing the grasslands and the highly disturbed mesquite thicket on the eastern boundary. These clayey soils are very deep, moderately well drained, very slowly permeable soils with a 0 to 8 percent slope. Generally, these soils were used for farmland and grazing.

### Legend

- AgC2: Altoga silty clay, 1-3% slopes
- TrC: Travis soils, 1-5% slopes
- HnB: Houston black clay, 1-3% slopes
- AgB: Altoga silty clay, 3-6% slopes
- FhF3: Ferris-Heiden complex, 8-20% slopes
- TsD: Travis gravelly soils, 1-8% slopes
- BgB: Bergstrom silty clay loam, 1-3% slopes
- BgA: Bergstrom silty clay loam, 0-1% slopes
- BeA: Bergstrom silt loam, 0-1% slopes
- Ln: Lincoln loamy fine sand
- Rw: Riverwash

Figure 12: Site Soils: Data (Source: NRCS, accessed March 2019)



# Plant Communities

## Existing Site

The site is part of the Blackland Prairie with influences from the Edwards Plateau and East Central Texas Plains. Due to agricultural use, fire suppression, development, and introduced species, very little intact Blackland Prairie remains.

At Treviño Park, we can see the results of human impact on these prairie systems. Land modification, tree and shrub removal, tilling, introduction of non-natives, fire suppression, and intense grazing have all shaped the land to what we have today – a heavily modified system. The property still contains diversity, with over 170 species observed in numerous habitat types. Much of the property has likely been in cultivation for at least 100 years and probably much longer. The areas of

former agriculture have a greater dominance of invasive species and lower overall biodiversity. That said, the diversity that occurs on site is high in certain areas and during spring surveys there were quite a few surprises.

Ecological communities have been mapped on the property based on the Texas Parks and Wildlife Department's Ecological System Classification database and refined based on field observations (Figure 14).

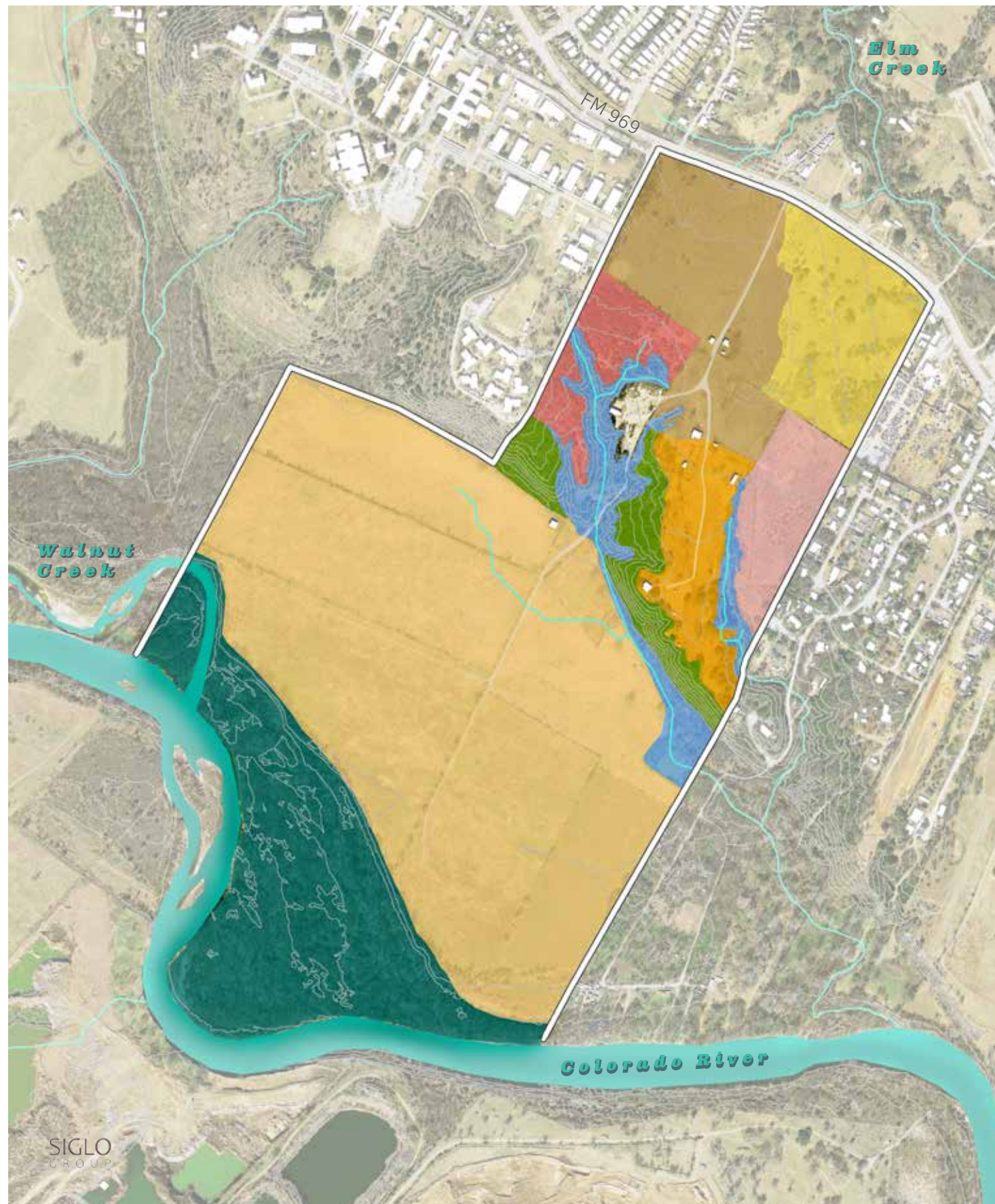
The ecological systems and vegetation types below represent the current expression of vegetation on the property. They are subject to change over time due to management practices, changes in site conditions (such as climate change), or the passage of time since the last major disturbance (i.e. succession or major flood event).



Figure 13. Plants characteristic to the Treviño Park site (1) Bois d'arc tree fruit, (2) two flowered milkvine, (3) red buckeye, (4) green milkweed, (5) indian paintbrush, (6) Eve's necklace tree flower, (7) yarrow, (8) yucca arkansana, (9) cottonwood

# Plant Communities

## Existing Site



Vegetation communities found at Treviño Park include: riparian woodland, former floodplain pasture, creekside woodland, sloping woodland, former pasture, savanna, upland grassland, immature mesquite thicket, and immature juniper thicket.

### Riparian Woodland

Referring to the 1940 aerial image of Treviño Park, it is evident that the riparian area we see today was not in existence. This is an outcome of changes in flood control after the construction of a series of dams upstream, creating the Highland Lakes, and the impacts of Walnut Creek on this section of the river. The riparian area does show signs of flooding, a few channels, with a mix of cobble and silt that dissect the region. The flow channels are mostly barren pathways and are lower than the surrounding woodlands. The soil here is the

Orif series, a sandy loam. This 60 acre area is heavily forested, with typical riparian species found along river corridors (Figure 12). Overstory trees include sycamore, cottonwood, hackberry, pecan, American elm, and box elder. The understory is a collection of immature overstory trees with the addition of ash, bois d'arc, and willows. In most areas the understory is not dense, and there is a robust herbaceous layer consisting of grasses such as Virginia wild rye, inland sea oats, and brome. Sedges are occasional. Forbs are not common, with bedstraw being the most common encountered in spring, and the occasional patch of wild onion, beggar's ticks and baby blue-eyes. In areas, large drifts of young elderberry were found, by late spring these will undoubtedly form thickets, adding to the understory layer. Poison ivy was the most common vine observed. Other vines noted included pepper vine, purple leather flower, and trumpet creeper.

### Former Floodplain Cropland

The Former Floodplain Cropland covers 155 acres and consists of the Bergstrom series of soil, with a small section of Gaddy series located along the southeastern edge; both soil types are alluvium. This area is dissected by fence lines, now hedgerows of a mix of woody species such as mulberry, chinaberry, hackberry, mesquite, and lotebush. The open grasslands are mostly Bermuda grass, brome, and annual rye, with a mix of herbaceous species such as bull-nettle, annual mustards, prickly poppy, native and introduced thistles, among other species (Figure 16). Dock forms small colonies in wet areas throughout the fields, as does Britton's sedge. Along the northern perimeter, where the floodplain meets the woodland slope, larger trees such as pecan and cottonwood can be found in the open. The southwestern portion has the beginning of an immature mesquite thicket, with the occasional huisache tree in the mix. These trees are migrating into the open pasture, beyond the fence line.

### Plant Communities

- Savanna
- Former Pasture
- Former Floodplain Cropland
- Upland Grassland
- Sloping Woodland
- Creekside Woodland
- Riparian Woodland
- Juniper Woodland Thicket
- Mesquite Woodland Thicket
- Site boundary

Figure 14: Site Plant Communities: Data (Source: TPWD 2009-2014)





# Plant Communities

## Existing Site



Figure 15: Small diameter hackberries and cottonwoods in the Riparian Woodland



Figure 16. Looking north from the Former Floodplain Cropland



Figure 17. Old road that passes through the Sloping Woodland

### Sloping Woodland

Above the Former Floodplain Cropland is the Sloping Woodland, which covers about 11 acres and has the highest biodiversity of tree and shrub species on site. The soil found in the Sloping Woodland is the Ferris series. The overstory includes live oaks, along with cedar elms, and Ashe juniper (Figure 17). Large snags are common as are downed trees, especially near the upper slope. Invasives include Japanese and Chinese privet, with the addition of the occasional chinaberry. The understory consists of hop-tree, elbowbush, Mexican buckeye (lower slope), Eve's necklace, red buckeye (upper slope) and smaller canopy trees. The herbaceous layer ebbs and flows in varying densities and includes false day flower, baby blue-eyes, bedstraw, Virginia wild rye, and a variety of minor players. The upper slopes, shallow slopes, and nearly level areas tend to have more xeric species and include hackberry in the overstory with live oaks and Ashe junipers fading. Understory species in these areas include lotebush, kidneywood, Texas persimmon, and tasajillo with the herbaceous layer consisting of blanket flowers, King Ranch bluestem and other sun-loving plants.

### Creekside Woodland

The Creekside Woodland covers about 17 acres and consists of the Ferris series of soil. Beginning on the western perimeter, water enters the property via a culvert and flows through a small ravine with steep slopes before entering a man-made pond. The pond then delivers excess water, via a culvert, to the next portion of the creek, which flows at the base of the steep wooded slope before emptying into another pond located on the eastern border. Additionally, this plant

# Plant Communities

## Existing Site



Figure 18. Large live oak in Creek Woodland



Figure 19. Young mesquite in Former Pasture and Savanna

community is found in a separate drainage system east of the main house, which includes the upland pond. This area is rich in diversity and contains many species one would expect to find in the Edwards Plateau. The adjacent slopes are steep, with numerous side drainages feeding the creek. Within these drainages, numerous downed trees and snags remain. In areas, especially along the main ranch road as it comes down the slope, erosion is a serious issue. It is along the lower slopes and in the drainage where some of the most majestic live oak trees are found (Figure 18), joining cedar elms, bois d'arcs, Ashe juniper, and American elms as the overstory. A few cottonwoods were noted along the eastern portion of the creek, along with pecan and Chinese tallow. The central pond had cattails growing within it – the only aquatic species noted – along with speedwell and buttercup along the margins. A small grove of Chinese tallows was seen just upstream of the pond as were a few willows and box elders. Around the eastern pond, the majority of woody plants include mesquite and paloverde, with willow and cedar elm found along the eastern and northern edges of the pond. Here the understory is mostly Bermuda grass, Japanese brome, and rescue grass, as this area receives more sunlight. The understory throughout the remaining areas of the creek consists of Mexican buckeye, red buckeye, hop-tree, and privet. The herbaceous layer in the heavily shaded areas consists of Virginia wild rye, false day flower, baby blue-eyes, bedstraw, and other species to a lesser extent. Extensive hog damage is evident in this area, and it is the one place where hogs were encountered on two visits. An intact fence runs along the drainage east of the road and continues to the eastern edge of the property, north of the pond.

To the northeast of the main residence is a tear-

shaped pond ringed by live oaks, black willows, cedar elms, Ashe junipers, and the occasional cottonwood. This area is about four acres in size and occurs on the Altoga soil series to the north with the Ferris series to the south. Overstory trees include live oak, Ashe juniper, cedar elm, and hackberry, with the occasional chinaberry. Understory trees consists of Mexican buckeye, red buckeye, hop-tree, and persimmon. The upstream side of the pond is dominated by cedar elm, with hackberry to a lesser extent and a few small groupings of chinaberry. Along the edges, especially the eastern edge, mesquite and paloverde are common, both encroaching from the mesquite thicket to the east. The herbaceous layer varies, with King Ranch bluestem dominating the graminoids in the open areas, and cedar sage and Virginia wild rye under closed canopies. Water primrose was the only aquatic species noted within the pond, found along the edges.

### Former Pasture

The former pasture consists of 31 acres of heavily used agricultural land in the northwest quadrant of the property. It contains three soil types – Altoga in the northwest, Travis in the southwest corner and northern portion, and Houston Black to the south. The majority of the woody species are found along fencerows, with a few large mesquites in open pasture (Figure 19). Common woody species include hackberry, mulberry, cedar elm, Ashe juniper, and chinaberry. The pasture is mostly open, consisting of a variety of grasses, the most dominant being King Ranch bluestem. Others include Japanese brome and rescue grass, along with panic grass, love grass, and a few sedges such as Britton's sedge. Typical herbaceous plants include blue-eyed grass, false dandy-lion, pink evening primrose,

# Plant Communities

## Existing Site



Figure 20. Live oak in Savanna

gaura, and brown-eyed Susan. Immature mesquite, approximately 2-3 feet tall, dominates the shrub layer and is extensive throughout the open areas. In the southeast corner of the pasture, south of the first fence line, is a small seepage area that leads towards the upper reaches of the Creekside Woodland. This area, if left untended, will most likely result in woody species encroachment in the future.

### Savanna

On the northeastern edge of Treviño Park, the Savanna covers 21 acres with mostly open grassland and a few woody mottes along drainages. The soils are a continuation of the Pasture soils, the Travis series dominating the majority of the area with a small section of Houston Black in the southwestern corner. Like the Pasture zone, immature mesquite of approximately the same age dominate open areas. Canopy trees include live oak (Figure 20), bois d'arc, cedar elm, hackberry, Ashe juniper, and chinaberry. Understory trees include Eve's necklace, elbow-bush, tickle tongue, and Texas persimmon. Mustang grape is often seen overtaking many trees along fencerows; Virginia creeper is found occasionally on some of the larger live oaks. The herbaceous layer here tends to have more forbs – blanket flowers, primrose, gaura, blue-bonnets, plantago and flax are common. Grasses include King Ranch bluestem, Japanese brome, rescue grass, Texas wintergrass, bristle grass, lovegrass, and panic grass. The only sedge noted was Britton's sedge. The fencerows in this area, and other areas throughout the site, provide a refugium for smaller trees and shrubs, adding to the diversity of Treviño Park.



Figure 21. Wildflowers and live oaks in Upland Grassland



Figure 22: Mesquite Thicket



Figure 23. Juniper Thicket

### Upland Grassland

The Upland Grassland is about 14 acres in size and consists of both Altoga series soils. This area appears to be the most maintained area in the park, with recent mowing evident. This mowing has allowed early spring forbs such as wild garlic, paintbrush, rabbit tobacco, and winecups to flourish in areas (Figure 21). Where mowing has not occurred recently, King Ranch bluestem out-competes and smothers some of these forbs, but others such as wild onion, cut-leaf daisy, and blanket flower do persist. A species of note, Arkansas yucca, was found within this area—dozens of individuals were noted, some beginning to flower in late April. In areas not maintained, especially shadier areas, Texas wintergrass is common. The woody species are dominated by live oak and large junipers, with elbowbush, red buckeye, Texas persimmon, and mesquite found along the margins. In shady areas, cedar sedge and frostweed were seen. Additionally, this is the area surrounding the main residence, where Texas red oak, crepe myrtle, Gregg’s salvia and other ornamentals were planted. A few chinaberry trees were seen along woodland edges.

### Immature Mesquite Thicket

At 12 acres, the Immature Mesquite Thicket covers a substantial portion of the eastern border. Here the soil is predominately Houston Black Clay, with smaller subsets of the Travis and Altoga series to the northeast and southwest, respectively. The woody layer is dominated by 15 to 20-foot mesquite trees, forming a thicket throughout (Figure 22). Cedar elm, hackberry, and chinaberries play a minor role. Elbowbush, prickly pear, and smaller overstory trees are occasional. The herbaceous layer is mostly King Ranch bluestem, with

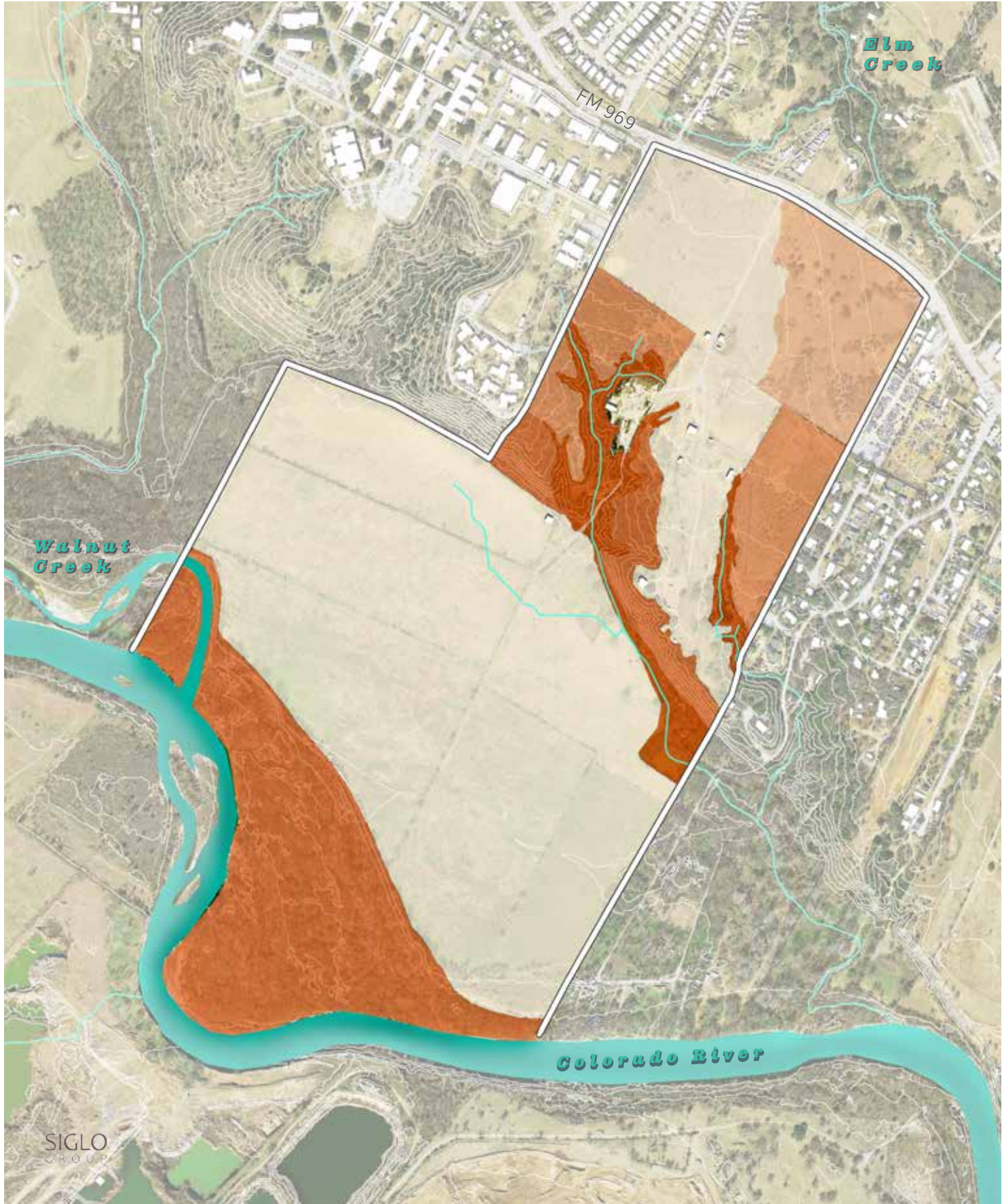
a scattering of bromes, thistles, Carolina geranium, beggar’s ticks, prickly poppy, and a small population of Bastard cabbage. The earth in this area appears to have been worked greatly, as the northern portion appears to have been, at one time, a stock tank.

### Immature Juniper Thicket

On the western border, south of the pasture and north of the Sloped Woodland is another thicket of about 10 acres (Figure 23). Three soil types occur – Travis series to the northwest and southwest, Houston Black Clay in the northeast, and the Ferris series in the southeast. Here it is immature Ashe juniper that dominates. This area was once cleared, like the mesquite thicket, but when it re-vegetated, Ashe juniper was dominant. Other woody species include cedar elm, hackberry, and chinaberry. Chinese tallow occurs in what appears to be an old cattle tank. Open areas to the north show mesquite encroachment along with King Ranch bluestem, Texas winter grass, silver bluestem, and other sun loving plants. Both bur oak and Texas red oak were noted near the draws, most likely offspring of the specimens planted at the central residence.

# Invasives

## Existing Site



Invasive plants are one of the primary threats to the natural communities of Treviño Park.

To maintain and restore ecological function, invasive plants will need to be reduced and, where feasible, removed to allow for thriving native plant communities. Invasive species are those that did not evolve in the ecosystem where they are found and cause economic and/or ecological harm. Their aggressive growth and spread can crowd out and replace native plants and can disrupt natural processes. The impact of invasive species can be very dramatic and ranks second only to direct habitat destruction as the principal threat to rare species globally (Wilcove 1998).

The ways invasive plants threaten native communities include:

- Altering soil or water chemistry
- Altering natural processes such as fire and flooding
- Direct displacement through competition (“crowding out” native plants)
- Changing the amount of light in or below the canopy or sub-canopy

Plant Community zones ranked by invasive removal priority

- High Priority
- Low Priority
- Site Boundary

Invasive plants also impact native animals and insects by crowding out the native flora they rely on for shelter, protection, and food. A 2006 study in Austin found that sites with intact native plant communities had higher bird species richness and abundance than sites dominated by non-natives (Kalmbach 2006). Invasive species occur throughout the site, with fewer concerns in the woodland areas. Primary invasive species include: golden bamboo, chinaberry, Chinese tallow, Bermuda grass, King Ranch bluestem, Malta star thistle, elephant ear, ligustrum, Japanese honeysuckle bastard cabbage, and nut grass, as well as giant cane on the river’s edge (Figure 25). Invasives were identified in the field and are summarized by the plant community they exist within below and in Figure 24.

### Riparian Woodland

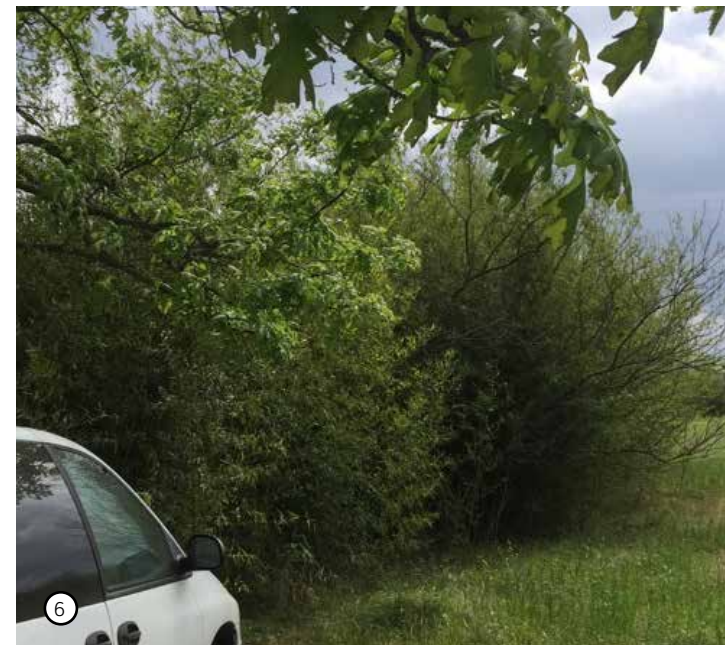
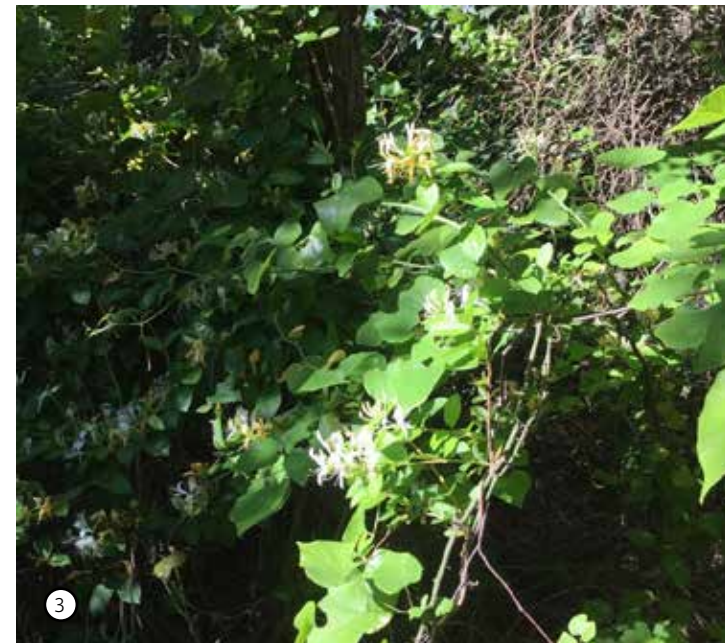
While many non-natives were noted, only three species stood out as problematic. Giant cane was seen in various areas along the riverbank. This species, if left to persist, will continue to grow and out-compete natives in the area. Additionally, due to this species’ ability to reproduce vegetatively, monitoring for this species will need to continue along the river bank and in areas that are occasionally inundated with flood waters. Chinese tallow was noted only a few times in the riparian area, all single individuals. Left unchecked they could easily overtake areas, forming small thickets. Their seed is spread by birds and water; continual monitoring will be necessary. The third species is elephant ear. Only a few areas were noted. Live plants float downstream and take root, and then spread vegetatively forming small populations. One population was noted just downstream of Walnut Creek; individual plants were noted along the bank of the Colorado.

Figure 24: Site invasive removal prioritization: data (Source: TWPF 2009-2014)



# Invasives

## Existing Site



### Former Floodplain Cropland

Used for hay production in the past, this area is still dominated by Bermuda grass. Brazilian vervain and Johnson grass are also common in the open, but patchy throughout and not dominating in any one area. Along the fence rows, both chinaberry and white mulberry are the two non-natives of concern.

### Former Pasture

The common Japanese brome and rescue grass are found within the herbaceous layer. While non-native, both of these annuals are of little concern. In this section there are a multitude of young mesquite trees that will need to be addressed. Left unchecked, they will eventually form a thicket. Additional woody invasives include chinaberry and mulberry. King Ranch bluestem is a dominant grass found throughout the uplands, and common in these areas, this too will have to be addressed. Small patches of Johnson grass are sporadic. In the area surrounding the abandoned residence and garage, there is a large patch of golden bamboo, which is the most problematic. Nandina is planted around the house as well, along with other ornamentals. In the southern reaches of the pasture, adjacent to Creekside Woodland, there is a large population of Malta star thistle. This species, if left unchecked, will continue to spread, especially to areas of disturbance.

### Savanna

In this area we have an extension of the same non-natives and invasives found in the Pasture. However, the mesquite appears to be a few years older, and thus larger than those found in the Pasture area.

Figure 25. Images of some of the primary invasives at Treviño Park: (1) bastard cabbage (2) chinaberry, (3) Japanese honeysuckle, (4) Malta star-thistle, (5) privet, (6) golden bamboo.

Chinaberry is somewhat common along fencerows and in various mottes. While no ligustrum was noted, there is the possibility they are found within mottes and along fencerows. The only serious herbaceous plant to consider will be King Ranch bluestem, with solitary individuals of bastard cabbage occasional.

### Upland Grassland

This area appears to be the most maintained of the grasslands. King Ranch bluestem is rampant in areas, crowding out and smothering many of the herbaceous plants. Occasional chinaberry trees are found along fencerows and woodland edges. The remaining non-natives are of no serious concern.

### Wooded Slope

While there are some common non-native species present, this area has relatively few problematic invasives. A few chinaberry trees and Japanese ligustrums were noted in some areas, but typically single specimens or up to three in an area. Japanese honeysuckle was present along roadside and undoubtedly occurs elsewhere along the woodland edge.

### Creekside Woodland

The creek showed surprisingly few invasive species, likely because most of its course is heavily wooded and thus shaded. There are, however, several Chinese tallow trees found near both lower ponds, Japanese ligustrum scattered along the course, chinaberry along the southern edge of the creek near the coastal hay fields, Japanese honeysuckle and both Chinese and Japanese privet noted in the upper portions, and Bermuda grass found in the sunny areas around the lower pond. Other

non-natives, such as water speedwell, annual rye, rescue grass, and Japanese brome, while non-native, do not pose any serious concerns. Chinaberry was the only invasive noted in the upland area and was only seen in a few areas. The same was true of nandina below the pond. The herbaceous layer was scant, aside from King Ranch bluestem, found along the edges, and the two annual bromes.

### Immature Mesquite Thicket

While native, mesquite has taken over this area and created a near impenetrable thicket in areas. This unnatural thicket was caused when either the cattle were removed or when mowing ceased, both would have kept the mesquite at bay. There is the occasional chinaberry throughout the thicket, these too will have to be addressed. For the herbaceous layer, King Ranch bluestem appears to be the dominant perennial grass, crowding out natives. Bastard cabbage was noted in one area, but may become more of an issue if any soil disturbance occurs in this area. The remaining non-natives are of little concern as most of these are annuals.

### Immature Juniper Thicket

On the western side of the property Ashe junipers have formed a thicket, essentially mirroring what the mesquite has done on the eastern border. This thicket has crowded out the herbaceous layer as well as woody understory trees. These too have created a rather unnatural system. Additional species that will need to be addressed will be the young mesquites encroaching in the open areas, Japanese honeysuckle, chinaberry, ligustrum, vitex, Chinese tallow, and King Ranch bluestem in the herbaceous layer.

## Plant Communities and Invasives: Opportunities and Challenges

### Opportunities

- Site has a range of plant communities for visitors to experience and learn about
- Allow people to participate in stewardship activities on the site
- Opportunity to increase biodiversity within the park representing riparian, woodland, savannah and grassland species of Central Texas, with a goal of having 300 species on site (current list includes 192)
- Opportunity for ecological restoration of blackland prairie plant community on site
- Opportunity to protect more sensitive areas from degradation to continue high-value passive recreational activities in nature

### Challenges

- Invasive plant species are present in some areas.
- Areas that are more intact should be prioritized for treatments, including the creekside woodlands, sloping woodlands, and riparian bottomland forest. While the old agricultural fields are overrun with invasive plants, changing that only makes sense in explicit areas identified as preserve or restoration areas.



Figure 26. Mammals likely to be spotted on site: (1) deer, (2) gray fox, (3) armadillo

**Mammals**

While numerous mammals, such as cottontails, fox squirrels, cotton rats, nutria, common raccoons, armadillos, bobcats, gray foxes, and skunks are fully expected to be seen onsite (Figure 26), none were noted, nor was any sign seen. However, there is evidence of coyote scat found in various areas in the park, and deer sightings occurred at numerous parts of the property. According to iNaturalist, over sixty species of mammals have been recorded in Travis County, and it is likely that quite a few of them could be found at Treviño Park.

Feral hogs are non-native mammals that threaten the ecology of Treviño Park by destroying habitat that is important to native wildlife as well as trampling new plantings and important wetland areas. Throughout most of Texas, the population of feral hogs has rapidly increased since they were introduced by early European settlers. Hogs have been seen at Treviño Park during field visits and their wallows and scat have been spotted throughout the site, most notably in the Creekside Woodland at the base of the wooded slope as well as the Riparian Woodland adjacent to the Colorado River (Figure 27). Additionally, there is extensive evidence of rooting and scat throughout the Former Floodplain Cropland, Riparian Woodland, and trails throughout the Sloped Woodland. (TPWD [https://tpwd.texas.gov/huntwild/wild/nuisance/feral\\_hogs/#intro](https://tpwd.texas.gov/huntwild/wild/nuisance/feral_hogs/#intro))

<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Opportunity to enhance wildlife habitat</li> <li>• Opportunities to observe birds species at the site through ebird and inaturalist</li> </ul> <p><b>Challenges</b></p> <ul style="list-style-type: none"> <li>• Feral hogs threaten native habitat areas.</li> </ul>
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## Birds

While performing vegetation surveys, many bird species were noted throughout Treviño. A bird survey would undoubtedly reveal many more species as the site has diverse habitat and plant species, providing food sources, water and nesting opportunities for numerous bird species. Central Texas is a major flyway for migratory birds, and according to eBird, over 344 species have been recorded at nearby Hornsby Bend. The Riparian Woodland provides an open understory for songbirds, several large snags for raptors, and an open flat shoreline at the tip of the peninsula for wading birds. The open Former Floodplain Cropland offers food sources, with the hedgerows offering nesting areas and wooded protection from predators. The trees and snags found around the ponds offer perching areas for flycatchers and raptors. Upland grasslands provide food and habitat for grassland birds, like painted buntings (Figure 28), while the remaining woodlands offer nesting and food opportunities for numerous species.

## Reptiles and Amphibians

The only reptiles noted during field visits were various aquatic turtles (sliders & cooters) found in the Colorado River. That said, it is fully expected that other reptiles (snakes, lizards, and geckos) are present as well as amphibians (frogs, toads, and possibly salamanders). The website iNaturalist lists over 100 species of reptiles and amphibians found in Travis County.

The use of volunteer groups such as Texas Master Naturalists, Audubon, and local high school and university classes and thorough biological survey would undoubtedly benefit Treviño Park. There are many opportunities for bird watching and wildlife viewing throughout the site.



Figure 27. Evidence of hog damage in the Riparian Woodland.



Figure 28. Interesting birds that are found at Hornsby Bend and could be expected to be found at Treviño Park include (1) the scissor-tailed flycatcher and (2) the painted bunting.

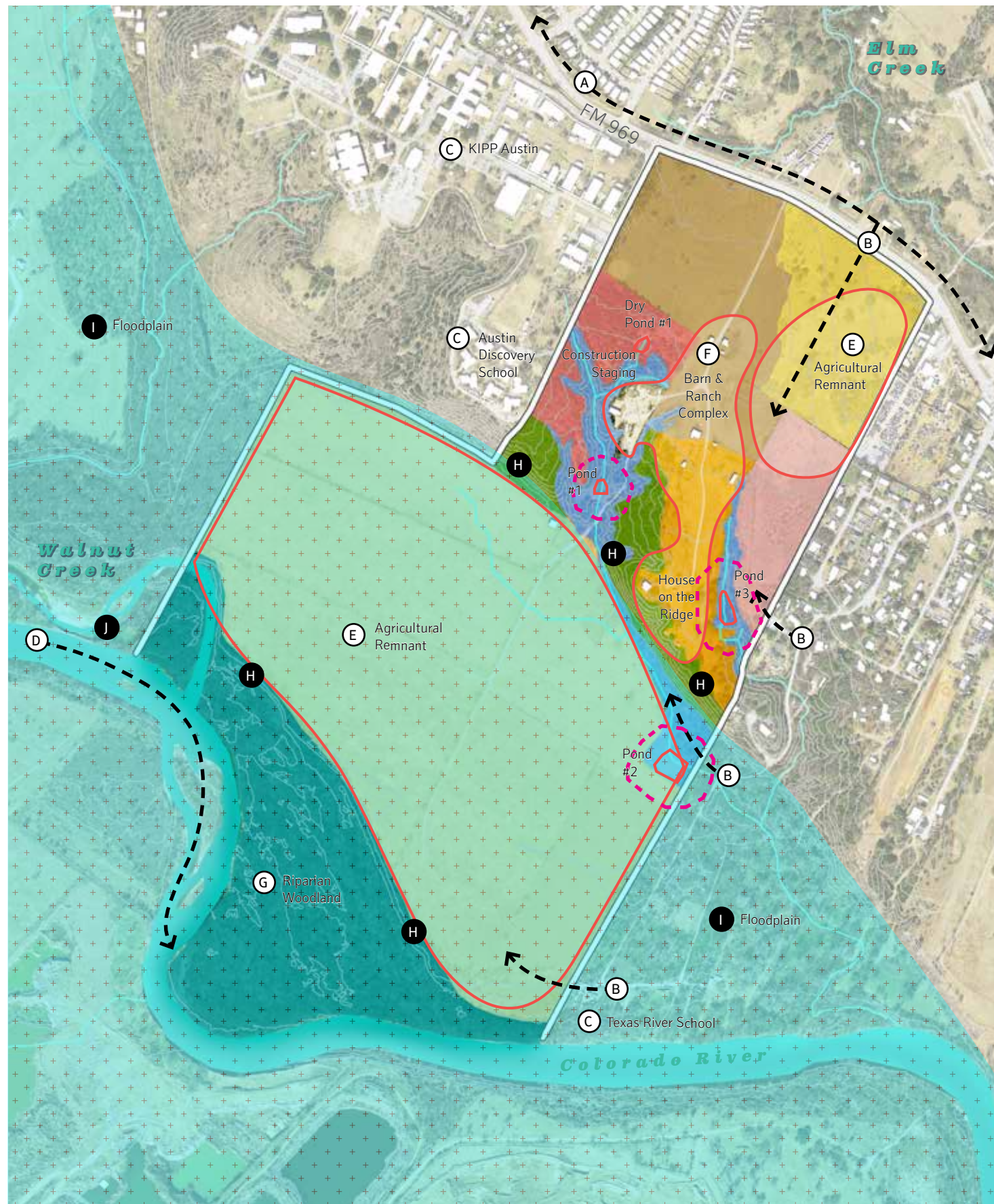


**Synthesis**

# Opportunities and Challenges

## Synthesis

The multiple site characteristics contribute to unique landscape “zones” or “rooms” of unique character. Understanding the qualities of these zones as well as the scale and constraints helps to break down the site into a series of specific opportunities with a range of constraints.



### Opportunities

- Potential for several partnerships with private and public entities to provide amenities and education to the region
  - Rich ecological diversity across 9 plant communities provides opportunities for recreation, environmental education and stewardship
- (A) Connect site to broader access initiatives along FM 969 by improving pedestrian and bike infrastructure
  - (B) Potential additional access points on north and east edge of site
  - (C) Potential programmatic partnerships with neighbors such as KIPP Austin, Austin Discovery School, and Texas River School
  - (D) Location on the river provides opportunities for public access and varied seasonal engagement with the water
  - (E) Preserve agricultural site heritage by integrating park design with hedgerows and land terraces
  - (F) Focus development in already-impacted site areas and reuse pre-existing structures for park program
  - (G) Restore and steward rare riparian bottomland forest on the Colorado River Corridor

### Challenges

- Threats to sensitive habitat areas by invasive plant species and feral hogs
- (H) Steep slope areas limit accessibility on site and access to river
  - (I) Large floodplain necessitates flood-resilient design
  - (J) Threats to sensitive habitat areas on riverbank from erosion and sediment deposition (particularly from high flow events on Walnut Creek)

### Plant Communities

- Savanna - 155 acres
- Former Pasture
- Former Floodplain Cropland
- Upland Grassland
- Sloping Woodland
- Creekside Woodland
- Riparian Woodland
- Juniper Woodland Thicket
- Mesquite Woodland Thicket

### Site Elements

- Site boundary
- ▭ Cultural heritage zones
- ▭ Floodplain
- ▭ Ponds
- ▭ Pond 150' development buffer
- Potential connectivity



# Opportunities and Challenges

## Synthesis



John Treviño Jr. Metro park is at the convergence of a series of edges and boundaries – urban and rural, city and county, and infrastructure and ecology. By its very nature of being at these intersections, the site can also be understood as a central hub that can weave a robust set of diverse conditions. Important questions that we consider as we continue the master planning process:

- How will the character of this neighborhood evolve?
- How can we promote a well-connected and beloved space for the community?
- How can this park function as a day-to-day park for its nearby residents as well as a critical amenity for the greater City of Austin?
- What strategy of stewardship can support a river corridor with clean water and healthy habitat?

### Opportunities

- Provide green space access and cultural amenities
- Ⓐ Leverage FM 969 expansion plans to improve bus, bicycle and pedestrian infrastructure
- Ⓑ Connect to and extend Austin's growing river-wide park and trail system, and provide water access
- Ⓒ Proximity to Imagine Austin development centers and corridors

### Challenges

- Growing population and housing demand in East Austin will affect traffic, existing land use, environmental resources, and infrastructure nearby
- Site is currently disconnected from surroundings and other neighborhoods

### Context Elements

- Existing City of Austin parks
- Existing Highways
- Proposed Imagine Austin Centers
- Proposed Urban Trails