ZILKER METROPOLITAN PARK VISION PLAN

Date: June 29, 2021
Title: Site Analysis and Needs Assessment Report
DRAFT

INTRODUCTION

Zilker Metropolitan Park (Zilker Park) was designated as a public park in 1934. With lands donated in 1917 by Andrew Jackson Zilker, the history of the park's land goes back farther – 9,000 years or more. Today, with approximately 350 acres of area to explore, Zilker Park is a complex blend of precious environmental resources, events that have become tradition, economic income for the City and a symbol of Austin life. No comprehensive plan has ever been done on the park until this initiative. With the vast number of stakeholders, users, and complicated regulations that exist within the Park, a plan is long overdue. It will provide direction for Zilker Park's improvements for the next several decades.

Many plans and studies have been done on various elements or aspects of Zilker Park in the past decade. In addition to providing regional, demographic, economic, environmental and transportation-related context, this report summarizes the more recent plans and recommendations.

CONTENTS

CONTEXT

ZILKER PARK

THROUGHOUT THE YEARS

A Baptism at Barton Springs, 1924.
Sources: Pipkin and Marshall Frech, Eds.
Barton Springs Eternal.

Elks Lodge (1915)
Source: Austin History Center

700 - 1530 A.D.

The Cultural traditions of the communities in the area included pottery, pigment, pendants, beads, needle and fishhook making.

7,000 B.C.

Main Spring at Barton springs is re-exposed, coming from a deep fault located near the south side of the current pool.

1534

Spanish colonizer Cabeza de Vaca reaches Austin by a game trail from Galveston. He makes note of the American Indian population with ties to a riparian environment.

Spring Creek (Barton Springs) and William Barton's Home, taken from Austin and Vicinity, 1839.
Source: Austin History Center

1730

Mission est. on bank of Barton creek.

1835

A league of land (now a portion of Zilker Park) is given to a settler named Henry Hill during the early days of the Mexican government in Texas.

1837

William Barton moves onto 177 acres of the Henry Hill league, bringing with him 25-30 enslaved people and establishes one of the first plantations in Austin, making Barton Springs a significant foundation of Austin's African American population.

1838

Surrounding area of settlement surveyed for the capitol to the new Republic.

1839

Austin is founded.

1901

A.J. Zilker makes first land purchase.

1913

A.J. Zilker acquires over 350 acres of land surrounding the springs.

1917

The City of Austin and A.J. Zilker's land agreement gives the city access to abundant fresh water of the Barton Springs tract with the condition that the city pay into a trust for educational developments at Austin High School.

1926

City of Austin allocates $15,000 for new parks, appoints new park board.

1928

Austin City Council passed an ordinance creating the new Austin Recreation Division.

1928

City planners Koch and Fowler recommend Austin park area improvements including using Barton Springs Rd as a main traffic route, deepening the pool, and evening out the creek bed.

1929

The Barton Springs opens with a new concrete dam and an expanded circumference of 2,500 feet.

Improvements at Barton Springs (1926)
Source: Austin History Center

1931

A.J. Zilker and City of Austin enter into a new land deal of 250-300 acres of land adjoining Barton Springs creek along the south bank of the Colorado river, sold for $200,000 paid in 20 installments into the school treasury.

1933

FDR's New Deal begins federally funded work on Zilker Park.

1934

Final plot of land is given by A.J. Zilker; Boy and Girl Scout cabins completed.

Aerial Photograph of Zilker Park (1935)
Source: Austin History Center

Isamu Taniguchi in his Garden (1970)
Source: Austin History Center

1936
Construction of rock garden using 1,200 shrubs.

1938
Completion of the Sunken Gardens.

1947
The New bathhouse at Barton Springs was needed to meet the crowded conditions and changing needs at the pool and was completed for $170,000.

Zilker Christmas Tree (1970)
Source: Austin History Center

1953
The City of Austin acquires the Rabb homestead for $59,000, giving them control of an additional 4,000 feet of creek and bluff overlooking Barton Springs and the park.

1960
Black students from Stephen F Austin High School hold a series of “swim-ins” in protest of the segregation of Barton Springs Pool.

1962-64
The Botanical Gardens is constructed as a garden center hub for local clubs.

1963
PARD facilities officially integrated.

1967
The Zilker Christmas Tree is constructed out of a relocated moonlight tower from the late 1800s.

1969
Japanese Inspired stroll garden is opened along 3 acres within the Botanical Garden, designed by Isamu Taniguchi.

1973
Austin Parks and Recreation Board votes to recommend an approval to construct a new natural science center building, a pioneer homestead and to clear nature trails on the west side of the park.

1974
Work begins on a $200,000 project to provide badly needed parking lots and paved areas to control traffic flow and reserve open green space for activities.

1979
Members of the Austin City Council voted to permit more multiple-family housing and apartments on a 38-acre tract of Barton Creek north of Zilker park.

Austin City Limits (2018)
Source: Austin Parks Foundation

1992
SOS ordinance enacted in Austin

Blues on the Green (2011)
Source: This Austin Life

1997
U.S. Fish and Wildlife Service listed the Barton Springs salamander as an endangered species.

1999
Blues on the Green a free music festival by Austin radio KGSR moves to Zilker park from the Arboretum.

2002
Austin City Limits music festival begins with over 25,000 attendees with 67 bands playing on 5 different stages.

HISTORIC CONTEXT

Introduction

Zilker Park is Austin's oldest and most iconic metropolitan park. Its physical and environmental resources reflect the foresight of the previous owners and citizens who sought to preserve it as a grand park for future generations to appreciate. Two major development phases, completed between 1917 and 1939, established its nuanced and complex character, and set the stage for the park we enjoy today. At over 350 acres, it offers a wide range of recreational and natural features to capture the visitor's imagination. It features over 2,000 linear feet of lake frontage. Its Great Lawn features panoramic views of the city skyline. It is the home of world famous, spring-fed Barton Springs Pool. It is a place of mystery and wonder. And yet many who visit are unaware of the rich history of the place, which is in many ways the basis of its magic.

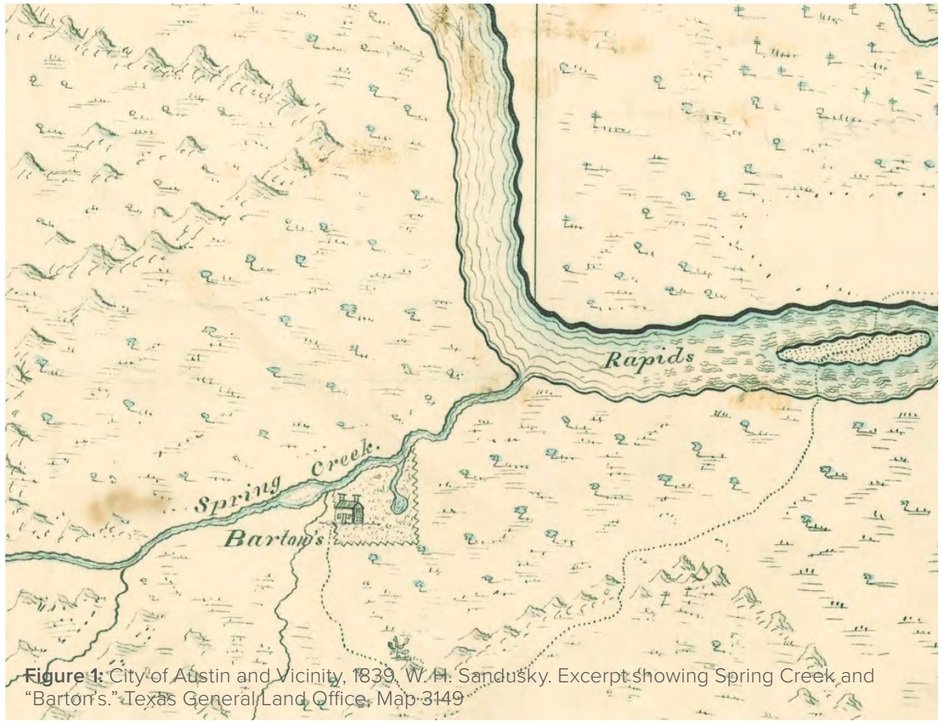


Figure 1: City of Austin and Vicinity, 1839. W. H. Sandusky. Excerpt showing Spring Creek and "Barton's." Texas General Land Office, Map 3149

Figure 2: English & English Mill, circa 1880. C00077A, Austin History Center, Austin Public Library.

Spring Creek

The modern occupation of the area around Zilker Park began at about the time the city of Austin was founded, in 1839. But for a few thousand years before that, the site was familiar to Native Americans and the natural forces that formed Barton Springs began hundreds of millions of years ago. The springs, actually a group of four springs, are artesian springs, issuing under pressure from a fault line in the underlying limestone formation. The springs, and the abundant plants and wildlife they sustained, and the ready source of stone for toolmaking attracted Native Americans to the site. Archaeological excavations conducted in the area of the springs found evidence of prehistory, human occupation and material culture at the site.

For a very brief time in 1730 and 1731, three Spanish frontier missions were located in the vicinity of the springs. The Franciscan missions were originally founded in 1716 in East Texas, and later moved to Central Texas on the Colorado River, in hopes of attracting the participation of local tribes. Conditions in this location were apparently unfavorable, and the missions were soon moved to the San Antonio River in 1731. The brief stop on the Colorado River is commemorated with a historical marker installed on the south grounds of Barton Springs Pool by the Texas Centennial Commission in 1936.

The Spanish also began the practice of making private land grants to individual settlers in the eighteenth century, as a way to populate the vast stretches of land that lay north of the Rio Grande. After winning independence from Spain in 1821, Mexico continued the practice, creating a system of empresarios, or agents, contracted to recruit colonists and allocate land grants. One such empresario, Ben Milam, received a contract to settle 300 families between the Colorado and Guadalupe Rivers in 1826. Milam's Colony included the land surrounding Spring Creek, which is today called Barton Creek. In 1835 League No. 21 in Milam's Colony, a tract at the mouth of Spring Creek, was granted to Henry P. Hill, a twenty-eight-year-old native of Georgia and a lawyer. Hill returned to Georgia within a few years, perhaps during the Texas Revolution, protecting his ownership of League 21 from afar.

Although he was not the original recipient of League 21, William Barton is the settler with the strongest association with the springs. Barton was born in South Carolina in 1782 and lived in Kentucky and Alabama before coming to Texas in 1828, settling a league of land in Stephen F. Austin's Little Colony, in the area near Bastrop, with his wife, five children and five enslaved people. Barton applied to the Republic of Texas for an additional labor (177.1 acres) of land, which he was entitled to as a head of household living in the republic in 1836. He selected a site on the west bank of the Colorado, at the mouth of Spring Creek, and moved there around 1837. But a patent was never actually granted by the General Land Office, because it was later determined that the land selected by Barton was on the tract already patented to Henry P. Hill.

Barton built a house on the south bank of Spring Creek, near the main spring. He named two of the springs for daughters Parthenia and Eliza. Barton's cabin and the springs are depicted in an 1839 map of Austin. The spot became known as "Barton's" or Barton Springs, as it is still called today.

As Austin grew, Barton Springs was a favorite spot for fishing, swimming and sight-seeing. Barton kept two baby buffaloes at his place, and the tamed animals were part of the attraction. He also leased spring flow and land on the north bank of the creek to a group to erect a saw mill, in exchange for all the lumber and planking that he or his children might want for building on Barton's place, beginning a pattern of small industrial uses at the spring site.

Barton died in 1840, and due to the confusion over the actual ownership of the labor of land, it would take fifteen years before the estate was settled. The question of the ownership of the labor of land was finally resolved by a decree of the Travis County District Court issued in 1855. The labor of land was then sold on behalf of the heirs to A. B. McGill for $5,044.50. The land changed hands several times, and in 1860 the land and water rights were sold to John Rabb, whose heirs would hold the land for the next century. The Rabbs lived in a log cabin at the springs and raised a herd of cattle on their 50 acres of land. In 1867, Mary Rabb had a two-story limestone house built near the log cabin. Three generations of the Rabb family lived in the limestone house until 1955, when the site was sold to the City of Austin.

After the Civil War, a gradual shift in the land uses around the springs began, as more intensive industrial uses were intermixed with ranching and farming. In addition to the saw mill, a grist mill and ice manufacturing business were built at the springs by Michael Paggi. A large, water-powered flour mill was built on land leased by the Rabbs to English & English Mill. The railroad arrived in Austin in 1871, opening the local markets to reliable transportation, and the interest in harnessing the water power of the springs remained strong through the end of the nineteenth century.

Figure 4: Stone arch bridge over Barton Creek. Rabb House on the right, circa 1890. C00081C, Austin History Center, Austin Public Library.

Figure 3: Zilker Amphitheatre at Eliza Spring, circa 1915. PICA 00973, Austin History Center, Austin Public Library.

Newspaper accounts in the 1870s also described the springs as a popular destination for Sunday afternoon carriage rides. Paggi encouraged visitors to the site, building a bathhouse for changing and renting swimming suits for visitors to use. The springs were also a popular spot for military reunions and picnics. In the 1850s, US Army troops had camped at the springs on their way to the forts in West Texas, including stops by Robert E. Lee and Albert Sidney Johnston. Union troops also camped at the springs during Reconstruction, in the late 1860s.

In 1889, a handsome stone arch bridge was built over Barton Creek, just upstream of the springs, which gave access to the north bank of the creek and the pasture land beyond, and also to the road to the west to Bee Cave. A heavy flood in April 1900 washed the bridge out and it was not rebuilt.

By the turn of the century, the Rabbs owned considerable acreage in portions of the original Henry P. Hill league, on beyond the south portion of the Barton labor. They began to sell these lands off to various buyers, and thus begins the next major transition at the springs. In 1907, Gail Rabb sold the land along the creek, including the Main Spring, to A. J. Zilker. Rabb reserved a tract upstream of the Main Spring for the Rabb residence.

Andrew Jackson Zilker, an Austin businessman, came from Indiana to Austin as an eighteen-year-old young man in 1876. He arrived with only fifty cents in his pocket but through hard work became a successful businessman, working in the manufacture of artificial ice and eventually owning the entire ice plant. He held other business and political positions, serving as a volunteer fireman, a city alderman for the Tenth Ward, a director of the First National Bank and was the Water and Light Commissioner in Austin for a time. He was especially interested in education and was on the Travis County Board of Education for many years. He was an advocate of practical education in the public schools, including manual training and home economics, and could point to his own rags to riches story as an illustration of the importance of this training. He was twice named Austin's Most Worthy Citizen. He married Ida Peck in 1888, and they had two daughters and a son.

In 1901, Zilker began acquiring property around the springs, when he purchased about 350 acres on the south bank of the Colorado. He continued to accumulate property in this area through 1913, acquiring Eliza Spring on the north bank of the creek in 1901 and the Main Spring and Old Mill Spring on the south bank of the creek from Gail Rabb in 1907. Zilker used the land for farming and ranching. He raised feed for horses, which were used in the ice business to pull delivery wagons to homes throughout Austin. He also raised livestock on the ranch.

Andrew Zilker was an early member of the Benevolent and Protective Order of Elks, Austin Lodge #201, which was founded in 1891. In 1903 Lodge #201 hosted the Elks State Encampment, a convention gathering of lodges from across the state of Texas. Zilker had a stepped amphitheater structure built around Eliza Spring at about the time of the State Encampment, likely in anticipation of the event. The amphitheater is an open-air meeting space, built in a large, stepped oval around the mouth of the spring.

HISTORIC CONTEXT

Barton Springs Park

The Zilker family used the springs for family gatherings and celebrations. Andrew and Ida Zilker were planning to build a house on the land, in about the location of the current Austin Area Garden Center, when Ida Zilker died in 1916. Perhaps related to the loss, Zilker reconsidered the use of the property in a way that reflected his long-term love of the springs and his firm belief in the value of practical education for young people.

In 1917, Zilker approached the Austin School Board and the City Council with an offer to donate the tract of land at Barton Springs to the public realm. He proposed to donate about forty acres of land, including the four springs at Barton Springs, to the School Board, on the condition that the city purchase the land from the schools for use as a public park. The purchase price of $100,000 was to fund an endowment for industrial education and home economics training in the schools, called the Zilker Permanent Fund. Zilker retained ownership and use of the larger, adjacent parcel of land for his livestock. The proposed arrangement included a provision for an easement from Bee Cave Road to the creek, to allow Zilker's livestock access to water. Zilker also allowed for the possibility of an easement across his adjacent land to the city, should it choose to use the springs as a source of municipal water, for laying water mains from the springs to a remote pumping station. The proposal was approved by the citizens of Austin in an election held in the fall of 1917 and the warranty deed was accepted in early 1918. The city made the $100,000 payment in $10,000 increments, with 6% interest, over the course of the next ten years.

On January 15, 1928, Mayor P. W. McFadden made the final payment to J. Harris Gardner, with the Austin school board, in a ceremony at the Majestic Theatre. Gardner presented the mayor with the deed to Barton Springs, and read a resolution of appreciation to Zilker from the school board. Andrew Zilker was proclaimed Austin's Most Worthy Citizen of 1927. In his remarks, Zilker spoke about his love for the springs, and that it should belong not to an individual, but to all the people of Austin.

Figure 5: City of Austin and Suburbs, 1925, Dixon B. Penick. Excerpt showing Barton Springs as a "free tourist camp." Texas General Land Office, Map 76203.

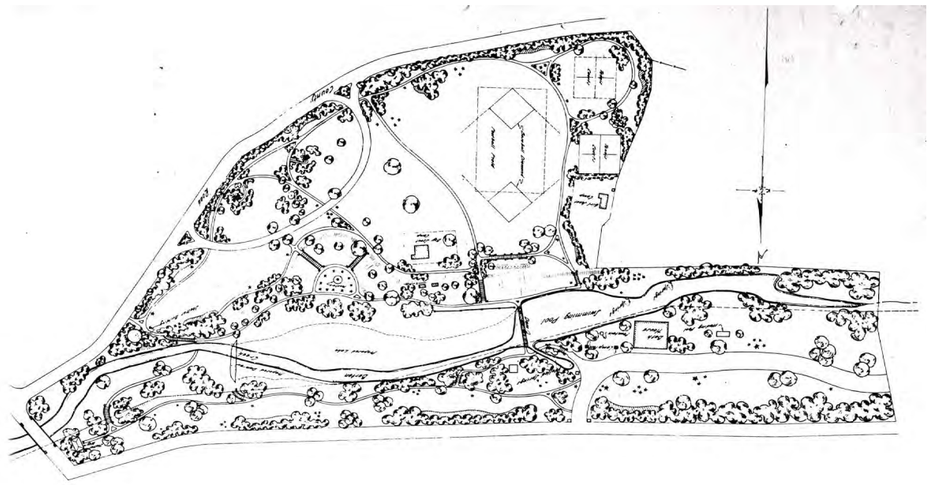


Figure 6: Plan Showing Development of Barton Springs Park, from A City Plan for Austin, Koch & Fowler, 1928.

Once the city acquired Barton Springs, it had an abundant source of municipal water, if needed. But rains came, the drought was broken and the water supply was steadied without tapping the springs. Instead, the city leaders began to think of the springs as a municipal amenity and a tourist attraction. By 1920, Austin had been dubbed the "Automobile City of Texas" by the Austin Statesman, and there were 6,000 vehicles in the county. In 1921, work began on several automobile tourist camps in Austin parks, including one at Barton Springs Park. The tourist camp was touted by marketing brochures and depicted on city maps at the time. But within a few years, the vision for the use and development of the park had changed, and the Council voted to discontinue the tourist camp at the site in 1928.

Related to automobile access to the park, Barton Springs Road was extended across the creek with a new concrete bridge constructed in 1926. The road itself was asphalt paved by 1925, and extended across the creek, then turned left. Bee Cave Road, in its location at that time, extended along the north edge of the Barton Springs Park property, separating it from Zilker's ranch and pasture lands.

In support of recreational uses at the park, the Chamber of Commerce and the Lions Club funded the construction of a public bathhouse on the north bank of the creek in 1922. The building had dressing rooms for men and women on the second floor, and a wide promenade on three sides. The two-story wooden structure was designed by Hugo Kuehne, Austin native, MIT trained architect and an organizer of University of Texas School of Architecture. Kuehne established a private architectural practice in Austin in 1915 and completed many projects for the City of Austin. He also served on city boards and commissions, including the Parks Board and the Planning Commission.

Public interest in developing a city parks system came in to full force in the mid-1920s. A 1923 editorial in the Austin Statesman decried the limited supply of public park land, finding the supply of less than one acre for every 1,000 inhabitants deficient. The editorial noted that the city was growing, and advocated setting aside large tracts for park land, to avoid the possibility of later having to tear buildings down to create parks. Continued growth in Austin also taxed the existing city infrastructure of utilities, amenities and public services. As a remedy, the City Council instructed the new City Manager, Adam Johnson, to prepare a plan of action to solve the problems.

To assist in this effort, an unpaid advisory board called the City Plan Commission was created in 1926, charged with addressing a list of problems including street conditions, traffic issues, utility routing and civic and public improvements. The commission was also directed to study subdivisions, parks, community centers, zoning and flood protection. To fulfill their responsibilities, the Commission recommended the city hire the Dallas firm of Koch and Fowler Engineers to prepare a city plan for Austin.

The firm produced a comprehensive city plan with recommendations to address the list of problems and issues the City Plan Commission had been asked to solve, which was adopted by the City of Austin in 1928. The plan included recommendations that were essentially a call for the deliberate segregation of the city. By using the premise of "separate but equal" accommodation of the races in the provision of facilities and conveniences, including schools and parks, tacit separation was accomplished without the use of segregation by zoning. It would be decades before Austin parks and schools were finally integrated and the unfortunate social engineering of the city plan of 1928 was mitigated.

With respect to parks, the document recommended a five-year plan for the development of parks across the city, ranging from small neighborhood playgrounds to large nature reserves. The Koch and Fowler plan spoke favorably of Barton Springs Park, and made specific recommendations for

improvements that might be made in the park, including a recommendation to expand the park to the east.

Based on the findings of the city plan, the first parks board, actually a committee of businessmen from the Austin Lions Club, was formed in 1928, and a bond election for park and playground acquisition and development funds was passed the same year. Also the City established the Recreation Department and hired its first paid Superintendent of Recreation, James Garrison.

In October, the City Manager presented his program of proposed improvements at Barton Springs, to include a dam, retaining wall, storm sewer and other improvements at the pool. The Council approved the proposed improvements and authorized $50,000 for the work. The drawings for the dam and retaining wall work were prepared by the City Engineer's office in October 1928. The work included the current downstream dam and a children's wading pool (later removed), installed in the shallow end of the Pool. The drawings also included a sidewalk on the north bank of the creek, adjacent to the children's wading pool. The construction work was completed later that year.

The following year, the Council considered bids for paving, curbs and gutters for parkways and driveways in Barton Springs Park. They also approved the plans for a concession stand and caretaker's cottage, both designed by Hugo Kuehne. The concession stand, designed to suggest the appearance of a wind-powered mill, was built on the north bank of the creek, to the east of Eliza Spring. It was demolished in 1959, when the current concession stand was built. The caretaker's cottage is still in use as an office for park staff.

In late 1929, the Council received bids for the construction of baseball diamonds and bleachers, and the construction took place the following year. The baseball diamonds remain today on the south bank of the creek. At the end of the year, the Parks Board recommended construction of a concrete trap dam above the children's wading pool (the current upstream dam), sidewalks on the north and south sides of the Pool, retaining walls on portions of the north and south sides of the pool and the removal of accumulated gravel from the pool. The work was completed along with added playground equipment, fences and backstop improvements. Two huts, or clubhouses, were also built on the south side of the pool for Boy Scout and Girl Scout troop use.

Within a year of the final payment for Barton Springs Park, the grounds were filled with active recreational amenities, many intended for use by children. The concentration of organized recreational facilities – pool, playgrounds, athletic fields, clubhouses – was consistent with park design trends of the early years of the twentieth century. Reform or Playground Movement parks emerged in large urban cities, as a progressive response the isolation and confusion of city living. Structured play in neighborhood scaled parks provided not just recreation but built a stronger sense of community. In the case of Barton Springs Park, the active recreational facilities were built around the site of an enduring, spring-fed swimming hole, only recently transformed with dams, low walls and paved walkways into a more structured natural pool.

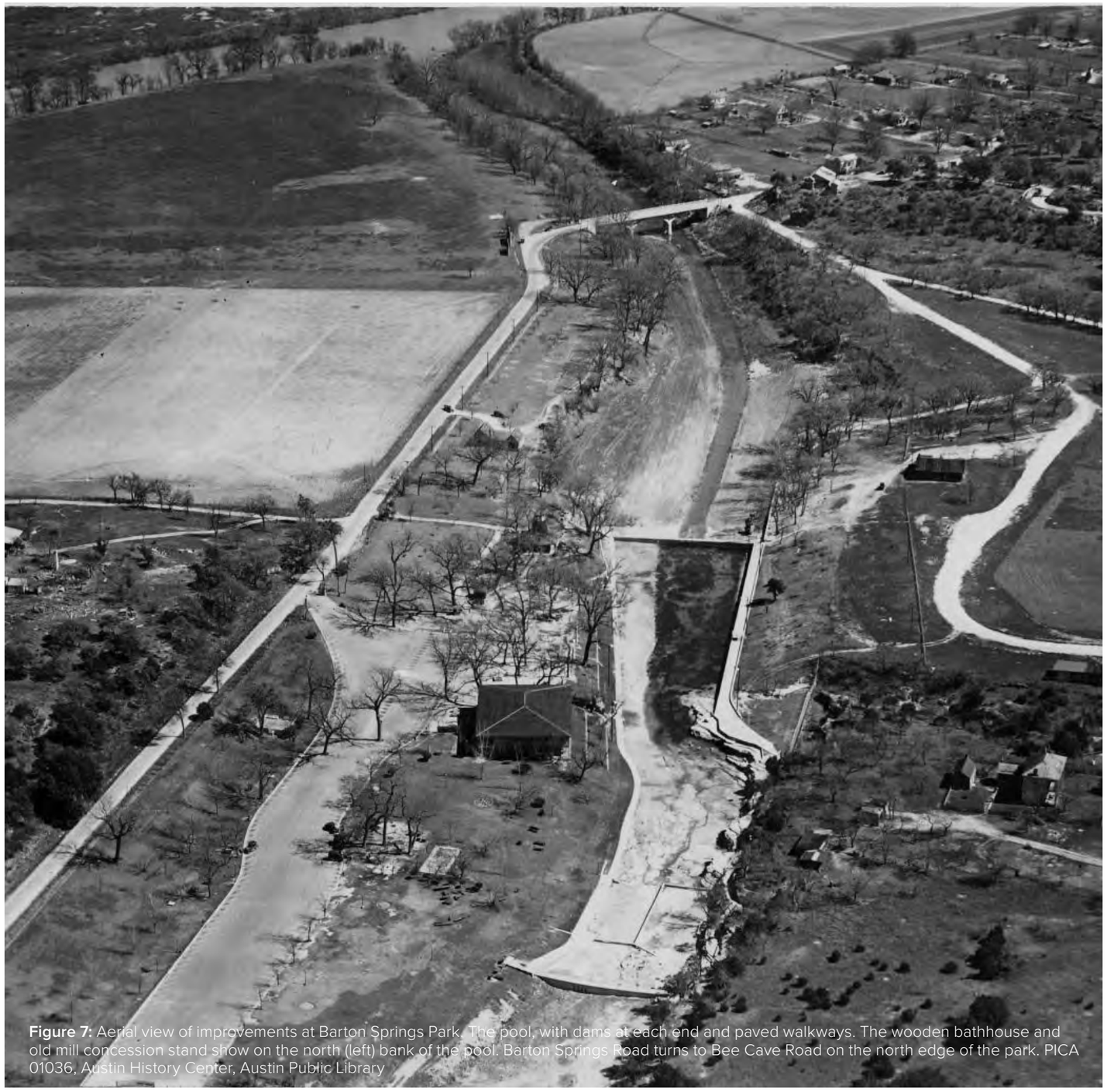


Figure 7: Aerial view of improvements at Barton Springs Park. The pool, with dams at each end and paved walkways. The wooden bathhouse and old mill concession stand show on the north (left) bank of the pool. Barton Springs Road turns to Bee Cave Road on the north edge of the park. PICA 01036, Austin History Center, Austin Public Library

HISTORIC CONTEXT

Figure 8: Site plan drawing for Zilker Park, showing structures, natural features, roads and pathways planned for the park. General Plan, Zilker Park, No. S.P. 30, Austin, Texas, October 13, 1934. PARD

Figure 9: Aerial view, Barton Springs Park and Zilker Park, circa 1934. The old Bee Cave Road is still in place in this image, just above the pool parking lot. The new park roads are being laid out. PICA 17205, Austin History Center, Austin Public Library

Zilker Park

In 1931, Zilker made a second donation of land to the public, under the same arrangement as the first gift. He gave an additional 280 acres of land adjacent to the first gift, to the school board, on the condition that the city purchase the land for use as a public park for $200,000. Perhaps beginning to feel the pinch of the Great Depression, the Council asked for more favorable terms, in the form of a reduction on the interest rate to be paid. Mr. Zilker declined, wishing to endow the school fund to the greatest extent possible. The question was put to the voters, who approved the purchase of the new parklands. Ultimately, the Council paid one quarter of the purchase price in a lump sum, saving the interest expense that way. In 1931, Zilker was again named Austin's Most Worthy Citizen. The deed for the new park was conveyed in August 1932. In May 1933, the Council passed a resolution creating a single park from the tracts of land, to be called Zilker Park, in appreciation of the generous gifts of A. J. Zilker.

The new parkland would require considerable investment of planning and design to convert the ranch and farm lands and the old quarry and clay pit sites to a beautiful recreational amenity. Once the plans were laid, another investment in the construction of the improvements would be required. For similar projects, such as Shoal and Waller Creek improvements, the city had worked together with the Texas Reconstruction and Relief Commission. The city provided materials, tools and technical supervision, and the TRC provided labor. The federal government provided the funding, which was administered by the state agency. A similar arrangement would be used for the work at Zilker Park. Over the course of the development of the park during the Depression, several different federal relief agencies would provide support and funding to the project, with administration by companion state and local entities, including the Reconstruction Finance Corporation (RFC), the Federal Emergency Relief Administration (FERA), the Civil Works Administration (CWA), the Civilian Conservation Corps (CCC) and the National Youth Administration (NYA). The Works Progress Administration (WPA) may also have provided labor forces for work in Zilker Park.

Charles H. Page, a local architect, was appointed to the Park Board in 1933. Page had been practicing architecture in Austin since before the turn of the century, his firm specializing in the design of schools and courthouses. He completed work on the Travis County Courthouse shortly before his appointment to the Park Board. Page prepared the overall design for the development of Zilker Park, which was presented to the Park Board at the end of 1933.

The design of Zilker Park, a much larger and more expansive area than the original Barton Springs Park, reflected current trends in park design. Unlike the structured play areas for active recreation, much of Zilker Park was designed for more passive recreation activities, with abundant hiking paths, bridle trails and curved scenic drives. Striking natural features were highlighted, including rock outcroppings and wooded groves. The structures designed for the new park, including clubhouses, trail houses, overlooks, comfort stations, bridges, culverts and entrance features, followed National Park Service rustic building patterns. Natural materials and forms were used for the construction, typically with rubble limestone, painted wood, broad roof overhangs and shingled roofs.

The existing circulation patterns through the park were changed in dramatic ways, both to incorporate the current park design trends and to provide access to the large added area. The alignment of Bee Caves Road, which tightly hugged the north edge of the Barton Springs Park, was shifted to cross the former pasture lands to the north and east. The new road alignment was curved to provide scenic views of wooded areas, the creek and river courses

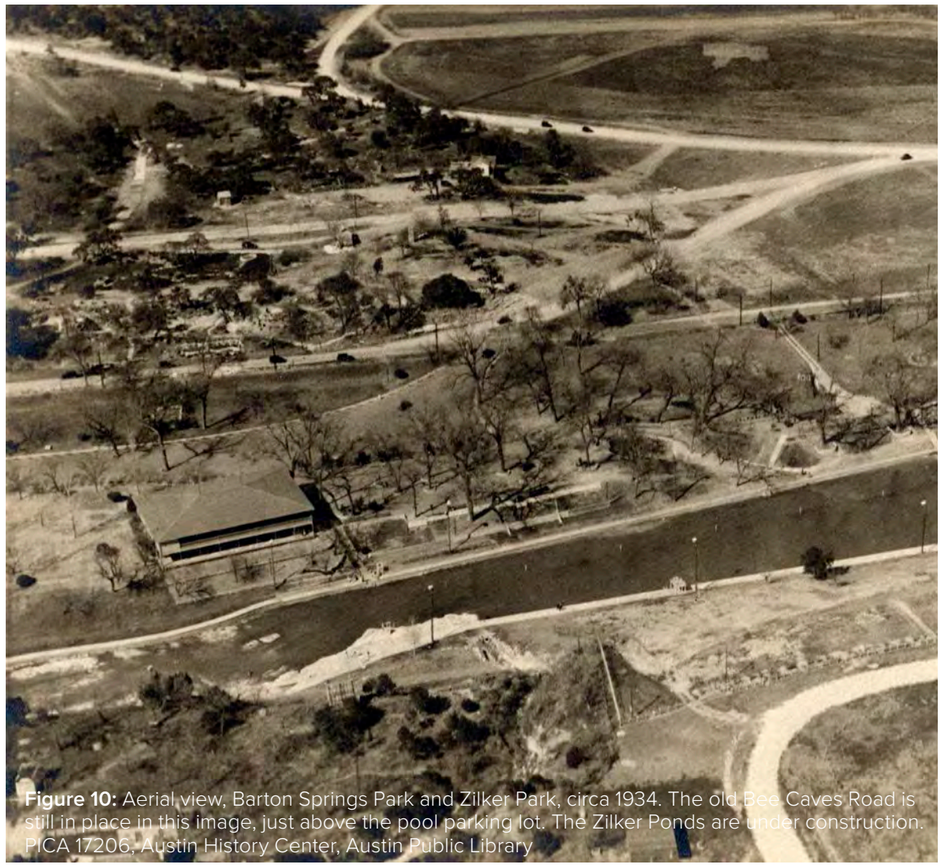


Figure 10: Aerial view, Barton Springs Park and Zilker Park, circa 1934. The old Bee Caves Road is still in place in this image, just above the pool parking lot. The Zilker Ponds are under construction. PICA 17206, Austin History Center, Austin Public Library

Figure 11: Sunken Garden, 1993. Photo: Alan Pogue.

and dramatic rock outcroppings. The northwest section of the park, which included a tall promontory overlooking the river, with dramatic views to the city center across the way, was left natural and rustic, with limited vehicular access. This section of the park was designed to be used for hiking and horseback riding as a means of access, in addition to the rustic vehicle lane to the top of the point. Initially, Page worked with the RFC to begin implementation of the park development plan by the construction of stone picnic units, with tables, benches and barbeque grills, as well as pedestrian trails, roadways and bridle paths. He also secured the support and funding of the Civil Works Administration for the project. Funded for $94,000, the Zilker Park project was the most generously funded CWA park project in the state. CWA workers constructed the stone entrance pylons, new Boy Scout and Girl Scout Huts, the Rock Garden (Zilker Ponds), Sunshine Camp and picnic tables, built park roads, planted trees and shrubs in the arboretum, rehabilitated the old Ashford-McGill House for use as a trail house and began work on the Mirror Pond in the bed of Dry Creek, in the western section of the park.

In the spring of 1934, the CWA was closed, and the Zilker Park project was shifted to the control of the National Park Service, through the Civilian Conservation Corps. CCC Company 1814 set to work in the park at the end of April. The CCC work diaries note that the rustic light standards at the entrance to the Barton Springs area were built that spring, as were the Zilker Ponds. CCC workers also rehabilitated the existing skeet house into a trail shelter and the police department pistol range into restrooms, built Lookout Point on the western promontory and a second lookout (demolished in 1937) at the confluence of Barton Creek and the Colorado River. They paved roads in the park and did general planting and beautification work.

Although the project emphasized the new, undeveloped tract to the north of the Barton Springs Park tract, there were changes and improvements made in the vicinity of the pool. A bandstand was added on the hill above the north bank, and above that a “rock garden” (the Zilker Ponds) was built. The entrance road and parking areas were also reconfigured. As the work was nearing completion, an enthusiastic article in the local newspaper described the project and the rerouting of traffic:

> *..... the old asphalt road from the bridge to the entrance of the swimming pool will be abandoned as a roadway. Cars headed for the pool in the future will enter the park, then bear to the left over a hill by the old reptile institute, pass through the old gravel pit and into the pool’s parking area at the present exit on the southwest. Returning autos will come out over a short stretch built from the old entrance to the county road. Traffic thus will be moved in a loop with congestion at the point of entrance to the pool eliminated. The old road will not be torn up, Dale said, but will be leveled down for use as a roller skating surface up to the old Barton Springs entrance point. Beyond that, it will be cut away to give a view of Charlie Page’s rock garden.*

In April 1934, A. J. Zilker made a third gift to the city of 32.5 acres, located west of Barton Springs Park, on the north bank of the creek. Zilker suggested that this new park be called Page Park, in recognition of the work of Charles H. Page, Sr. in the design and construction of the improvements to Zilker Park under the RFC, CWA and CCC, but Mr. Page declined the honor. The three tracts make up present day Zilker Park, the largest metropolitan park in Austin. This final gift of land was just that -- a gift out right, without any money changing hands. The Council was again moved to publicly thank Zilker. Zilker, who had made the gift while ill and bedridden, died a few months later. His funeral was attended by dignitaries from state, county and city government and the school board. In 1950, Zilker Elementary School was named in his honor.

HISTORIC CONTEXT

The park was opened to great fanfare in the summer of 1934. It has been well and faithfully used by the citizens of Austin even since the grand opening. The major activities of the 1930s were program and activity oriented. A tradition for organized entertainment at the pool was begun in these years, with swim meets, diving exhibitions, holiday pageants and celebrations and regular dances at the dance pavilion and band stand. Large crowds of spectators looked down on the pool from the north bank. In 1933, the Lions Club petitioned the Council "to have erected at once long rows of cement seats on the north side of the Barton Springs bathing pool in order to better accommodate the large crowds that visit this resort." The City Manager was asked to look in to this, and several years later the gallery seats were built.

There were also two big flood seasons in 1935 and 1936, and the pool was closed for extended periods those years. The flood of June 15, 1935, was perhaps the largest flood on record since 1869. The water coming down the creek and the water rising from the river converged at Barton Springs, rising to the level of the roofs of the wooden bathhouse and concession stand. The bandstand was completely destroyed, washed away in the flood. It took six days of intensive cleaning by 65 laborers and the entire Recreation Department staff of life guards and playground leaders to clean the site and get it open in time for the big 4th of July celebration at the pool that year

After these floods, the Recreation Department made repairs to the wooden bathhouse and cleaned the grounds and the pool. Additional assistance was provided by another federal relief agency, the National Youth Administration. The NYA was created in 1935 for the purpose of providing training and employment to youths 16 to 25 years of age. Again, the city provided supervision, materials and tools, and the NYA provided funding and labor. In 1936, a new band stand and comfort station were built on the hillside overlooking the pool. The band stand, an open-air platform, was used for the singing and music events held in the park throughout the swimming season. The comfort station, restrooms for men and women at the level

Figure 12: Dedication ceremony for the new Bathhouse, March 23, 1947. PICA 20163, Austin History Center, Austin Public Library

below the band stand platform, was a welcome addition to the site.

In 1938, another NYA project was begun at the Old Mill Spring, Austin's first "municipal sunken garden." The project was designed by Delmar Groos, one of the architects who designed the Deep Eddy Bathhouse for the Recreation Department the year before. Groos had worked for the Recreation Department in his youth as a lifeguard and basket boy at Barton Springs, and was listed as the manager of the Pool in the 1935 city budget. He studied architecture at the University of Texas and established a practice with Dan Driscoll, an architectural engineer, in 1935. The Sunken Garden, a series of terraced flagstone platforms stepping up from the spring pool, was designed as a gathering and picnicking place. A flagstone stage and picnic tables to seat 300 were built on the stone terraces.

Even with the repairs to the wooden bathhouse made by the Recreation Department, the severe flood damage compromised the building. The floors of the dance pavilion heaved and buckled under the standing water, and dances were no longer held at the building as a result. The park and pool, though, grew in popularity and 1938 was a record year for attendance.

POST-WAR PARK DEVELOPMENT

During World War II, Zilker Park and Barton Springs hosted large groups of bivouacked troops, with special swimming, musical and recreational events staged for the men. Community singing and musical performances continued at the hillside above the Pool. Swimming slacked off in the summer of 1945, due to a polio scare, but music remained popular, particularly at the end of the summer when gasoline rationing was lifted. In 1946, an enclosed ballcourt (now used as a maintenance building) was built near the caretaker's cottage.

Also in 1946, the old wooden bathhouse was razed, and construction began on a new masonry bathhouse to commemorate the thirtieth anniversary of the city park. The new bathhouse was designed by Dan Driscoll, with assistance from Delmar Groos and Chester Nagel. Driscoll had worked as a staff architect for the Recreation Department in the late 1930s, and was an architect with the City Engineering Department when the Bathhouse construction drawings were prepared in 1945. The new Bathhouse included a central service office, with good views of the approach from the park and entrances to the public restrooms and dressing rooms. Tickets and basket tokens were issued from the service office. The basket rooms were efficient, sanitary rooms, with a custom designed basket-hanger system that took up a minimum

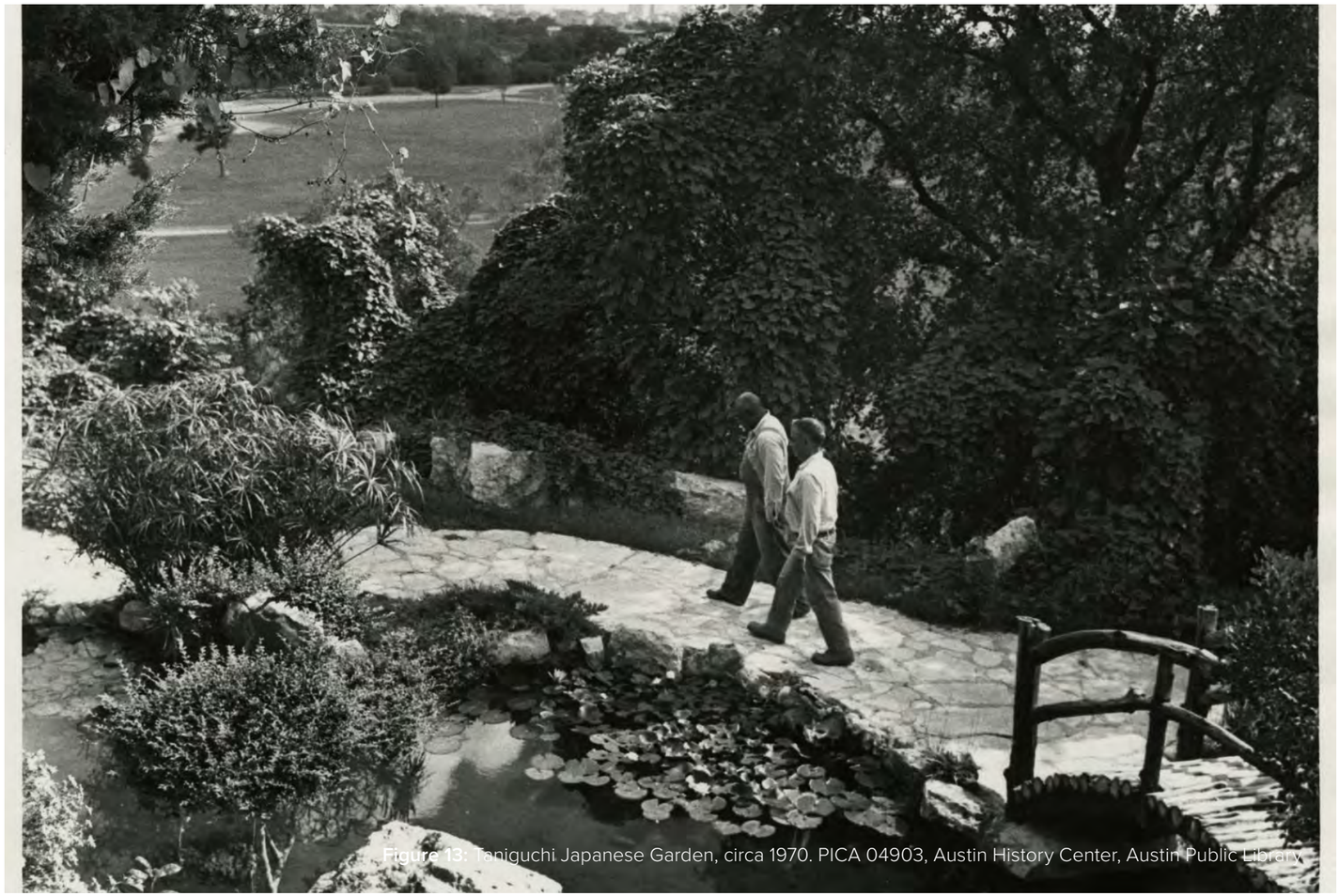


Figure 13: Taniguchi Japanese Garden, circa 1970. PICA 04903, Austin History Center, Austin Public Library.

of space. The building materials were selected for maximum durability and minimum absorption. The project was published in Architectural Record magazine, a leading architectural journal, and described as a model of efficiency, beauty and durability. The new Bathhouse was dedicated on March 23, 1947, the highlight of the year for the Recreation Department. A bronze plaque was unveiled, with the inscription:

> *In memory of Colonel Andrew Jackson Zilker. Friend of the people and of school children of Austin, he gave this beautiful park as a rich endowment dedicated to the happiness of the citizens of his beloved city, and their neighbors.*

In the 1950s, attendance at the park and the pool was strong. The Parks and Recreation Board found that more playgrounds were needed in the city, and plans were developed for a play area in Zilker Park in 1952. A permanent, concrete stage was constructed at the Zilker Hillside Theatre in 1952, to provide not only singing but fine arts and theatre presentations. Nature and wildlife programs were begun at the new theatre the following year. A new, permanent band shell and lighting were added to the Zilker Hillside Theatre in 1957. On the south grounds, the parking area at the south entrance to Barton Springs was enlarged and graveled in 1952.

In 1955, the City acquired the old Rabb house and surrounding 29 acres of land on the south bank of Barton Creek. The Parks and Recreation Department had identified this as a vital property acquisition as early as 1953. The Builders Development Corporation assembled the Rabb land holdings and other adjacent parcels to create the new Barton Hills subdivision. The City purchased the property to provide a buffer between the new subdivision and the springs. The old Rabb house had partially burned in 1943, but Rabb family members continued to live there. After the City acquired the property, the remainder of the house was burned in 1956.

The old mill concession stand was demolished, and a new concession stand was built in 1960. The structure is still in use today, located between Eliza Spring and the Bathhouse.

In 1960, students from Austin High School, including a daughter of longtime Parks and Recreation Board member Bertha Means, began holding swim-ins at the Pool to protest the tacit segregation that had occurred in years past. In 1961, Azie Taylor entered the pool for a swim with some white friends, bringing quiet attention to the need for integration. The following year, the tacit policy was officially changed, and the springs were integrated and open to all the citizens of Austin.

The Zilker Eagle miniature train was put in operation in 1961, a surprising source of revenue for the park ever since. The train station is located near Eliza Spring, close to a large children's playground. The track runs along the south edge of the great lawn, overlooking the creek and river to one side and the rock island and great lawn to the other. The train and track are undergoing renovation and are expected to be back in operation soon. In 1971, the Zilker Playscape was opened adjacent to the train station.

The Zilker Botanical Garden and Austin Area Garden Center were opened in the northwest area of the park in 1964. The Austin Area Garden Center building sits on a hill overlooking the Zilker Botanical Garden, and was designed by Kuehne, Kuehne and Milburn architects. Hugo Kuehne, who had designed some of the earliest buildings erected in the original Barton Springs Park in the 1920s and served on the early Parks Board, designed the garden center as one of his last architectural projects. The handsome, low-slung building uses the rustic material palette of rubble limestone, painted wood and broad shingled hipped roof planes in an understated, modern building.

The Zilker Botanical Garden is a group of unique, individual gardens representing native and regional plant materials. The original landscape design was done by Parks Department landscape architect Fritz von Osthoff, and includes ornamental, cactus, rose, fragrant, native plant, meditation iris and day lily gardens. The garden design also includes small buildings and architectural relics of cultural and historic significance, which were saved and relocated to the Botanical Garden before the City Historic Preservation Office and preservation ordinance were established. The relocated structures include the Swedish log cabin, the Mamie Wilson Rowe Summer House, the cupola from the Bickler School, a masonry key-shaped window opening from the Michael Butler House and a small curb footbridge from Congress Avenue. Antique light standards that once stood on Lavaca Street and the Esperanza Schoolhouse were also placed in the Botanical Garden.

The Taniguchi Japanese Garden was opened in 1969, a gift of Isamu Taniguchi, who spent 18 months creating the paths, ponds, bridges, tea house and planting areas by hand. Taniguchi was a farmer who immigrated to the United States from Japan in 1915. He was moved to create the garden as a gesture of gratitude to the city that had provided an education to his two sons, and as a symbol of universal peace.

The McBeth Recreation Center and McBeth Recreation Center Annex are in two buildings on the western edge of Zilker Park. The recreation centers provide programs for differently abled children and adults. Originally built by the Knights of Columbus as a local chapter building in 1958 and as a state headquarters building in 1960, the modernist buildings are sited in a heavily wooded area of dense tree canopy. The City of Austin acquired the buildings in 1981 and 1998 and renovated them for use as recreation centers.

HISTORIC CONTEXT

CONTEMPORARY PARK DEVELOPMENT

The most significant change to Zilker Park since its creation was the construction of MoPac Boulevard over and through the western section of the park. The arterial highway extends from far north to far south Austin on the western side of the city. It flanks the Missouri-Pacific Railroad right of way in the segment north of the river, but the roadway itself continues to the south where the railroad turns to the east on the north bank of the river. The design and public engagement process took almost twenty years to complete, and construction took five years for the first phase of the project, which opened to use in 1974.

The highway bisects the park, with roughly the westernmost quarter of the park separated from the remainder of the park by elevated roadways and grade-level access roads. Barton Springs Road, originally designed as a scenic parkway route, now serves as a high-speed entrance to and exit from the highway.

In recent decades, historic designations and environmental conservation measures have been applied to Zilker Park, to preserve and protect the unique cultural and environmental resources of the place. In 1985 the Barton Springs Historic District was listed on the National Register of Historic Places. In 1990 Barton Springs Pool and Bathhouse were designated City of Austin Historic Landmarks. In 1992, citizens of Austin led the initiative for the Save Our Springs Ordinance to protect the aquifer and the springs. In 1996, the Austin Nature and Science Center opened a new satellite facility in the Bathhouse, including a gift shop, classrooms and an exhibit hall. In 1997 the Zilker Park Historic District was listed on the National Register. Also in that year, the Barton Springs Salamander was listed as an endangered species by the U.S. Fish and Wildlife Service. Degradation of the quality and quantity of water feeding Barton Springs was cited as a primary threat to the species. The Parks and Recreation Department and the Watershed Protection Development and Review Department formulated guidelines for the management of the surface habitats of the salamander, changing the operation and maintenance procedures at the Pool to gentler practices. In 1998, the educational exhibit Splash! Into the Edwards Aquifer was opened at the Bathhouse by the Austin Nature and Science Center. The permanent exhibit tells the story of water migration through the Edwards Aquifer ecosystem.

Routes for hiking, biking and jogging have been enhanced in recent decades in the park, with the completion of the Ann and Roy Butler Hike-and-Bike Trail at Lady Bird Lake and the Barton Creek Greenbelt. The Butler Trail passes through the north edge of the park, along the bank of the Colorado River and Barton Creek. The Violet Crown Trail begins along the southwest section of the park, on the area of Andrew Zilker's third and final land gift to the citizens of Austin to complete the original Zilker Park.

New elements and features have been added to the Zilker Botanical Garden and Nature Center areas of the park in recent years. A prehistoric garden, with fossilized dinosaur footprints, a children's animal garden and a butterfly garden have been installed, as have sculptures, an arbor and a human sundial feature. A salamander conservation center and an aviary have been added to the Nature Center compound.

Not within the park, proper, but adjacent to it and related to its cultural history, in 2018 the road along the south edge of the original Barton Springs Park tract was renamed by the City Council. Once named Robert E. Lee Road, likely an association with the route traveled by Lee when he served in the US Army in the 1850s and was assigned to Texas to help protect the western frontier, the road was renamed Azie Taylor Morton Road. Taylor was the first and only Black person to serve as Treasurer of the United States, appointed by President Jimmy Carter in 1977. Azie Taylor grew up in a rural community near Austin, and came to the city to attend school and college. She graduated from Huston-Tillotson College with a Bachelor of Science degree in commercial education in 1956. Around 1961, she visited Zilker Park with some white friends and went swimming in Barton Springs Pool, helping to end segregation at the site and open the pool to all citizens of Austin.

Figure 14: A quiet day at Zilker Park. Photo: Al Godfrey

ECOLOGICAL CONTEXT_ ECOREGION

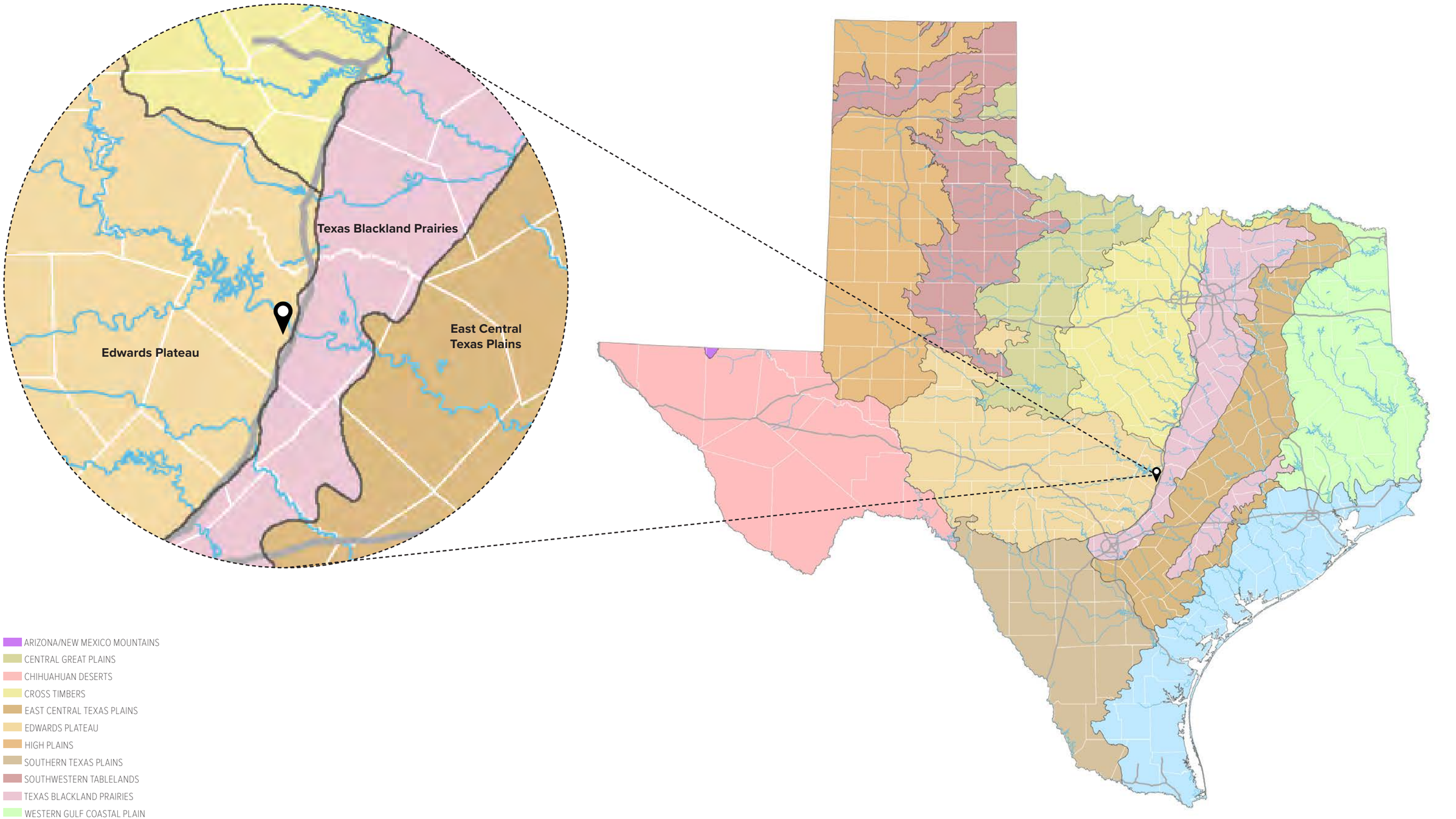
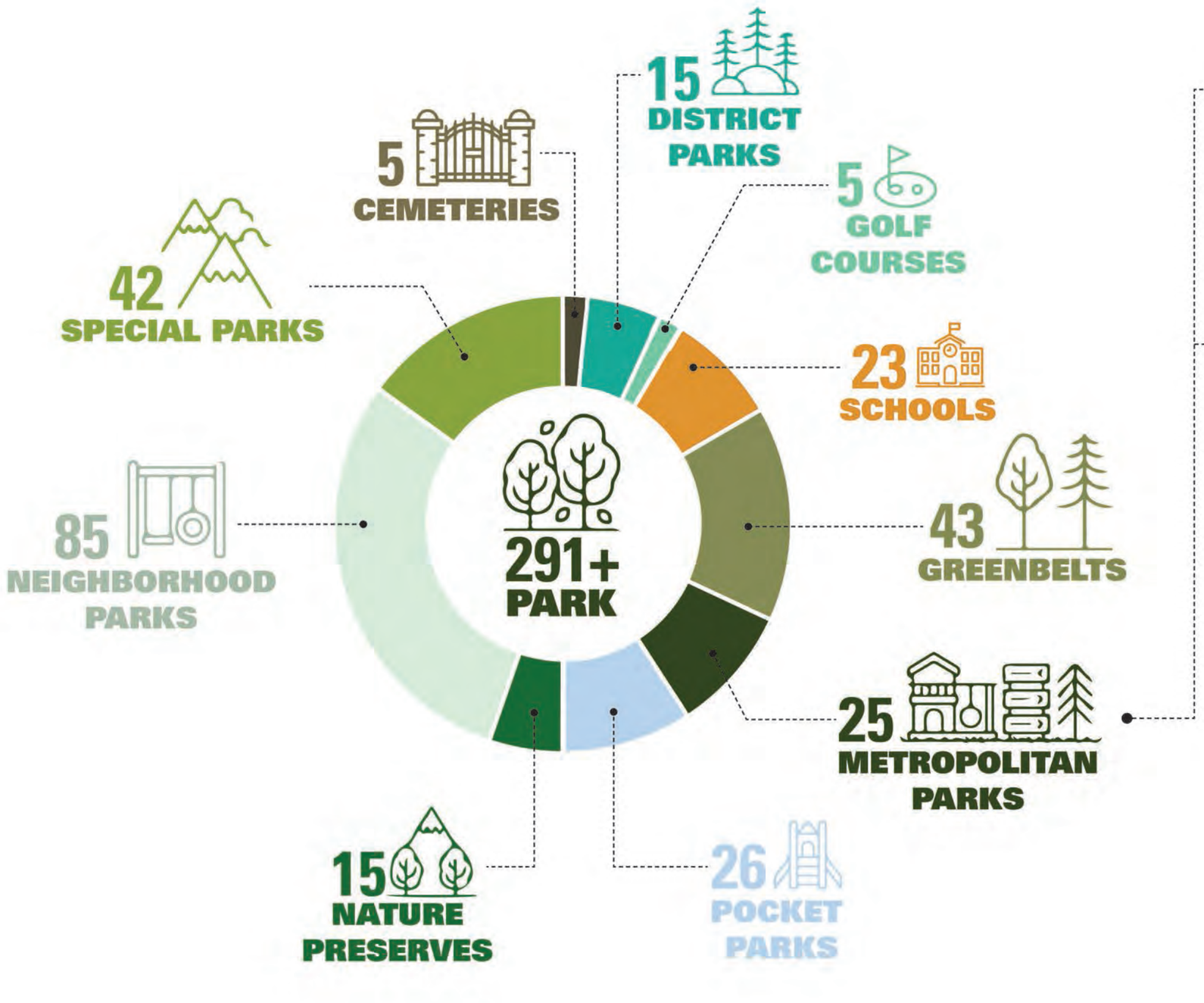


Figure 15: Texas Ecoregion Map

Source: Texas Parks and Wildlife Department

AUSTIN PARKS SYSTEM



METROPOLITAN PARK

Focus on natural resource values and recreational diversity. Often include water-based recreation and environmental education.

Size: 201+ Acres

Service Area: Citywide

Access: Major Arterials (All Transport Modes)

Feature: More Large, Specialized Features and Facilities

Zilker Metropolitan Park

Size: 307.85 Acres

Address: 2100 Barton Springs Road., Austin, Texas 78746

Figure 16: Austin Park System

Source: Parks and Recreation GIS Data

AUSTIN OVERALL PARK SYSTEM

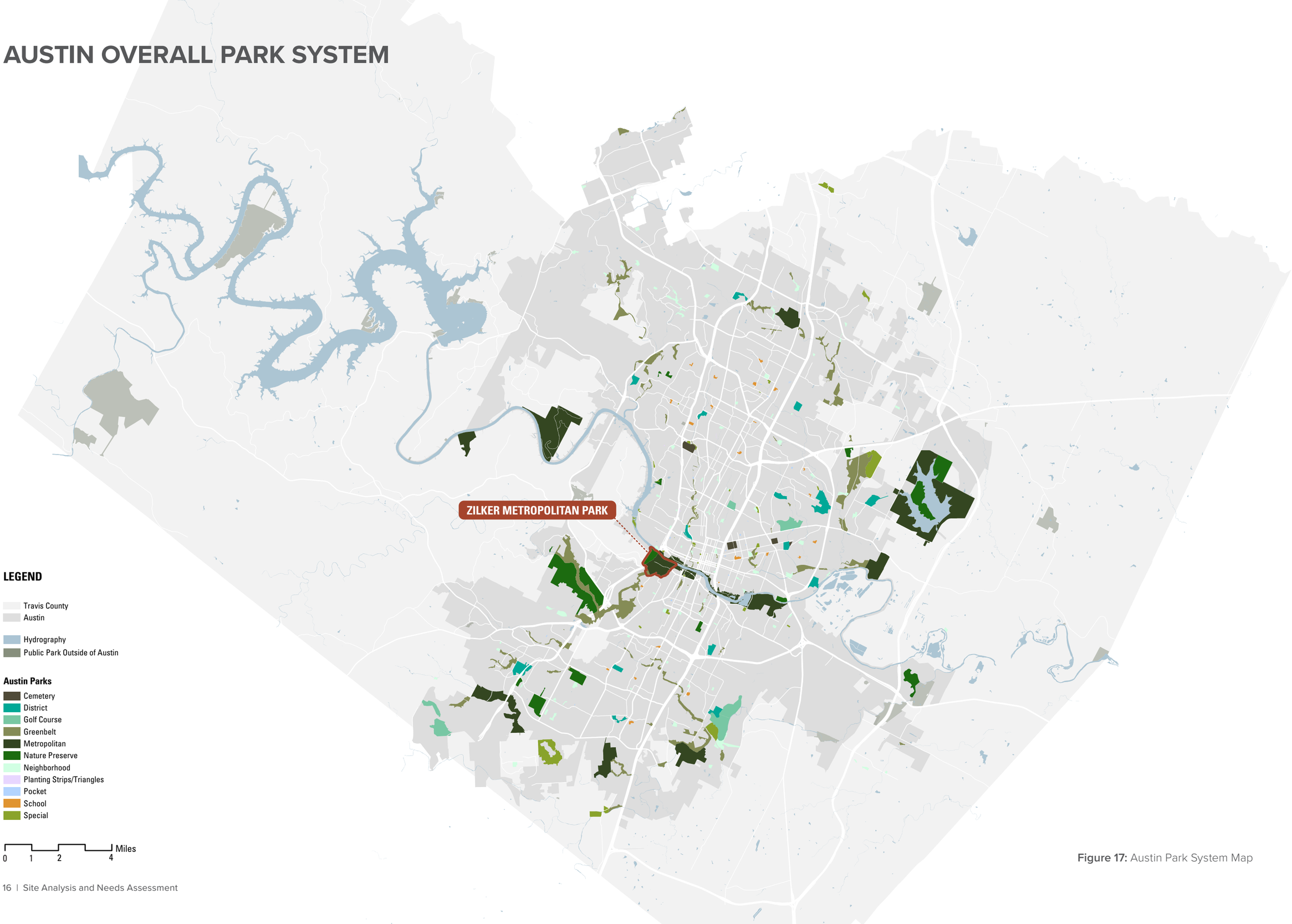


Figure 17: Austin Park System Map

CONTEXT OF ZILKER PARK

RED BUD ISLE

LADY BIRD LAKE

SHOAL CREEK

UT AUSTIN

4 MILES

ZILKER PARK

3 MILES

DOWNTOWN

BARTON CREEK

4 MILES

BARTON CREEK
WILDERNESS PARK

MOPAC

TOWN LAKE METRO PARK

I-35

ESTACIONAMIENTO EDWARD
RENDON PARK

SOUTH LAMAR

BARTON CREEK
GREENBELT

City Limit
Roadway
Buildings

Bus Routes
CAMPO Bikeway

Creek Line
Lake
Park
100yr Floodplain

0 1,000 2,000 4,000 Ft

Figure 18: Zilker Park Context Map

BOUNDARY OF ZILKER PARK

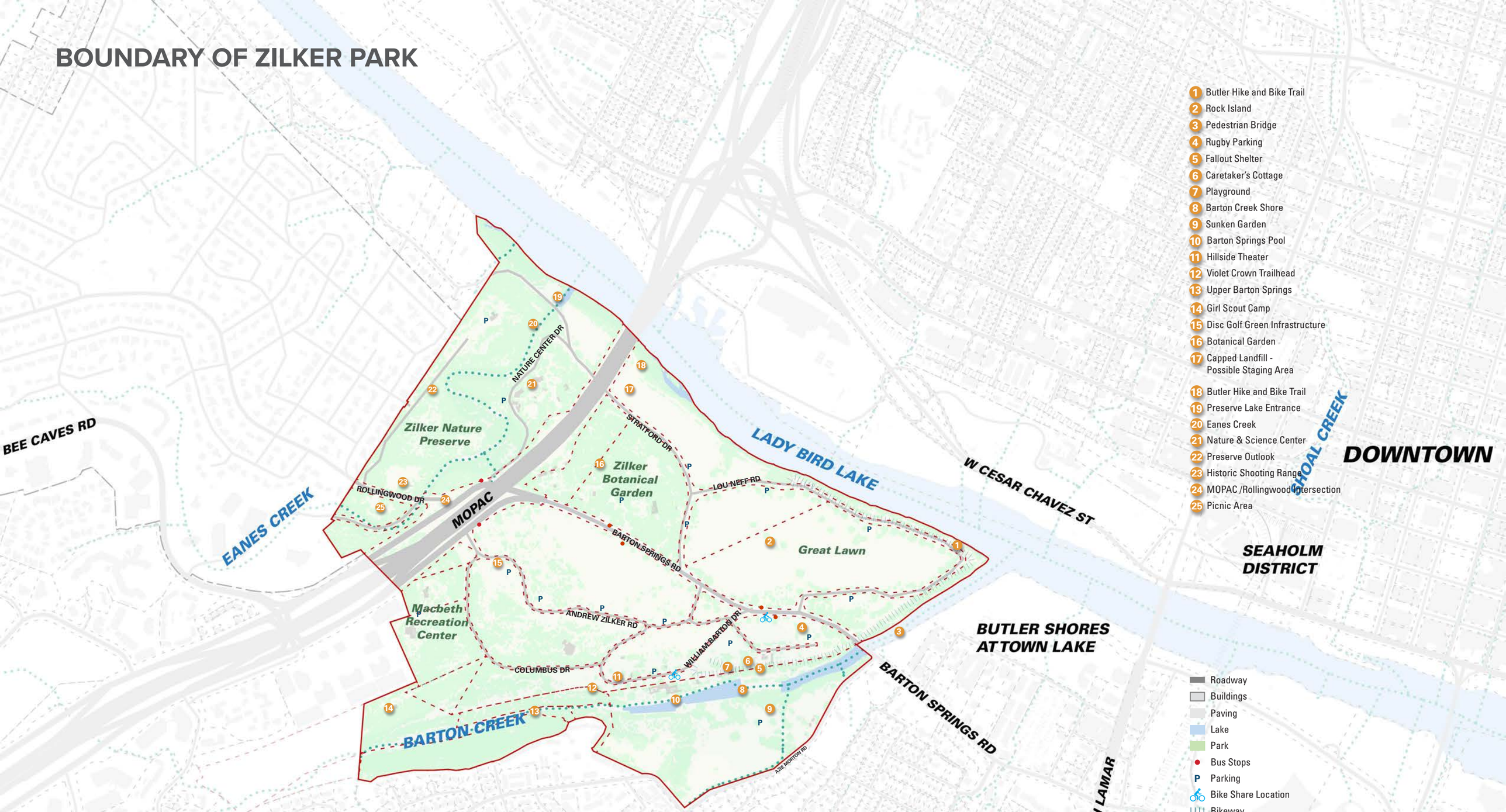
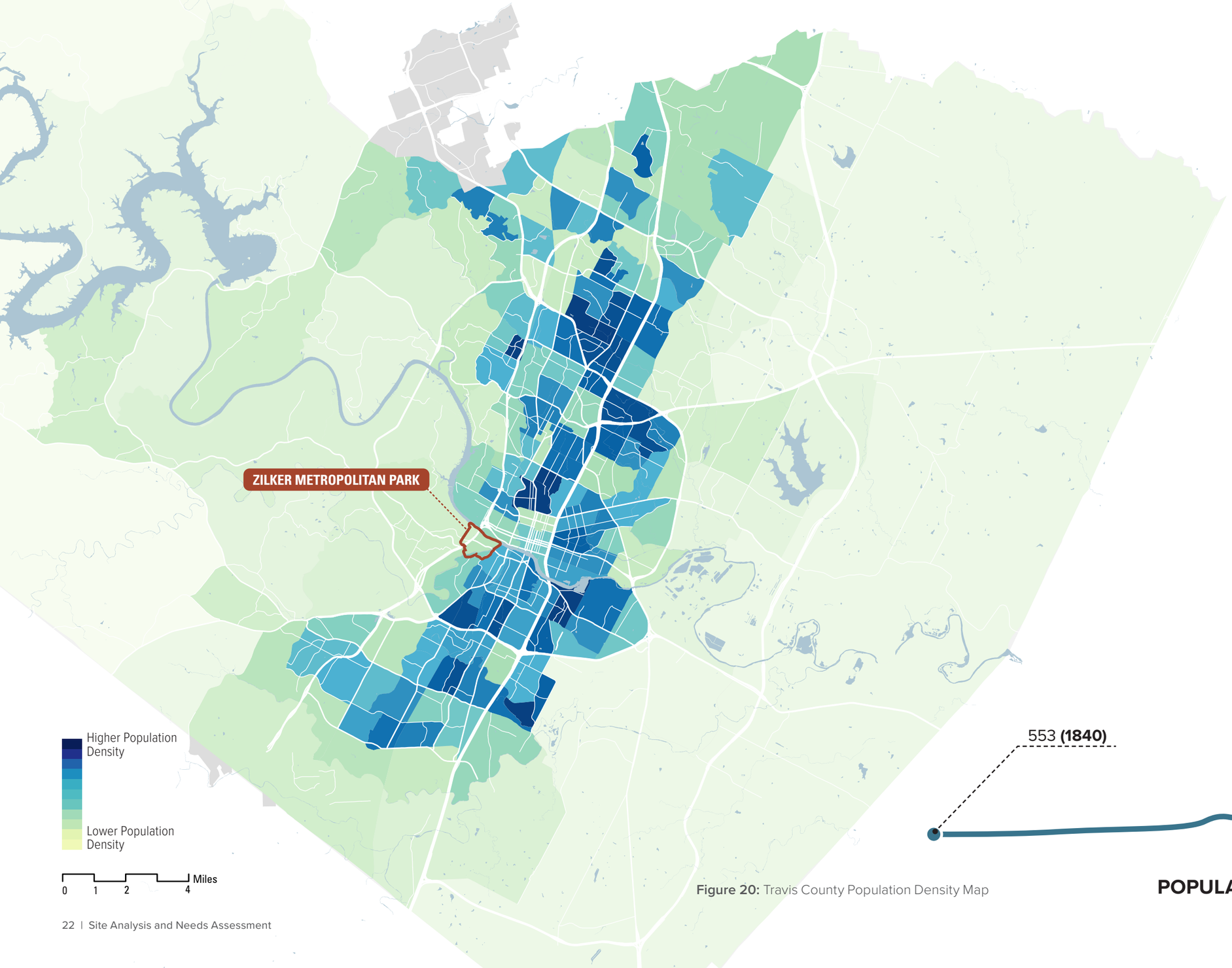


Figure 19: Boundary of Study Area

DEMOGRAPHICS

POPULATION PROJECTION



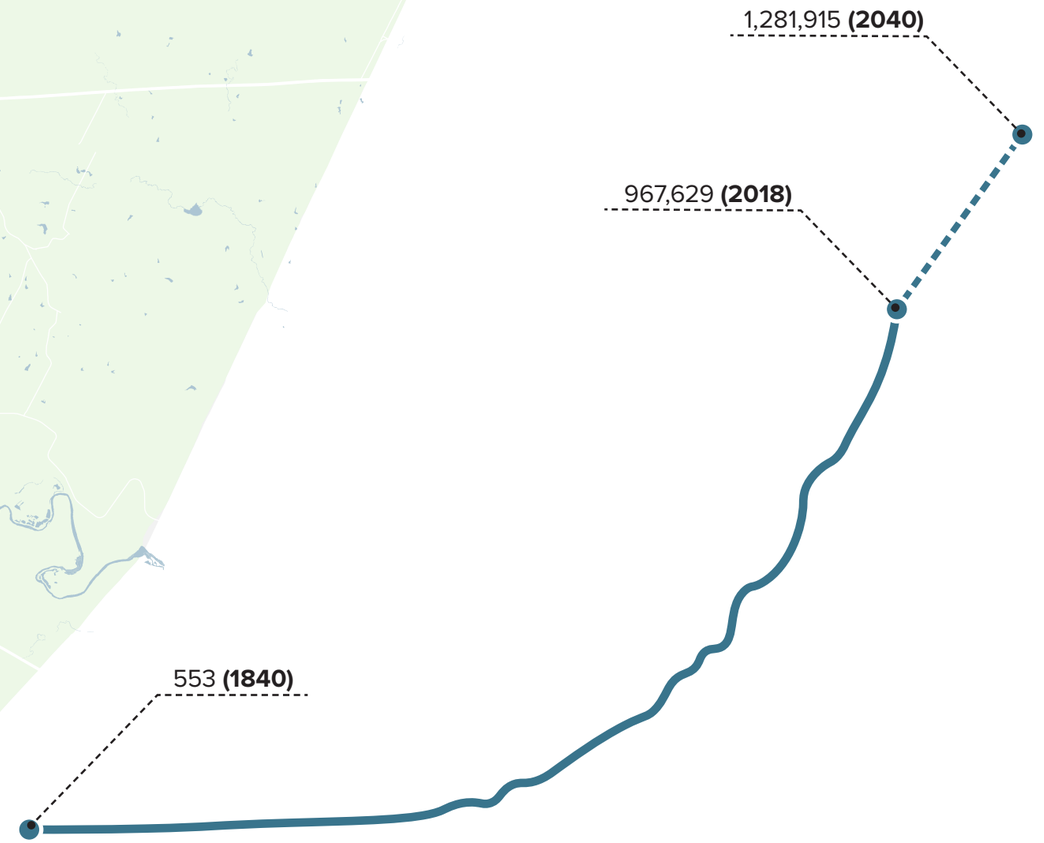


Figure 20: Travis County Population Density Map

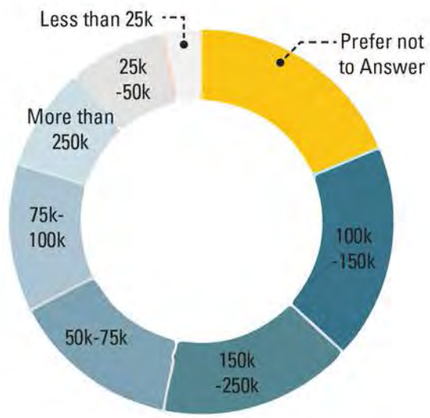
POPULATION INCREASE FROM 1840 TO 2040

ZILKER METROPOLITAN PARK BASELINE SURVEY

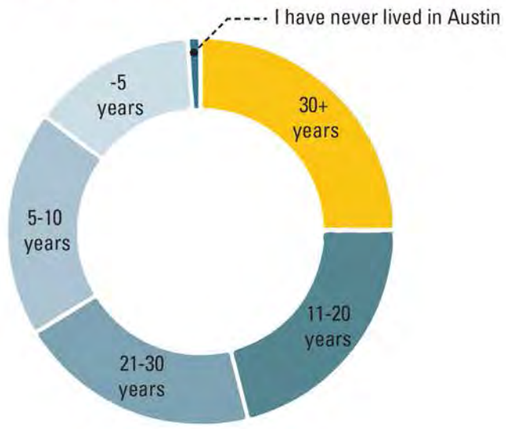
This information is from the Pre-Kickoff Preview Survey that started from November 2020 to June 2021.
At the time of this report, 108,937 responses (4,054 participant) have been received.

What is your zip code?

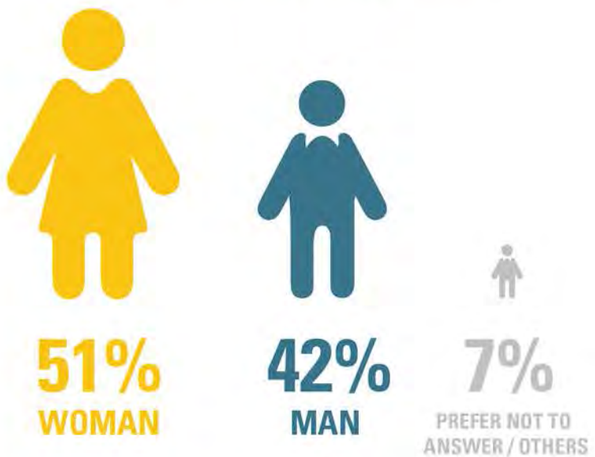
What is your household income?



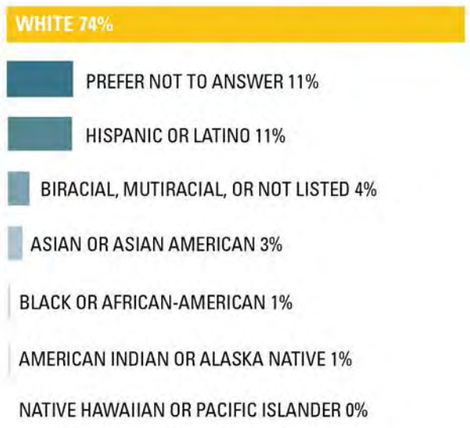
How long have you lived Austin?



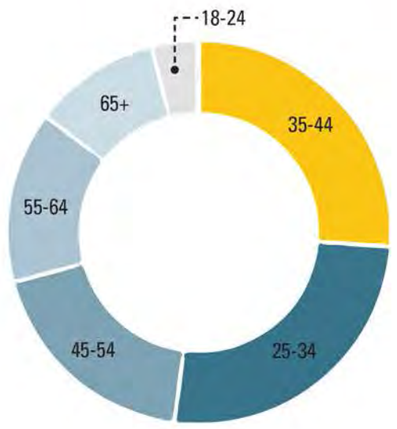
What is your gender?



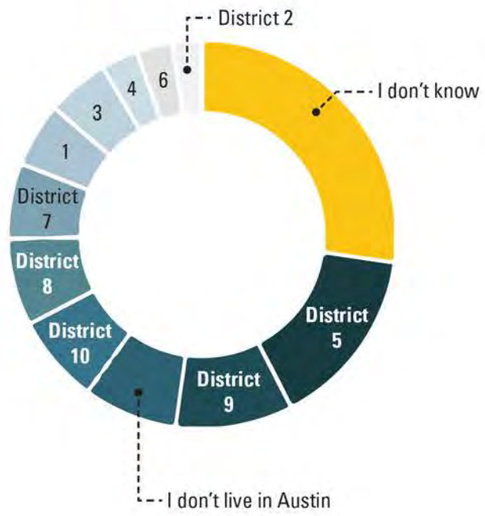
What is your race/ethnicity?



What is your age range?



Which City Council District do you live in?



Source: Zilker Vision Plan - Pre-Kickoff Preview Survey

ECOLOGY

HISTORIC LAND USE CONTEXT

For the purposes of this report, Zilker Park's landscape history can be roughly divided into three periods—Forest, Savanna, & Springs; Industrial & Agriculture; and Recreational. The Forest, Savanna, & Springs period (7000 BCE–17th century) shows the landscape before widespread colonial settlements and represents thousands of years of Indigenous habitation. It highlights some of the tribes who frequented the springs—including the Tonkawa, Lipan Apache, and Comanche. This landscape was characterized by a naturally dense forested landscape, a low and wide undammed Colorado River, plentiful wildlife, and naturally flowing spring water in Barton Creek. The Industrial & Agriculture period covers the 18th–19th centuries and ends approximately 300 years after colonists first arrived. This time period in Zilker Park was characterized by highly extractive activities, such as mining, farming, and milling along Barton Creek's banks. These intensive land use changes removed tree canopy, decreased wildlife, and increased erosion. The final Recreational period (20th–21st century) shows land use up to today, which shows Zilker Park as a city-owned public space. The modern landscape in Zilker Park is characterized by a higher and more consistent water level on the north side of the park, created by the damming of the Colorado River and formation of Lady Bird Lake. Additionally, heavy public use, soil compaction, trampling, and contamination is also present throughout the park. These sections highlight not only Zilker Park's accelerating landscape changes, but also how land uses have changed and why. Themes that have emerged from these three historic periods include:

- A transition in land uses from a natural landscape to industrial and finally to recreational;
- A landscape where the proportion of wild lands decreases steadily over time;
- A decrease in wildlife abundance and diversity over time, especially a decrease in megafauna; and
- A transition from tribes camping along Barton Creek, to a few independent mill owners and homesteaders, to a modern landscape visited by hundreds of people daily.

Figure 21: Zilker Timeline, 2021, Siglo Group.

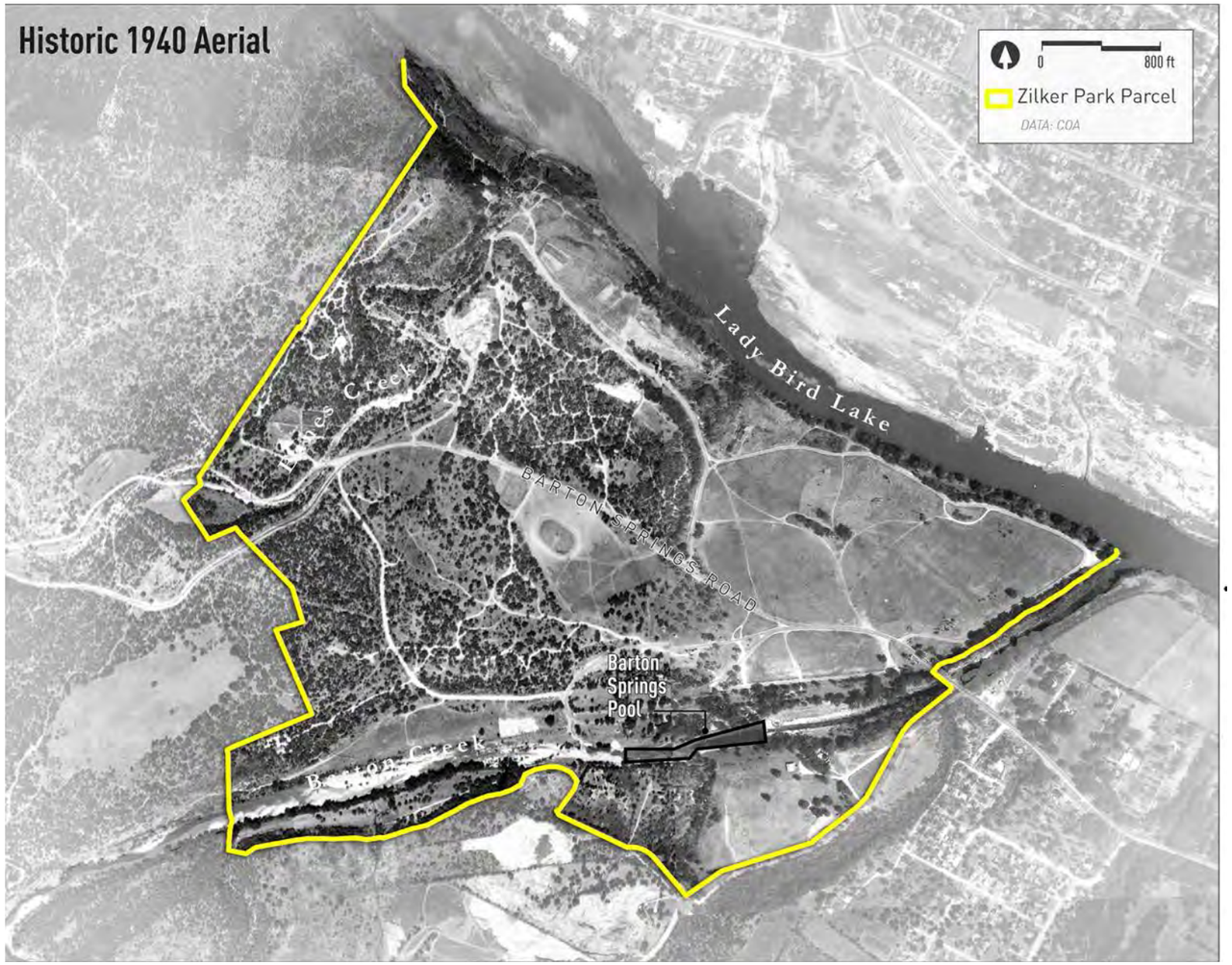


Figure 22: Historic 1940 Aerial, 2021, Siglo Group.

Zilker bathhouse exterior, 1948 (from The Austin History Center via UNT Texas History Portal)

Bathers at Barton Springs Pool, 1940-1969 (from The Austin History Center vis UNT Texas History Portal)

Zilker Eagle with Capitol in background, 1960-1980 (from The Austin History Center via UNT Texas History Portal)

ENVIRONMENTAL CONTAMINATION FROM HISTORIC LAND USE

Zilker Park has three main areas of environmental concern—the Butler Landfill, the Pistol and Skeet Range, and the Bone Yard. In anticipation of future renovations on site, a Phase I Environmental Site Assessment was completed for Zilker Park in 2019 by TRC Environmental Corporation.

BUTLER LANDFILL

The 25-acre Butler Landfill has a maximum depth of 30 feet. This location originally served as a clay quarry for the Butler Brick Factory through the early 1900s, but after termination of quarry operations, the location was operated as a municipal landfill by the City of Austin from 1948 to 1967.[1]

Several investigations and groundwater monitoring events have been conducted. While the earlier events did not find constituents of concern (COCs), later monitoring events did detect them. These later investigations found that waste materials were exposed in several areas throughout the landfill and that the lower portion of material within the landfill is saturated by the waters of Lady Bird Lake. A range of contaminants exceeded recommended maximum levels including arsenic, barium, cadmium, chromium, magnesium, lead, iron, and manganese. Due to this, the 2019 Environmental Assessment classified Butler Landfill as a recognized environmental condition (REC).[1]

As an aside, Wetlands border the capped Butler Landfill on the eastern and northern sides. The Watershed Protection Department (WPD) advises that ponded areas should not exist over closed landfills. Based on the 1998 Task 5 Report, the boundary of the fill extends eastward towards the Zilker Zephyr tracks and under the eastern ponded area. As of 2019, when the Zilker Park Working Group completed their report on the park, Watershed Protection Department and Parks & Recreation Department were planning to assess this area and consult with the Texas Commission on Environmental Quality to determine if additional action is necessary relative to this pond.[2]

PISTOL AND SKEET RANGE

The 2.5-acre Pistol and Skeet Range was originally developed in the 1930s. Based on aerial photographs and interviews with PARD staff, the western portion was used for skeet shooting (Skeet Range), while the east side was used for pistol and rifle shooting (Pistol Range). [1] The range was likely heavily used on a daily basis by the Austin Police Department and citizens between the mid-1930s and 1970s. The Pistol Range property was used by the Austin Nature & Science Center for archery, equipment storage, and supply storage in portable buildings after the mid-1980s. Historic and recent soil investigations have identified elevated concentrations of arsenic, antimony, and lead at concentrations. The Pistol and Skeet Range, including the wooded area to the north, is therefore a recognized environmental condition (REC).[1]

BONE YARD

This area lies atop the northwest corner of the Butler Landfill and is currently used for storage of equipment and landscaping materials such as soil, brush, and gravel. Due to the presence of asphalt, electric powered carts and small vehicles with lead-acid batteries, surplus lawn-maintenance equipment, and chemical containers without cover and/or impervious pavement, this area has a possibility of leaking hazardous substances and/or petroleum products to the environment.1 This area is a REC, due to the material threat of a future release to the environment.

Major take-aways that will impact future development include: [1]

- The Butler Landfill is considered a recognized environmental condition due to the high levels of arsenic, barium, cadmium, chromium, magnesium, lead, iron, and manganese, along with the potential for comingling of groundwater within the landfill with Lady Bird Lake.
- The Pistol and Skeet Range, including the wooded area to the north, is considered a recognized environmental condition due to historic and recent soil investigations that have identified elevated concentrations of arsenic, antimony, and lead.
- The Bone Yard is a recognized environmental condition because it has several hazardous materials that could threaten the surrounding environment.

1. TRC Environmental Corporation. 2019. Phase I Environmental Site Assessment Report: Zilker Metropolitan Park 339575.0000.0000.
2. Zilker Park Working Group. 2019. Zilker Park Working Group Final Report & Appendices. Austin City Council. https://www.austintexas.gov/department/zilker-park-working-group-0

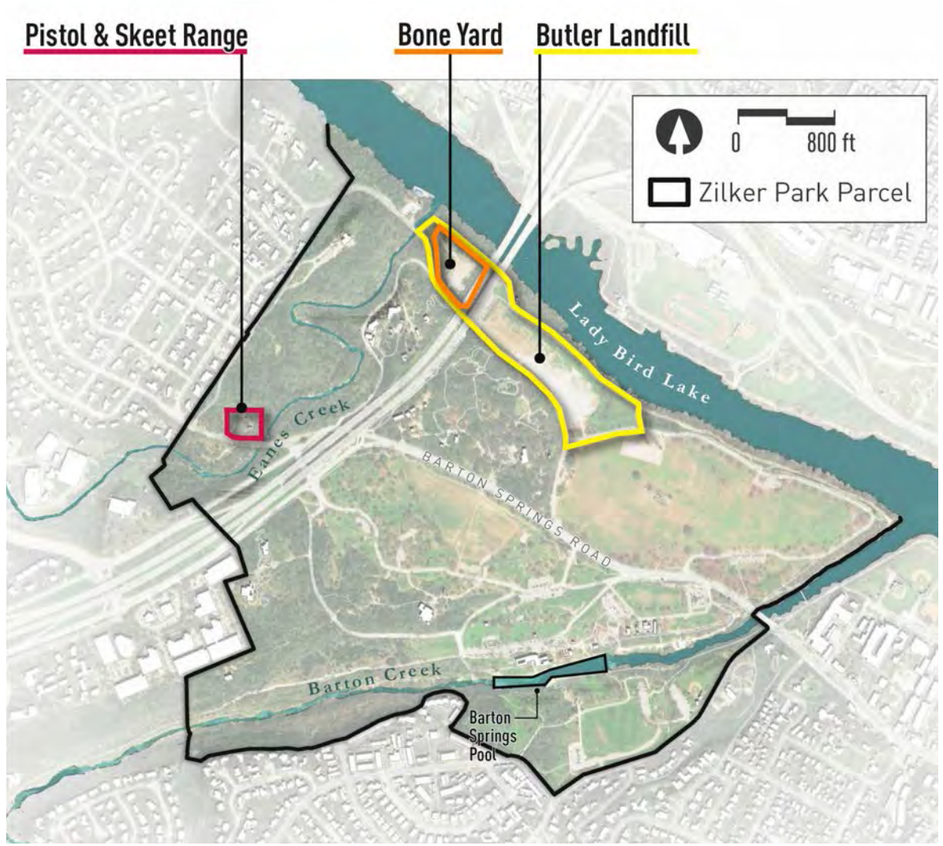


Figure 23: Contaminated Areas, 2021, Siglo Group.

Figure 24: Austin's Skyline is the Backdrop at the Historic Butler Landfill, 2021, Siglo Group.

Figure 25: The Bone Yard, 2021, Siglo Group.

Figure 26: Dense Woodland Habitat Surrounds the Pistol and Skeet Range, 2021, Siglo Group.

ECOREGIONS & EDWARDS AQUIFER

Zilker Park lies in the transition zone between the Edwards Plateau and Blackland Prairie ecoregions, blending aspects of the two. Hydrologically, Zilker Park sits atop the Edwards Aquifer and within the Colorado River corridor. The park includes sections of both Barton Creek and Eanes Creek and is home to the iconic Barton Springs. These factors combine to create a beloved, ecologically significant landscape in great need of planning and stewardship. This chapter describes the site's hydrology, topography, geology, soils, plant communities, and wildlife. This information is the foundation of the Natural Resource Inventory report's management guidelines.

The Edwards Aquifer lies under the eastern and southern borders of the Hill Country and gives rise to the iconic springs of Central Texas. The Barton Springs segment of the Edwards Aquifer covers 250,000 acres and includes the Barton and Eanes Creek watersheds. The recharge zone is the critical area where water enters the aquifer through cracks and pores in the limestone. The recharge zone covers over 56,000 acres including 321 acres in Zilker Park. Water from the recharge zone flows out in the prolific Barton Springs system that feeds Barton Springs Pool and creates habitat for the endangered Austin Blind Salamander and Barton Springs Salamander. Because the limestone—through which water enters the aquifer—does not filter out contaminants, this critical, fast-moving water system is impacted by resource management decisions throughout the contributing and recharge zones. Activities in the park can also impact the recharge zone and areas immediately adjacent to the springs.

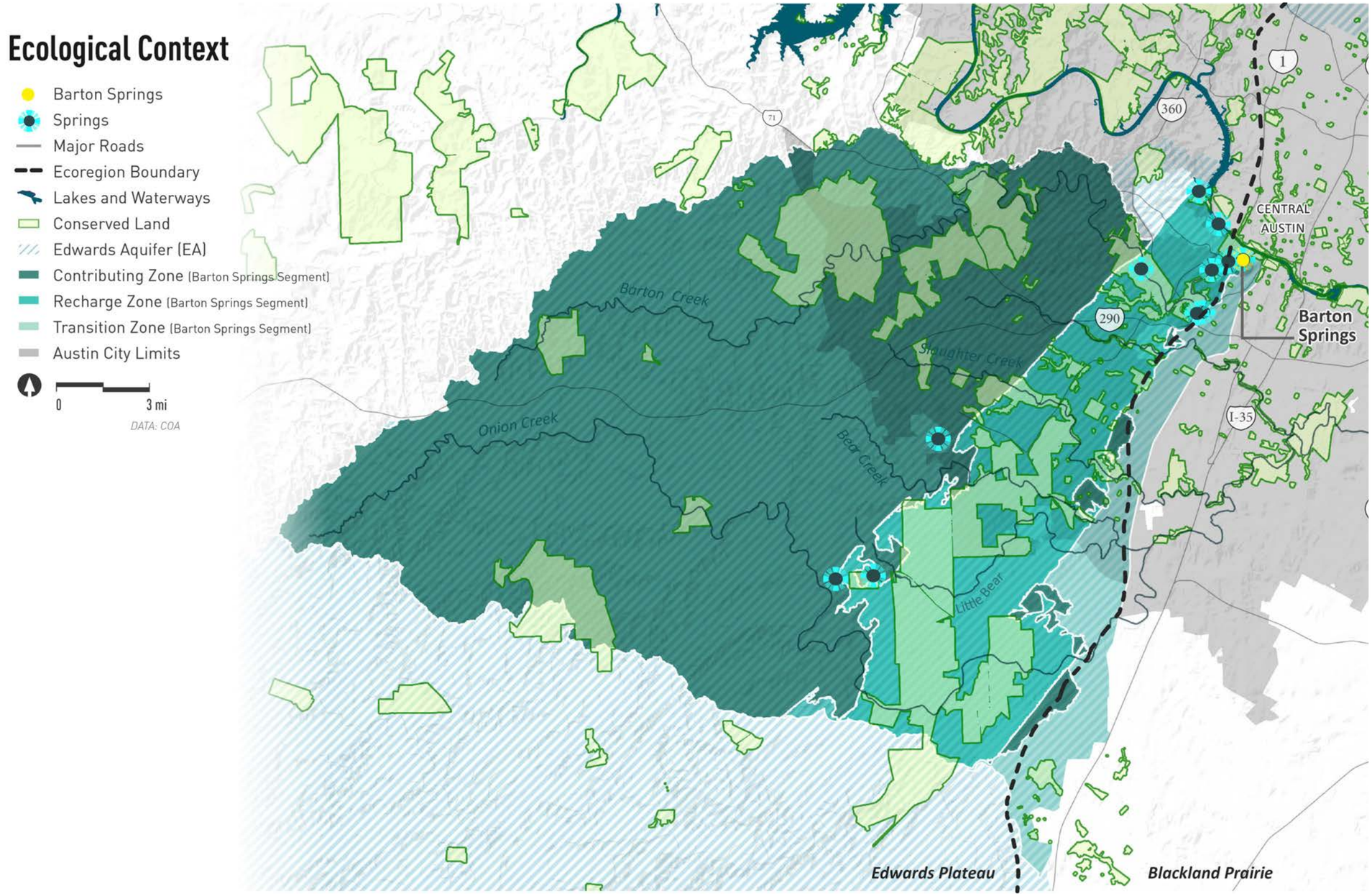


Figure 27: Ecological Context of Zilker Park, 2021, Siglo Group.

GREEN INFRASTRUCTURE

In 2012, the City of Austin adopted the Imagine Austin Comprehensive Plan, which included Priority Program #4: Use green infrastructure to protect environmentally sensitive areas and integrate nature into the city. It also established a definition of green infrastructure as a strategically planned and managed network of natural lands, parks, working landscapes, open spaces, and green stormwater controls that conserve and enhance ecosystem services and provide associated benefits to human populations.

As climate change intensifies and results in higher temperatures and more extreme weather events, the many forms of green infrastructure will become increasingly important. A map of climate vulnerability and tree planting priority in Austin from the City of Austin Green Infrastructure Assessment shows areas that are climate vulnerable as a result of urban heat island temperature increases, lack of urban forest, and lack of shade over impervious cover. In addition, these areas coincide with higher levels of social vulnerability and worse health outcomes.

While the general area around Zilker Park exhibits a low to moderate tree planting priority, this park serves as a city-wide refuge to enjoy the outdoors in a location that has relief from higher temperatures as a result of the urban forest, shading, and water related cooling. In addition, the changes suggested in the Zilker Park Natural Resource Inventory and Natural Area Management Guidelines recommend the improvement of canopy in the park and addition of green stormwater infrastructure. The result is a park that is adapting to and mitigating climate change. These same concepts must be integrated into the Zilker Park Vision Plan to create a sustainable park that addresses climate change.

Climate Vulnerability and Tree Planting Priority

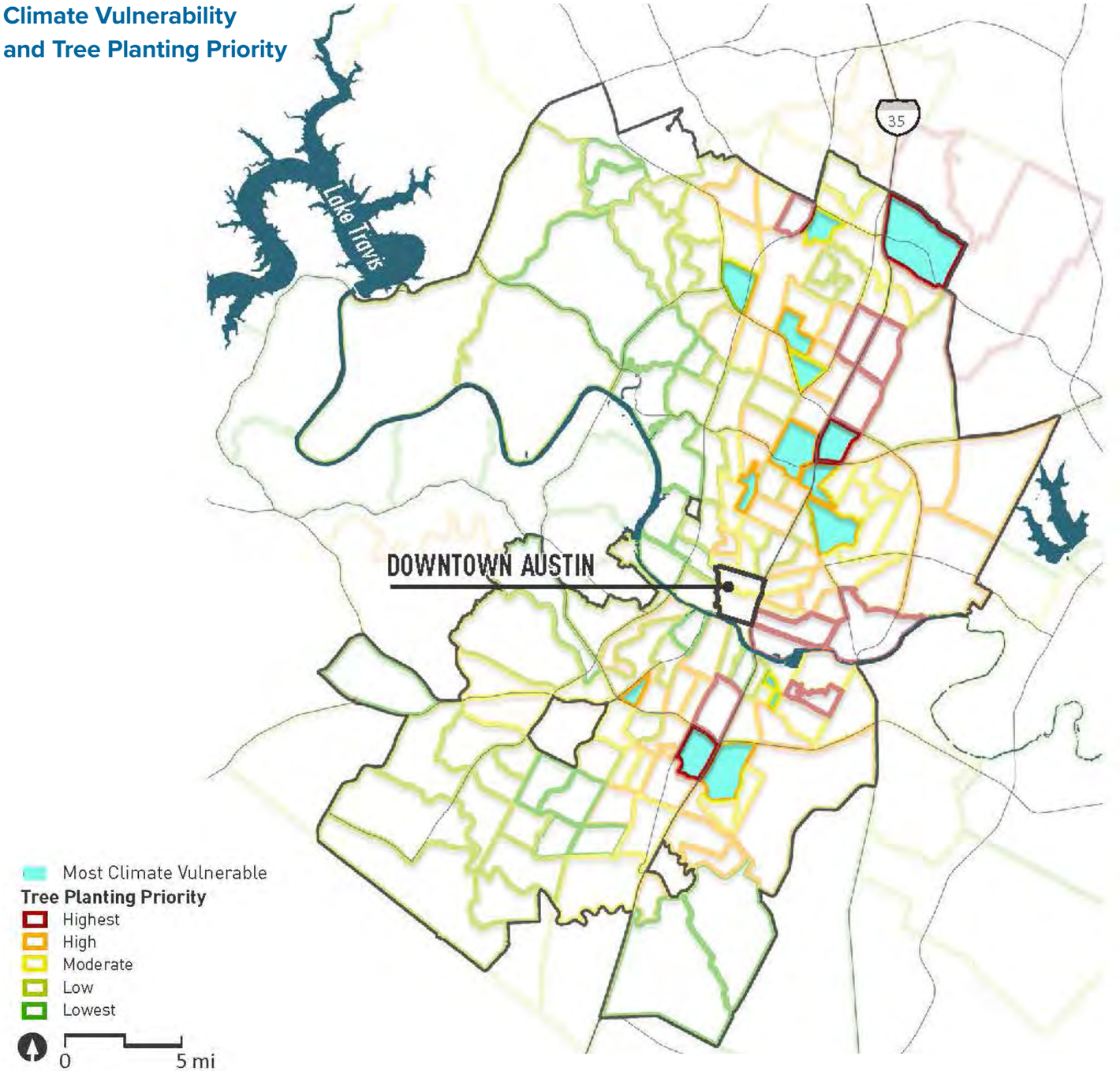


Figure 28: Climate Vulnerability and Tree Planting Priority, 2021, Siglo Group.

SITE CHARACTERISTICS: GEOLOGY AND SOILS

Topography

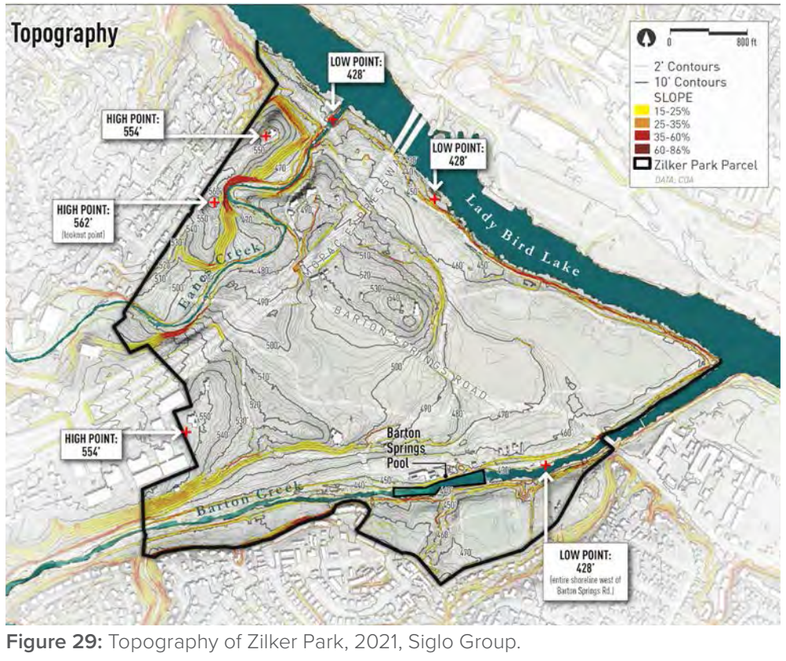


Figure 29: Topography of Zilker Park, 2021, Siglo Group.

The topography of Zilker Park varies from low-lying lands near waterways to steep cliffs carved by creeks. The lowest elevations in the park are along the Lady Bird Lake shoreline which, due to damming, stay near 428 feet elevation. The highest points in the study area are over 550 feet, with the highest point at 562 feet elevation. These areas are located upslope of a major bend on the west side of Eanes Creek—with Lookout Point lying near the high point of 562 feet and the Zilker Park Clubhouse lying near 554 feet. On the other side of MoPac Expressway, the McBeth Recreation Center lies close to the 554 feet elevation point. Changes in topography (slope) are most substantial west of MoPac Expressway, along the lakeshore, and along Barton Creek. In contrast, the Great Lawn, Disc Golf Course, and Polo Fields are comparatively flat.

The topography of the site affects its current condition in numerous ways. Generally, within parks, steep slopes contain the most intact woodlands yet are more prone to erosion. Flat areas accessible to lawnmowers tend to be regularly mowed. While the elevation gain throughout the site is relatively small, high points do allow for a greater variety of views of Lady Bird Lake, the urban forest canopy, and the Austin skyline.

Geology

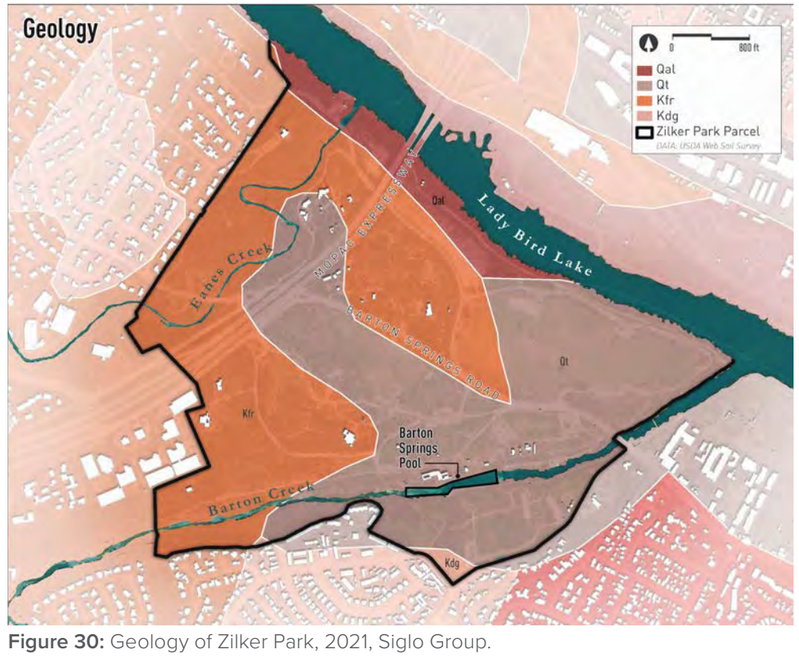


Figure 30: Geology of Zilker Park, 2021, Siglo Group.

The geology of Zilker Park is a combination of Hill Country limestone and influences from the Blackland Prairie, and is shaped by water that cuts through rock and sediment to expose four types of bedrock:

- Quaternary Alluvium (Qal)
- Fluviatile Terrace Deposits (Qt)
- Fredericksburg Group (Kfr)
- Del Rio Clay and Georgetown Limestone (Kdg)

The alluvium deposits of the Qal and Qt layers (6% and 48% of the park, respectively) underlie areas along Lady Bird Lake, much of Barton Creek, and the low-lying portions of the park. They are highly variable with some areas dominated by sand and others by loamy clay or gravel. The Fredericksburg Group comprises the upland forested areas of Zilker Park, accounting for approximately 97% of the site. It is made of Edwards Limestone, Bee Cave Marl, and Comanche Limestone. It is also known for its karst features (caves and sinkholes), although none have been found on the property. Del Rio Clay covers less than 1% of the site and are comprised of clay and beds of limestone with marl. This bedrock type is characteristic of the Edwards Aquifer confined (or artesian) zone and contributes to the pressure in artesian springs.

Soils

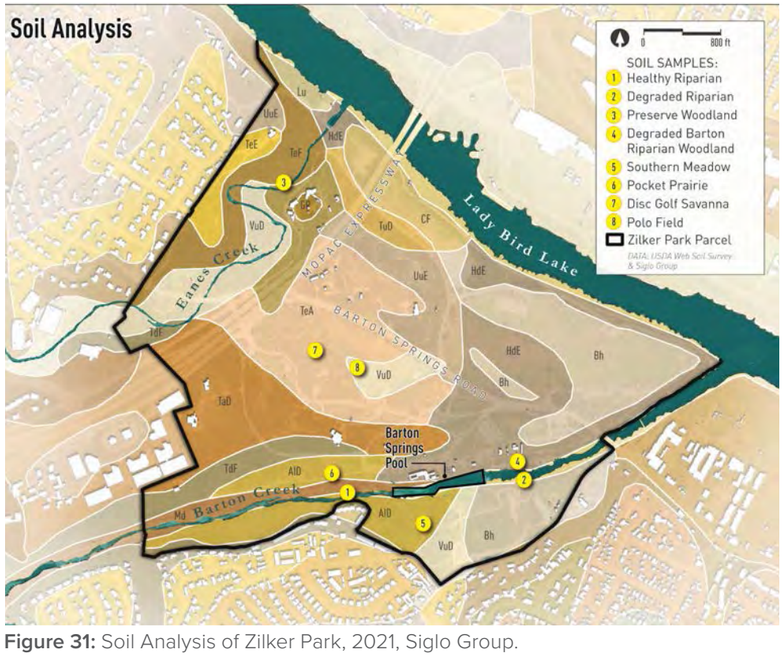


Figure 31: Soil Analysis of Zilker Park, 2021, Siglo Group.

Zilker Park includes 13 soil types. These soils have been heavily impacted by agriculture and urbanization over the past 150 years as well as ecological changes in climate and topography. Their composition, nutrient levels, organic material, and health give direction on what may grow in areas, and what needs to occur to restore native plant communities.

SITE CHARACTERISTICS: WATERWAYS AND SPRINGS

Springs and Seeps

Figure 32: The Seeps and Springs of Zilker Park with the 4 Major Springs Highlighted, 2021, Siglo Group.

Barton Springs Pool and Creek

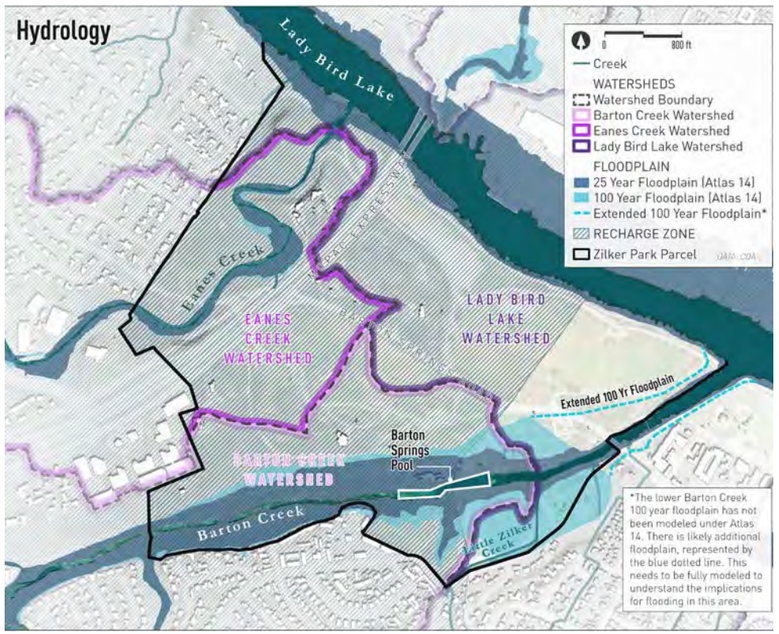


Figure 33: Hydrology of Zilker Park, 2021, Siglo Group.

Floodplains and Water Quality Buffers

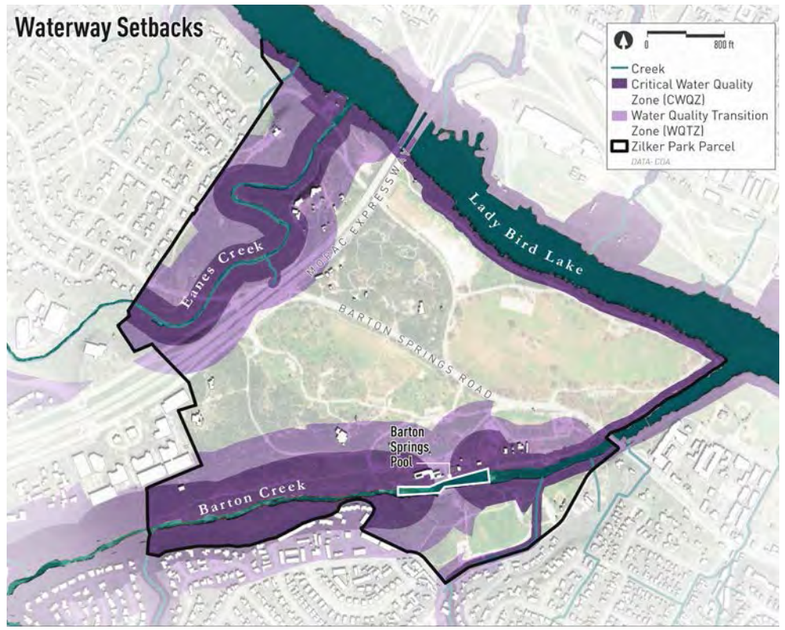


Figure 34: Waterway Setbacks of Zilker Park, 2021, Siglo Group.

Zilker Park contains four major springs—Barton, Eliza, Sunken Gardens (Old Mill), and Upper Barton. Each of these major springs is home to endangered salamanders (discussed in detail in the Wildlife Section of this chapter). There are an additional nine seeps and small springs located throughout the park. The major 4-spring complex has an average combined discharge of 53 cubic feet per second. Discharge varies substantially from year to year and season to season, ranging from as little as 10 cubic feet per second to as much as 166 cubic feet per second. During the severe 2009 drought, discharge was only 13 cubic feet/second.

Eliza and Old Mill Springs lie at a higher elevation than Barton Creek and are protected from all but the most severe floods, while Upper Barton Springs is in the creek bed. Barton Springs is protected in the pool by a bypass channel, but this channel is overrun during major flood events, allowing floodwaters to enter the pool and reduce water quality.

Barton Springs Pool had nearly one million visitors in 2018, with rapid growth in attendance expected to continue. The pool is fed by the main Barton Spring, which discharges from fissures in the rocky bottom of the pool, just west of the diving board. Localized water quality concerns for the pool include contamination entering from off-site, Barton Creek floodwaters causing pool contamination, gasoline-powered pool cleaners causing contamination and stagnant water during drought conditions causing algal blooms.

The last mile of the 50-mile-long Barton Creek flows through Zilker Park before it drains into Lady Bird Lake. The creek's watershed includes 118 acres of the study area (Figure 3.3). The creek above the pool (upper creek) has highly variable flows that have an impact on plant and animal habitat. The upper creek typically fills up after high rainfall periods in spring and is dry in the more drought-prone summer and winter months. Below the pool, the creek is fed by the springs, flows from the upper creek, and inundation from Lady Bird Lake, creating year-round flow. Water quality concerns for the creek include stormwater runoff and the resulting contaminants from park infrastructure, informal trails, trash (bottles, cans, wrappers, etc.) and animal waste entering from the shoreline, and offsite infrastructure.

A floodplain is an area along a waterway that is prone to flooding. According to the Interim Atlas 14 floodplain from the City of Austin, 75.5 acres (18%) of Zilker Park are included in the 25-year floodplain. An additional 31.1 acres (8%) are included in the 100-year floodplain (Figure 3.3). Since the lower Barton Creek 100-year floodplain has not been modeled under Atlas 14, likely additional floodplain is marked with a dotted line. The floodplain is highly regulated by City of Austin building code and any potential floodplain modifications should comply with these regulations.

Floodplains play an important role in regulating water quality, because they filter water through their soils. The extra moisture creates denser plant growth, providing important wildlife habitat. Floodplains can be harmed by trampling and high runoff during storms that erode soil and wash away plants. At Zilker Park, both problems are visible, especially along Barton Creek where visitors compact creekbank soils in search of water access.

Critical Water Quality Zones and Water Quality Transition Zones restrict land use near waterways to protect healthy riparian corridors. Critical Water Quality Zones extend for 200, 400, and 100 feet from Eanes Creek, Barton Creek, and Lady Bird Lake, respectively. Water Quality Transition Zones extend an additional 300 feet from both Eanes Creek and Barton Creek (Figure 3.4).

Lady Bird Lake and Eanes Creek

Zilker Park includes 6,000 linear feet of Lady Bird Lake shoreline. The shoreline's steep banks descend rapidly in some places from the upland Butler Trail to the wetland fringe below. This area has some of the largest trees in Austin. The Colorado River, of which Lady Bird Lake is a 400-acre impoundment, flows from New Mexico to the Gulf Coast and connects Zilker Park to a migratory flyway. There are 169 acres of the study area that drains into Lady Bird Lake (Figure 3.3). Water quality concerns here include substantial stormwater runoff around MoPac Expressway, bank erosion along all of the Butler Trail, and trampling and compaction along the water's edge.

Eanes Creek is a 6-mile-long creek that runs through the Zilker Nature Preserve for 4,500 linear feet before it empties into Lady Bird Lake. There are 115 acres of the study area that drain into it (Figure 3.3). The portion of Eanes Creek in Zilker Park is dry much of the year, giving it the nickname Dry Creek. Although the Zilker Nature Preserve and Austin Nature & Science Center are some of the least disturbed areas of Zilker Park, Eanes Creek is impacted by issues outside the park. Extensive new development just outside the park has created high flows that have channelized the creek, while runoff from MoPac Expressway degrades the quality and quantity of flow into the creek. Water quality concerns here include flows draining from the Disc Golf Course and bank erosion near Stratford Drive.

ENDANGERED SPECIES AND CRITICAL ENVIRONMENTAL FEATURES

ENDANGERED SPECIES

The Austin Blind Salamander (*Eurycea waterlooensis*) and the Barton Springs Salamander (*Eurycea sosorum*) are federally endangered species living in Zilker Park's major springs. Averaged over a 10-year period, Eliza Spring had the highest population of the Barton Springs Salamander (4.32/m2), followed by Barton Springs (0.25/m2), Upper Barton Springs (0.24/m2), and Sunken Gardens (Old Mill) Springs (0.093/m2).

HABITAT RANGE & THREATS

The two salamanders live in overlapping habitats. Austin Blind Salamanders are a subterranean species, found on the surface only occasionally. Barton Springs Salamanders are usually found above ground and are therefore easier to study. Both salamanders are found around outlets of the Barton Springs complex but their habitat also extends into the subsurface of the Edwards Aquifer. The two species have been found in all springs on the site except for Upper Barton Spring, where only the Barton Springs Salamander has been found.

Threats to the salamanders include increased withdrawal of groundwater and decreasing water quality because of urbanization, pollution, construction, climate change, increased well use, drought, or other changes in water chemistry; habitat modification; disease or predation; overuse of the springs; and the potential inadequacy of existing regulatory mechanisms.

A critical habitat boundary—areas of habitat believed to be essential to the species' conservation—has been established for the Austin Blind Salamander It includes both surface and subsurface components. While no critical habitat boundary has been designated for the Barton Springs Salamander, the critical habitat boundary for the Austin Blind Salamander can be used as a rough reference. The critical habitat boundary includes approximately 120 acres that stretches from Barton Springs Road to Barton Creek upstream from the pool. Surface habitats from the City of Austin's Barton Springs Pool Habitat Conservation Plan (HCP) are marked in dark pink. These are areas that the City manages. Only City biologists listed under current federal Endangered Species Act 10(a)(1)(A) and state scientific permits are authorized to manage vegetation in salamander habitat areas. These protected salamander habitat areas in Barton Springs Pool have been redrawn to include more habitat that is, or can be, maintained as suitable habitat and exclude unsuitable habitat areas of Beach. Existing conservation measures are described in the Barton Springs Pool HCP permit.

CRITICAL ENVIRONMENTAL FEATURES

A Critical Environmental Feature (CEF) is a feature that is of critical importance to the protection of environmental resources, and includes bluffs, canyon rimrock, caves, point recharge features, sinkholes, springs, and wetlands. Features designated as CEFs in Title 25, section 8 of the City of Austin Code of Ordinances were documented using data from the City of Austin CEF database, the National Wetlands Inventory, and surveys conducted in conjunction with this project The Code of Ordinances requires that CEFs have 150' – 300' (ref. LDC 25-8-281(C)(1)(b). Other CEFs have a standard 150' that may be administratively modified.. Inside that buffer, natural vegetation must be retained as much as is practical; construction, wastewater disposal, and irrigation are prohibited. Hiking trails are allowed within the buffer if they are at least 50 feet from the CEF. CEFs found within the study area include springs, seeps, and canyon rimrock, and bluffs. As efforts move from vision planning to site plans, CEFs may require additional buffers including wetland areas along Lady Bird Lake.

Figure 35: Critical Environmental Features, 2021, Siglo Group.

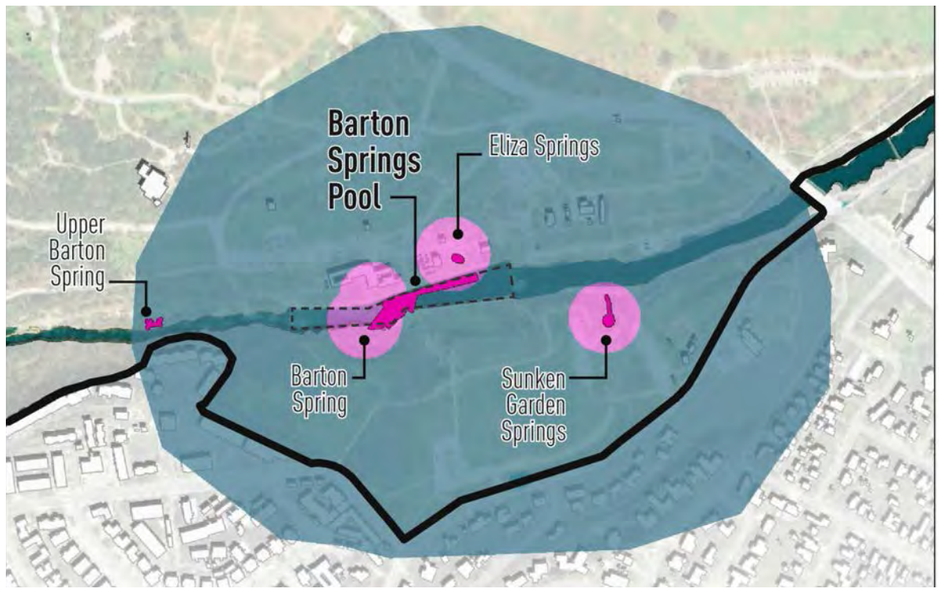


Figure 36: Salamander Habitat, 2021, Siglo Group.

Figure 37: Salamander, 2021, Siglo Group.

PLANT COMMUNITIES

Zilker Park's habitats were grouped in 16 plant communities (Figure 3.8). The plant communities are influenced by the soil and geology described above, as well as the history of human influence. These plant communities include over 380 plant species (Table 3.1).

Figure 38: Plant Communities, 2021, Siglo Group.

PLANT COMMUNITIES

SPRING (0.3 ACRES, 0.1% OF PARK)

The spring plant community includes the waters and land immediately surrounding Upper Barton, Eliza, and Sunken Gardens (Old Mill) Springs. This plant community has 25 native plant species and four invasives. There are also three obligate wetland plant species present, along with three facultative wetland plants. The spring's waters are home to aquatic species like eelgrass, Bacopa, and macro algae, while numerous natives are present above water. No invasive species were documented in the springs' waters. However, Bermudagrass, hedge parsley, Johnsongrass and perennial ryegrass were found in the adjacent terrestrial areas.

OAK/JUNIPER/ELM WOODLAND (114.6 ACRES, 28.4% OF PARK)

Oak-juniper woodlands are characteristic of the Texas Hill Country. At Zilker Park, this plant community is found throughout most of the Zilker Nature Preserve, as well as in the Austin Nature & Science Center, informal areas of the Zilker Botanical Garden, surrounding the Violet Crown Trail and upper Barton Creek and in the southwestern portions of the park. This plant community has 173 native plant species and 34 invasives and exotics. There are also seven facultative wetland plants. Non-native, invasive species include Ligustrum, Nandina, and Japanese honeysuckle. Chinese pistache is found in the Disc Golf Course and a Chinese parasol tree was noted in the Zilker Nature Preserve, near the entrance across from the boat dock. King Ranch bluestem and Johnsongrass are less common but found in open areas.

BARTON RIPARIAN WOODLAND (9 ACRES, 2.2% OF PARK)

Extending from Barton Springs Pool upstream along the creek, this woodland includes the floodplain and upper bank of Barton Creek. Its plants are inundated during floods and, in lower areas, they may stay underwater for months. The woodland has diverse canopy, understory, and herbaceous layers. This plant community has 78 native plant species and 15 invasive and exotic species. There are also 10 facultative wetland plants, but most plants on the slopes are in dry soils. Non-native, invasive species are found throughout the area, with Chinese tallow and Arundo being especially common. Woody plants like Nandina and Ligustrum are found occasionally. Herbaceous invasives include Johnsongrass and King Ranch bluestem.

INTERMITTENT CREEKBED (3.2 ACRES, 0.8% OF PARK)

The Intermittent Creekbed upstream of Barton Spring Pool includes pools, channels, and low water areas where the water flows through vegetation. Diversity is generally low in this plant community, with only 35 native species and seven invasives recorded during plant surveys. Additionally, two obligate and six facultative wetland plant species were found. Non-native, invasive species include Arundo—found in dense stands—along with Ligustrum, Chinese tallow and Johnsongrass.

EANES CREEK RIPARIAN WOODLAND (12.3 ACRES, 3.1% OF PARK)

This woodland lies on both sides of Eanes Creek. Variability in moisture within this mostly dry creek affects the diversity and abundance of plants. This plant community has 121 native plant species and 19 invasives. There are no obligate wetland plant species present, but the area is home to 10 facultative wetland species. This community has 65% more species than the Barton Creek Riparian Woodland, likely a result of less human impact and the work of Louis René Barrera. Non-native, invasive plants are found throughout this area, spread by the floods. Common invasives include Ligustrum, Nandina, Chinaberry and Japanese honeysuckle.

DEGRADED BARTON RIPARIAN WOODLAND (5.6 ACRES, 1.4% OF PARK)

This woodland lies on the sloped hillsides around Barton Creek, downstream of the pool. This plant community has 64 native plant species and 20 invasive and exotic species. It also has one obligate wetland plant species, along with two facultative wetland species. Non-native, invasive woody species include Ligustrum, Chinese tallow and Nandina.

DEGRADED BARTON CREEK SHORELINE (2.6 ACRES, 0.6% OF PARK)

The community is a thin strip of vegetation between the trail and the creek downstream of Barton Springs Pool. While this could be one of the most robust plant communities in the study area, overuse and upslope stormwater outfalls have degraded the vegetation. This plant community has 50 native plant species and 15 invasive and exotic species. It also has three obligate wetland plant species present, along with six facultative wetland plants. Non-native, invasive species including Ligustrum, Chinese tallow, Johnsongrass, and Nandina, along with substantial stands of Arundo.

AQUATIC – BARTON SPRINGS POOL AND PERMANENT WATER (5 ACRES, 1.3% OF PARK)

The permanent waters of Zilker Park include Barton Springs and extend from the Pool spillway through Barton Creek and into Lady Bird Lake. It does not include bank species. Only two plant species—Cabomba (Cabomba caroliniana) and Arrowroot (Sagittaria platyphylla)—were found within the pool itself. Both are obligate wetland species. Because this artificial pool is often cleaned and used heavily, it has very little native aquatic vegetation. In similar spring-fed limestone pools along perennial creeks, aquatic plants such as eelgrass, pondweed, hornwort, and floating primrose would likely be present. The spillway waters contain a mixture of Cabomba, Arrowroot, and macro algae also. Much of the rest of the permanent water lacks aquatic vegetation, with only Cabomba being present.

LAKESHORE RIPARIAN WOODLAND (15.7 ACRES, 3.9% OF PARK)

This woodland extends from the water's edge of Lady Bird Lake to the top of the floodplain slope and ranges in width from 40 feet with very steep slopes to 250 feet with a more moderate slope. This community is one of the most used recreational areas in Austin because of its location along the Butler Trail and next to the Great Lawn. It also includes 4 of the 10 largest trees in Austin, because it is one of the few areas along Lady Bird Lake that appears not to have been cleared in the last 100 years. This plant community has 89 native plant species and 25 invasive and exotic species. It also has two obligate wetland plant species present, along with six facultative wetland species. Non-native, invasive species are common throughout this area. Woody species include Ligustrum, Nandina, Chinaberry, and Chinese tallow. A single Chinese parasol tree was found near the boat dock. Vines include sweet autumn clematis, Japanese honeysuckle, catclaw vine (around MoPac Expressway). In open areas, herbaceous species include Johnsongrass, Bermudagrass, hedge parsley and bastard cabbage.

WETLAND (1.9 ACRES, 0.5% OF PARK)

The wetland lies at the junction of the Butler Landfill, Butler Trail, and Lou Neff Road. This area was created to collect water from surrounding areas before it runs into the Lake. It includes a small spring/seep (Figure 3.2). This plant community has 38 native plant species and 10 invasive and exotic species. It has no obligate wetland species and one facultative wetland species. Non-native, invasive species include rescue grass, prickly lettuce, Bermudagrass, Ligustrum, Chinaberry, white mulberry, Johnsongrass, hedge parsley and Brazilian vervain.

OPEN MEADOW (7 ACRES, 1.7% OF PARK)

Open meadows are found at the Violet Crown Trailhead and near the southern entrances. This plant community has 46 native plant species and 12 invasive and exotic species. It also has one facultative wetland species. Non-native, invasive grasses include the perennials Johnsongrass, King Ranch bluestem, and Bermudagrass, as well as annuals such as Japanese brome and rescue grass. The stands of invasive grasses are maintained by low and frequent mowing. This mowing regime reduces the opportunity for native grasses and forbs to flower and seed. The mowing has also created good growing conditions for Japanese brome, a cool-season annual that creates a thick thatch layer that smothers out natives.

FORMAL AREAS (225.7 ACRES, 56% OF PARK)

Formal areas of Zilker Park include the Disc Golf Course, Zilker Botanical Garden, Austin Nature & Science Center, Maintained Parkland and Infrastructure, and rights-of-way. These consist of large open areas and a variety of buildings, playground, and other park infrastructure used for recreation and upkeep. These plant communities collectively are home to 203 native plant species and 65 invasive and exotic species. They also have three obligate wetland species and 11 facultative wetland species. These areas lack diversity and are dominated by non-native, invasive grasses such as Bermudagrass, King Ranch bluestem, hedge parsley, prickly lettuce and rescue grass.

WILDLIFE

BIRDS

Breeding bird surveys were completed in Zilker Park from mid-May to mid-June 2020, coinciding with the peak of nesting season and the tail end of spring migration. These surveys provide a repeatable baseline of resident and migrant birds for the study area. Nearly 600 individuals, representing 58 bird species, were identified in the park. Of these species, 48 likely nest in or directly adjacent to Zilker Park. According to eBird and iNaturalist, 166 additional bird species have also been observed at the site.

The highest bird diversity was observed along Barton Creek in the Degraded Barton Riparian Woodland, Degraded Barton Creek Shoreline, Oak/Juniper/Elm Woodland adjacent to the Barton Creek corridor and Open Meadow in the trail areas south of the pool. These areas include many different habitats, from relatively dense forest to open meadow, increasing the variety of birds that can live there.

Several neo-tropical migratory songbirds, such as Swainson's Thrush, Bay-breasted Warbler and Canada Warbler, use Zilker Park as a stop-over point en route to breeding grounds in the North. These species were primarily observed in the wooded corridors in the Degraded Barton Riparian Woodland, Degraded Barton Creek Shoreline and Lakeshore Riparian Woodland.

Barton Creek is used by several species of wading bird including Great Blue Heron, Great Egret, Green Heron and Yellow-crowned Night-heron, which were noted hunting for prey along the banks and shallow waters upstream of the pool. These observations illustrate the value of clean surface waters to support healthy fish, amphibian and insect communities.

Thirty-three of the reported species are listed as Species of Greatest Conservation Need (SGCN) in the Texas Conservation Action Plan. These include American Golden-Plover, American Kestrel, Bell's Vireo, Bewick's Wren, Carolina Chickadee, Chuck-will's-widow, Common Yellowthroat, Dickcissel, Eastern Meadowlark, Field Sparrow, Franklin's Gull, Golden-cheeked Warbler, Grasshopper Sparrow, Green Heron, Harris's Sparrow, Lark Sparrow, LeConte's Sparrow, Little Blue Heron, Loggerhead Shrike, Louisiana Waterthrush, Mississippi Kite, Northern Pintail, Orchard Oriole, Painted Bunting, Peregrine Falcon, Prothonotary Warbler, Red-shouldered Hawk, Scissor-tailed Flycatcher, Snowy Egret, Summer Tanager, Swainson's Hawk and Wild Turkey. Additionally, the Oaks and Prairies Joint Venture considers Bewick's Wren a species of conservation concern.

OTHER WILDLIFE

Zilker Park is home to a total of 262 wildlife species, including six amphibians, two fish, one mollusk, 224 birds, nine mammals, and 20 reptiles (Table 3.4). Four of these are SGCN—the common snapping turtle, red-eared slider, Texas map turtle, and western diamondback rattlesnake. This list was compiled from on-the-ground surveys, eBird lists, and over 1,800 iNaturalist "research grade" observations. According to iNaturalist, the 10 most commonly observed native wildlife are the Yellow-Crowned Night Heron, Texas spiny lizard, white-tailed deer, Great-tailed Grackle, Gulf Coast toad, plain-bellied water snake, Western rat snake, Great Egret, coyote, and diamondback water snake.

These natural area management guidelines will increase the amount and quality of wildlife habitat in Zilker Park by:

- Protecting salamander habitat by reducing stormwater runoff and increasing water quality within the park;
- Recommending over 150 native plant species that support a greater diversity of wildlife visiting and breeding in the park;
- Adding 54 acres of meadow and savannas that provide adequate food and nesting habitat for grassland birds;
- Adding 70 acres of proposed tree canopy that increases habitat connectivity; and
- Repairing the sensitive riparian shoreline that serves as nesting habitat for waterfowl, supports amphibious species, and allows for fish spawning areas.

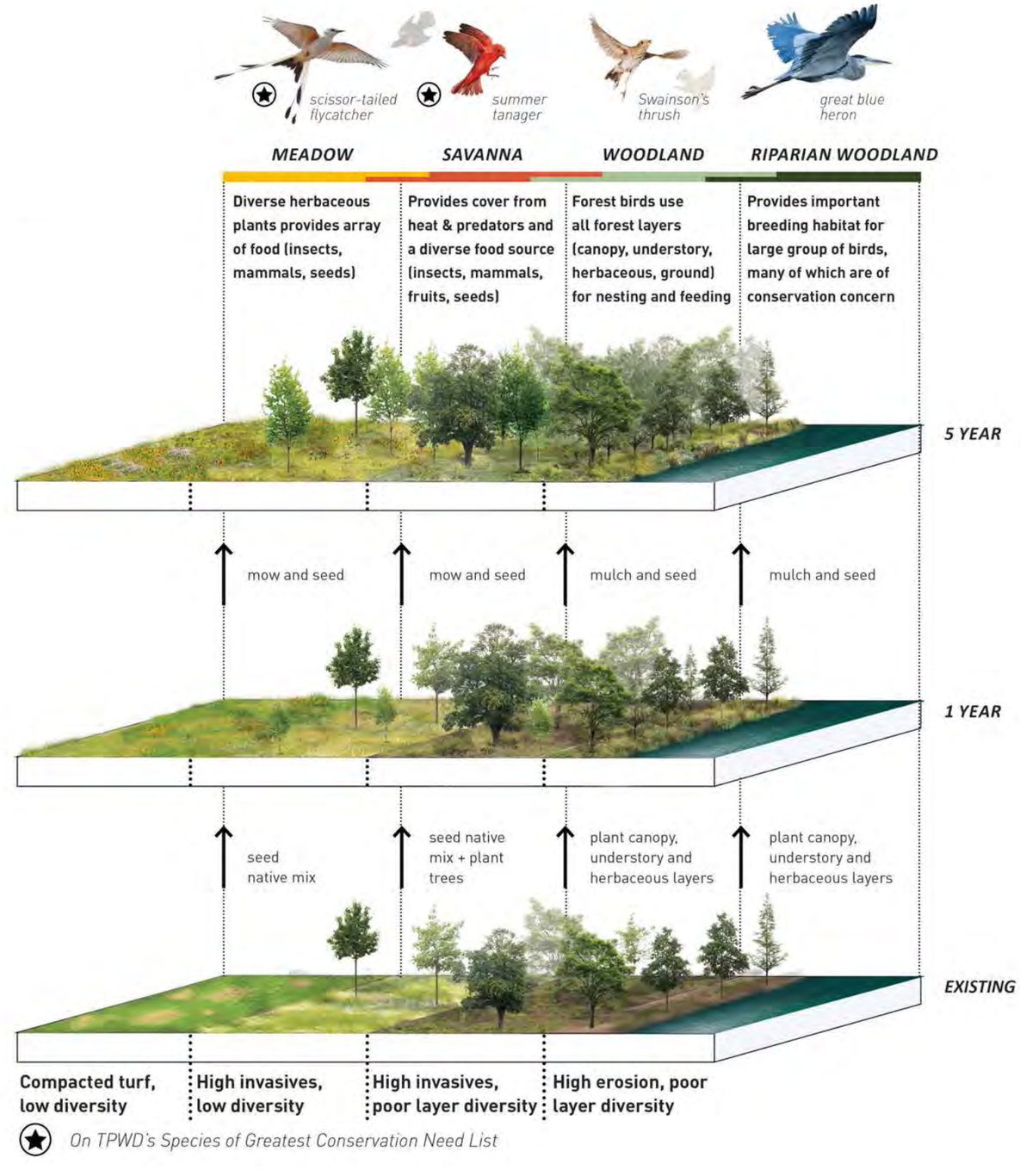


Figure 39: Bird Habitat Enhancement & Expansion, 2021, Siglo Group.

ENVIRONMENTAL DEGRADATION

INVASIVE SPECIES

Over 70 non-native species were recorded during the plant survey, with 38 species considered invasive due to their aggressive growth and spread. Of these, 20 species were included in at least one of these three lists (Table 3.5)—Texas Invasives, the City of Austin's Top 24 Invasive Species list, or list from Natural Resource Inventory by Siglo. The high priority species from this list include Arundo, bamboo, bastard cabbage, Bermudagrass, catclaw vine, Chinaberry, Chinese parasol tree, Chinese pistache, Chinese tallow, Nandina, hedge parsley, Japanese honeysuckle, Johnsongrass, King Ranch bluestem, Ligustrum, Malta star thistle, paper mulberry, sweet autumn clematis and tree of heaven.

SOIL DISTURBANCE

The primary causes of soil disturbance in Zilker Park are stormwater flow, poorly functioning or absent infrastructure, mowing and use of other heavy machinery, off-trail recreation, formal recreation without suitable supporting infrastructure and erosion of trail material. Soil disturbance is problematic in all areas but is particularly concerning along environmentally sensitive waterways. Field data were taken on soil erosion issues at 140 points throughout the study area.

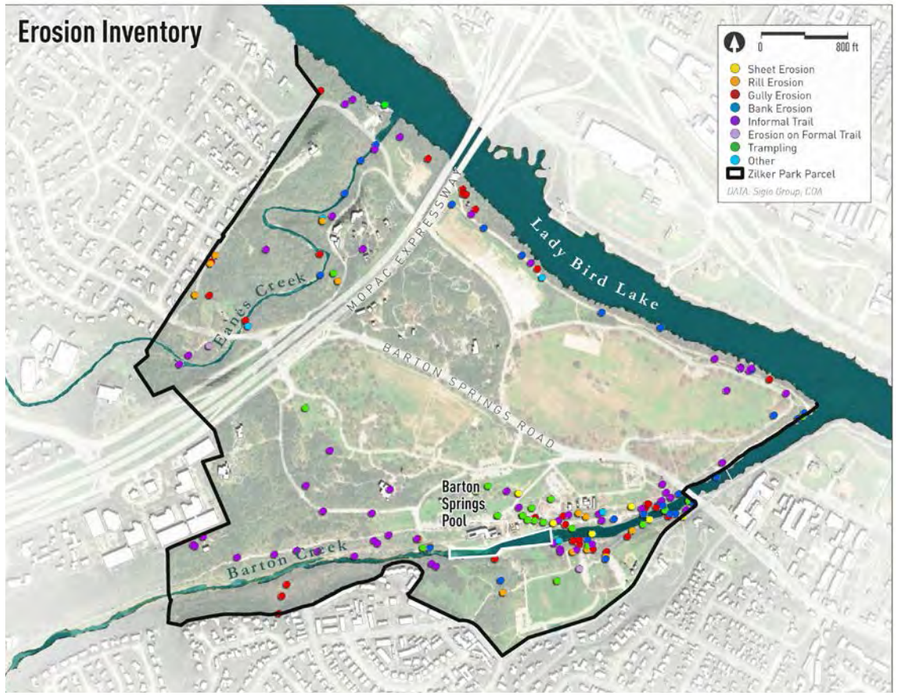


Figure 40: Erosion Inventory, 2021, Siglo Group.

Common Name	Botanial Name	TX Invasive	COA	Siglo
Arundo	*Arundo donax*	x	x	x
Bamboo	*Phyllostachys aurea*	x	x	
Bastard cabbage	*Rapistrum rugosum*	x	x	x
Bermudagrass	*Cynodon dactylon*	x	x	x
Catclaw vine	*Macfadyena unguis-cati*		x	x
Chinaberry	*Melia azedarach*	x	x	x
Chinese parasol tree	*Firmiana simplex*	x	x	x
Chinese pistache	*Pistacia chinensis*	x	x	x
Chinese tallow	*Triadica sebifera*	x	x	
Nandina	*Nandina domestica*	x	x	x
Hedge parsley	*Torilis arvensis*	x		x
Japanese honeysuckle	*Lonicera japonica*	x	x	x
Johnsongrass	*Sorghum halepense*	x	x	x
King Ranch bluestem	*Bothriochloa ishaemum*	x	x	x
Ligustrum	*Ligustrum lucidum and L. sinense*	x	x	x
Malta star thistle	*Centaurea melitensis*	x	x	x
Paper mulberry	*Broussonetia papyrifera*	x	x	x
Sweet autumn clematis	*Clematis terniflora*			x
Tree of heaven	*Ailanthus altissima*	x	x	x

Table 1: Invasive at Zilker Park, 2021, Siglo Group.

POTENTIAL FOR ECOLOGICAL UPLIFT

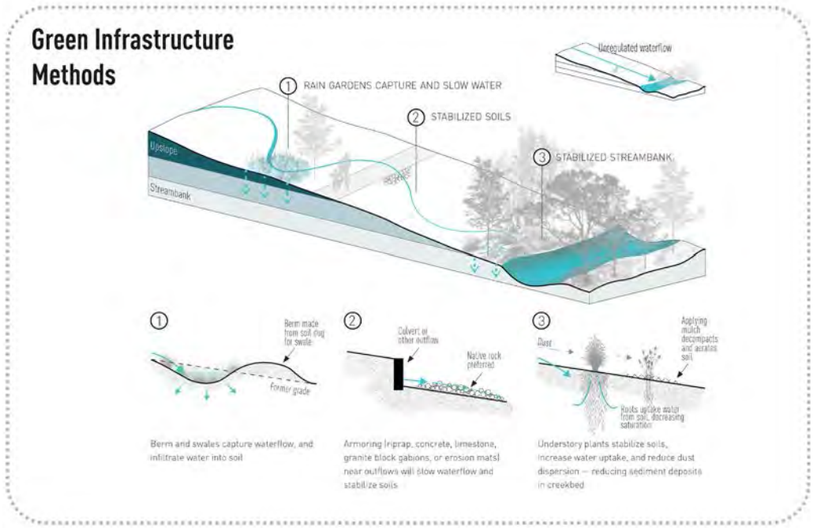


Figure 41: Green Infrastructure Methods, 2021, Siglo Group.

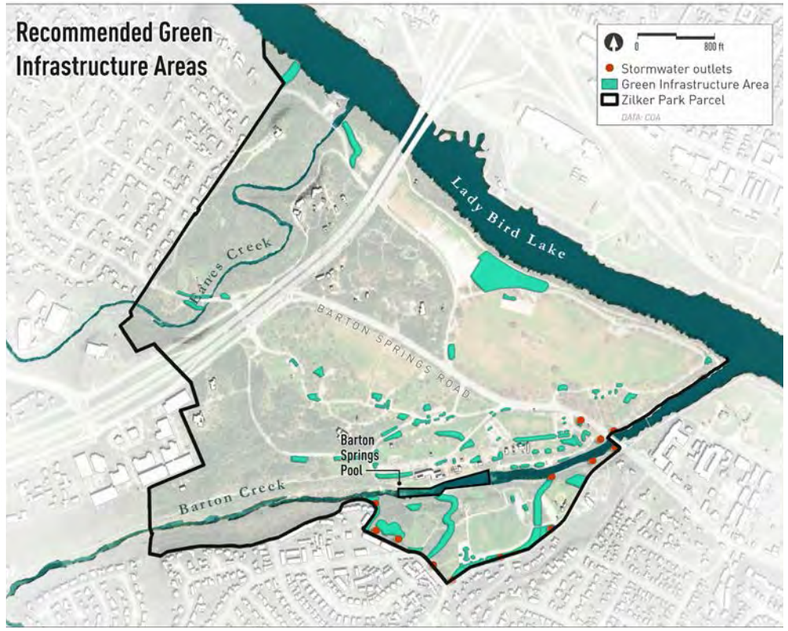


Figure 42: Recommended Green Infrastructure Areas, 2021, Siglo Group.

Figure 43: Recommended Canopy Enhancement, 2021, Siglo Group.

The restoration potential in Zilker Park is immense. From its waters and forests to its meadows and maintained areas, there is a diversity of landscape topologies in need of stewardship and enhancement. The restoration principles outlined in the Natural Area Management Guidelines chapter, if followed, would work toward the following goals:

- Protect and maintain endangered species habitat and water quality: Protect the habitat of the endangered Barton Springs and Austin Blind Salamanders and maintain the water quality of all waterbodies adjacent to and within the study area.
- Repair environmental degradation: Address threats to the site's ecological health including invasive species, erosion issues and historic land use.
- Restore and enhance plant communities: Manage and expand native meadows, savannas and woodlands to create diverse, resilient plant communities.
- Repair and improve wildlife habitat: Enhance habitat quality for wildlife by managing the site for ecological health, creating connectivity between habitat patches and providing refuge in an urban environment.
- Enhance the user experience: Provide aesthetically pleasing, compelling and comfortable natural surroundings.
- Facilitate stewardship: Catalyze opportunities to appreciate, observe and care for the natural environment as an ongoing part of people's lives.

GREEN STORMWATER INFRASTRUCTURE

Green stormwater infrastructure can address the root cause of erosion: fast-moving water often coming off roads, parking lots and buildings. Rain gardens, swales, berms and grading changes can slow water flowing across a landscape (Figure 5.3). When water moves more slowly, it has longer to soak into the soil, reducing erosion, preventing sediment and pollutants from entering streams and springs and increasing groundwater supplies. Green infrastructure offers other benefits, including increased creek flow and wildlife habitat. At Zilker Park, green infrastructure has already been used to decrease stormwater flows into Barton Springs Pool and in the Disc Golf Course. Just over 14 acres have been identified as potential locations for improving and/or installing green stormwater infrastructure (Figure 5.4). These areas have standing water after heavy rain, periodically carry large volumes of stormwater, are open with no active recreation, have significant water-related erosion and/or are near impervious surfaces that create runoff. In addition, a well-planned and designed green stormwater installation can heighten the aesthetics and quality of the user experience in these areas.

CANOPY ENHANCEMENT

Canopy enhancement adds shade trees in the formal park areas where that expansion does not interfere with park use and improves the user experience. It is recommended where additional tree cover will provide shade, improve water quality and reduce the impacts of impervious cover on localized heating. There are 66 acres of recommended canopy enhancement along the edges of roads, parking lots, and walkways (Figure 5.7). Canopy enhancement should use live planting whenever feasible with irrigation during establishment. Where possible, trees should be planted at the same time as green stormwater infrastructure is installed because the additional water in the soil will create healthier trees. By adding more shade trees, Zilker Park will increase in comfort, contribute to climate change mitigation and adaptation and create a more natural park aesthetic.

POTENTIAL FOR ECOLOGICAL UPLIFT

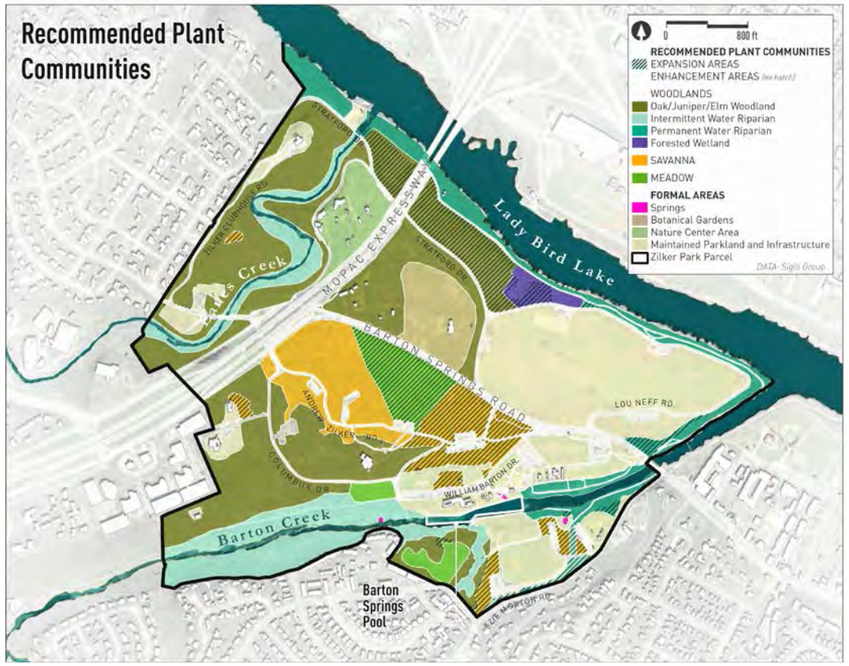


Figure 44: Recommended Plant Communities, 2021, Siglo Group.

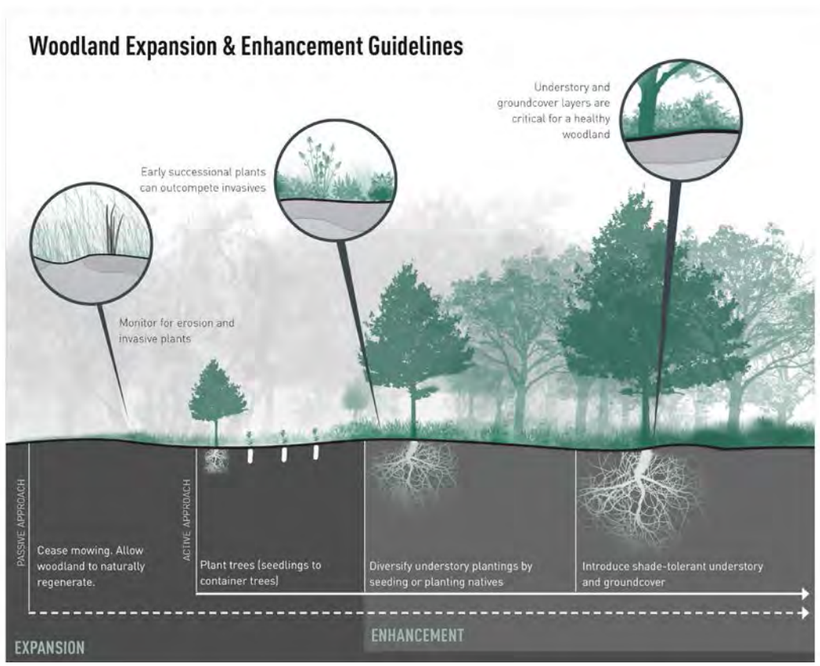


Figure 45: Woodland Expansion & Enhancement Guideline, 2021, Siglo Group.

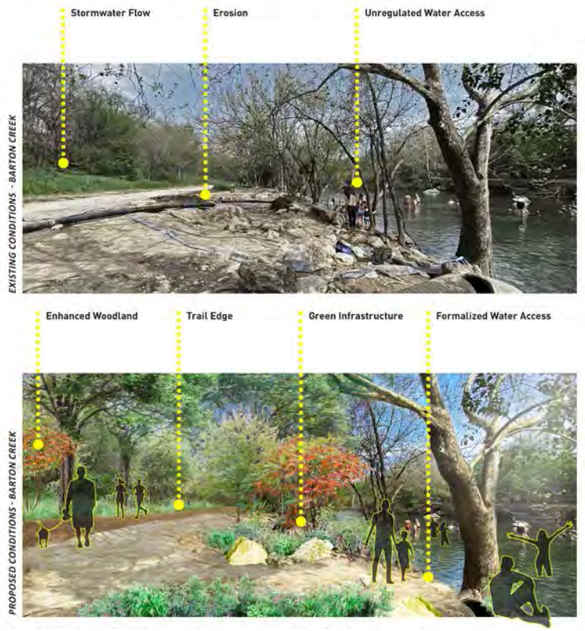


Figure 46: Riparian Woodland Enhancement, 2021, Siglo Group.

RESTORING PLANT COMMUNITIES

The site has been grouped into 10 proposed plant communities with six driven by ecological considerations, three by land use, and one by water (Figure 5.5). These communities were derived from the 12 existing plant communities described in the Ecology chapter and from an evaluation of topography, existing and likely use, soils, infrastructure constraints, proximity to water, likely response to different management and the likelihood of restoration success. The recommendations here focus on the six terrestrial plant communities: Oak/Juniper/Elm Woodland, Riparian Woodland-Permanent Water, Riparian Woodland-Intermittent Water, Forested Wetland, Savanna and Meadow. In addition, planting recommendations are given for the open water areas. To a lesser extent, ecological management practices, such as canopy enhancement, are recommended for the formal parkland area and the rights-of-way, recognizing that land use needs and formal park uses will drive management in these areas.

Woodlands are plant communities where trees are the dominant plant form. At Zilker Park, there are four proposed woodland plant communities that require enhancement and/or expansion (Figure 5.8).

Meadows are open expanses of grasses and wildflowers that represent the swaths of prairies that would be found on rich soils outside the floodplains in the Blackland Prairie. These areas are generally without trees. They were maintained for eons by a combination of large herbivores and fire. While the ideal management practices for this area would aim for a mid to tall grass prairie, because of the dominance of invasive grasses (Bermuda grass, King Ranch Bluestem, Johnsongrass, etc.), The intent of meadow management is to build on current wildflower meadow management practices used by PARD and increase native plant diversity over time.

Savannas are grasslands with groupings of trees found throughout the Edwards Plateau and in flatter areas outside of the floodplain. They represent a mix of woodland and meadow.

The waters and wetlands of Zilker Park offer opportunities to increase aquatic and wetland plant diversity that increases the quality of wildlife habitat and reduces the likelihood of invasive plant establishment. The Forested Wetland, Riparian Woodland, and Springs & Permanent Waters columns in the recommended plant list (Table 5.2) include over 25 species appropriate for wetter parts of the study area.

DEFINING THE USER EXPERIENCE AND STEWARDSHIP

To enhance the user experience, trail improvements and formalization of areas is recommended as shown in Figure 6.2. Figure 6.2 visualizes the Lower Barton Creek transformation. The upper image shows degradation from lack of stormwater management upslope, trampling and flooding that has resulted in compacted soils, erosion, an incomplete canopy, struggling vegetation and a degraded user experience. The bottom image shows the ecological health and enhanced user experience that results by addressing upslope stormwater with green stormwater infrastructure, formalizing trails and water access, installing physical barriers to plantings, decompacting soils and planting robust native canopy, understory and groundcover vegetation.

FORMALIZING TRAILS AND IMPROVING INFRASTRUCTURE

Some of the informal trails can be formalized and added to the regular trail system. This process directs the flow of users to formal areas, decreases informal use and allows for decommissioning and restoring other informal trails. Many formal areas, like the historic picnic tables in the Nature Preserve, have not been maintained regularly. Creating formalized access paths to these picnic areas offers the opportunity for design that fits into the surrounding area and historic features of the park. It also moves people away from informal use of the natural areas. The Zilker Vision Plan process should consider which informal trails to formalize. For more information on Trail Design and Maintenance and Access to the Water, see the corresponding section in the Natural Area Management Guidelines chapter of the Zilker Park Natural Resource Inventory & Management Guidelines report.

POTENTIAL FOR ECOLOGICAL UPLIFT

CITIZEN SCIENCE

Citizen science is a vital way to track biodiversity information, with numerous individuals in the Austin area actively recording biodiversity data through eBird, iNaturalist, Odonates of Texas, Fishes of Texas and other online services. Individuals input data, which goes through a validation process that allows final users to understand the quality of the data. To continue to track biodiversity data within Zilker Park, a "project" titled "Zilker Natural Areas" has been created on the iNaturalist website. New and existing observations will automatically be added to the project for long-term biodiversity tracking. There are also existing eBird hot spots within Zilker Park and along the Ladybird Lake shoreline that park visitors and staff can contribute to. Travis Audubon is engaging its volunteers to serve as monthly spotters to encourage recording observations and to promote interest and participation by the general public. Wildlife observations can, if desired, also be linked on the City of Austin Zilker Park landing page from iNaturalist and eBird.

PROFESSIONAL SERVICES AND VOLUNTEER SERVICES

Previous partnerships between the City of Austin and Texas Conservation Corps' (TxCC) provides a great example of how this work can be delegated and shared with private and non-profit partners. TxCC and similar organizations have the ability to implement a wide variety of management activities including invasive plant removal, trail building, soil remediation, planting and seeding. They can also work with professionals on other tasks including installing and repairing culverts, some components of tree care, constructing swales and rain gardens, decompacting soils, removing concrete and installing gabions. In addition, appropriate private and non-profit organizations can support Barton Springs Conservancy with volunteer days by training and overseeing volunteers.

With limited funds and the ongoing need for land management, many parks and preserves have turned to volunteers. For instance, on the east side of the study area south of Barton Creek, the Friends of South Zilker Park adopted a quarter mile long stretch of the creek alongside Azie Morton Road and the abandoned channel draining into the south side of Barton Springs Pool through Keep Austin Beautiful's Adopt-a-Creek program. Over the course of a year, more than 50 volunteers removed 150 invasive plants, established native seedlings, and removed 200 pounds of litter.

Using volunteers lowers costs, generates public interest, and fosters community buy-in, but sometimes lacks accountability and can take longer. Volunteers also cannot take on all tasks done by professionals. The tasks laid out in this report can be accomplished by professional and volunteers working together to create a more robust, ecologically healthy landscape at Zilker Park.

NON-PROFIT AND COMMUNITY PARTNERSHIPS

A number of projects have already been completed in Zilker Park through the Community Activated Park Projects (CAPP) program. This program was initiated in 2018 to streamline, approve, and track community-led improvement projects. Since its inception the program has been used 17 times in Zilker Park (Table 7.1). In 2019, Barton Springs Conservancy submitted a CAPP to restore and establish plant life in Barton Springs Pool. Much of the work suggested in this report will require approval from the Parks and Recreation Department that will likely be acquired through the CAPP process.

This type of community-led work on public lands is a huge asset for Zilker Park. These community partners enhance public open spaces using their own time and resources, while allowing for a level of open space development and maintenance that is not feasible when relying on Parks and Recreation Department resources alone.

Partner Organizations & Neighborhood Groups

Year	Partner Organization or Neighborhood Group Name	Facility	Recent Activities
2019	Austin Nature & Science Center	Austin Nature & Science Center	The installation of shading structures over the Dino Pit at the Austin Nature & Science Center.
2019	Austin Nature & Science Center	Austin Nature & Science Center	Construct a tree-house pavilion as well as an amphitheater area for meetings, instructions, and teaching.
2018	Austin Ridge Riders	Barton Creek Greenbelt	Maintain the existing trails.
2018	Austin Parks Foundation	Barton Creek Greenbelt	Continuation of ongoing maintenance work on the Barton Creek Greenbelt.
2018	BHNA Greenbelt Guardians	Barton Creek Greenbelt/Violet Crown Trail	Trail surface and erosion repair work, removal of invasive species, tree plantings, installation of trail edge safety rails and water-crossing bridges, as needed.
2019	Hill Country Conservancy	Barton Creek Greenbelt/Violet Crown Trail (proposed) Trailhead	Construction of a new trailhead per design approved by PARD Director in 2017.
2018	Friends of Barton Springs Pool	Barton Springs Pool	Tree planting
2019	Friends of Barton Springs Pool	Barton Springs Pool	Tree planting
2018	Girl Scouts of Central Texas	Girl Scouts Hut (Zilker Cabin)	Roof replacement
2018	Girl Scouts of Central Texas	Girl Scouts Hut (Zilker Cabin)	Bamboo removal
2018	Parents of Children with Disabilities	Zilker	Add more accessible sensory play opportunities.
2019	Zilker Theatre Productions	Zilker Hillside Theater	Enclose east wing of the theater.
2018	Zilker Theatre Productions	Zilker Hillside Theater	Maintenance and Repairs at the theater as funds and resources are available.
2019	Zilker Theatre Productions	Zilker Hillside Theater	Build the interior of the enclosed east wing.
2019	Barton Springs Conservancy	Zilker Metropolitan Park	Restore and establish plant life in Barton Springs Pool.
2018	Capital Area Master Naturalists	Zilker Nature Preserve	Removal of outdated and damaged signage, and the installation of fourteen new signs.
2019	Austin Parks Foundation	Zilker Playscape	Maintenance work on the Zilker Playground.

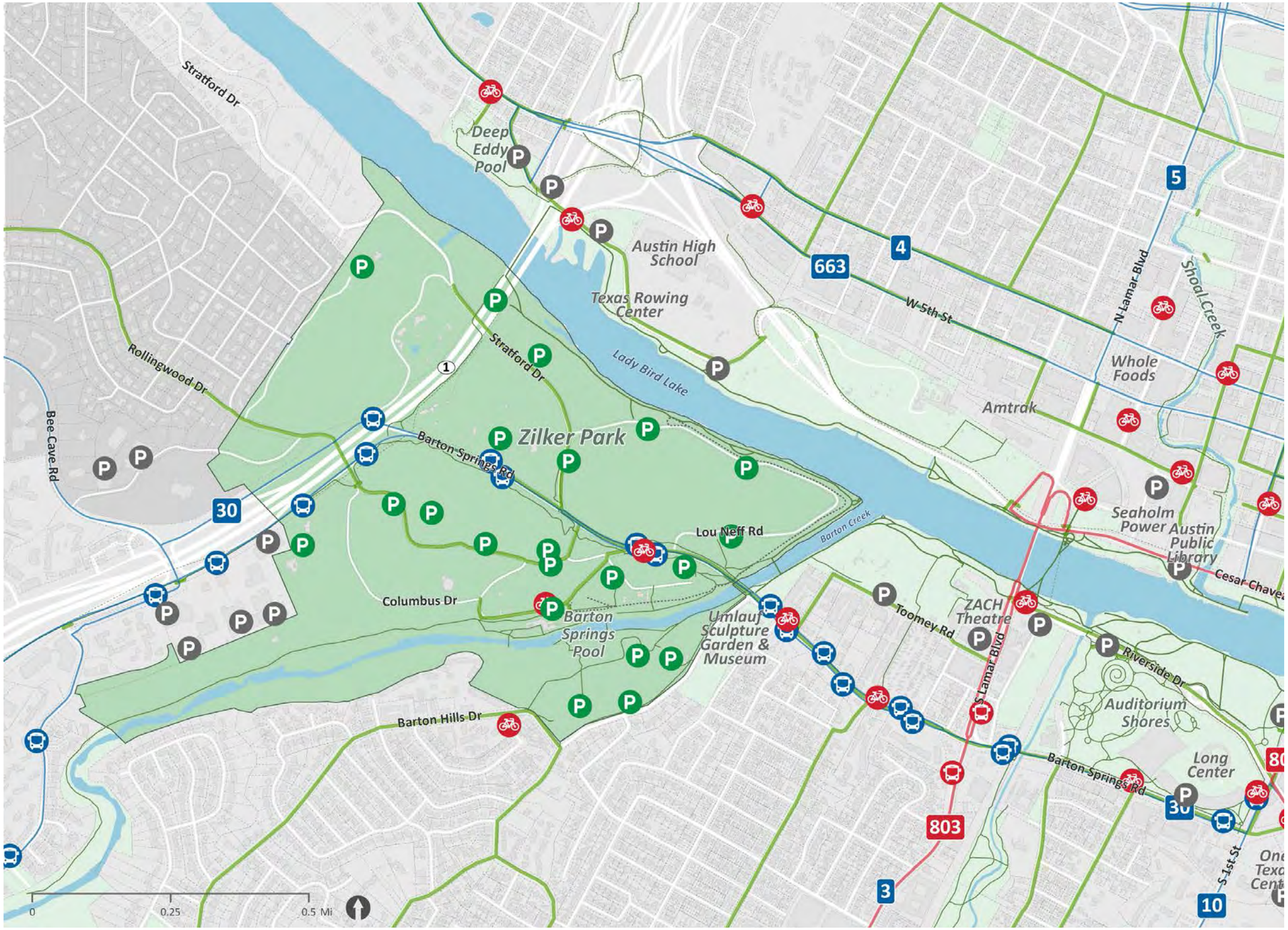
Table 2: Partner Organizations and Neighborhood Groups, 2021, Siglo Group.

TRANSPORTATION

EXISTING MOBILITY FRAMEWORK

Although visitors today can access Zilker Park through a variety of transportation options, not all modes of travel to the park are equally convenient or safe. Because of this, most park visitors arrive via private automobile. The busiest park amenities are located west of Barton Creek, and with Barton Springs Road providing the only vehicular connection across the creek and connecting to MoPac Expressway, it is the primary multimodal gateway into the park for most visitors.

Figure 47 shows the primary transportation options within and near Zilker Park.



Legend

- MetroBus Route
- MetroRapid Route
- MetroBike Dock
- Medium to High Comfort Bike Facilities
- On-site Parking
- Off-site Parking

Figure 47: Existing Mobility System, 2021, Nelson\Nygaard

GETTING TO THE PARK: TRANSIT

Zilker Park is currently served by one Capital Metro Route – Route 30 (Barton Springs Mall route), which connects the Westgate Transit Center at US 290/SH 71 and Manchaca Road and Barton Creek Square Mall in Southwest Austin to Downtown Austin, stopping as far north as 12th and Guadalupe. Within the park, Route 30 operates on the MoPac Expressway frontage roads and Barton Springs Road. The route serves seven stops within the park. It needs to be noted that there are no ADA compliant bus stops.

Coming from Downtown, Route 30 stops at the following locations:

- At signalized pedestrian crossing of Barton Springs Road near Lou Neff Road
- At the entrance of the Zilker Botanical Garden
- At the Nature Center Access Road

Coming from Southwest Austin, Route 30 stops at the following locations:

- Along the MoPac Expressway frontage road near the McBeth Recreation Center
- Along the MoPac Expressway frontage road near the Disc Golf Course
- Across from the entrance of the Zilker Botanic Garden
- At signalized pedestrian crossing of Barton Springs Road near Lou Neff Road

The following map shows the alignment of Route 30 and ridership at stops near and within the park.

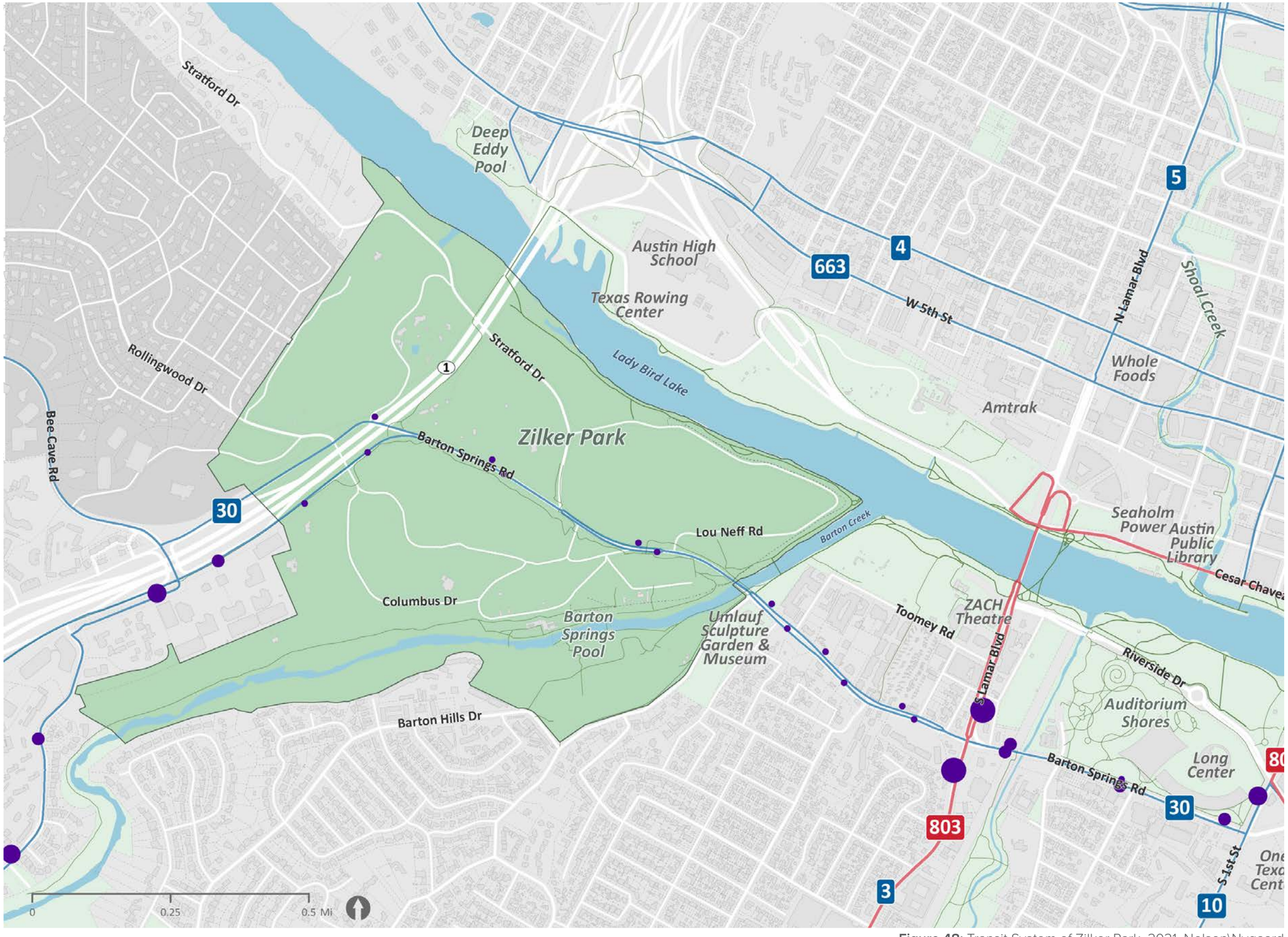


Figure 48: Transit System of Zilker Park, 2021, Nelson\Nygaard

GETTING TO THE PARK: TRANSIT

The busiest bus stop within the park is the stop pair located at Barton Springs Road near Lou Neff Road, which serves several of the park's primary amenities including the Great Lawn and Barton Springs. In February 2020, eight people used this stop on a typical weekday, while 25 people used the stop on a typical Saturday day. However, it should be considered that 2020 was not a typical year, with the City taking official COVID-19 precautions starting in March 2020.

Route 30 typically operates approximately every 30 minutes, both during the weekdays and on weekends. Capital Metro temporarily increased the frequency of Route 30 to every 15 minutes during weekends in the summer months in 2019 as part of a pilot project.

Origin/Destination survey data collected by Capital Metro provides a snapshot of how transit users are accessing the park. Since Route 30 does not travel north or east of Downtown, nearly half of riders that use a stop within the park transfer to another route. Most transit riders walked to the bus and few riders took a bike with them on the bus, meaning that transit users are primarily on foot once they arrive at the park.

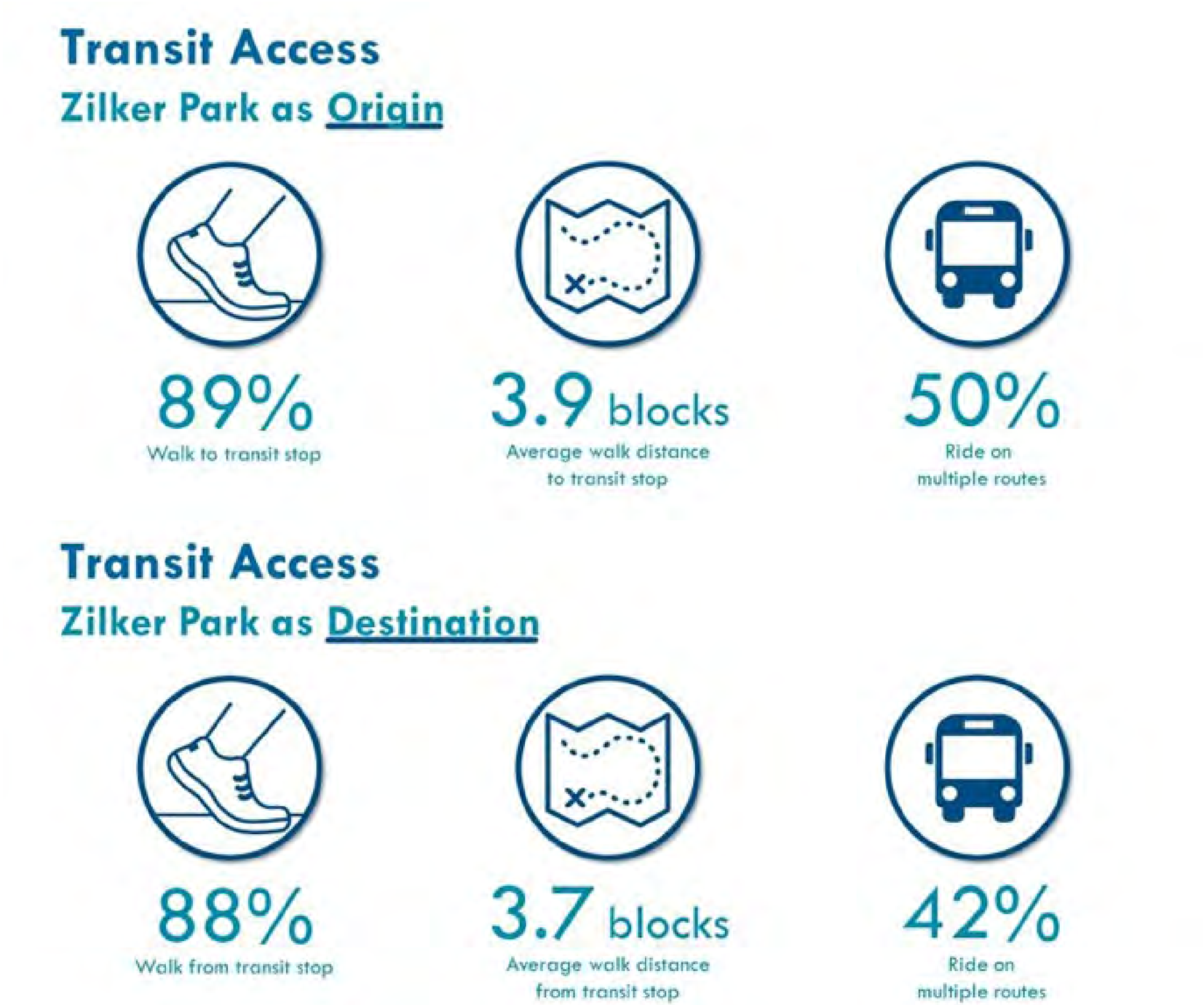


Figure 49: Transit Access, 2021, Nelson\Nygaard

GETTING TO THE PARK: ACTIVE MODES

Zilker Park is served by several of the city's highest profile trails – including the Butler Trail along Lady Bird Lake and the Barton Creek Greenbelt & Violet Crown Trail. Despite this trail access, getting to Zilker Park can be challenging by active modes (biking, walking, scootering).

BICYCLES

The most prominent on-street bicycle access to Zilker Park exists on Barton Springs Road, which features a buffered bicycle lane in both directions through the park (west of the Barton Creek bridge). The bicycle lanes become less comfortable east of the intersection with Azie Morton Road and are not buffered from vehicular traffic. Due to the width of the bridge across Barton Creek, there is no dedicated bicycle facility on the crossing itself. There is a bicycle/pedestrian-only bridge crossing the creek several yards to the north as part of the Butler Trail.

On the west side of the park, the bicycle lanes on Barton Springs Road connect to a paved, shared-use path along the east side of the northbound frontage road of MoPac Expressway that continues north of Barton Springs Road as a paved trail connection to the Butler Trail.

Several existing park streets are commonly used by cyclists despite a lack of dedicated bicycle facilities given their generally low speeds, including Stratford Drive and Andrew Zilker Road. The park also features two MetroBike docks within the park boundary – one at the Capital Metro bus stop near Lou Neff Road, and the other at the entrance to Barton Springs – with several additional docks located near the park.

The Butler Trail Safety & Mobility Study collected trail usage data for one location within the park just east of the MoPac Expressway trailhead. On a typical weekend in 2020, approximately 15 bicycles used the trail heading westbound while 10 used it heading eastbound. On a typical weekday, these numbers increase to 21 and 36, respectively. It is unclear how many of these cyclists may be using the trail to access Zilker Park itself.

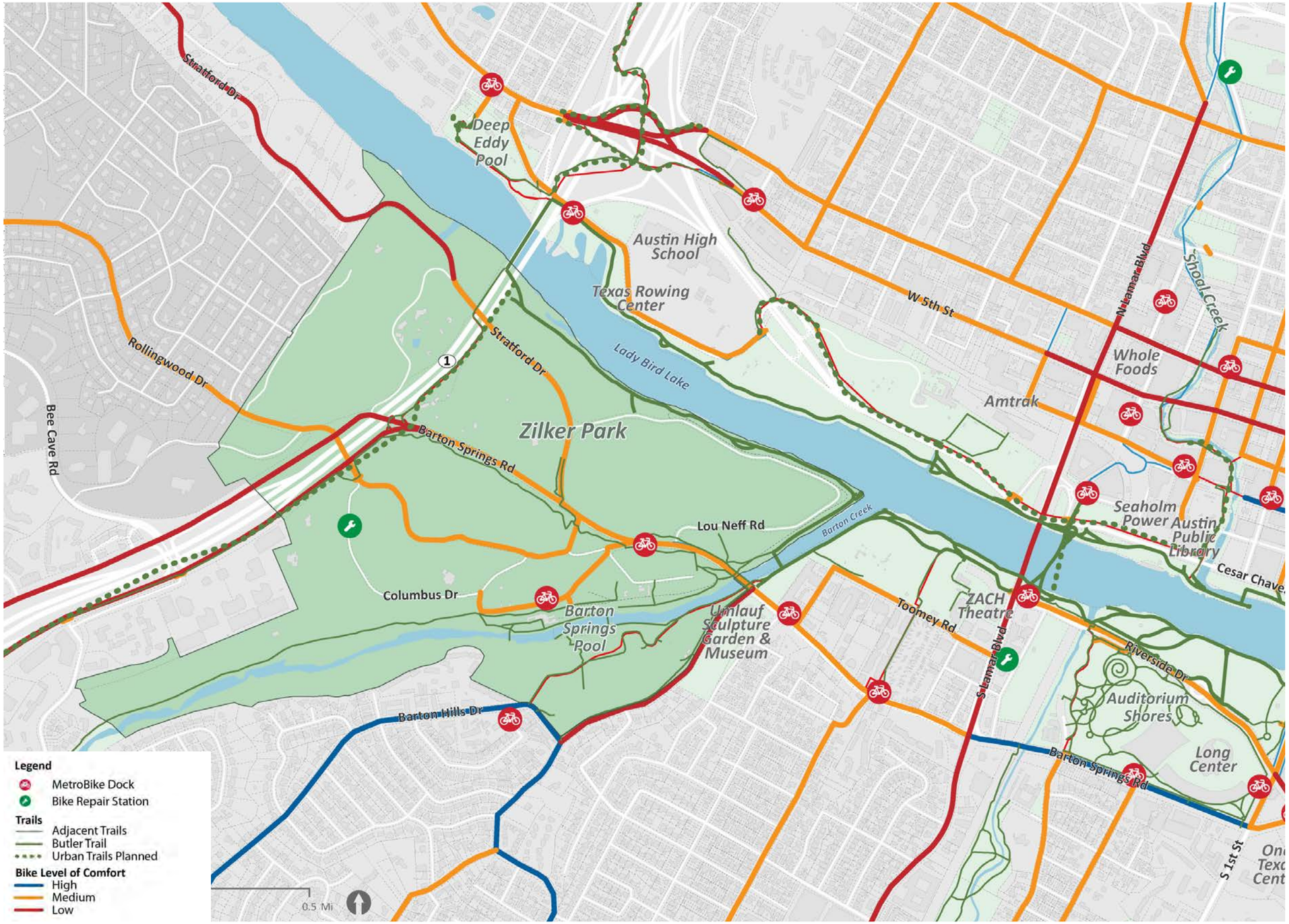


Figure 50: Active Transit Mode of Zilker Park, 2021, Nelson\Nygaard

GETTING TO THE PARK: ACTIVE MODES

MICRO-MOBILITY

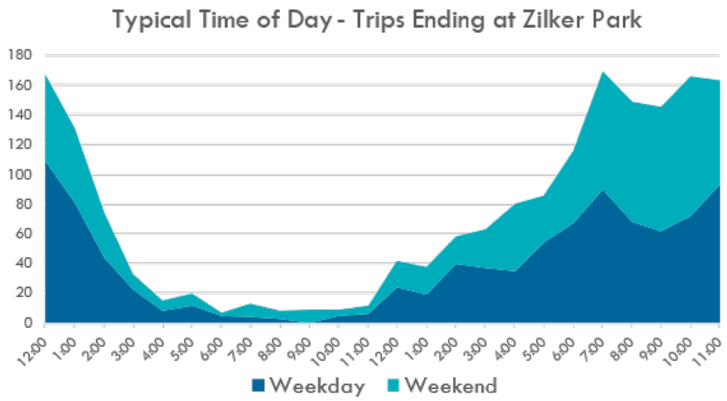
Dockless scooters and bicycles – known as micromobility – are a popular way to access Zilker Park. Usage data shows that by and large, the peak of access to Zilker Park falls in the late afternoon to early evening, with the highest usage around 7:00PM. Access is about twice as high on weekends than at the same time on weekdays, and access dips significantly in the early morning hours. Weekly usage follows the trend of most parks, with the bulk of access occurring on the weekends and the dip occurring mid-week.

In April 2019 alone, 3,322 scooter trips ended in the census tract that contains Zilker Park. However, due to the COVID-19 pandemic and the resulting decrease in demand and supply for micromobility, that number fell to just 85 scooter trips in April 2020. Overall, the number of average monthly trips originating in the Zilker Park census tract fell by 50 percent after the beginning of the COVID-19 pandemic. For trips that ended in the Zilker tract, there was a 54% decrease compared to pre-pandemic numbers.

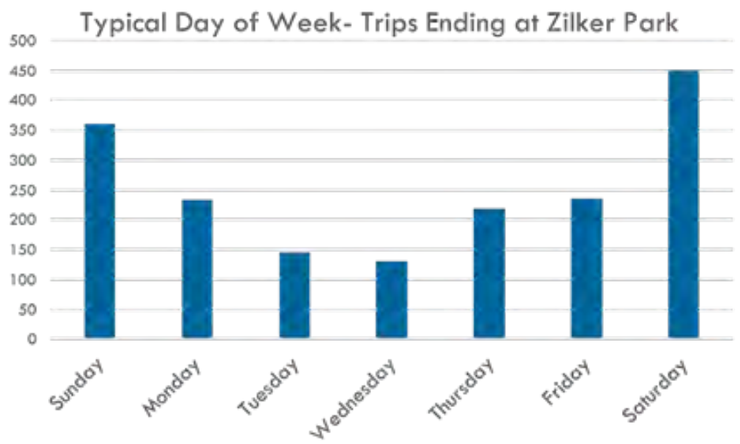
While the number of trips changed drastically as a result of the COVID-19 pandemic, the locations from which users accessed the Zilker Park census tract remained roughly the same. Riders using micromobility devices made connections between Zilker Park and four census tracts more than any other:

- The Zilker Park tract (inter-tract trips)
- The Downtown tract
- The South Congress tract
- The South Lamar tract (immediately east of Zilker Park)

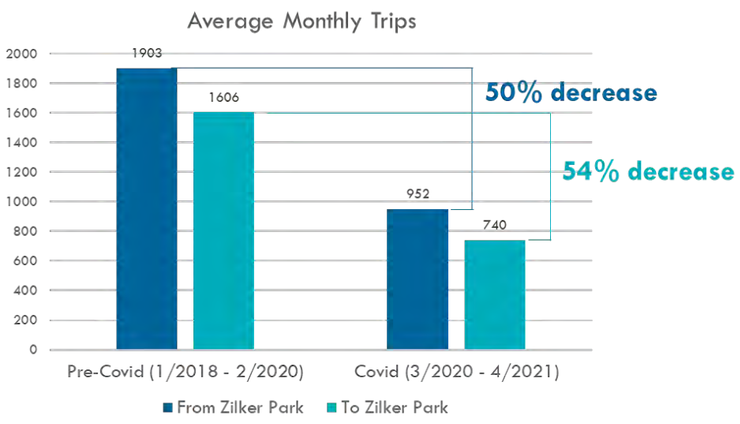
In all cases except one, trips to and from these tracts remained within two percentage points between the pre-COVID numbers and those after the beginning of the pandemic. In sum, micromobility travel patterns to and from Zilker Park remained roughly the same.

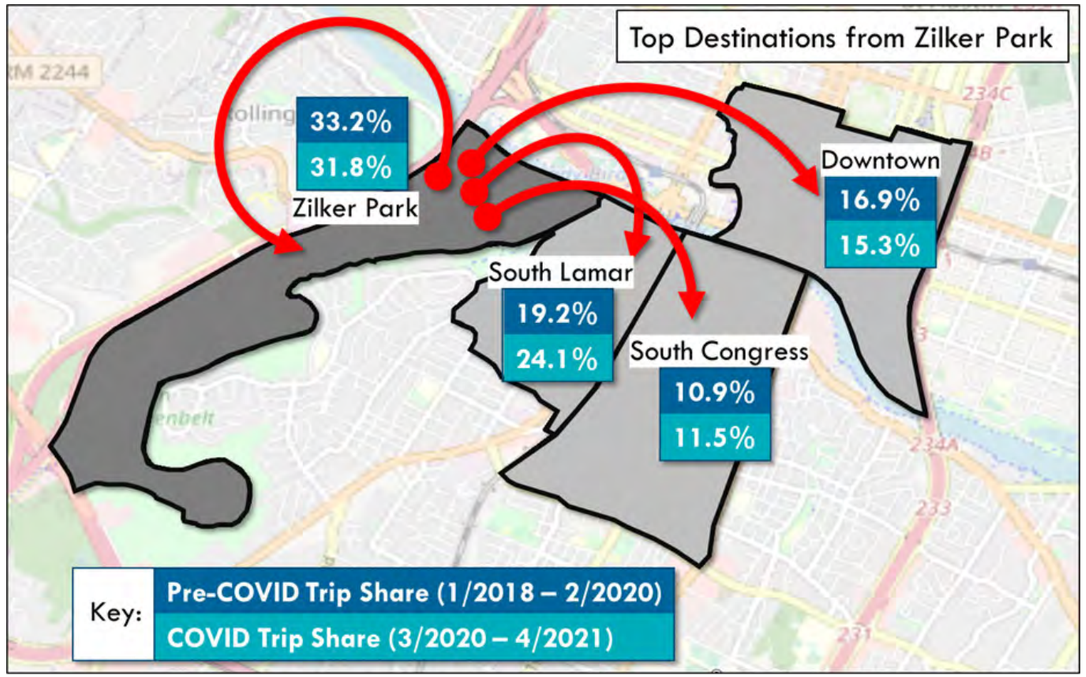


*Note: trends on this chart pulled from representative sample dataset



*Note: trends on this chart pulled from representative sample dataset





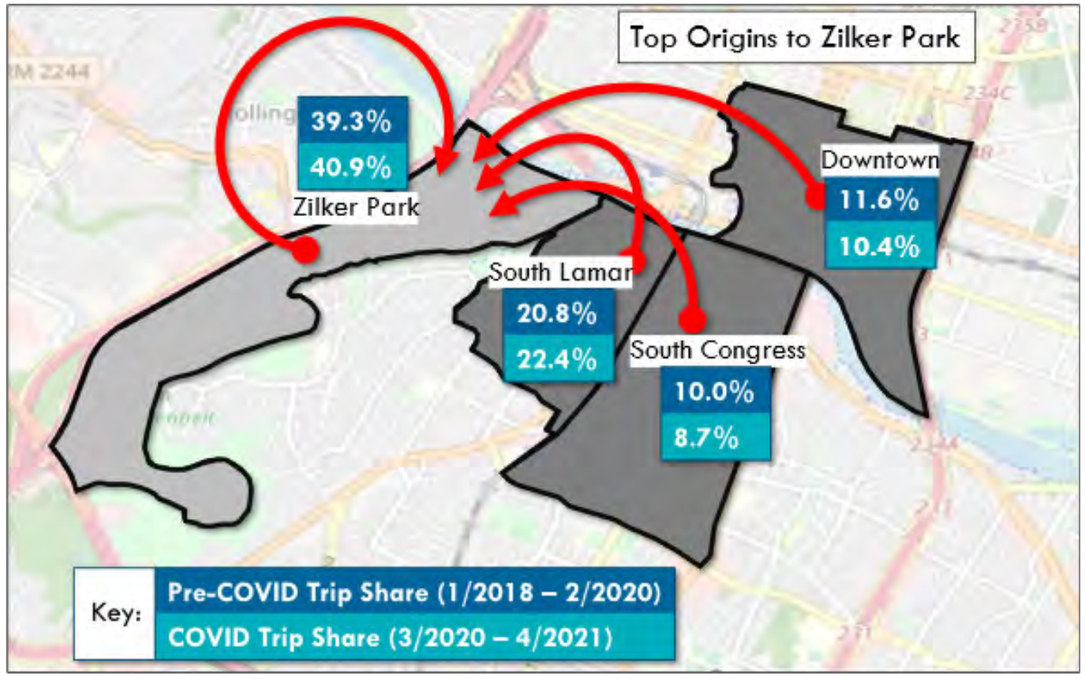


Figure 51: Micro-Mobility System of Zilker Park, 2021, Nelson\Nygaard

GETTING TO THE PARK: ACTIVE MODES

PEDESTRIANS

Other than the Butler Trail and Barton Creek Greenbelt Trail, dedicated pedestrian facilities within Zilker Park are very limited. There is a paved, off-street sidewalk called the “Zilker Metro Park Loop” located to the east of the MoPac Expressway frontage road and south of Barton Springs Road. There is also a short segment of paved sidewalk between the Capital Metro bus stop and the Butler Trail on the north side of Barton Springs Road.

Other than sidewalks connecting parking areas to the entrances of Barton Springs, there are few other dedicated pedestrian facilities within the park, with the most notable gaps occurring along intra-park roads such as Stratford Drive, Lou Neff Road, and Andrew Zilker Road. There is also no dedicated pedestrian access to Zilker Botanical Garden, including both bus stops in either direction near the Garden entrance.

There are two designated pedestrian crossings on Barton Springs Road: a crosswalk at the Stratford Drive signal, and a signalized crosswalk (using a Pedestrian Hybrid Beacon or PHB) between William Barton Drive and Lou Neff Road, connecting to the existing Capital Metro bus stops. There is a grade-separated pedestrian crossing under Barton Springs Road along the Barton Creek section of the Butler Trail on both sides of the creek.

The Butler Trail Safety & Mobility Study collected trail usage data for one location within the park just east of the MoPac Expressway trailhead. On a typical weekend in 2020, approximately 345 pedestrians used the trail heading westbound while 515 used it heading eastbound. On a typical weekday, these numbers decrease to 167 and 280, respectively. It is unclear how many of these pedestrians may be using the trail to access Zilker Park itself.

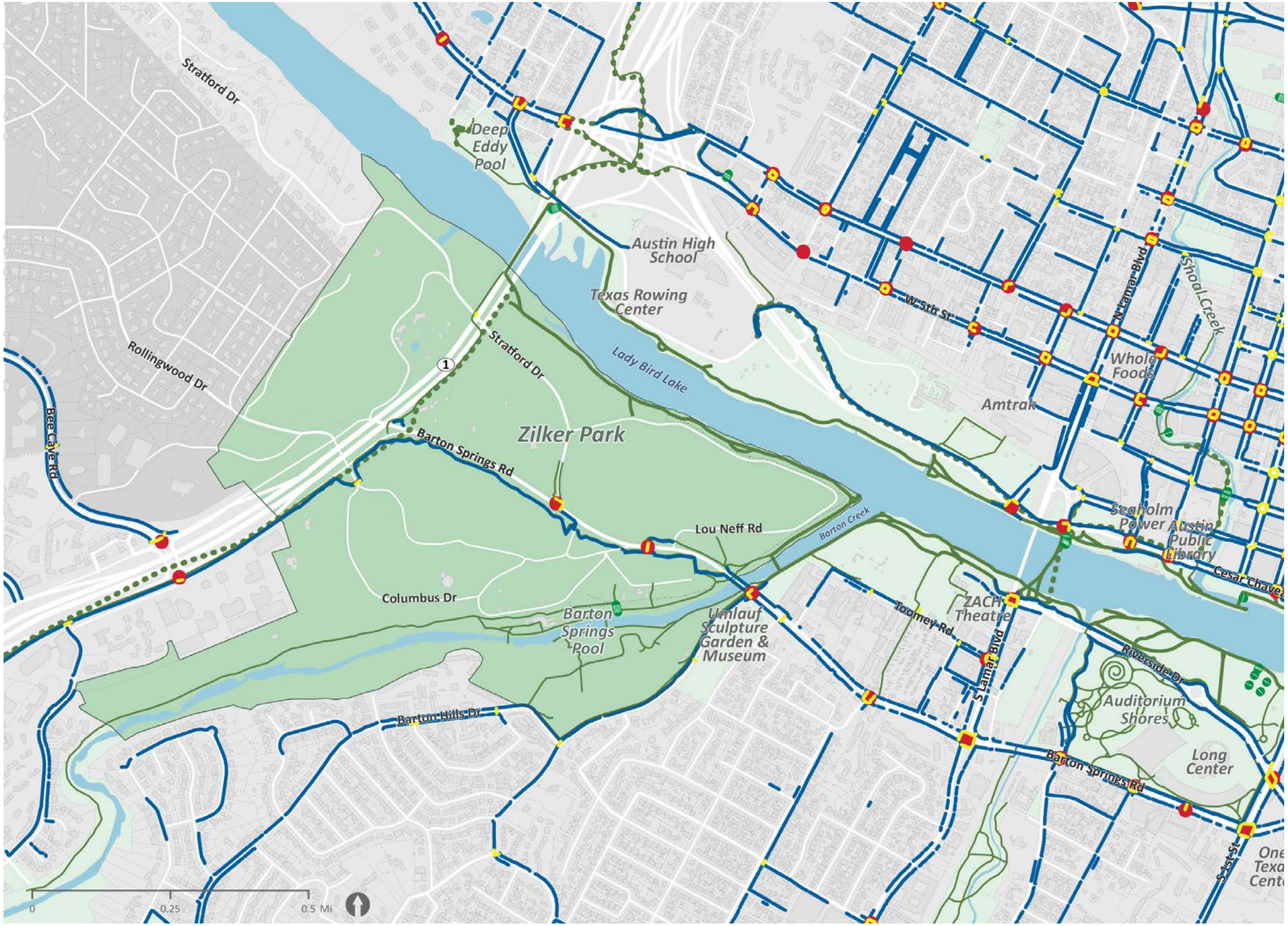


Figure 52: Pedestrian System of Zilker Park, 2021, Nelson\Nygaard

GETTING TO THE PARK: ACTIVE MODES

SAFETY

The highest incidences of crashes in the Zilker Park area were found at major intersections near the park, including:

- MoPac Expressway / Bee Cave Road
- MoPac Expressway / Barton Springs Road
- Barton Springs Road / South Lamar Boulevard

Among crashes involving a cyclist or pedestrian, many of the incidents occurred primarily along South Lamar Boulevard, South Congress Avenue, and in the Downtown core. While there were crashes that occurred on Barton Springs Road and within the park itself, there were no recorded fatalities between 2016 and 2020 near or in the park.

One incapacitating injury involving a cyclist was recorded between 2016 and 2020, which occurred near the MoPac Expressway frontage road. The non-incapacitating crashes within the immediate Zilker Park area occurred primarily along Barton Springs Boulevard, where there is an unprotected bicycle lane in the westbound direction.

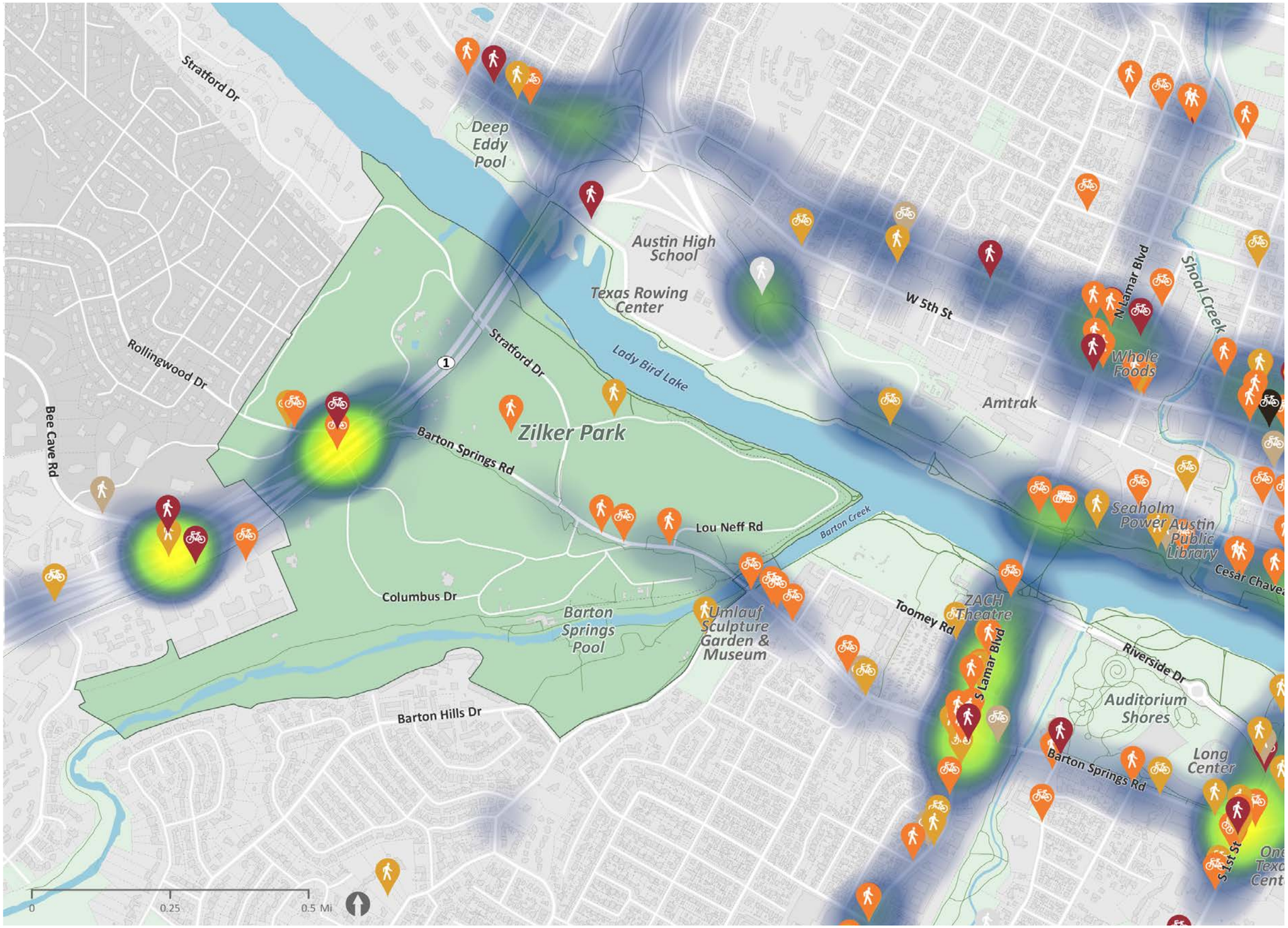


Figure 53: Safety Map of Zilker Park, 2021, Nelson\Nygaard

GETTING TO THE PARK: PARKING

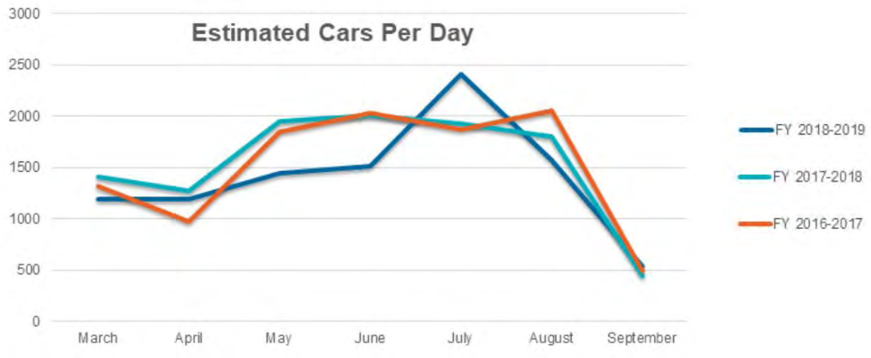
Parking opportunities within Zilker Park are dispersed throughout the park, primarily in off-street parking lots that accommodate between 50 and 100 vehicles per lot. Between formal parking lots, on-street parking on Lou Neff Road, and informal lots such as the former landfill gravel lot between Mopac and Lou Neff Road, there are almost 2,450 parking spaces within the boundary of Zilker Park. Of those spaces, approximately 875 of the spaces are located in formal lots (lots with marked spaces) and on-street parking stalls that serve general park attendees and are not limited to specific park facilities. These spaces require payment on approximately 57 days of the year on weekends and holidays from March through September. Of these spaces, approximately 230 are on-street spaces along Lou Neff Road.

The remaining parking spaces are divided as follows:

- Approximately 1,150 spaces on the landfill lots north of Stratford Drive and under the MoPac Expressway bridge, which serves as overflow parking during busy weekends. These spaces do not require payment
- 75 spaces that are limited to visitors to the Botanical Gardens
- 30 spaces that are limited to visitors to the Zilker Clubhouse
- 70 spaces in a free lot closest to McBeth Recreation Center
- Almost 250 spaces in four lots south of Barton Creek, near the ball fields along Azie Morton Road. Approximately 100 of these spaces are in informal gravel lots

There are approximately 60 ADA spaces dispersed throughout the park, although some lots also feature ramps but do not have dedicated ADA spaces. The lot near the Polo Field off Andrew Zilker Road also features two electric vehicle charging stations.

According to revenue data from paid parking locations, parking demand within the park peaked in FY 2017/2018, with almost 93,000 cars paying for parking during times when parking requires payment. In FY 2018/2019, that total decreased slightly to approximately 92,000 cars. This averages out to approximately 1,900 cars per day on weekends and holidays. The highest use month for paid parking has varied between July and August, depending on the year.



There are several parking lots and garages located just outside the boundary of Zilker Park that could potentially serve as off-site parking, with notable concentrations west of the park near the intersection of Mopac and Bee Cave Road, north of Lady Bird Lake at Austin High School, and east of the park at lots that serve other parks and public facilities (such as the Long/Palmer Center garage) on the south shore of Lady Bird Lake. Further study is needed to determine the appropriateness of these sites for serving Zilker parking demand and how to provide access to the sites from park destinations.

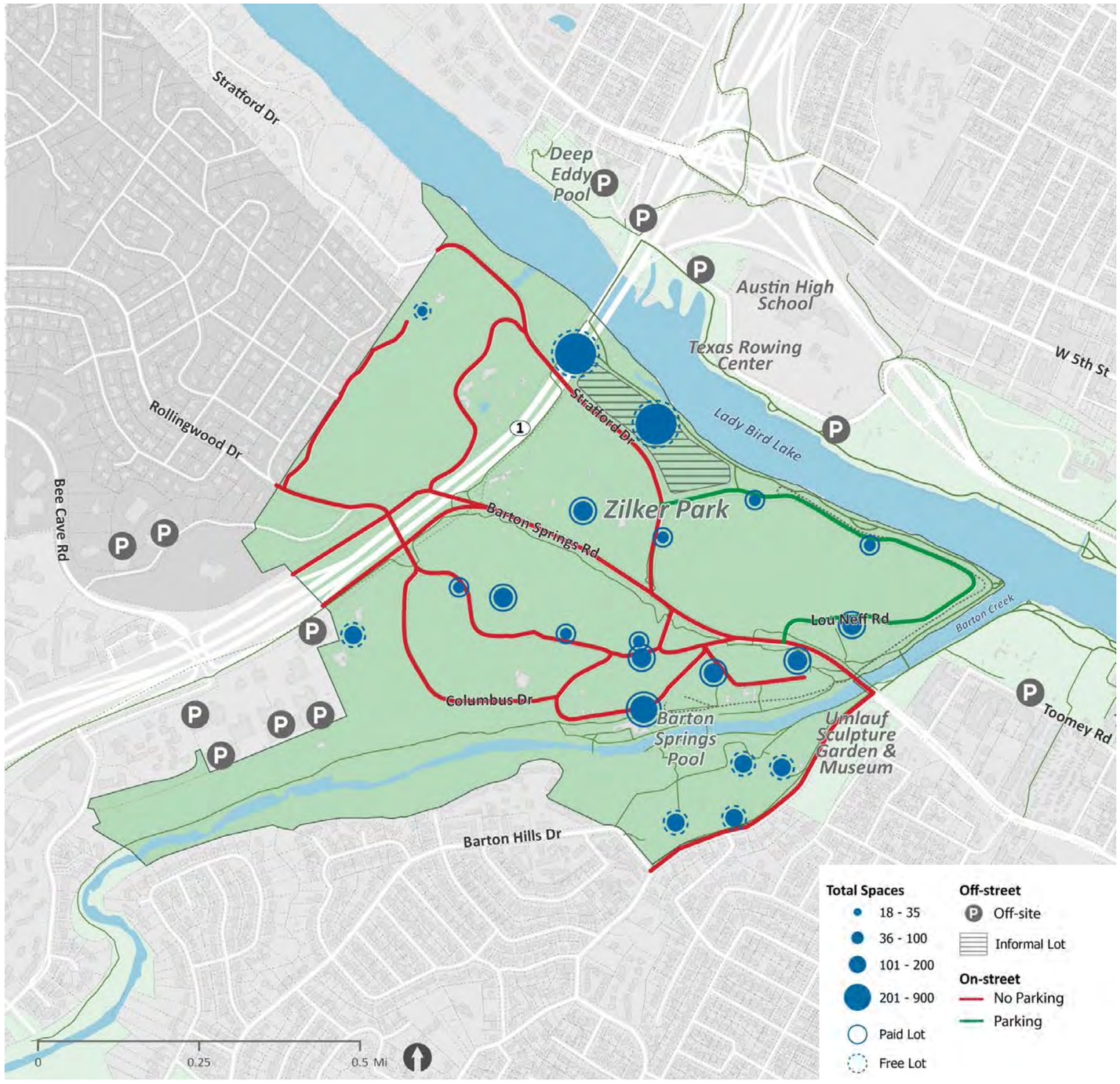


Figure 54: Parking System of Zilker Park, 2021, Nelson\Nygaard

TRAVEL WITHIN THE PARK: STREETS & TRAFFIC

Vehicular circulation within the park is dominated by the presence of Barton Springs Road, which travels east/west through most of the park. Most of the park's parking lots and major destinations that are accessible by vehicle are accessed through park roadways that are reached via Barton Springs Road – with the exception of Andrew Zilker Road, which is accessed via the MoPac Expressway service road at the intersection of Rollingwood Drive on the west side of the park, and Stratford Drive, which provides a vehicular connection under MoPac Expressway to neighborhoods west of the park boundary (and eventually Redbud Trail near the Ullrich Water Treatment Plant).

Several of the park's intra-park roadways are one-way streets, including Lou Neff Road, Andrew Zilker Road, William Barton Drive, and Nature Center Drive. Several of these roadways have a narrow width between their curbs, so directing vehicle traffic in one direction can maximize the use of limited street space for on-street parking. However, the reliance on one-way streets to provide park circulation can be confusing for wayfinding for visitors, while also limiting the flexibility of the roadway network to accommodate peak vehicular demand. This can result in long delays on streets such as Lou Neff Road, particular on busy weekends when the signal at Stratford Drive produces queues that can stretch all the way along the loop back to Barton Springs Road.

Barton Springs Road is a high-speed major arterial through most of the park. As the only major vehicle connection between MoPac Expressway and Downtown between Lady Bird Lake and Loop 360, the road serves a critical function for accommodating heavy vehicle traffic, especially during the peak commuting periods. In 2015, between 20,000 and 25,000 vehicles traveled on Barton Springs Road on a typical day through the park.

Barton Springs Road features three traffic signals within the park – one at Stratford Drive, the pedestrian signal between William Barton Drive and Lou Neff Road, and one at the park's eastern boundary at Azie Morton Road. While both intersections at Stratford Drive and Azie Morton Road provide pedestrian crossing phases, these signal locations are the only safe locations for cyclists and pedestrians to cross Barton Springs Road within the park. As Barton Springs Road essentially transitions to a freeway ramp west of Stratford Drive, vehicle speeds tend to increase – further reducing safety for non-motorized travelers in this part of the park.

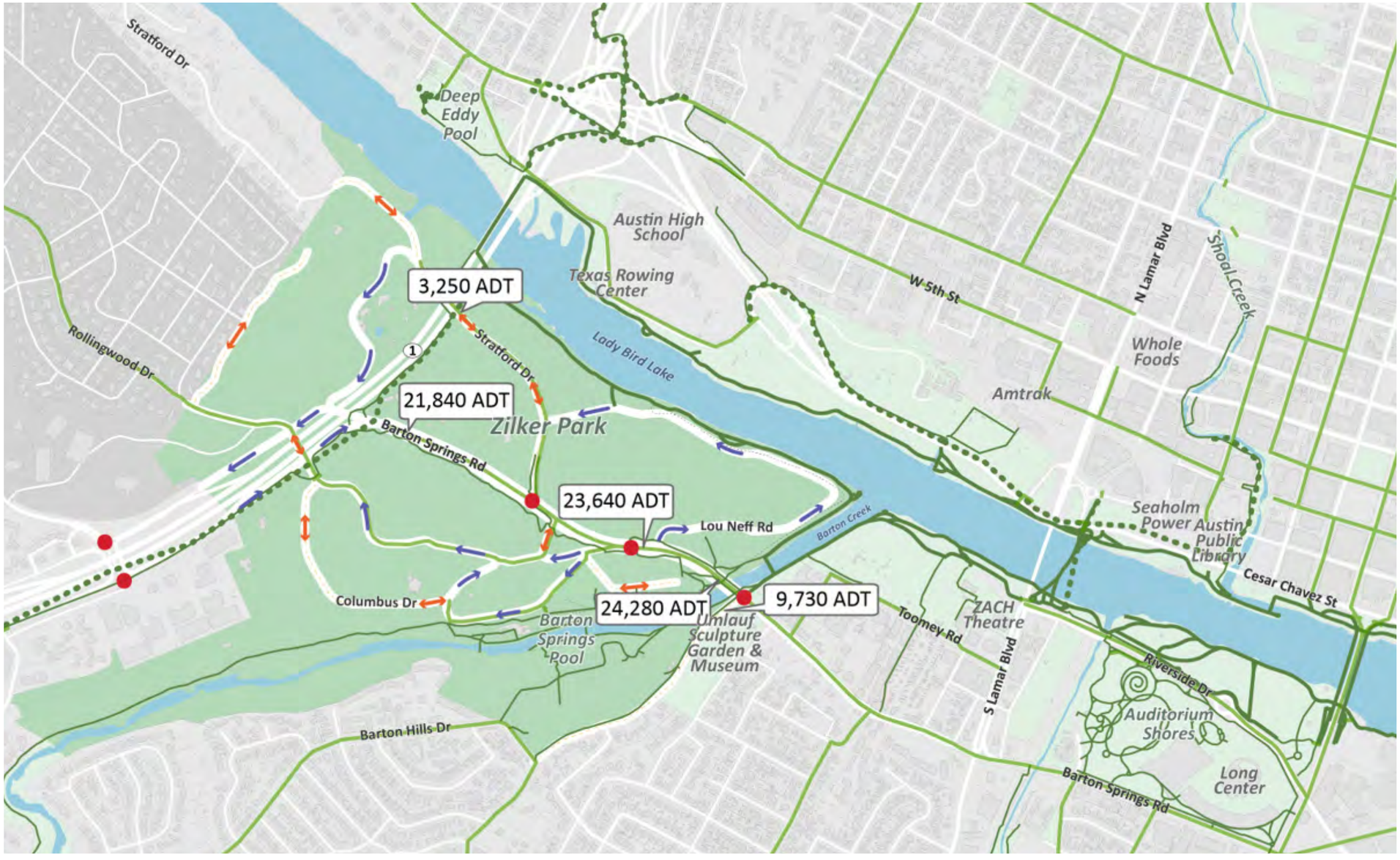


Figure 55: Vehicular Circulation of Zilker Park, 2021, Nelson\Nygaard

EVENT MOBILITY

Mobility within the park is disrupted most during four large events that occur at Zilker Park throughout a typical year:

- ABC Kite Festival (One weekend, typically in March)
- KGSR's Blues on the Green concert series (4-5 Wednesday evenings during Summer)
- Austin City Limits Music Festival (ACL) Two weeks plus an additional set-up/take-down time; Late September/Early October)
- Trail of Lights (beginning Thanksgiving though the New Year)

During all four of these events, Barton Springs Road and Stratford Drive are closed to general vehicle traffic, although closures are limited to event-hours for all events other than ACL. In-park parking – particularly at lots north of Barton Springs Road and east of Stratford Drive – are typically closed during these events as well. Both ACL and the Trail of Lights have implemented robust shuttle services, with both events providing frequent trips between Republic Square and a drop-off site north of Barton Springs, and Trail of Lights also offering shuttles to remote parking at AISD's Toney Burger Center in Sunset Valley.

Micromobility device and Transportation Network Company (TNC) pick-up/drop-off is provided off-site for large events such as ACL. In 2019, TNC pick-up/drop-off locations included Austin High School, Wallingwood Drive (west of the Barton Oaks office development), and Lee Barton Drive near the Butler Pitch & Putt. Micromobility drop-off sites included Azie Morton Road and the Butler Shores parking lot on the north side of Toomey Road.

Figure 56: Event Mobility of Zilker Park, 2021, Nelson\Nygaard

ECONOMICS

ECONOMICS

With the arrival of the Covid-19 pandemic, most city parks agencies as well as nonprofit park partners saw tremendous drops in revenue as most events and in-person programming were curtailed in the past year. While this is slowly changing with the rollout of vaccines, it is unclear how quickly such revenues will recover. Further, as documented by research done by the National Recreation and Parks Association and researchers at Pennsylvania State University, economic downturns cause particular challenges for parks systems. Parks and recreation agencies are the first to see budget cuts and the last to see cuts restored, as documented by studies looking at the period 2003-2013.

CONCESSION	TERM	ANNUAL PAYMENT	PERCENTAGE OF GROSS	CAPITAL INVESTMENT	EXTENSIONS	OTHER NOTES
Zilker Canoe & Kayak	Originated: 2/2/06; 4 amendments to 2/28/21, Extended 1 yr. to 2/28/22 (four amendments)	Minimum of $18,000. Amounts reassessed 18 months, 36 months and every 12 months thereafter	10% up to $180,000 in income	$35,000 in site improvements from 2/2/06 to 2/2/13	Reassess every 12 months	Unclear who owns boats, improvements.
Zilker Train	To be announced. (active negotiation with Austin Parks Foundation)					Previous vendor owned train.
Zilker Café	10 years (2019-2029)	$70,000 ($17,500 due quarterly)	8% of the gross, payable in annual lump sum	Any additional equipment required for food services	Up to 2 five year extensions	Pending completion of improvements to café building, expected 2021
The Rowing Dock	Originated: 11/01/2000, Amended 10 times, expires 4/30/22	Payments monthly during basic period, then annual lump sum during extension period.	8% (basic period), 1% net revenue, 8% of net revenue above $80K per year.	$102,000 of improvements (parking, docks, concession enhancements)	Extended 10 times, four were extensions of time up to 4/30/22	Vendor owns all watercraft, supplies, docks, etc

Further, any funds collected through concession agreements as well as park usage fees (pool admission fees, rentals of picnic sites, event locations like the Zilker Clubhouse or even large multi-day events like the Austin City Limits Music Festival) are paid into the City's general fund, a portion of which are "returned" to the Parks and Recreation department via annual budget appropriations. The parks department, by and large, does not keep any of the fees collected by city ordinance directly, but shares in them. This is true in most U.S. cities for park fees.

Finally, while nonprofits can raise funds and apply those funds for park improvements, programming and operations, those funds collectively are a small portion of total park spending. Based on research performed by The Trust for Public Land, six percent of annual spending in the 100 largest U.S. cities for parks comes from nonprofit park organizations. For Austin specifically, TPL's ParkScore index reported in 2020 that 13% of funding came from a dozen park nonprofits, totaling $20.7M, putting Austin #17 out of 100 in terms of nonprofit funding share. The bulk of this spending for capital projects by APF, The Trail Foundation, Pease Park Conservancy, Waterloo Greenway and others.

This section will detail concession revenue for Zilker Park and event and other fee revenue. Events in Zilker are governed by city ordinances and practices that grew out of recommendations from the Parkland Events report in 2017. These are covered separately in Section #5 of this memo.

Finally, public parkland has some protections under State law (Chapter 26, Texas Parks and Recreation) that prohibit the rental or lease of public park land as well as provide for elections over a change in disposition. Therefore, fees charged for events or reservable facilities (picnic shelter, Zilker Clubhouse, etc.) are for fair use of those facilities.

PARK CONCESSIONS OVERVIEW AND RECOMMENDATIONS

The City Council authorizes the Parks and Recreation Department to operate "nine permanent concessions" related to boating rentals, rowing, excursion boats, food and beverage sales, short-course golf and a mini train in Town Lake Park/Lady Bird Lake Park area. Town Lake Park is defined as parkland on the north and south banks of Lady Bird Lake (formerly Town Lake) including Zilker Park and Auditorium Shores (City Code Section 8-1-71)

Located within Zilker Park are four permanent concessions:

- The Rowing Dock (kayak, canoe and stand up paddleboard (SUP) rentals)
- Zilker Park Boat Rentals (kayak, canoe and SUP rentals)
- Zilker Café (temporarily closed) – New contract awarded to vendor
- Zilker Zephyr (closed, prior vendor ceased operations, owned train set) – new Contract being negotiated with Austin Parks Foundation.

As shown in Table X, the concession terms that the city uses are very traditional and the approach has not been altered in many years.

Overall, very little has changed since the consultant left Austin and APF early in 2012. Concession agreements in city parks can be characterized in the following ways:

- Very hard to come by.
- Take years to complete (unless "emergency" actions push the city to do so).
- Use a combination of annual payments and percentage of gross sales in inconsistent ways.
- Are very long term.
- Put the burden of the majority of capital improvements on the vendor.

Based on experience, research and analysis of vending parks in a number of U.S. cities, initial recommendations include:

- Balance the need for investment by the city and the vendor, especially in the durable hard-to-replace assets category. The Zilker Train is the biggest example here, but also for boats (canoes, kayaks, SUPs and docks for boating and cooking/refrigeration equipment for food concessions that are permanent. City ownership of the assets would give it much more flexibility in vendor selection and ongoing management.
- Agreements should be annual in term, with renewals anticipated but not expected. Agreements more than annual could be contemplated, but performance and consistency in the most recent year should be a strong determination of whether a vendor can continue.
- In terms of payment, move away from more complicated percentage of revenue or minimum annual payments and adopt a "dollar per ticket" that PARD event agreements uses for ticketed events. So, recommending "a standard fee per customer" that is easy to account for and gives some incentives to the vendor for increasing sales.

Hopefully, by simplifying the components of concessions and making them like other best practices in other cities, agreements can be turned over more quickly and are much easier to manage.

Temporary concessions are allowed by city ordinance in the Town Lake Park area but not well used in Zilker and across Town Lake Park. Mobile food vendors are what has really been the story for the past decade in cities across the U.S. and have been successful in parks, public spaces and even private parking lots. Temporary concessions, especially food and drink, could serve areas of Zilker that are not close to the Zilker Cafe and might be a way to fill needs and raise funds for the park.

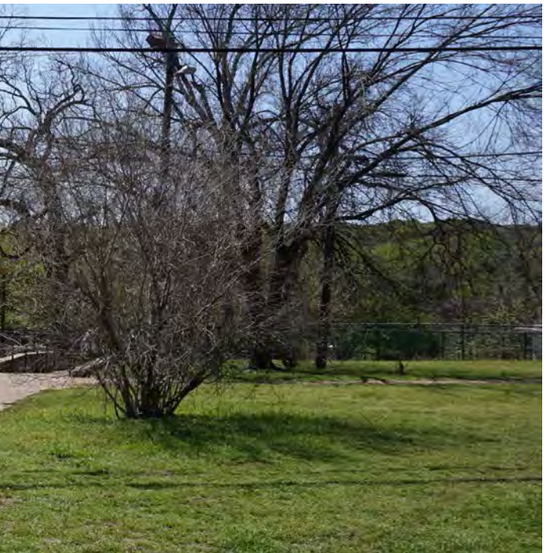
ECONOMICS

OTHER FEE REVENUE IN ZILKER: RESERVABLE FACILITIES, LARGE EVENT PERMITTING

The Parks and Recreation Department's Event Office manages the reservations, scheduling and fee collection for Zilker Park, as well as other reservable facilities. Due to the pandemic, events are curtailed, but the city has posted rules and fees on its website: http://www.austintexas.gov/page/special-events-policies-procedures. Fees, rules and procedures are established by city ordinance and are reviewed annually by park staff and the City Council. This is a best practice that exceeds many other city park systems in terms of fairness (use of a lottery) as well as the ability to use the City's website to conduct business.

In addition to reservable facilities and special events, the parks department benefits from the transportation enterprise fund established by the city. Parking meters have been installed and are managed by the Austin Transportation Department and Zilker Park benefits from the revenue obtained. Recent income is shown in Table Y.

Events also draw revenue for the City. By and large, these revenues, paid through the fees for usage established by the Parks and Recreation Department's Event Office, with review and approval annually through the City Manager's office and the City Council, are paid back into the City's general fund. The exception is the parking enterprise funds, which allows fees collected for seasonal (May to September) and partial week (Thursday-Sunday) parking in Zilker lots to remain with PARD.



Large events, including the Trail of Lights, Blues on the Green, The Kite Festival and the Austin City Limits Music Festival are subject to the negotiation of an event agreement. Per the parkland event guidelines and ordinances, large events must cover all costs borne by the city as well as provide usage fees as determined by whether tickets are sold and how many days those events take place.

The city has formulas for payment for events that are included in the event agreements, including ticket sales, police, fire, EMS and transportation as well as additional parks costs. Any ticketed events have a variable ticket fee assessed as well, for example between $1-$3 per ticket per day, based on the ticket prices as well as length of the event.

For example, the ACL Music Festival in 2019 paid a total of $2.4 million in city fees, including:

- $1.62 million to PARD, including $1.4 million in ticket fees.
- $500,000 to Austin Police Department(APD)
- $60,000 to EMS
- $20,000 to public health
- $30,000 Transportation fees (including Capital Metro)
- $110,000 to AFD

These are largely to cover the costs that the City's departments incurred in managing the festival. Additional expenses for security, first aid, etc. inside the festival gates are borne separately by C3 Presents.

REVIEW OF EVENTS / PROGRAMMING AGREEMENTS / ORDINANCES THAT AFFECT ZILKER PARK (CITY OF AUSTIN)

Special events in city parkland are governed by a set of ordinances passed by Austin City Council and managed by the Parks and Recreation Department's office of special events. Specifically, there are limits to the number of days of events and the total number of unique events that can take place in Zilker Park, as well as other reservable sites such as Auditorium Shores.

The 2015 Parkland Events Taskforce met over the period of a year and made several specific recommendations, many of which were codified in changes in city ordinances in 2016 and 2017.

- For Zilker Park specifically, the recommendation was to reduce a total of 29 event days in Zilker to 24 through gradual attrition. The listed large events include:
  - The Austin City Limits Music Festival – six days
  - The Kite Festival - one day
  - Zilker Garden Festival – two days
  - Blues on the Green – four days (possible relocation)

Zilker Relays – one day (possible relocation).
The performances at the Zilker Hillside Theatre were not considered large events. Generally they have 22 performances per year.
The parks department's revised ordinances have existed for some time. They reinforce the cap on large events at Zilker and how they have been managed and regulated.

The Taskforce recommendations required that the city have its costs covered for hosting large events, as well as making sure that they have sustainability, transportation and other needs.

- The city has formulas for payment for events that are included in the event agreements, including ticket sales, police, fire, EMS and transportation as well as additional parks costs. Any ticketed events have a variable ticket fee assessed as well, for example between $1-$3 per ticket per day, based on the ticket prices as well as length of the event.
- For example, the ACL Music Festival in 2019 paid a total of $2.4 million in city fees, including
  - $1.62 million to PARD, including $1.4 million in ticket fees
  - $500,000 to APD
  - $60,000 to EMS
  - $20,000 to public health
  - $30,000 Transportation fees (including Capital Metro)
  - $110,000 to AFD

ZILKER PARK PAY STATION: MONTHLY REVENUE COMPARISON - 5 YEARS (REVENUE BEFORE TAXATION)

DATE	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20
October	$0.00	$0.00	$0.00	$185.00	$525.00
November	$0.00	$0.00	$0.00	$0.00	$0.00
December	$0.00	$0.00	$0.00	$0.00	$0.00
January	$0.00	$0.00	$0.00	$0.00	$0.00
February	$0.00	$0.00	$0.00	$0.00	$0.00
March	$35,310.00	$39,586.20	$42,280.00	$35,890.00	$18,020.00
April	$50,810.00	$48,646.00	$51,080.00	$47,675.00	$11,055.00
May	$65,825.10	$83,195.60	$87,985.00	$65,255.00	$34,680.00
June	$62,388.20	$81,429.05	$90,145.00	$75,630.00	$51,605.00
July	$88,385.00	$102,628.38	$96,467.77	$108,540.00	$21,320.00
August	$73,120.00	$82,355.00	$71,930.00	$70,519.77	
September	$24,950.60	$22,148.15	$24,540.15	$27,053.68	
Total	$400,788.90	$459,988.38	$464,427.92	$430,748.45	$137,205.00
Average	$57,255.56	$65,712.63	$66,346.85	$53,843.56	$22,867.50

The daily usage has increased dramatically at Zilker, even during the pandemic over the course of 2020.

NON-PROFIT PARTNERS OVERVIEW: PARKNERS

Several nonprofits work to provide programming, operations support as well as capital dollars in and around Zilker Park. Most are small nonprofit groups that are volunteer in nature and have specific agreements with the City's Parks and Recreation Department. They are:

- Austin Parks Foundation – It is beneficiary of ACL and funder of several capital projects and programming, including Barton Spring Pool, Barton Creek Trail, Hillside Theatre, Botanical Gardens, Sunshine Camp, McBeth Recreation Center, Nature and Science Center and, Zilker Eagle train.
- Barton Springs Conservancy – It is funder of capital projects, with a focus on the bathhouse rehabilitation. Currently all volunteer, had staffer/fundraiser for several years.
- Friends of Barton Springs Pool – It is volunteers that clean pool weekly in season as well as grounds and plantings upkeep.
- Girl Scouts of Austin / Girl Scout Cabin
- Hill Country Conservancy – It is primarily focused on funding improvements and upkeep of the Barton Creek Greenbelt segment located in Zilker Park, which marks the start of the Violet Crown Trail.
- Sunshine Camp / Young Men's League of Austin – It is programming for underserved populations at camp.
- Zilker Botanical Garden Conservancy / Austin Area Garden Council – It is a partner with Parks & Recreation, fund programs and improvements in the Garden.
- Zilker Theatre Productions (Beverly S. Sheffield Zilker Hillside Theatre) – It is fund productions and programming at the Hillside Theatre.

UTILITIES

UTILITIES

Summary provided below is based on the information available at the time of this report. All existing utilities should be verified prior to actual development of the subject property.

WATER

Austin Water Utility (AWU) is the water and wastewater service provider for the Zilker Park development. The area of interest is located within the Central South pressure zone. Several AWU water and wastewater lines run through and around the park of the proposed site boundaries and are as follows:

- The largest mains within the site are an existing 12-inch Ductile Iron (DI) and 12-inch Polyvinyl Chloride (PVC) water mains associated with project W-1987-2018 and W-1987-1500, respectively that run along South MoPac Expressway Northbound then turn east through the park. The 12-inch PVC main is currently proposed to tie into a proposed 12-inch DI main running along Andrew Zilker Road.
- There exists a 2-inch Cast Iron (CI) watermain associated with Project W-1971-0053 thar runs through the park from the Southwestern portion of the park to tie into the existing 3-inch CI watermain located in the central portion of the park. The main ties into the existing 6-inch CI running from the southeastern side of the park to northeastern side park to connect to the existing 12-inch DI running along Barton Springs Road.
- There exists a 6-inch CI proposed for abandonment running from the center of the park to the southeastern portion of the park and ties into the existing 6-inch CI currently proposed to be abandoned and replaced with a 12-inch PVC main associated with Project W-2021-0014 at the Water Intersection 3305 located within Azie Morton Road.
- There exists an 8-inch CI watermain that runs along Stratford Drive from the northwestern to the northeastern potion of the park with an associated project W-1964-1064.
- There exists an abandoned 8-inch CI line located in the northwestern portion of the park running north across the Colorado River from Stratford Drive to Atlanta Street.
- There exist several interconnecting lines throughout the park that services the existing development.
- There are several existing fire hydrants within the site area.

WASTEWATER

All wastewater located within and around the project study boundary is collected to the South Austin Region Wastewater Treatment Plant through the AWU collection system and is maintained privately or by AWU.

- There exists an 8-inch Concrete (Conc) gravity main located in the northwestern portion of the park which collects into the Bluffington #1 Lift Station.
- Bluffington #1 Lift Station waste is collected through an existing 8-inch CI force main associated with project A5811 running southeast to tie into an existing 15 PVC gravity main associated with Project A5810.
- There also exists a privately maintained lift station (Rollingwood #1), with a 6-inch (UNK)pipe material associated with Project No. 2002-0609 running north from the southwestern portion of the site area and ties into the existing 15-inch PVC associated with project A5810.
- The existing 15 PVC associated with Zilker Park A5810 ties into an existing 12-inch PVC, which ties into a 12-inch Conc gravity main associated with Project A5809, which ties into a 10-inch Conc gravity main associated with project A5808.
- The 10-inch concrete gravity main associated with Project A5808 ties into an existing 10-inch DI gravity main with associated Project S-1992-2011, which ties into the existing 33-inch FRPM gravity main at wastewater manhole (WWMH) number 29127.
- There exists a 36-inch Fiberglass (FG) gravity main located in the southeastern portion of the park with the associated Project W-2001-0036 running northeast through the park and ties into an existing 42-inch Vitrified Clay (VC) gravity main, which ties into the existing 42-inch Conc gravity main which ties into the existing 33-inch Fiberglass-Reinforced Polymer-Mortar (FRPM) gravity main associated with Project W-2005-0003 and S-2005-0006 at WWMH # 29127.
- There exist a 24-inch Conc and an 8-inch VC gravity main running along Azie Morton Road along the eastern side of the site area that collects waste from surrounding developments from the southeastern portion of the park.
- There exists a 10-inch Asbestos Cement (AC) main associated with Project A10435 and A10434 that ties into a 10-inch Conc main associated with Project A4430 and A4429 running southeast and ties into an existing 8-inch PVC gravity lines associated with project A4428 and A4427.
- There exists an abandoned 8-inch CI line associated with project A5813 located in the northwestern portion of the park west of South MoPac Expressway Southbound.
- There are several abandoned lines and lift stations located east central of the park and listed as follow:
  - 4-inch VC abandoned gravity main
  - 6-inch VC abandoned gravity main
  - 6-inch Conc abandoned gravity main
  - 6-inch AC abandoned gravity main associated with project A7344
  - 6-inch DI abandoned gravity main
  - 6-inch PVC abandoned gravity main associated with project B440 and A3672
  - 8-inch Conc abandoned gravity main associated with project A7344
  - 8-inch DI abandoned gravity main associated with project A7344
  - 8-inch PVC abandoned gravity main associated with project A4427 and A4428
  - 10-inch CI abandoned gravity main associated with project A2664
  - 10-inch Conc abandoned gravity main
  - 6-inch DI abandoned gravity main associated with Project S-1977-0001
  - 24-inch Conc abandoned gravity main associated with project A2497
  - Abandoned Zilker Lift Station
  - Abandoned Barton Creek Lift Station
- The state of the pipes out-falling into the creek has caused the erosion issues.

RECLAIMED WATER

According to the AWU Maps, there is no reclaimed water associated with or around the site of interest. The nearest reclaimed water service is an existing 30-inch main that crosses Lady Bird Lake and extends to West Riverside Drive on the east side of South Lamar Boulevard, with a proposed service shown to extend towards South Lamar Boulevard. Furthermore, using reclaimed water within the critical water quality zone is prohibited by City of Austin.

NATURAL GAS SERVICE

Texas One Gas is the service company for the subject area. Gas service is presently available within the boundaries of the site area and are described as follows:

- There exists a 6-inch Coated Steel (CS) gas line located in the northeastern portion of the site and has a short run from the east to west along Barton Springs Road. The gas line is tied into a 6-inch Polyethylene (PE) gas line at the southern side of Azie Morton Road and Barton Springs Road intersection. The 6-inch CS gas line continuously runs through the park westward across South MoPac Expressway until it reaches the Stratford Drive and Lou Neff Road intersection and starts running along Stratford Drive located northwestern portion of the site area.
- There exists a 2-inch PE gas line located near the eastern side of the site that runs along Robert E Lee Road and currently services developments located east of the park.
- There exists a 6-inch CS gas line that runs along South MoPac Expressway Northbound and crosses South MoPac Expressway westward at the Andrew Zilker Road and South MoPac Expressway intersection and runs along Rollingwood

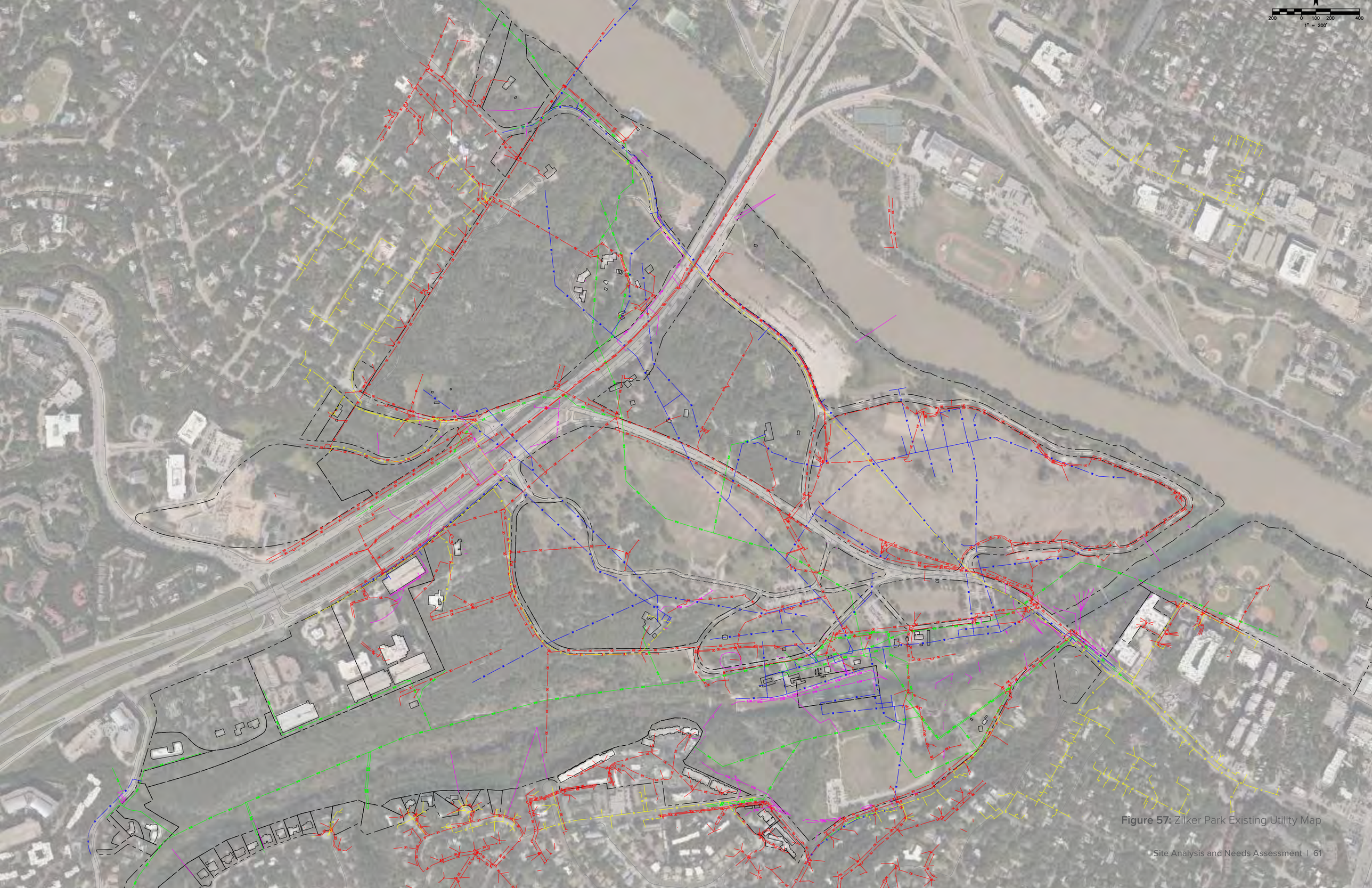


Figure 57: Zilker Park Existing Utility Map

Drive to service the developments located west of the site.

- There exists a 2-inch CS gas line running along Dellana Lane with a sharp turn westward at the Dellana Lane and Rollingwood Drive intersection then runs along Rollingwood Drive.
- There exists a 2-inch PE gas line tied into the 6-inch CS gas line, north of the Andrew Zilker Road and South MoPac Expressway intersection that services existing development inside Zilker Park.
- There exists a 2-inch PE gas line tied into the 6-inch CS gas line, north of the Andrew Zilker Road and South MoPac Expressway intersection and runs along Columbus Drive that services existing development inside Zilker Park.

ELECTRIC SERVICE

Zilker Park is located within the Austin Energy service zone. Electric service is presently available within the boundaries of the site area and is described as follow:

- There exists a primary overhead wire located in the western portion of the park that runs north and south along Zilker Clubhouse Road. The primary overhead ties into an existing primary overhead located in Dellana Lane to the south and crosses the Colorado River to the north.
- There exists a primary underground cable that runs along the southern side of Stratford Drive to service the existing development known as Rowling Dock .
- There exists a service overhead wire located in Stratford Drive and Elgin Avenue that services an existing development east of Zilker Clubhouse Road.
- There exists a primary overhead wire that runs eastward from the intersection of Vance Lane and Vale Street to Nature Center Drive that services the existing development enclosed by Nature Center Drive and South MoPac Expressway. The overhead ties into an existing primary underground cable that ties into an overhead that runs along South MoPac Expressway southbound.
- A primary overhead wire is located at the intersections of Zilker Clubhouse Road and Rollingwood Drive running along Rollingwood, which ties into a primary overhead wire running along Dellana Lane and continues running eastward along Barton Springs Road. The primary turns southeast at the Barton Springs Road and Stratford intersection and cuts across the park to tie into an existing primary overhang west of the Barton Springs Pool, then runs north along Barton Creek to tie into an existing primary at Barton Springs Road and Barton Creek intersection.
- There exists streetlight overhead running through South MoPac Expressway.
- There exists a primary overhead running along South MoPac Expressway southbound and ties into a primary overhead running along Dellana Lane.
- There exists a primary overhead running along South MoPac Expressway northbound and ties into a primary overhead running along Barton Springs Road.
- There exists primary underground cable that runs along Stratford Drive from the intersection of S. MoPac Expressway and Stratford Drive intersection and crosses Lou Neff Road and ties into an existing primary overhead at the Stratford Drive and Barton Springs Road intersection.
- There exists a primary underground that ties into the primary underground between Park Road and Barton Springs Road on Stratford Drive and runs along Park Road and ties back into Barton Springs Road on the western portion of the park.
- There exists a service underground cable running along Barton Springs Road between Barton Creek and Stratford Drive.
- There exist service underground cables along Park Road.
- There exists a primary underground cable located in William Barton Drive in the western portion of the park.
- There exists a primary overhead that runs along Columbus Drive and ties into and services overhang running along Columbus Drive.
- There exists a primary overhead running along Azie Morton Road and Barton Hills Drive in the southwestern portion of the park.
- There exists a primary overhead running between Andrew Zilker Road and Columbus Drive to service existing development.

TELECOMMUNICATION SERVICE

John D. Kougl with MCI has provided an email confirmation that MCI has aerial fiber along Azie Morton Road, however, no service maps were provided. Azie Morton Road is located on the eastern side of Zilker Park and runs north and south between Barton Springs Road and Barton Hills Drive.

STORM AND SEWER

Generally, there is not a storm sewer system within the Park area, but rather, storm sewer infrastructure associated with direct discharges to Lady Bird Lake, culvert crossings under roads, and connections to the storm sewer systems adjacent to the Park. Storm infrastructure are described below as seen in the City of Austin Property Profile:

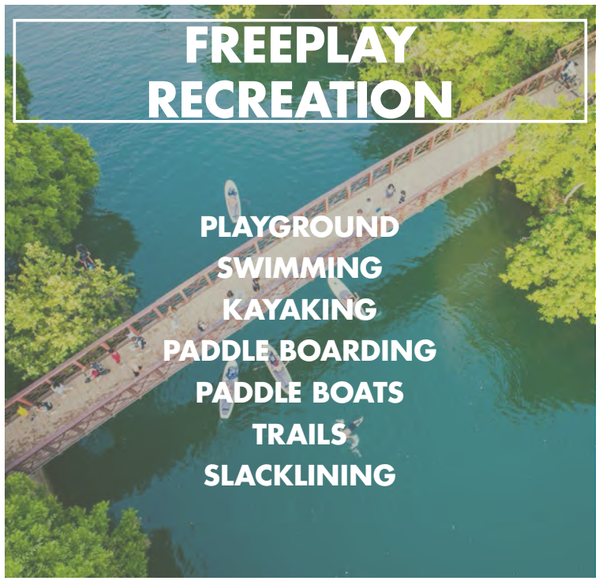
- There exists storm network running along Barton Springs Road and runs from the east to drain into Barton Creek.
- There exist curb inlets along Barton Springs Road with drainage pipes that runs eastward and drain into Barton Creek.
- There exists a drainage system located in the southeast portion of the park along the development and south on Barton Hills Drive and drainage pipes with header along Azie Morton Road, collecting storm sewer water and discharged into Barton Creek. In addition, the following ponds are identified to be within the Zilker Park area:
- A privately maintained pond identified as a Vegetative Filter Strip (VFS) area located adjacent to Azie Morton Road where it intersects with Lund Street.
- A City of Austin maintained pond identified as a sedimentation only pond area located adjacent to Azie Morton Road east of the VFS mentioned above. west of the VFS area mentioned above.


VIBE
VIBE

COMMUNITY

PARK PROGRAMMING

Zilker Park already hosts a wide variety of programmed events within the park.
Those are listed in the table below.



ZILKER PARK

PROGRAMMING AND EVENTS

Zilker Park is home to a large number and variety of events and programs throughout the year, ranging between large and small, public and private, and formal and informal. The following calendar is an abbreviated list of some of the regular public events and programs that happen in Zilker each year.

PUBLIC EVENTS

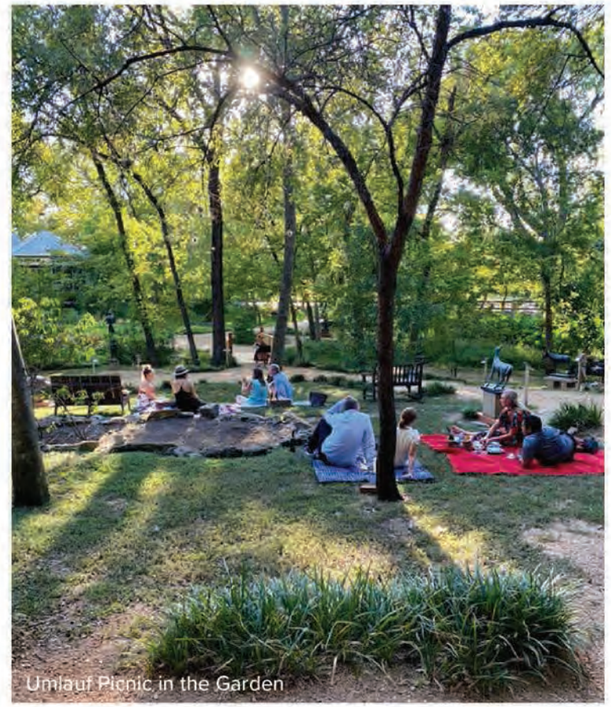
In addition to the events listed below, public events are hosted in Zilker sporadically throughout the year by the Botanical Garden, the Nature and Science Center, Umlauf, Zilker Hillside Theater, McBeth Recreation Center, and the City of Austin. These events range from tours and educational programs to music performances and celebrations.

PRIVATE EVENTS

The venues available for reservation for private events such as fundraisers or weddings include the Zilker Botanical Garden, Zilker Clubhouse, Umlauf Scuplture Garden and Museum, Zilker Hillside Theater, the Girl Scout Cabin, and the Nature and Science Center.

EDUCATION

Education plays a large role in the programming at Zilker. The Nature and Science Center and the Botanical Garden regularly offer workshops, educational exhibits, school field trips, tours, and host public educational events. The Sheffield Education Center hosts educational exhibits. As shown on the calendar, Zilker is home to many summer camps and after-school programs that are rooted in educating the people of Austin.


Umlauf Picnic in the Garden

Trail of Lights

McBeth After-School Programs

Nature's Way Preschool

ZHT Shakespeare in the Park

JAN	FEB	MAR	APR	MAY	JUN
			Kite Festival	Blues on the Green	Blues on the Green
			Umlauf Picnic in the Garden	ZHT South Asian New Year Festival	ZHT Ballet Under the Stars
				Umlauf Picnic in the Garden	Umlauf Picnic in the Garden


Kite Festival


Blues on the Green


Nature and Science Center Summer Camp

Umlauf Summer Camps

Zilker Theatre Productions Summer Musical

McBeth Youth Summer Camps

McBeth Adult Summer Programs

Nature & Science Center Summer Camps

Austin City Limits

Umlauf Shaping Space

Trail of Lights

Umlauf Shaping Space

McBeth After-School Programs

Nature's Way Preschool

JUL AUG SEP OCT NOV DEC

Blues on the Green

Umlauf Garden Party

ZHT Father's Day Concert

ZHT Austin Civic Orchestra Pop Concert

Umlauf Picnic in the Garden

Umlauf Picnic in the Garden

Blues on the Green

ZHT Roy Lozano's Ballet Folklorico de Texas

Umlauf Picnic in the Garden

Umlauf Picnic in the Garden


Zilker Hillside Theater

POLICY

The consultant team created an outline of existing entitlements and any site constraints that may impact any future development or redevelopment on the Property. The Property (see Exhibit X) is made up of 18 unique tax parcels, and the total acreage reviewed for this analysis is 382.83 acres. The area included in this analysis goes outside of the boundary line created for the study, for contextual analysis purposes.

SUMMARY BY TRACT

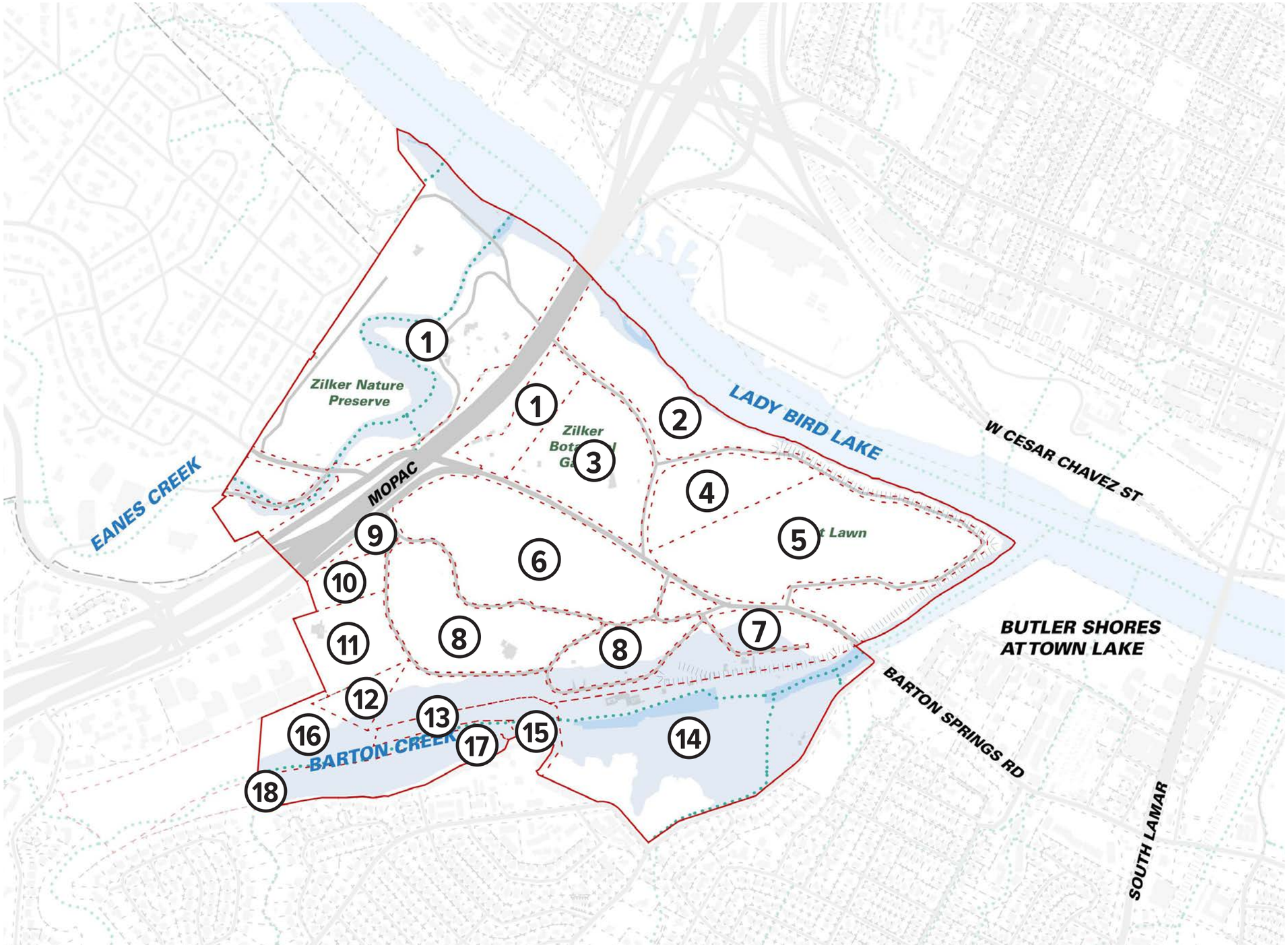
TRACT 1 – TCAD ID 0107070206

Tract 1 is made up of 101.08 acres and is zoned Public (P) and Family Residence (SF-3); there are no conditional overlays that make up the zoning designation for Tract 1. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below. Two existing site plans are located on Tract 1 with case numbers C14P-87-019 and SP-2007-0237D. The Austin Nature and Science Center site plan (C14P-87-019) was located on the City of Austin ABC public information data portal and indicates that the following administrative variances were granted:

- Construction within the Critical Water Quality Zone (CWQZ) is allowed (Section 13-15-232(4));
- Construction within the Water Quality Transition Zone (WQTZ) is allowed (Section 13-15-274); and
- Administrative approval has been granted by the office of land development services on October 15, 1986 for the use of innovative water quality management practice to address the filtration requirement of Section 13-15-238.

Note: Site plan sheets for case number SP-2007-0237D were not readily available online for review.

A portion of Tract 1 is located within the 100-year FEMA floodplain, and portions are encumbered by CWQZ and WQTZ areas. Additionally, an Erosion Hazard Zone is located on Tract 1 and an Erosion Hazard Zone Analysis may be required for any proposed new development within the zone or where significant erosion is present. No improvements, including utility lines, are allowed within the Erosion Hazard Zone unless engineered structural protective works are provided; development must not result in additional erosion impacts to other properties (LDC §25-7-32; Drainage Criteria Manual, Appendix E). The entirety of Tract 1 is located in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 1 is Water Supply Suburban, which limits impervious



cover to 40% for commercial and/or multifamily projects.

Note: MoPac Expressway/Loop 1 bisects Tract 1 and is controlled by the Texas Department of Transportation (TXDOT). Coordination with TXDOT staff will be required if any activity is proposed within this right-of-way (ROW). A Multiple Use Agreement with the State of Texas authorizes the City of Austin the use and operation of a parking facility on the highway right-of-way of MoPac Expressway/Loop 1 at Stratford Lane across from the Austin Nature and Science Center. Exhibit A - the Conceptual Site Plan – has still not been located by the City of Austin at this time and may provide specific details on the uses allowed in this area. This information will be shared when/if it becomes available.

TRACT 2 – TCAD ID 0107060201

Tract 2 is made up of 11.12 acres and is zoned Public (P); there are no conditional overlays or approved site plans that make up the zoning designation for Tract 2. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below.

A portion of Tract 2 is located within the 100-year FEMA floodplain, and a portion is encumbered by CWQZ areas. Additionally, an Erosion Hazard Zone is located on Tract 2 and an Erosion Hazard Zone Analysis may be required for any proposed new development within the zone or where significant erosion is present. No improvements, including utility lines, are allowed within the Erosion Hazard Zone unless engineered structural protective works are provided; development must not result in additional erosion impacts to other properties (LDC §25-7-32; Drainage Criteria Manual, Appendix E). The entirety of Tract 2 is in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 2 is Water Supply Suburban, which limits impervious cover to 40% for commercial and/or multifamily projects.

TRACT 3 – TCAD ID 0107060101

Tract 3 is made up of 18.42 acres and is zoned Public (P); there are no conditional overlays or approved site plans that make up the zoning designation for Tract 3. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below.

No portion of Tract 3 is located within the 100-year FEMA floodplain, and no portion is encumbered by CWQZ or WQTZ areas. An Erosion Hazard Zone is located on Tract 3 and an Erosion Hazard Zone Analysis may be required for any proposed new development within the zone or where significant erosion is present. No improvements, including utility lines, are allowed within the Erosion Hazard Zone unless engineered structural protective works are provided; development must not result in additional erosion impacts to other properties (LDC §25-7-32; Drainage Criteria Manual, Appendix E). The entirety of Tract 3 is in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 3 is Water Supply Suburban, which limits impervious cover to 40% for commercial and/or multifamily projects.

TRACT 4 – TCAD ID 0107060301

Tract 4 is made up of 4.35 acres and is zoned Public (P); there are no conditional overlays or approved site plans that make up the zoning designation for Tract 4. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below.

No portion of Tract 4 is located within the 100-year FEMA floodplain, and no portion is encumbered by CWQZ, WQTZ, or Erosion Hazard Zone areas. The entirety of Tract 4 is in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 4 is Water Supply Suburban, which limits impervious cover to 40% for commercial and/or multifamily projects.

TRACT 5 – TCAD ID 0106050101

Tract 5 is made up of 59.76 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 5, or approved site plans on the site. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below.

No portion of Tract 5 is located within the 100-year FEMA floodplain, and no portion is encumbered by CWQZ, WQTZ, or Erosion Hazard Zone areas. The entirety of Tract 5 is in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 5 is Water Supply Suburban, which limits impervious cover to 40% for commercial and/or multifamily projects.

TRACT 6 – TCAD ID 0105070201

Tract 6 is made up of 38.69 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 6. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below. There is one approved site plan on a portion of Tract 6, City of Austin case number SP-2018-0557C, which was submitted to replace a maintenance barn for Zilker Park operations. A search of the City of Austin online portal did not return any publicly accessible results for review of this site plan. Submittal of an Open Records Request will be required to review the approved site plan sheets.

No portion of Tract 6 is located within the 100-year FEMA floodplain, and a portion is encumbered by a WQTZ area. No portion of Tract 6 is in an Erosion Hazard Zone. The entirety of Tract 6 is in the Edwards Aquifer Recharge Zone. The watershed classifications for Tract 6 are Water Supply Suburban and Barton Springs Zone, which limits impervious cover to 40% for commercial and/or multifamily projects (Water Supply Suburban) and/or 15% for commercial and/or multifamily projects (Barton Springs Zone).

TRACT 7 – TCAD ID 0104070101

Tract 7 is made up of 5.22 acres and is zoned Public (P) and Public – Historic Landmark Combining District (P-H); there are no conditional overlays that make up the zoning designation for Tract 7 or approved site plans on the property. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below. There are two site plan revisions in review per City of Austin case numbers SPC-2012-0104D(R3) and SPC-2012-0104D(R5), which are for the construction of Zilker Trailhead restrooms.

A restriction on Tract 7 is included in the deed recorded in Volume 302, Page 360 of the Travis County Deed Records that reserves a right-of-way easement over a strip of land 30 feet wide to be used by the grantor's stock for access to Barton Creek for water. Further restrictions and limitations on use and occupancy are included in a deed recorded in Book 229, Page 274 recorded on December 4, 1907 where the grantor reserves the rights to the hydropower from Barton Creek and prohibits any dams or abutments on the creek. The deed also prohibits the manufacturing or sale of malt, spiritous or any intoxicating liquors or beverages while the grantor, or the heirs, or devises of the grantor shall be the owner or owners of the adjoining tract of land upon which we now reside.

A portion of Tract 7 is located within the 100-year FEMA floodplain, and a portion is encumbered by CWQZ and WQTZ areas. No portion of Tract 7 is in an Erosion Hazard Zone. The entirety of Tract 7 is in the Edwards Aquifer Recharge Zone. The watershed classifications for Tract 7 are Water Supply Suburban and Barton Springs Zone, which limits impervious cover to 40% for commercial and/or multifamily projects (Water Supply Suburban) and/or 15% for commercial and/or multifamily projects (Barton Springs Zone).

Review of City of Austin GIS data indicates that two underground tanks are or have historically been stored on Tract 7. Review by Austin Fire Department to assess the presence of potentially hazardous materials is recommended prior to site design.

TRACT 8 – TCAD ID 0106080101

Tract 8 is made up of 20.02 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 8. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below. There is one approved site plan, Zilker Park Maintenance Barn Replacement per City of Austin case number SP-2018-0557C on the property, and one site plan revision currently I review, Zilker Park Trailhead Restrooms per City of Austin case number SPC-2012-0104C.

A portion of Tract 8 is located within the 100-year FEMA floodplain, and a portion is encumbered by CWQZ and WQTZ areas. No portion of Tract 8 is in an Erosion Hazard Zone. The entirety of Tract 8 is in the Edwards Aquifer Recharge Zone. The watershed classifications for Tract 8 are Water Supply Suburban and Barton Springs Zone, which limits impervious cover to 40% for commercial and/or multifamily projects (Water Supply Suburban) and/or 15% for commercial and/or multifamily projects (Barton Springs Zone).

Review of City of Austin GIS data indicates that two (2) Critical Environmental Feature (CEF) Buffers around rimrock features are present on Tract 8. No development is permitted within established CEF buffer areas. An Environmental Resource Inventory may be required to assess new or existing environmental features on-site.

TRACT 9 – TCAD ID 0105080104

Tract 9 is made up of 0.88 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 9 or approved site plans on the property. Site development permits submitted on properties with P base zoning may be subject to approval

SUMMARY BY TRACT

by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below.

Review of the Title Commitment prepared by First American Title Insurance Company with an effective date of April 4, 2019 indicates the following easements located on the tract:

- Electric transmission and/or distribution line easement granted to the City of Austin and recorded in Volume 645, Page 270 of the Travis County Official Public Records;
- Telegraph, telephone, and electric and distribution line easement granted to the City of Austin and recorded in Volume 652, Page 273 of the Travis County Official Public Records; and
- Telegraph, telephone, and electric and distribution line easement granted to the City of Austin and recorded in Volume 652, Page 276 of the Travis County Official Public Records.

No portion of Tract 9 is located within the 100-year FEMA floodplain, and a portion is encumbered by a WQTZ area. No portion of Tract 9 is in an Erosion Hazard Zone. The entirety of Tract 9 is in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 9 is Water Supply Suburban, which limits impervious cover to 40% for commercial and/or multifamily projects.

TRACT 10 – TCAD ID 0105080103

Tract 10 is made up of 4.02 acres and is zoned Neighborhood Office – Conditional Overlay (NO-CO). The conditional overlay on the tract was established via ordinance 940908-D and includes the following conditions:

- Impervious cover is limited to 25%
- Vehicular access from MoPac Expressway shall be permitted only from the construction of one driveway approach along MoPac Expressway. Vehicular access from Columbus Drive shall be permitted only from one driveway approach along Columbus Drive. All other vehicular access to the property from other adjacent public streets or through other adjacent property shall be prohibited.
- Owner shall maintain an undisturbed vegetative buffer (i) 75 feet wide along MoPac Expressway located along the northwestern property line of the property; (ii) 25 feet wide along Columbus Dive located along the eastern property line of the property, said buffer zone being more particularly identified in the map attached as Exhibit B to this ordinance. Improvements permitted within buffer zones referenced above shall be limited only to the driveway improvements and those improvements that may be otherwise required by the City of Austin.
- Except for construction of those water quality control improvements required by the City of Austin, no structure or any portion thereof shall be constructed within that 75 foot strip of land situated between that line which runs parallel to Columbus Drive and is located 25 feet from Columbus Drive and that line which runs parallel to Columbus Drive and is located 100 feet from Columbus Drive, said 75 foo strip of land being more particularly identified in the map attached as Exhibit B to this ordinance.

A restrictive covenant was recorded on the tract as Volume 12280, Page 462 of the Travis County Official Public Records, stating that:

At the time an application for approval of a site plan is submitted for development of any portion of the property, the owner shall prepare and submit an Integrated Pest Management (IPM) Plan for the proposed development to the Environmental and Conservation Services Department for their review and approval. This agreement may be modified, amended, or terminated only by joint action of both (a) a majority of the City Council and (b) by the owner(s).

A second restrictive covenant was recorded on the tract as Volume 13257, Page 2608 of the Travis County Official Public Records, stating that:

The use of the herein described property for park and recreational purposes is expressly restricted and limited by the right of the City of Austin to construct, reconstruct, repair, remove, replace, relocate, and maintain roads and streets and utility lines of all kinds and descriptions, including, but not limited to, water, sewer, drainage, electric, telegraph, telephone, and telecommunication, over, under, and across the above contiguous and adjacent property, provided that the location of said lines and structures, and connections, are first approved by the Director of the Department of Public Works and Transportation of the City of Austin and/or the Director of Water and Wastewater Utility of the City of Austin, as appropriate, and further approved by the Director of the Parks and Recreation Department of the City of Austin, as to: (a) whether such road, street, line, structure, or connection constitutes to an environmental or safety hazard in relation to the use of the herein described property for park and recreational purposes and (b) if approved under (a), the location of said road, street, line, structure, or connection.

Three easements on the tract are shown on the deed recorded in Volume 13257, Page 2608 of the Travis County Deed Records, including:

- Telephone easement to Southwestern Bell Telephone Company, dated June 26, 1940 and recorded in Volume 652, Page 273 of the Travis County Official Public Records;
- Electrical and telephone line easement to the City of Austin, dated October 8, 1971 and recorded in Volume 4187, Page 1499 of the Travis County Official Public Records;
- Overhead electric lines, power poles, and guy wires in place over and across the property as shown on a survey dated August 19, 1998;
- Electric transmission and/or distribution line easement granted to the City of Austin and recorded in Volume 645, Page 270 of the Travis County Official Public Records;
- Telegraph, telephone, and electric and distribution line easement granted to the City of Austin and recorded in Volume 652, Page 276 of the Travis County Official Public Records; and
- Gas pipeline easement granted to Texas Gas Service Company and recorded as instrument number 2010089545 of the Travis County Official Public Records.

TCAD data indicates that a structure exists on the tract and was constructed in or around 1959. Review of the Historic Preservation Department will be required if demolition of this structure is proposed.

There are no approved site plans on Tract 10. No portion of Tract 10 is located within the 100-year FEMA floodplain, and no portion is encumbered by a CWQZ or WQTZ area. No portion of Tract 10 is in an Erosion Hazard Zone. The entirety of Tract 10 is in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 10 is Water Supply Suburban, which limits impervious cover to 40% for commercial and/or multifamily projects.

TRACT 11 – TCAD ID 0105080102

Tract 11 is made up of 10 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 11 or approved site plans on the property. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below. TCAD data indicates that a structure exists on the tract and was constructed in or around 1958. Review of the Historic Preservation Department will be required if demolition of this structure is proposed.

Review of the Title Commitment prepared by First American Title Insurance Company with an effective date of April 4, 2019 indicates the following easements located on the tract:

- Electric transmission and/or distribution line easement granted to the City of Austin and recorded in Volume 645, Page 270 of the Travis County Official Public Records; and
- Telegraph, telephone, and electric and distribution line easement granted to the City of Austin and recorded in Volume 652, Page 273 of the Travis County Official Public Records;
- Telegraph, telephone, and electric and distribution line easement granted to the City of Austin and recorded in Volume 652, Page 276 of the Travis County Official Public Records;
- Electric and telephone line easement granted to the City of Austin recorded in Volume 2058, Page 191 of the Travis County Official Public Records;
- 50-foot roadway easement recorded in Volume 1920, Page 351 of the Travis County Official Public Records;
- Electric and telephone line easement granted to the City of Austin recorded in Volume 2128, Page 309 of the Travis County Official Public Records; and
- Electric and telephone line easement granted to the City of Austin recorded in Volume 4187, Page 1499 of the Travis County Official Public Records.

No portion of Tract 11 is located within the 100-year FEMA floodplain, and a portion is encumbered by a WQTZ area. No portion of Tract 11 is in an Erosion Hazard Zone. The entirety of Tract 11 is in the Edwards Aquifer Recharge Zone. The watershed classifications for Tract 11 are Water Supply Suburban and Barton Springs Zone, which limits impervious cover to 40% for commercial and/or multifamily projects (Water Supply Suburban) and/or 15% for commercial and/or multifamily projects (Barton Springs Zone).

TRACT 12 – TCAD ID 0105080101

Tract 12 is made up of 4.18 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 12 or approved site plans on the property. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below.

A portion of Tract 12 is located within the 100-year FEMA floodplain, and a portion is encumbered by CWQZ and WQTZ areas. No portion of Tract 12 is in an Erosion Hazard Zone. The entirety of Tract 12 is in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 12 is Barton Springs Zone, which limits

impervious cover to 15% for commercial and/or multifamily projects.

TRACT 13 – TCAD ID 0105070101

Tract 13 is made up of 4.97 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 13. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below. A site plan revision is currently in review, Zilker Park Trailhead Restrooms per City of Austin case number SP-2012-0104D(R5).

A portion of Tract 13 is located within the 100-year FEMA floodplain, and a portion is encumbered by CWQZ and WQTZ areas. A portion of Tract 13 is in an Erosion Hazard Zone. An Erosion Hazard Zone Analysis may be required for any proposed new development within the zone or where significant erosion is present. No improvements, including utility lines, are allowed within the Erosion Hazard Zone unless engineered structural protective works are provided; development must not result in additional erosion impacts to other properties (LDC §25-7-32; Drainage Criteria Manual, Appendix E). The entirety of Tract 13 is in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 13 is Barton Springs Zone, which limits impervious cover to 15% for commercial and/or multifamily projects.

TRACT 14 – TCAD ID 0104060102

Tract 14 is made up of 69.49 acres and is zoned Public (P) and Public – Historic Landmark Combining District (P-H); there are no conditional overlays that make up the zoning designation for Tract 12. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below. There are 2 approved site plans on the tract, one of which, SP-99-0028C, could not be located through the public information database. Per site plan case number SP-99-2029C, a waiver request from section 1.2.2.A and 1.2.2.B of the Drainage Criteria Manual was approved by the City of Austin Watershed Protection Department on May 5, 2005.

A restriction on Tract 14 is included in the deed recorded in Volume 302, Page 360 of the Travis County Deed Records that reserves a right-of-way easement over a strip of land 30 feet wide to be used by the grantor's stock for access to Barton Creek for water. Further restrictions and limitations on use and occupancy are included in a deed recorded in Book 229, Page 274 recorded on December 4, 1907 where the grantor reserves the rights to the water power from Barton Creek and prohibits any dams or abutments on the creek. The deed also prohibits the manufacturing or sale of malt, spiritous or any intoxicating liquors or beverages while the grantor, or the heirs, or devises of the grantor shall be the owner or owners of the adjoining tract of land upon which we now reside.

Aerial data indicates that a structure exists on the tract of unknown age. Review by the Historic Preservation Department may be required if it is determined that these structures are 50 years or age or older.

Two easements are noted on the tract, including:

- 15-foot water line easement recorded as document number 2015121769 of the Travis County Official Public Records
- Wastewater and storm sewer easement recorded as document number 2006010015 of the Travis County Official Public Records.

A portion of Tract 14 is located within the 100-year FEMA floodplain, and a portion is encumbered by a CWQZ area. A portion of Tract 14 is in an Erosion Hazard Zone. An Erosion Hazard Zone Analysis may be required for any proposed new development within the zone or where significant erosion is present. No improvements, including utility lines, are allowed within the Erosion Hazard Zone unless engineered structural protective works are provided; development must not result in additional erosion impacts to other properties (LDC §25-7-32; Drainage Criteria Manual, Appendix E). The entirety of Tract 14 is in the Edwards Aquifer Recharge Zone. The watershed classifications for Tract 14 are Water Supply Suburban and Barton Springs Zone, which limits impervious cover to 40% for commercial and/or multifamily projects (Water Supply Suburban) and/or 15% for commercial and/or multifamily projects (Barton Springs Zone).

Review of City of Austin GIS data indicates that one (1) underground tank is or has historically been stored on Tract 14. Review by Austin Fire Department to assess the presence of potentially hazardous materials is recommended prior to site design.

Review of City of Austin GIS data also indicates that four (4) Critical Environmental Feature (CEF) Buffers around rimrock and spring features are present on Tract 14. No development is permitted within established CEF buffer areas. An Environmental Resource Inventory may be required to assess new or existing environmental features on-site.

TRACT 15 – TCAD ID 0105070102

Tract 15 is made up of 0.92 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 15 or approved site plans on the property. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below.

A portion of Tract 15 is located within the 100-year FEMA floodplain, and a portion is encumbered by CWQZ and WQTZ areas. A portion of Tract 15 is in an Erosion Hazard Zone. An Erosion Hazard Zone Analysis may be required for any proposed new development within the zone or where significant erosion is present. No improvements, including utility lines, are allowed within the Erosion Hazard Zone unless engineered structural protective works are provided; development must not result in additional erosion impacts to other properties (LDC §25-7-32; Drainage Criteria Manual, Appendix E). The entirety of Tract 15 is in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 15 is Barton Springs Zone, which limits impervious cover to 15% for commercial and/or multifamily projects.

TRACT 16 – TCAD ID 0104090101

Tract 16 is made up of 17.8 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 15 or approved site plans on the property. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below. A site plan revision for the Zilker Park Trailhead Restrooms, City of Austin case number SPC-2012-0104D(R5), is currently in review.

A portion of Tract 16 is located within the 100-year FEMA floodplain, and a portion is encumbered by CWQZ and WQTZ areas. A portion of Tract 16 is located in an Erosion Hazard Zone. An Erosion Hazard Zone Analysis may be required for any proposed new development within the zone or where significant erosion is present. No improvements, including utility lines, are allowed within the Erosion Hazard Zone unless engineered structural protective works are provided; development must not result in additional erosion impacts to other properties (LDC §25-7-32; Drainage Criteria Manual, Appendix E). The entirety of Tract 16 is located in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 16 is Barton Springs Zone, which limits impervious cover to 15% for commercial and/or multifamily projects.

TRACT 17 – TCAD ID 0104070806

Tract 17 is made up of 10.37 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 17 or approved site plans on the property. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below.

A portion of Tract 17 is located within the 100-year FEMA floodplain, and a portion is encumbered by CWQZ and WQTZ areas. A portion of Tract 17 is located in an Erosion Hazard Zone. An Erosion Hazard Zone Analysis may be required for any proposed new development within the zone or where significant erosion is present. No improvements, including utility lines, are allowed within the Erosion Hazard Zone unless engineered structural protective works are provided; development must not result in additional erosion impacts to other properties (LDC §25-7-32; Drainage Criteria Manual, Appendix E). The entirety of Tract 17 is located in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 17 is Barton Springs Zone, which limits impervious cover to 15% for commercial and/or multifamily projects.

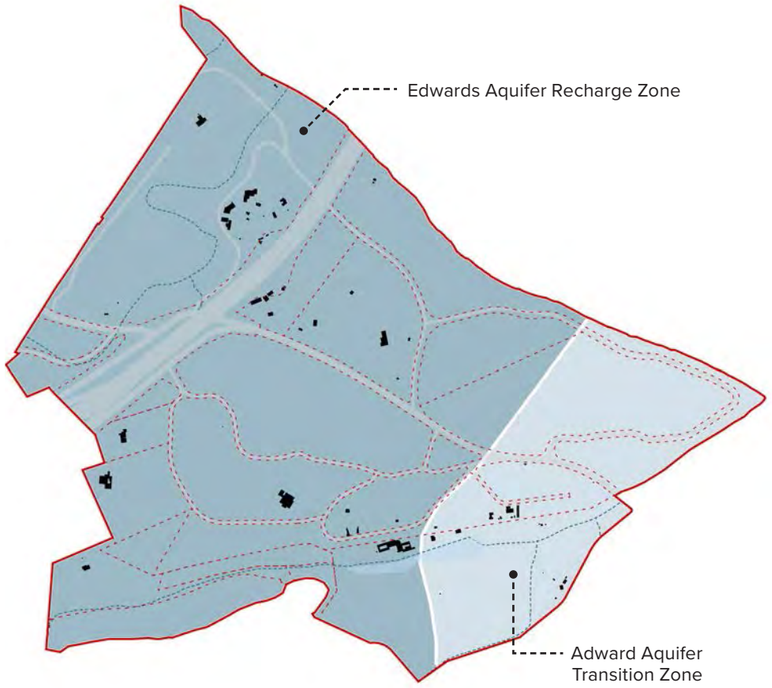
TRACT 18 – TCAD ID 0104090221

Tract 18 is made up of 1.54 acres and is zoned Public (P); there are no conditional overlays that make up the zoning designation for Tract 18 or approved site plans on the property. Site development permits submitted on properties with P base zoning may be subject to approval by the Parks and Recreation Board and the Land Use Commission, see Conclusion section below.

A portion of Tract 18 is located within the 100-year FEMA floodplain, and a portion is encumbered by CWQZ and WQTZ areas. A portion of Tract 18 is located in an Erosion Hazard Zone. An Erosion Hazard Zone Analysis may be required for any proposed new development within the zone or where significant erosion is present. No improvements, including utility lines, are allowed within the Erosion Hazard Zone unless engineered structural protective works are provided; development must not result in additional erosion impacts to other properties (LDC §25-7-32; Drainage Criteria Manual, Appendix E). The entirety of Tract 18 is located in the Edwards Aquifer Recharge Zone. The watershed classification for Tract 18 is Barton Springs Zone, which limits impervious cover to 15% for commercial and/or multifamily projects.

REGULATIONS OF ZILKER PARK

AQUIFER ZONE

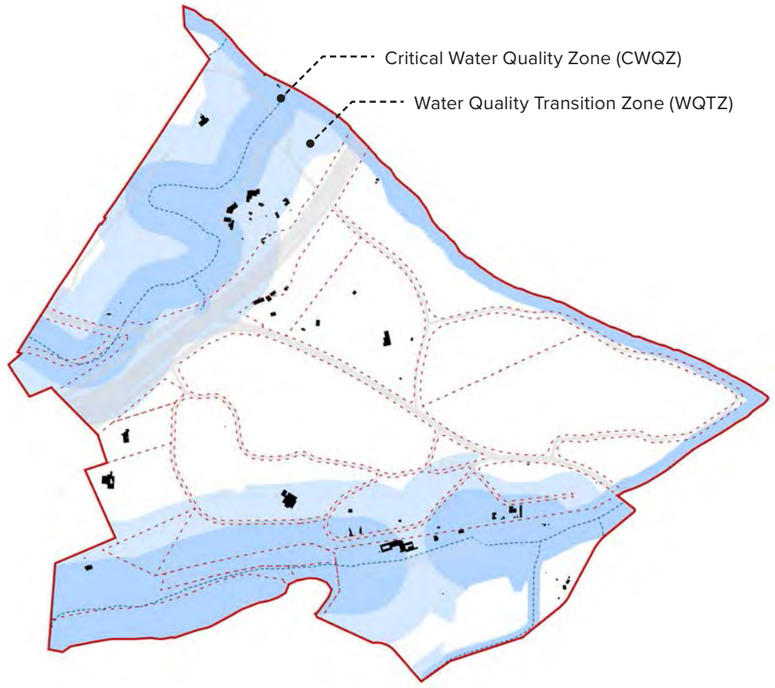


The most part of the Zilker Park Vision Plan area is located within the Edwards Aquifer Recharge Zone, which will require review by the Texas Commission on Environmental Quality (TCEQ). Additionally, if applicable, development may be subject to §25-1-84 if development is proposed on top of previous landfill sites.

Many of the tracts contain Critical Water Quality Zone (CWQZ) and/or Water Quality Transition Zone (WQTZ) setbacks, which prohibit most development. Obtaining an Environmental Resource Inventory (ERI) is recommended prior to site design due to the presence of existing Critical Environmental Features (CEFs) on many of the parcels. Additional features and or revised buffer areas may be established that could impact site layout and development.

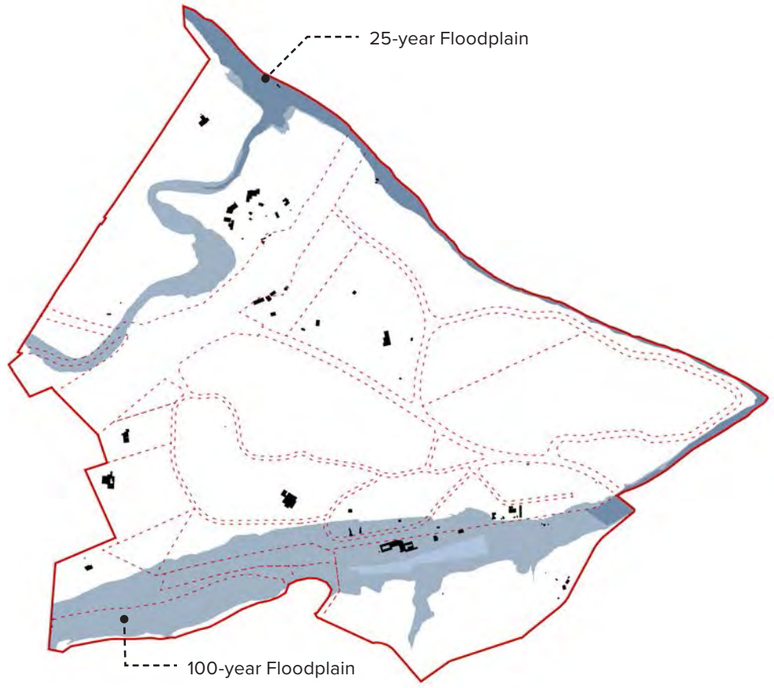
Any proposed development should be located outside of these protected areas. Many of the tracts are also encumbered by the 100-year floodplain. Generally, development applications may not be approved if a proposed structure encroaches on the 100-year floodplain. A variance may be granted if the following is determined:

WATER QUALITY BUFFERS



- The finished floor elevation of a proposed building is at least two feet above the 100-year floodplain;
- Normal access to a proposed building is by direct connection with an area above the regulatory flood datum;
- A proposed building complies with the requirements of Flood Resistant Construction and Flood Loads;
- The development compensates for the floodplain volume displaced by the development;
- The development improves the drainage system by exceeding the requirements of Criteria for Approval of Development Applications, as demonstrated by a report provided by the applicant and certified by an engineer registered in Texas;
- The variance is required by unique site conditions; and
- Development permitted by the variance does not result in additional adverse flooding impact on other property.

FLOODPLAIN



Additionally, development applications with a proposed building or parking area that encroaches on the 100-year floodplain may be approved if the encroachment is:

- A parking area that is smaller than 5,000 square feet or an unoccupied structure that has an area of less than 1,000 square feet, and the director determines that the proposed development:
  - » will not have an adverse effect on the 100-year floodplain or surrounding properties; and
  - » otherwise complies with the land development code requirements;
- A new building for residential use that replaces an existing legally constructed building for residential use on the same property and that does not increase the number of legal dwelling units on the property;
- A building authorized by a waterway development permit issued under Chapter 9-10 before September 25, 1983; or

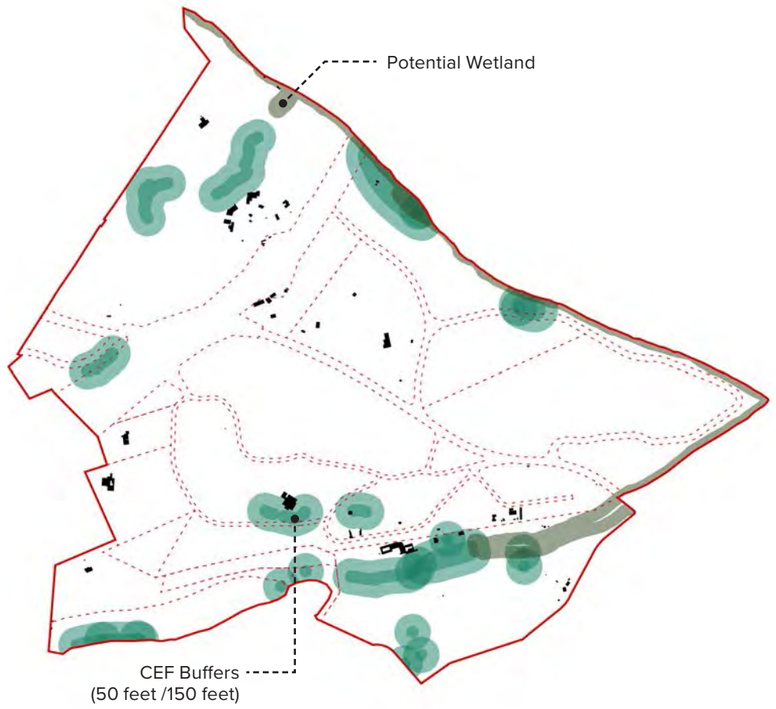
REGULATIONS OF ZILKER PARK

EROSION

- A building in the 100-year floodplain of:
  - » Lady Bird Lake;
  - » The Colorado River downstream from Longhorn Dam;
  - » Lake Austin; or
  - » Lake Travis.

To be approved, development in the floodplain must be no lower than 2 feet above the 100-year floodplain, as measured from the lowest elevation of any proposed building; comply with the requirements of Flood Resistant Construction and Flood Loads sections; compensate for the floodplain volume displaced by the development; and result in no adverse flooding impact on other properties.

CRITICAL ENVIRONMENTAL FEATURE(CEF) BUFFERS



CRITICAL ENVIRONMENTAL FEATURE BUFFERS

Based on the code of the city, a Critical Environmental Feature (CEF) buffer is the area has impact on CEF. This area should be covered by vegetations and the impact during any constructions must be low-impact.

COMPATIBILITY STANDARDS

The Property along the southern and northwestern boundaries is subject to Compatibility Standards. These regulations may have a direct impact on the development or redevelopment of Tracts 1, 14, 17 and 18.

Any development in an SF-6 or less restrictive zoning district located 540-feet or less from property in an SF-5 or more restrictive zoning district/use will be subject to compatibility development regulations. A formal compatibility analysis is recommended.

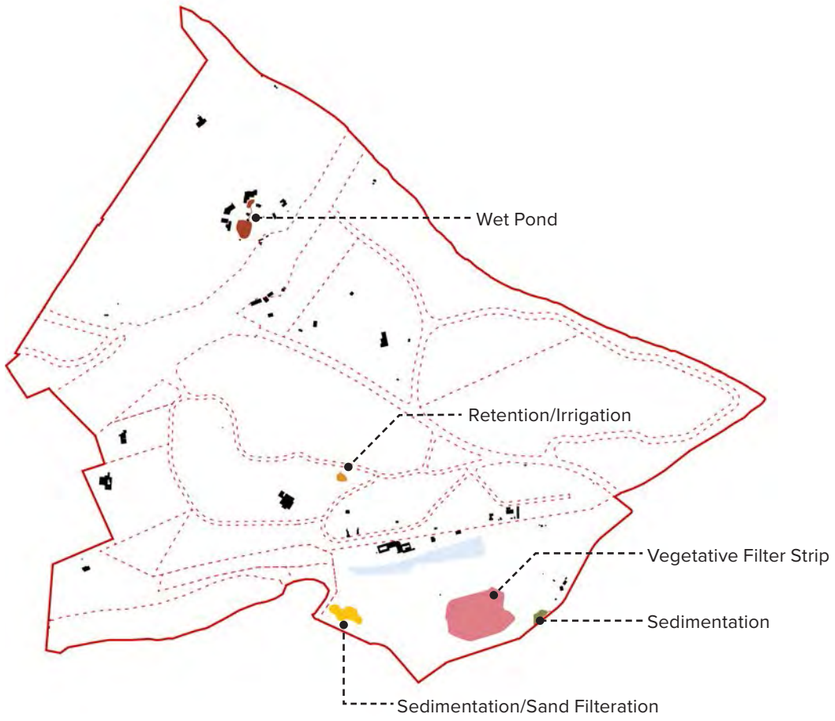
COMPATIBILITY STANDARDS

The following building setback and height step-back requirements are triggered because the property is 540 feet or less from property in an SF-5 or more restrictive zoning district/use:

- 25 feet from triggering property = No Structures
- 25 feet to 50 feet from triggering property = Two stories or 30 feet, whichever is less
- 50 feet to 100 feet from triggering property = Three stories or 40 feet, whichever is less
- 100 feet to 300 feet from triggering property = 40 feet plus one foot of height for each additional 10 feet in distance from triggering property
- 300 feet to 540 feet from triggering property = 60 feet plus one foot of height for each Four feet in addition to 300 feet from property

REGULATIONS OF ZILKER PARK

STORMWATER QUALITY CONTROLS



TRANSPORTATION

Consultation with the Texas Department of Transportation (TxDOT) and/or Austin Transportation Department will be required for any development that is proposed within State-controlled or City-owned right-of-way.

Portions of Barton Springs Road, Lou Neff Road, and Stratford Drive may not be considered Public Right-of-Way (ROW) by the City of Austin, but rather a park roadway. This has design implications on impervious cover and thus detention and water quality treatment requirements, among other things (public ROW is not considered when calculating impervious cover, but park roads are not exempt from the impervious cover calculations). It is suggested that Parks and Recreation Department provide definitive information regarding the categorization of these roads and the physical extents of the portions of these roads that are considered park roads.

TREE PROTECTION

Any proposed development or redevelopment will be subject to the current heritage and protected tree regulations per LDC §25-8, Division 3 (above 19 feet height Heritage Trees). A permit granted by the City of Austin Arborist is required to remove protected and heritage trees. An administrative variance is required to remove heritage trees 24-30 inches in diameter; Land Use Commission approval is required to remove heritage trees 30 inches in diameter or greater.

Obtaining a tree survey is highly recommended prior to any site design to determine the size, species, and health of existing trees on the property.

HISTORIC PRESERVATION

A number of parcels also contain existing structures of 50 years in age or older; demolition of such structures, along with any structures on the two parcels with the Historic Landmark Combining District in the zoning designation, will require approval by the City of Austin Historic Preservation Office and potentially the Historic Landmark Commission. A Certificate of Appropriateness will be required should any changes to existing structures in Historic Landmark Combining Districts be proposed.

HAZARDOUS MATERIALS

Coordination with the Austin Fire Department early in the site design process is recommended to determine if any of the underground storage tanks indicated on the site by City of Austin GIS data contain hazardous materials that require additional buffering, relocation or removal.

SUBDIVISION AND PLATTING

The majority, if not all, of the Property does not appear to be subdivided. Correspondence with the Program Manager in the Land Use Review Division indicates that the City of Austin and its property, including Zilker Park, is exempt from the requirements of platting. Legal lot determinations and the requirement to subdivide to develop or redevelop, therefore, are not required to obtain the majority, if not all, permits.

In the past, the development or redevelopment of City of Austin-owned parkland encountered one issue related to the subdivision of land regarding Austin Water Utility and/or Austin energy utilities crossing lot or tract lines. Although not platted, Zilker Park is made up of multiple tracts of land. Historically, a solution to this issue has been to use a Declaration of Easement, granted by the City of Austin to itself, to solve this issue.

SITE PLAN REVIEW

Per §25-2-625(D), for tracts with “P” base zoning that are less than 1 acre in size, the site development regulations of an adjoining zoning district apply for a distance of 100 feet into the site. The minimum lot size requirement of an adjoining zoning district does not apply to a use by the City of Austin. For a site one acre in size or greater, site development regulations are established by the approval of a conditional use site plan, which require approval at the Land Use Commission. For a parks and recreation services (special) use, per §25-2-625(E), the minimum site area is 10 acres. Site plans must include the locations of sale of beer and wine, if applicable. The Land Use Commission may not consider a site plan for approval until it receives a recommendation from the Parks and Recreation Board.

Some tracts within the Zilker Park Visioning Plan boundary contain one or multiple site plans in review or approved. It is recommended that a civil engineer review existing site plans for total impervious cover proposed and/or built on each tract to determine how much, if any, impervious cover remains for future projects.

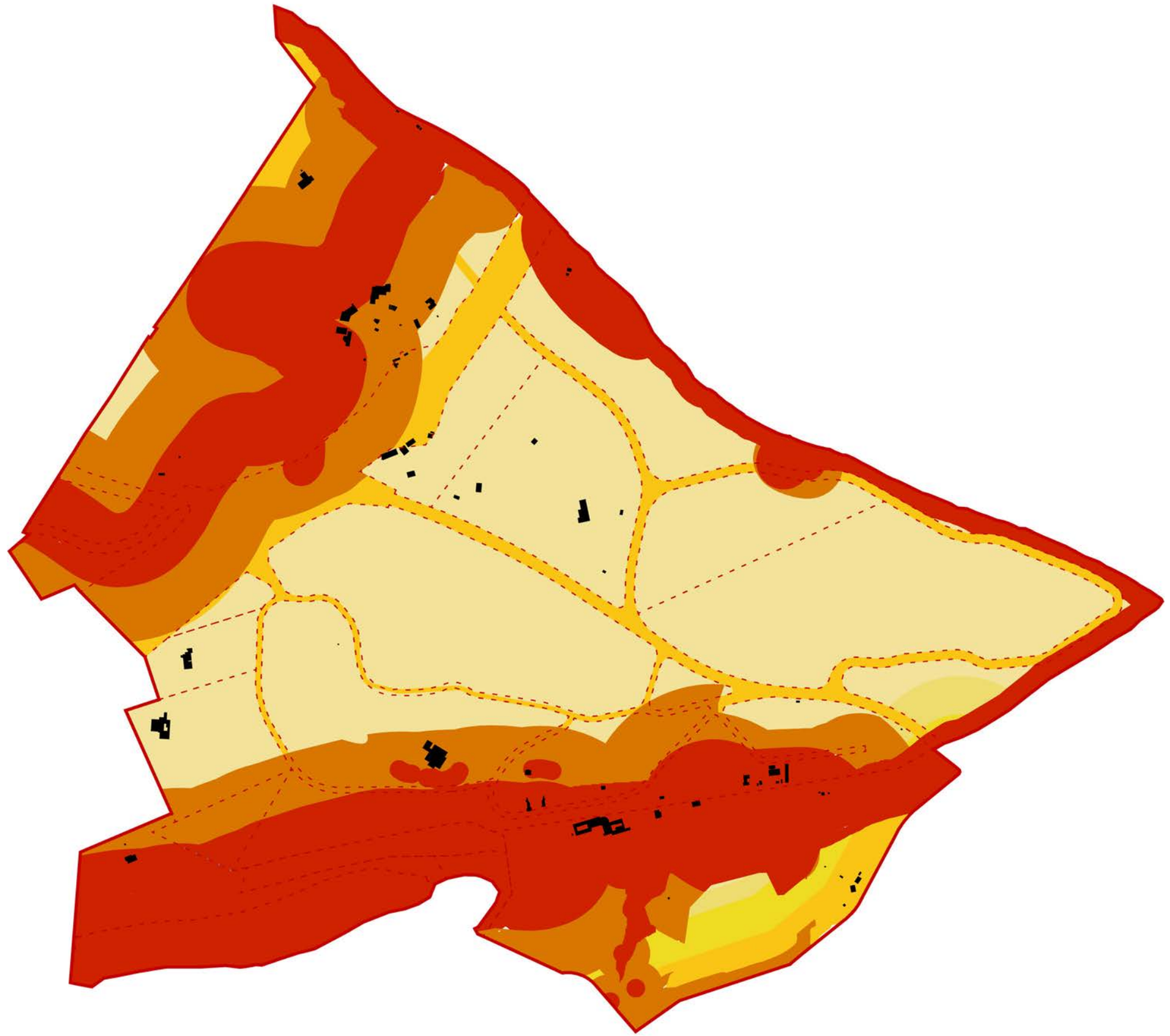
REGULATIONS OF ZILKER PARK

This map shows the intensity of the regulations which apply to Zilker Park.

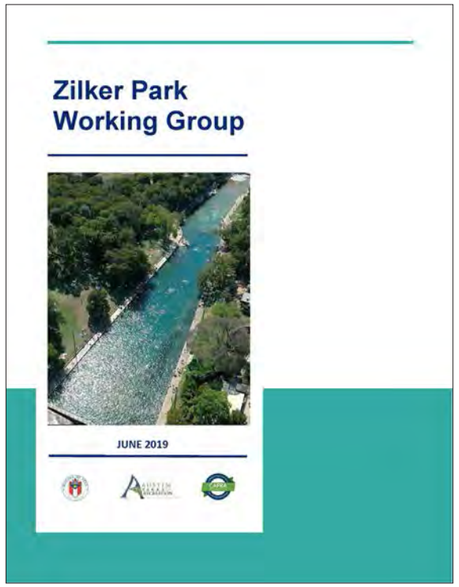
The regulations, if overlaid in their entirety on one map, indicate that areas that can be developed more than today's condition are limited. This indicates that variances, updates to ordinances, and/or a development agreement for Zilker Park should be examined.

LEGEND

- This area has multiple regulations prohibiting most of development. It is determined as Critical Water Quality Zone, 25-year floodplain, or erosion site.
- This area has a regulation prohibiting development which is Water Quality Transition Zone (WQTZ).
- This area is not part of City of Austin so additional approval is needed for development.
- This area can be developed but has several regulations such as compatibility standards.
- All of Zilker Park site is within the Edwards Aquifer Recharge Zone or Barton Springs Zone. This limits impervious cover to 40% for commercial and/or multifamily projects.



RELEVANT VISION PLANS



2019 Zilker Park Working Group Report

The Working Group issued its report in June, 2019. Its purpose, as outlined by Austin City Council resolution, was to:

- Determine the viability of proposed improvement plans to fortify the landfill cap along Stratford Drive and make recommendations of terms for implementation of the improvements, including pilot solutions
- Evaluate immediate options and opportunities for parking outside of the park area and strategies for reducing traffic in Zilker Metropolitan Park and at surrounding amenities with a goal of piloting options by October 2018
- Make recommendations to establish a plan to permanently remove parking on the Polo Fields, taking into consideration possible strategies to reduce parking demand and utilization of transportation demand management strategies; and
- Provide a report to Council by March 1, 2019, on the working group's findings and recommendations (the deadline was ultimately extended to June 14, 2019).

The Working Group was able to reach consensus on Short-Term Traffic Solutions but was unable to reach consensus on the Butler Landfill and the Polo Field. For this reason, the Report includes both primary recommendations and alternative recommendations. It also includes Personal Statements. Because it was not able to reach consensus on all issues, it issued both primary recommendations and alternative recommendations as well as Personal Statements from members who wished to make them.

Primary Recommendations

Short Term Recommendations

The idea for making the short-term recommendations was to initiate pilot programs and gather data that could help inform the Vision Plan process. Pilot shuttle system

- Dedicate staff
- Partnerships with nearby parking facilities
- Enhance Cap Metro #30 service (piloting).
- Dockless mobility strategies
- Increase marketing efforts to reduce demand.
- Implement high-profile outreach campaign

POLO FIELD Recommendations

This talks about reducing available Polo Fields parking in phases over time. It articulates a timeline beginning in 2019.

The Millennium Parking Garages (Chicago) are specifically referenced as a potential model.

Alternative Recommendations

These were issued in a JOINT STATEMENT from:

Barton Hills Neighborhood Association

Zilker Neighborhood Association

Save our Springs Alliance

City Council District 7

City Council District 5

These recommendations argue for a less gradual approach with hard Short-Term deadlines, citing specific concern over a lack of definitive plan for removing the gravel over the Butler Landfill. Also articulated is, ". . . . . the public's consistent demand for parks that are a natural experience in environmentally protected settings and that are not highly developed, overprogrammed, semi-privatized parking lots or staging areas."

It also offered the following:

Medium and Long-Term Recommendations

- Guiding Principle—PARD should preserve and protect Zilker Park as an irreplaceable public asset to be operated primarily as open space for present and future generations:
- Guiding Principle—All special event uses of Zilker Park should meet the highest standards of environmental ethics and sustainability and provide utilization of parking and transportation alternatives, compatibility with community values and opportunities for immediate and direct community input to resolve questions and concerns.
- Guiding Principle—The Zilker Park Master Plan should establish a viable, actionable plan that minimizes vehicular traffic in and through the park and surrounding neighborhoods by identifying a range of alternative, affordable transportation and parking strategies for park patrons;
- Guiding Principle—Direct the City Manager to assure that all consultants hired or assigned to the Zilker Park master planning process are free of conflicts of interest with any organization that generates revenue from or has contracts with the City of Austin relating to events held or operations conducted in Zilker Park and the Butler Hike and Bike Trail;
- Authorize PARD and the Austin Transportation Department to expend revenue generated by parking fees in Zilker Park for the rental of off-site parking and shuttle services to serve Zilker Park and related public education programs;
- Direct PARD to remove the "temporary" non-compliant placement of the gravel on the landfill and revegetate the area by no later than 2020 in accordance with the long-standing demand from the City of Austin Watershed Protection Department; beyond 2020 and prior to the completion of the Master Plan, find an alternative method to protect the surface of the landfill if used for staging or parking;
- Direct PARD to begin immediate implementation of the 2016 Parkland Events Task Force recommendation to establish a more equitable distribution of opportunities for special events in parks across the Austin area that will also provide alternative sites for events now occurring at over-used urban parks. Direct PARD to assure that affected neighborhoods have a formal role in the decisions about and planning for events at nearby parks;
- Direct PARD to establish higher standards of transparency in its planning, operation and expenditures relating to Zilker Park to allow direct public access to a broader range of information in anticipation of the Zilker Park master planning process;
- Direct appropriate staff to create a publicly-accessible web-based repository for all documents relating to the Zilker Park master planning process, including contracts with consultants, public surveys, list of stakeholders, results of interviews with stakeholders, and searchable survey result files, and;
- Assure the public that the Zilker Park Master Planning process will not be unfairly controlled by special interests that seek to monetize this parkland.

Barton Springs Pool Master Plan

Adopted in 2009, the plan's goal is to return the site to its rightful glory, where the water was cleaner and the experience of the pool was more enjoyable. This plan proposes appropriate additions and renovations to the swimming pool, its buildings and its grounds that respect the fragility of this unique natural and historical setting, and accommodate the significant user demands on Austin's most popular park amenity. In recent years, this 22-acre site has over a million visitors per year. The project worked with a complex array of historical, environmental and public-use issues. Major considerations were park planning, federal permitting, pool and watershed hydrology, historic preservation, sustainability and landscape. Among the sprawling array of recommendations, these are specifically relevant to this planning effort:

- Rehabilitate the historic bathhouse and return the pool entry to the building's rotunda area. Update the educational/ interpretive installation (design in-progress).
- Enlarge the campus on the south side to make room for a new accessible route from parking to pool (complete).
- Rehabilitate Eliza Spring to include:
  - » Removing later stone and concrete additions to the original concrete amphitheater structure to showcase Zilker Park's original construction and

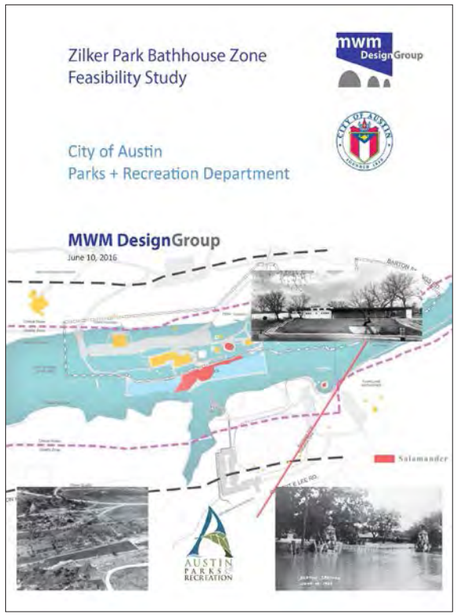
improve the visitor and interpretive experience.

  - » Build an open-to-the-sky spring run to both improve the public's understanding of the site's ecology and create more possibility for new salamander habitat (complete).

- Improve the "Dog Park" area with new stairs, new interpretative installations, new native plantings and improvements to the gravel path on the north side of the creek.
- Rehabilitate the Zilker Ponds.
- Recognizing that about 75% of the existing trees were a single species (pecans)—diversify the tree canopy,

The plan also acknowledged a few important issues beyond its scope:

- Recognizing that it sits on a prime site overlooking Barton Creek and that its location in such proximity poses environmental risks—relocate the Maintenance Facility.
- Recognizing the problem of overcrowding and lack of parking—improve transit connections.
- Recognizing the scarcity of public accommodations in the park and the burden it places on the facilities in the bathhouse—add more public restrooms.
- Recognizing the congestion around Eliza Spring and within the Barton Springs zone generally—relocate the Zilker Zephyr track route.
- Create "a new kind of stewardship" that would "serve as Barton Springs' primary client". At the time of writing, a specially designated task force seemed appropriate. More recently, the Barton Springs Conservancy is taking on some of that role.



Zilker Park Bathhouse Zone Feasibility Study

Adopted in 2016, This study examines the feasibility of various improvements to grounds and facilities in the Barton Springs Pool area. Its recommendations incorporate the goals of the 2008 Barton Springs Pool Master Plan as well as the challenges of the numerous environmental, historical and local regulations that apply to this area.

Its recommendations fall into three broad categories:

Move forward with planned and funded projects including:

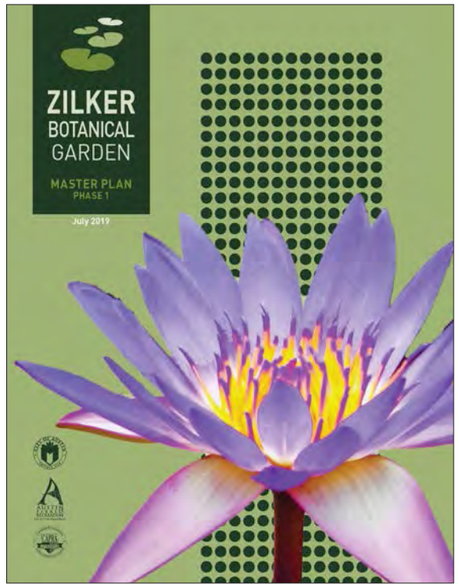
- Install parking meters
- Daylight the Eliza Springs outlet
- Build the Violet Crown Trailhead restrooms
- Remove and relocate the existing maintenance facilities.

Rehabilitate the Bathhouse

- To redirect access to the pool through the rotunda and through a reimagined interpretive gallery and multi-purpose space.
- Replace plumbing system and relocate various offices and back-of-house functions.
- Move the Sheffield Education Center and SPLASH! interactive environmental exhibit to a new, proposed Interpretive Center to be located elsewhere in the Barton Springs zone.

Site design

- Reconfigure the Bathhouse parking lot to improve function and to remove excess impervious cover
- Replace and expand the playscape with a more natural design
- Improve site circulation, including widening the main path connecting to the Butler Trail, which would also involve relocating the Zilker Zephyr train tracks. Consider reimagining the train to continue serving as a recreational amenity while also serving a much-needed intra-park transportation function
- Study the possibility for a new Interpretive/ Visitor's center to replace a displaced SPLASH! exhibit and to serve as an entry and organizing feature for the park.



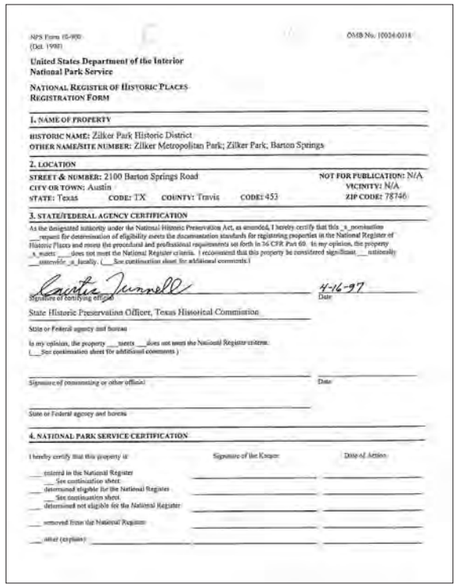
Zilker Botanical Garden Vision Plan

Issued in July of 2019, the Zilker Botanical Garden Vision Plan is highly relevant to the Zilker Park Vision Plan and makes recommendations related to event facilities, wayfinding, mobility, and more.

Event Facilities

- Establish a greater mix of spaces: indoor-outdoor, shaded-unshaded, private-public. (e.g., amphitheater)
- Improve baseline supporting infrastructure. (e.g., restrooms, open picnic areas, pavilions, café)
- Add café near existing, robust gift shop
- Entrance Experience
- Redesign entry experience. (e.g., visitor map, visitor data collection, orientation, special events)
- Revamp entrance area. (e.g., relocate maintenance, rethink location, install café/ gift shop) Wayfinding

- Deploy unified, brand-consistent signage for high pedestrian, cyclist, motorist visibility
- Increase directional signage throughout and surrounding Zilker Botanical Garden Mobility and Circulation
- Design multimodel site access strategy aligned with Zilker Park and adjacent sites (e.g., Preserve, Austin Nature and Science Center)
- Expand parking and overflow shuttles at service entry and/or offsite (Stratford, Polo Grounds)
- Improve ADA accessibility throughout site (garden paths, back entrance, parking, entry)



NPS Form 10-900 OMB No. 1024-0018
(Oct. 1990)

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

1. NAME OF PROPERTY

HISTORIC NAME: Zilker Park Historic District
OTHER NAME/SITE NUMBER: Zilker Metropolitan Park; Zilker Park; Barton Springs

2. LOCATION

STREET & NUMBER: 2100 Barton Springs Road NOT FOR PUBLICATION: N/A
CITY OR TOWN: Austin VICINITY: N/A
STATE: Texas CODE: TX COUNTY: Travis CODE: 453 ZIP CODE: 78746

3. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this x nomination
___request for determination of eligibility meets the documentation standards for registering properties in the National Register of
Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property
x meets ___does not meet the National Register criteria. I recommend that this property be considered significant ___nationally
___statewide x locally. (___See continuation sheet for additional comments.)

Signature of certifying official 4-16-97
Date

State Historic Preservation Officer, Texas Historical Commission
State or Federal agency and bureau

In my opinion, the property ___meets ___does not meet the National Register criteria.
(___See continuation sheet for additional comments.)

Signature of commenting or other official Date

State or Federal agency and bureau

4. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is: Signature of the Keeper Date of Action

___entered in the National Register
___See continuation sheet.
___determined eligible for the National Register
___See continuation sheet.
___determined not eligible for the National Register
___removed from the National Register
___other (explain:)

Zilker Park National Register Historic District

The Zilker Park Historic District was entered into the National Register of Historic Places in 1997. The National Register Historic District (NRHD) encompasses the entire area of Zilker Park, approximately 350 acres. The historic district designation is based on two of the four applicable National Register criteria for designation. Under Criterion A, for association with events that have made a significant contribution to the broad patterns of our history, the park is noted for conservation and entertainment/recreation at the local level of significance for its association with the development and design of municipal parks in Austin during the early 20th century. Under Criterion C, for a property that embodies the distinctive characteristics of a type, period or method of construction, the park is noted for architecture and landscape architecture, again at the local level of significance, for numerous elements built within the park that represent the Reform Park Movement design philosophy and Depression-era public works programs.

The NRHD is thorough and well-prepared, and a useful reference to the history, design and description of Zilker Park. The narrative description of the park includes information on the geographical setting, the historic appearance and present appearance (as of 1997) of the park. Property types within the park are categorized as community/play/athletic facilities, park service and maintenance facilities, landscape features, visitor and architectural amenities and archeological sites. The Zilker Park NRHD references an earlier National Register nomination listed in 1985, the Barton Springs Archeological and Historical District, which includes three archeological sites and five contributing structures, although the locations of the archeological sites are kept confidential to protect them from vandalism.

The narrative statement of significance describes the history of the site prior to the development of Zilker Park. It succinctly describes the evolution of the design and development of Zilker Park from 1917 to 1947, the period of significance identified for the NRHD. Beginning in 1917, Barton Springs Park was given to the City of Austin by Andrew Zilker. Over the next decade and a half, the roughly 37-acre park was developed to provide dams at each end of the spring reach in Barton Creek, creating Barton Springs Pool. A wooden bathhouse and dance hall pavilion, a wading pool, play areas and ball fields were constructed to provide facilities for sports, children and active play in the park. By 1928, the City of Austin adopted the first comprehensive city plan, which called for the creation of a city-wide system of parks. A few years prior, the first city Park Board was created and a bond election for parks was passed and a new focus on park planning was embraced. In 1932, Andrew Zilker made a larger parkland gift of roughly 300 acres adjacent to the Barton Springs Park. With the assistance of multiple Depression-era federal aid programs and the appointment of architect Charles Page to the Park Board, the development of the large municipal park was completed by 1939, including construction of the park roadways, footpaths, rustic buildings, picnic areas and water features, all nurturing the existing landscape and topographic features. The expanded park was naturalistic and included a large wilderness area devoted to hiking and exploration. In 1947, the wooden bathhouse and dancing pavilion was replaced by the current Barton Springs Bathhouse, which defined the end of the period of significance and was only just eligible for National Register listing at the time the nomination was prepared.

The Zilker Park NRHD describes a total of 69 resources within the district boundary, including buildings, objects, sites and structures. Buildings are described as resources constructed for sheltering any form of human activity, such as clubhouses, visitor stations, restrooms and concession stands. Objects are described as small scale, simple constructions, associated with specific settings and of an artistic nature and contributing to the design of the park, such as entrance piers, lampposts, picnic sites and pergolas. Sites are described as designed landscape elements, such as gardens and ponds, former building sites and elements designed for specific activities, such as ball fields or the pistol range. Structures are described as functional constructions used for purposes other than human shelter, such as roadways, gazebos, bandstands, theatres and bridges. As described in the NRHD, contiguous roadway systems, footpaths or parking lots are classified as a single structure. The resources are further defined as contributing or non-contributing to the district, as of the date of the NRHD nomination. Twenty-eight resources were contributing to the NRHD, at that time, and 41 were non-contributing. A map of the 69 resources is included on page 31 of the NRHD nomination. The contributing resources identified in the Zilker Park NRHD are:

- Barton Springs Road Bridge, 1926/46, structure
- Main Entrance Piers, 1934, object
- Rock Island, 1934, site
- Mirror Pond, 1934/35, site
- Trail House, 1870s/1934, building
- Skeet Field Concession/Comfort Station, 1934, building
- Pistol Range, 1935, site
- Lookout Point, 1934, site
- Zilker Park Clubhouse, 1934, building
- Picnic Unit, 1935, object
- Zilker Cabin, 1934, building
- Picnic Unit, 1935, object
- Rock Garden, 1934, site
- Lamp Posts, 1928/29, object
- Bandstand, 1936, structure
- Barton Springs Bathhouse, 1947, building
- Sand Pit, 1928/29, site
- Barton Springs Pool/Dam, 1928/29, structure
- Caretaker's Lodge, 1929, building
- Maintenance Shop, 1946, building
- Sunken Garden, 1937/39, site
- Ballfield with Dugouts, Late 1920s, site
- Ballfield with Dugouts, Late 1920s, site
- Footpath System, c. 1934, structure
- Rabb House Site, site
- Bridge Abutment, structure
- The Barton Springs Site, site
- Zilker Amphitheater, structure

The Zilker Park NRHD notes that after 1947, the later development of the park extended the use of the park as a recreational and nature facility. The NRHD nomination envisions that these later park elements should be documented and considered as possible contributing resources as they achieve the 50-year age mark. The Zilker Botanical Gardens, dating from the 1970s, is specifically mentioned as a potential contributing resource. We understand that PARD is preparing an update to the NRHD, which will likely identify additional contributing resources as appropriate.

- The park is already part of two National Register Historic Districts. The NRHD does not itself have strict regulations. In Austin, there is a requirement for projects proposed on NR listed properties to be brought before the COA Historic Landmark Commission for a design review. The review is advisory in nature and does not have binding requirements like a Certificate of Appropriateness process does. It is advisable, and important, to adhere to the Secretary of the Interior's Standards for the Treatment of Historic Properties, which basically calls for maintaining the architectural integrity and historic fabric of the property.
- The update for the NRHD will likely include a few properties that were not at least 50 years old at the time the current NRHD nomination was prepared. So, those structures will likely now shift from non-contributing to contributing status within the district. My recollection is that the NRHD nomination made specific note of the Zilker Botanical Gardens as one potential contributing resource. So, contributing status would mean the Secretary's Standards would be followed, and the historic character, architectural integrity and historic fabric of the contributing resource would be maintained.
- There are several properties within the park that are also designated at the state and city level. Those require additional reviews at the respective level, and typically require an approval, with a permit or a certificate of appropriateness for the particular designation.

Zilker Park Cultural Landcape Report

by

Julie D. McGilvray, BA

Report

Presented to the Faculty of the Graduate School of
The University of Texas at Austin
In Partial Fullfillment
of the Requirements
for the Degree of

Master of Science in Historic Preservation

The University of Texas at Austin

August, 2012

Zilker Park Cultural Landscape Report

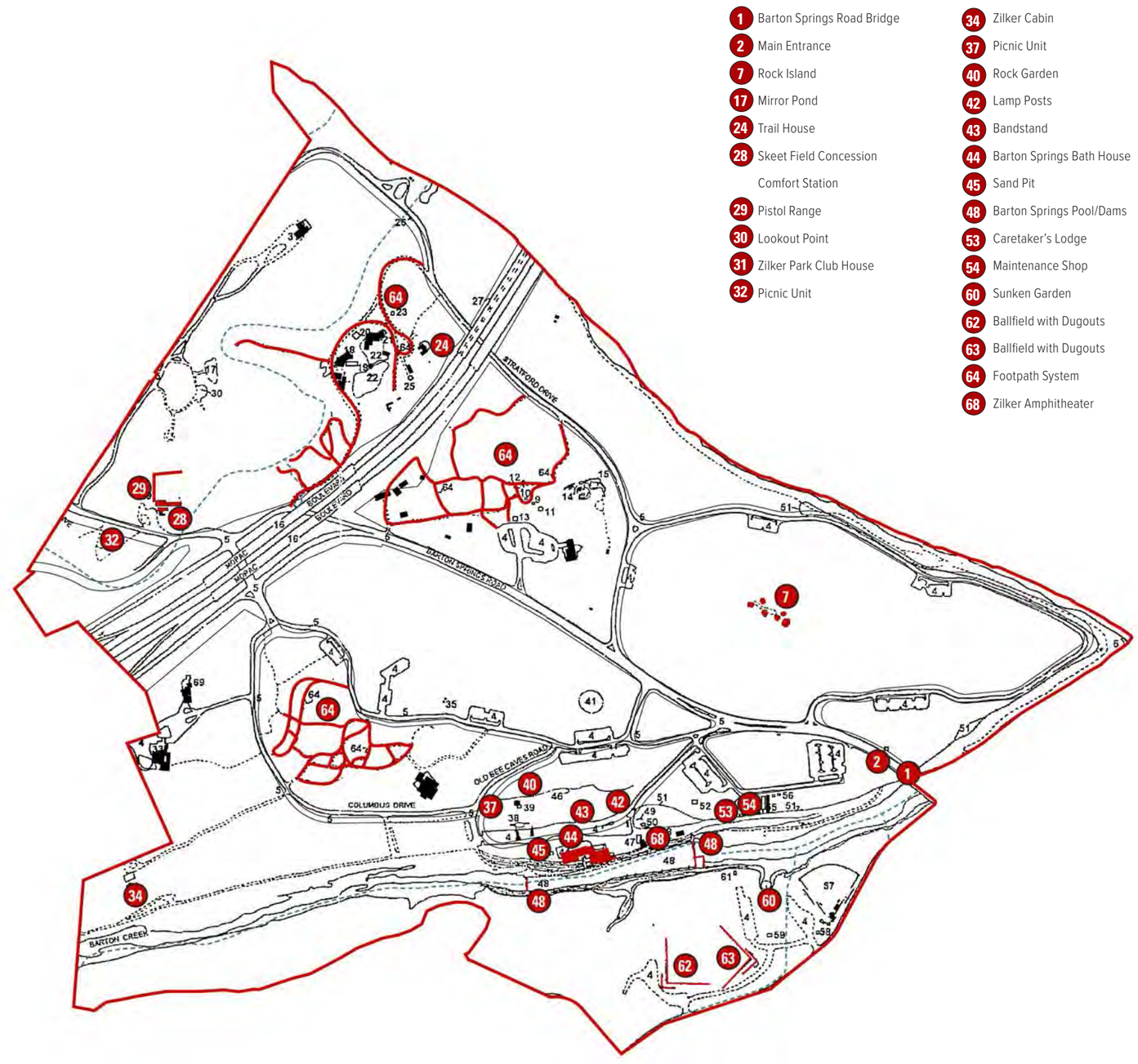
Prepared by Julie McGilvray in 2012, the Zilker Park Cultural Landscape Report recommends the creation of a preservation management plan with appropriate treatment planning for historic buildings, structures, and sites within Zilker Park and states that an integrated approach to site management, preservation, and conservation is necessary. The report also suggests pursuing SITES certification in the future as many of the requirements are already in place, including an inventory of resources, the site history, native plants preference, recreational land use, educational land use, and integrity of hard and softscapes.

Existing conditions are outlined in the report. The park, comprised of 350 acres, is located on the south bank of the Lower Colorado River and is bisected by Barton Springs Road, which serves as a main entry and circulation route. The park's northwest side is intersected by the MoPac Expressway while Barton Creek cuts West to East through the park's southern portion. Zilker's landscape is typical of the Balcones Escarpment: rolling, thinly soiled hills and limestone bluffs cut by riparian zones with thick soil and clay deposits. Nevertheless, most of the acreage is open, well-grassed parkland surrounded by oak, elm, and pecan groves. Old-growth pecan trees define the lower river and creek floodplains. Barton Creek, which is spring fed, cuts through Zilker's southwest edge and is made up of exposed limestone, clay, and gravel.

McGilvray makes several landscape preservation and conservation recommendations. Firstly, PARD should view Zilker's softscapes as a valuable natural and cultural resource. Heritage trees, shrubs, grasses, vines, and flowering plant zones are key to the park's design integrity, use, and habitats. Special management plans are required for Eliza Springs, the Sunken Gardens, and the Main Spring within the swimming area due to the area's classification as an NRHP district and habitat for Barton Springs salamanders. The floral cover over salamander habitat areas is key to species survival but plants can damage concrete and stonewalls. Viable solutions are required for both resources. Therefore, conservation and preservation issues must be studied and addressed together.

McGilvray's report ends with the following next-step recommendations:

- Update National Register Nominations for Zilker Park and Barton Springs districts with newly discovered resources
- Use NPS Heritage Documentation programs to help document
- Approach graduate students and programs at UT Austin
- Explore SITES accreditation options; prioritize credit 6.4 for historic cultural landscapes
- Amend existing CLR as resources come of age, treat CLR as a living document



Zilker Park Natural Resources Inventory

This report was finalized in April 2021, and a summary can be found in the “Environmental” section of this report.

Butler Trail Urban Forestry and Ecological Restoration Guidelines Environmental Site Assessment Phase I

The Butler Trail Urban Forestry and Ecological Restoration Guidelines Environmental Site Assessment presents thorough research of the history, plant and animal species, soil, and erosion in the area where Zilker Park meets Lady Bird Lake.

- Pages 119-125: Show analysis and management recommendations for Zilker’s conditions along Lady Bird Lake and part of Barton Creek
- Primary treatment recommended from Fall 2016 to Summer 2017
- Secondary treatment recommended from Fall 2018 to Summer 2019
- Pages 164-166: Existing site condition photos from 2015


PHASE I ENVIRONMENTAL
SITE ASSESSMENT

Zilker Metropolitan Park
Barton Springs Road
Austin, Texas

October 2019

TRC Project No: 339575.0000.0000

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Environmental Site Assessment Phase I

The assessment’s purpose was to identify Recognized Environmental Conditions (RECs) at Zilker Park as defined by the ASTM E 1528-13 standard. Three RECs were identified: 1) Butler Landfill, due to the constituents of concerns at levels above their respective Protective Concentration Levels exceedances and the potential from comingling of groundwater within the landfill with surface waters at Lady Bird Lake. 2) Pistol and Skeet range area, including the wooded area to the north due to the presence or likely presence of lead at levels which indicate an impact to environment. 3) Area at the northwest portion of Zilker Park currently used as the Bone Yard, due to the storage of the asphalt, electric powered carts and small vehicles with lead-acid batteries, surplus lawn-maintenance equipment, and chemical containers without cover and/or impervious pavement, which represents a material threat of a release of hazardous substances and/or petroleum products to the environment.

The assessment presents several considerations that are not RECs. Several of the Park’s parking areas drain to Barton Creek. Although not observed, there is a potential for environmental impacts from leaked automotive fluids in these areas. Overflow parking for special events on the grass at the Polo Fields and Butler Landfill and stormwater runoff from MoPac Expressway pose the same threat.

Although not covered under the ASTM standard, it is important to note that Barton Springs is the only known habitat for the Barton Springs salamander, which is listed as an endangered species. Entry into the area in and around Eliza Springs and the Sunken Garden remain restricted to authorized personnel only to restore and preserve habitat for the salamander.

There are several groundwater monitoring wells around the Butler Landfill, however no wells were observed during site reconnaissance. A public supply well is located west of the Park Ranger/Caretaker’s Cottage and a monitoring well is located on the north side of Barton Creek in the southeast portion of the Great Lawn. Environmental soil boring wells are located near the center of Zilker Park, in the vicinity of the Polo Field and on the south side of Barton Creek in the vicinity of the Barton Springs South Gate. Additionally, two underground storage tanks at the Maintenance Barn were removed from service and the ground in April 1994 and defined has historical REC (HREC).

PARD’s Long Range Plan for Land Facilities and Programs

The Long Range Plan for Land Facilities and Programs contains maps and data about the City of Austin’s overall park system and makes a number of citywide recommendations. Recommendations specific to Zilker include upgrading and improving site conditions at the Zilker Clubhouse, continuing the Zilker Loop Trail development and Barton Creek Crossing upstream from the pool, constructing a loop trail extension and bridge, and implementing a master plan.

Parkland Events Task Force Final Report and Recommendations

The Parkland Events Task Force convened in 2015 and 2016 to make recommendations for events in heavily used parks, such as Zilker Park, Auditorium Shores, and Festival Beach. They have all been subject to caps in the past. The Task Force recommended reducing the number of event days from 29 days to 24 days and suggested other parks such as Bolm Road, John Trevino, Onion Creek, and Walter Long as venue alternatives. The City should ensure all city costs are covered (fees, fines, etc.) for hosting large events. The City cannot waive damage waivers. The report recommends developing and using a standardized pre-event and post-event evaluation matrix, ensuring vegetation, trees, and environmentally sensitive areas are protected, and that events are green.

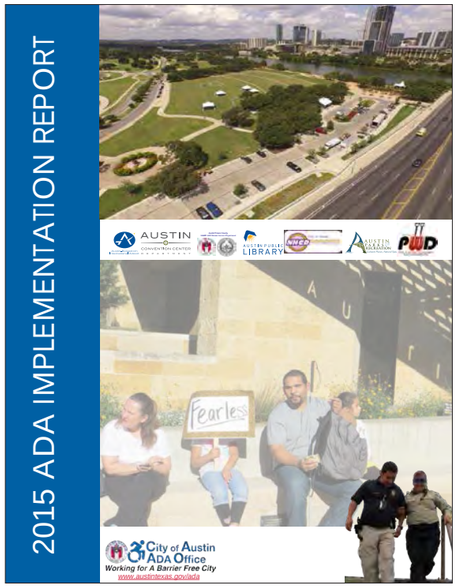
Overall, there is a cap in place for events. However, even small events like Kite Festival have grown dramatically, as has daily use for the park. This has been especially apparent during the pandemic.

Current events in Zilker, per City Code 8-1-15 (revised in 2017):

- ACLMF – 6 days
- Kite Festival – 1
- Garden Festival – 2
- Blues on the Green –4
- Trail of Lights – 15
- Zilker Relays - 1
- Hillside Theatre –22 (not included)

The Task Force recommended removing Blues on the Green and Zilker Relays.

A supermajority vote by PARD Board and City Council is required to increase limits to events.



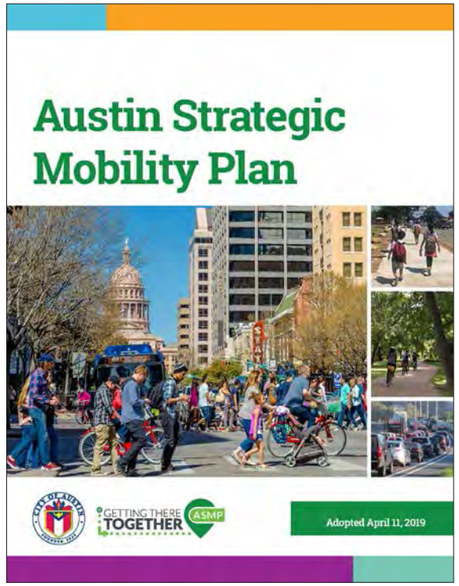
2015 Parks and Recreation Department Public Facility American with Disabilities Act (ADA) Self- Assessment Survey

According to the 2015 PARD Public Facility ADA Self-Assessment Survey, programs and services provided by both PARD and third-party vendors should be accessible to people with disabilities. Several Zilker park facilities are historic and will require creative design modifications to ensure accessibility.

There is a need for accessible routes throughout the park that are easy to maintain. Amenities such as restrooms, picnic areas, drinking fountains, receptacles, outlooks, sport courts, and attractions are to be connected to the accessible routes. If a rail system is implemented in the park, it must be accessible to people with disabilities. All accessible parking spaces must have compliant van space numbers, slopes and pavement, and signage and aisles are connected to an accessible route.

Other recommendations include ensuring that all assembly areas provide compliant wheelchair spaces and companion seats. Vegetation throughout the park cannot protrude on accessible routes. If water bottle fill-up stations are to be provided, the stations should be within reach range and located on an accessible route. Similarly, concessions should be provided in an accessible manner. This includes appropriate counter heights, menus that communicate options, and staff (third party vendors) that are trained to assist people with disabilities. Temporary amenities such as portable toilets should provide the correct number of accessible toilets to people with disabilities. All temporary amenities should be made accessible even if amenities are used for one-time events such as concerts or festivals.

The assessment concludes by stating that a comprehensive ADA/TAS accessibility plan should be developed to prioritize, fund, and address architectural barriers.



Austin Strategic Mobility Plan

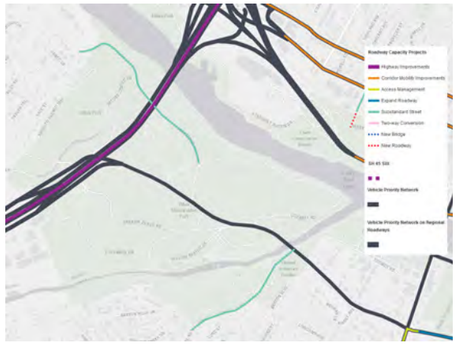
Issued in April of 2019, the Austin Strategic Mobility Plan outlines recommendations related to placemaking, economic prosperity, sustainability, and health and safety. The plan calls for the construction of a transportation network that encourages social interaction through quality urban design and connects users to the many places that make Austin unique. With regards to economic prosperity, economic growth for individuals and the city should be promoted through strategic investments in transportation networks that meet the needs of the 21st century. Integrated designs and quality additions to the built environment that reduce impacts and promote efficient use of public resources should be promoted. Lowering the risk of travel-related injury and promoting public health will protect Austinites. Active transportation access for all ages and abilities on sidewalk, bicycle, and urban trail systems should be built. Active transportation initiatives should be advanced and Austinites should be connected to services and opportunities for better health.

A review of the transportation network maps from the Austin Strategic Mobility Plan reveal the following priorities that affect Zilker Park:

- Combined High Injury Network
  - » Barton Springs Road
- Sidewalk Prioritization Map – Absent and Existing Sidewalks
  - » Barton Springs Road, Rollingwood Drive, Dellana Lane, Nature Center Drive, Stratford Drive
- Roadway Capacity Projects Map
  - » Stratford Drive – substandard street
  - » Barton Springs Road – Bike Facilities improvement project
- Public Transportation System Map
  - » Route 30 on Barton Springs Road
- Bicycle System Map
  - » Urban Trails
    - Existing Tier 1 urban trail along MoPac Expressway
    - Proposed Tier 2 urban trail along Lady Bird Lake
  - » All Ages and Abilities Bicycle Facilities
    - Substandard Street and Bicycle Facilities Improvement on Stratford Drive
    - Sidewalk and Bicycle Facilities improvement on Rollingwood Drive
    - Bicycle Facilities Improvement on Barton Springs Road
    - Bicycle Facilities Improvement on Andrew Zilker Road
  - » Bicycle Priority Network
    - Bicycle Facilities Improvement on Barton Springs Road

COMBINED HIGH INJURY NETWORK

Barton Springs Road is part of the High-Injury Network



ROADWAY CAPACITY PROJECTS MAP

Stratford Drive is considered a substandard street, and Barton Springs Road is listed as a Bicycle Facilities improvement project

PUBLIC TRANSPORTATION SYSTEM MAP

Route 30 on Barton Springs Road is highlighted

BICYCLE SYSTEM MAP

b) All Ages and Abilities Bicycle Facilities

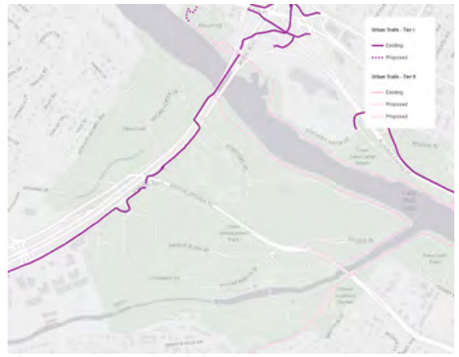
Map highlights:

Substandard Street and Bicycle Facilities Improvement on Stratford Drive.

Sidewalk and Bicycle Facilities improvement on Rollingwood Drive.

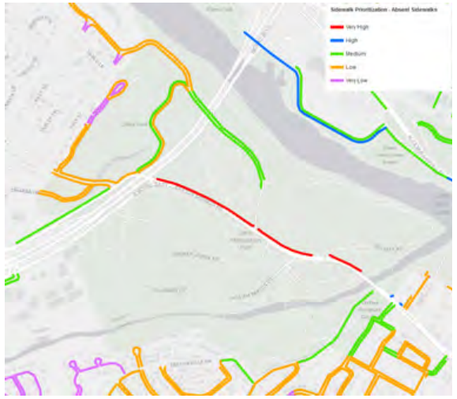
Bicycle Facilities Improvement on Barton Springs Road.

Bicycle Facilities Improvement on Andrew Zilker Road



URBAN TRAIL SYSTEM MAP

There is an existing Tier 1 Urban trial along MoPac Expressway, and a Proposed Tier 2 Trail along Lady Bird Lake



SIDEWALK PRIORITIZATION MAP – ABSENT AND EXISTING SIDEWALKS

Barton Springs, Rollingwood Drive, Dellana Lane, Nature Center Drive, Stratford Drive have absent sidewalks, while Barton Springs Road has existing sidewalks on the sidewalk prioritization list.

BICYCLE SYSTEM MAP

a) Urban Trails

There is an existing Tier 1 Urban trial along MoPac Expressway, and a Proposed Tier 2 Trail along Lady Bird Lake

BICYCLE SYSTEM MAP

c) Bicycle Priority Network

Map highlights Bicycle Facilities Improvement on Barton Springs Road.

ASMP STREET NETWORK MAP

Map highlights:

- Substandard Street and Bicycle Facilities Improvement on Stratford Drive.
- Sidewalk and Bicycle Facilities improvement on Rollingwood Drive.
- Bicycle Facilities Improvement on Barton Springs Road.
- Bicycle Facilities Improvement on Andrew Zilker Road

Capital METRO Connections 2025

Route 30 (which serves Zilker Park) was proposed to operate every 30 minutes (on weekends and weekdays) (pg. 53). Proposed changes in this route would affect ADA paratransit coverage for customers served by route 30.

Connections 2025 also proposes a Mobility Innovation Zone, Zone H (Zilker/Barton Hills), located near Zilker Park. Mobility Innovation Zones pilot mobility solutions (such as shuttles, car sharing, and vanpools), especially where traditional fixed-route transit is difficult to implement.

A community survey was conducted as part of Connections 2025. Question 16 was asked, "Which Capital Metro services or amenities would you like to see more of?". Answers included frequent local bus service, express buses, park and rides, etc. As a follow up, Q17 was asked, "Based on the options you ranked in the previous question, where would you like to see these improvements?" There were 2,531 responses to this question, and Zilker Park was mentioned various times.

Zilker Neighborhood Plan

Zilker and some surrounding neighborhoods do not currently have a formal neighborhood plan adopted by the City to guide land use decisions. However, in other planning documents the Zilker Neighborhood Association has prepared, there is an emphasis on decreasing the amount of parking in Zilker Park now, and instead using current parking areas for park use. There is also a desire for more public transit and bike options, and a wish to avoid privatization of park elements. The ZNA would the like the issue of climate change mitigation addressed as part of the Zilker Park Vision Plan.

The Bouldin Creek neighborhood plan places heavy emphasis on water quality, stormwater management, and bike access.

Rollingwood Comprehensive Plan

The Rollingwood Comprehensive Plan is still in progress. A community survey was issued the week of April 5, 2021 and the draft plan is scheduled to be completed at the end of April 2021. Although it is not included in any formal discussions, the City of Rollingwood has previously mentioned interest in 1) purchasing the Zilker Preserve, 2) being involved with decisions related to any activity that will affect traffic through the city, and 3) potential improvements to trails that connect Rollingwood and Austin.

Safety and Mobility Study Results for the Butler Trail 2021

The Safety and Mobility Study Results for Butler Trail include several recommendations, including the creation of a trail head in Zilker Park and incorporating a trail loop within the park that includes the Butler Trail as a segment. It also suggests making Zilker Park feel like an extension of the trail space. The study recommends considering adding a bridge across Barton Creek and closer to Lou Neff Point that can connect from the higher elevation both sides. In considering the park's existing and vulnerable ecologies, the study also recommends adding a double trail to accommodate comfort and safety of high, regular, and event-induced demand and reduce runoff at the water's edge and wetland-sensitive bridges along the trail alignment (as needed) to protect ecology and mitigate runoff and erosion issues.

Finally, the study outlines recommended trail widths (14 feet with two foot shoulder on either side) and surface material standards (deconstructed granite with different boundary/aggregating matter than used today). These standards are under review with permitting and the update of the master urban trails plan for the city.

2020 Mobility Bond (Prop B) Contract with the Voters

The clause below from Austin's City Council resolution 20200812-011 pertains to Zilker Park.

"Funding for Barton Springs Road Improvements shall only be used for improvements between Barton Boulevard and Lou Neff Road after completion of the preliminary engineering study for a Barton Springs Bridge, which shall include a community engagement process, and after presentation of improvement options, a public hearing, and approval of options by City Council. Any improvements shall be aligned with the Zilker Park Vision Plan once approved by Council".

MoPac Expressway South Environmental Study (Ongoing)

In 2013, TxDOT and the Central Texas Regional Mobility Authority started an Environmental Study for the MoPac Expressway, from Slaughter Lane to Cesar Chavez. This study determined the Express Lane(s) Alternative as the Recommended Build Alternative. These include the addition of two new Express Lanes in each direction from Cesar Chavez Street to Slaughter Lane.

- The current concept includes a one-lane entrance and a one-lane exit ramp from the Express Lanes to Cesar Chavez Street approximately 25 feet above the existing MoPac Expressway bridges. The height of this ramp would be lower than two existing structures at the interchange. The project team proposed going over the three existing general-purpose lanes because they felt it would be less impactful. Going under could potentially impact the Hike and Bike Trail. It would also be more intrusive for people who are enjoying Zilker Park and Lady Bird Lake. Another option would be to further widen the existing bridges but that would require going outside of TxDOT's right-of-way, potentially affecting Zilker Park.

However, the team is still trying to determine the best configuration for the alternative. When selected, the study team will complete the draft Environmental Assessment.

The proposed operational configurations are the following:

- One Express Lane in each direction with a downtown direct connection
- One Express Lane in each direction without a downtown direct connection
- Two Express Lanes in each direction with a downtown direct connection
- Two Express Lanes in each direction without a downtown direct connection
- Two Express Lanes in each direction with elevated ramps near Barton Skyway
- A configuration proposed by the city of Austin
- A No Build (Do Nothing) Alternative continues to be considered.

Additionally, a Context Sensitive Solutions process has also been initiated for this effort (where stakeholders have been engaged and help guide project components), and project-related impacts to water quality are being considered due to the project's location (in addition to other social, economic, and environmental considerations). The Environmental Assessment will address indirect and direct impacts to parks, and a traffic noise analysis will be conducted on the entire project (including adjacent parkland).

The Express Lane(s) alternative would include bicycle and pedestrian improvements, including a shared use path along the corridor connecting with existing/planned pedestrian and bike facilities and the construction of sidewalks and sidewalk connections to the existing sidewalk network.

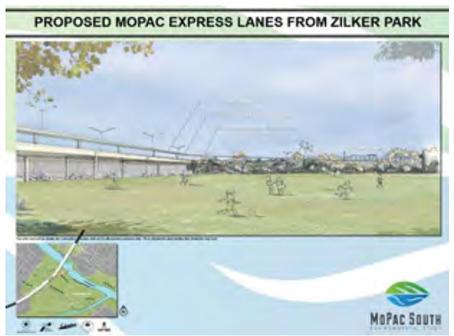
The study website provides a variety of documents with comments/input from the public and stakeholders regarding the project.

Efforts on the MoPac Expressway South Environmental Study are paused until Spring 2021.

As the study progresses, community input for enhancements for Zilker Park as part of the MoPac Expressway project will be sought. The study team has identified the following opportunities :

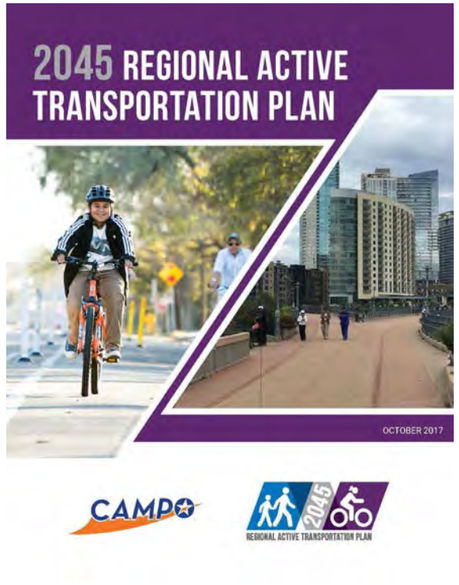
- Implementing erosion abatement and prevention, and water quality enhancements to the parking lots on the north and south sides of Lady Bird Lake.
- Incorporating a future bicycle and pedestrian trailhead on the southwest side of Lady Bird Lake. This could include widening the existing bicycle and pedestrian bridge under MoPac Expressway or building a second bridge to address the overcrowding that occurs during events and on weekends.
- Where feasible, upgrading shared use path widths and sidewalks to meet ADA standards within the project right-of way.
- Implementing rain gardens, vegetated filter strips, stormwater planters, and natural buffers in this area to improve environmental controls for water quality enhancement and stormwater runoff treatment.
- Improving and/or repairing trail connections to adjacent trails; and continue wayfinding systems along these trail connections within the project right-of-way

Images from the MoPac Expressway South Environmental Study Open House #3 (February 26, 2015) Display Boards:



The following themes were obtained from attendees on a Bicycle and Pedestrian Workshop (which took place on February 17, 2015):

- Overarching themes:
  - » Lighting on bicycle/pedestrian facilities
  - » Wayfinding signage
  - » Requests to
    - Narrow frontage road lanes to accommodate more or improved bicycle/pedestrian facilities
    - Widen SUPs to 12 feet where possible
    - Consider and mitigate contraflow for safety issues related to bicyclists and pedestrians traveling in the opposite direction of vehicular traffic
    - Add shade (trees) to bicycle and pedestrian facilities
    - Leverage existing bicycle facilities/trails in project areas and connections to them to fill in gaps and make improvements to the overall network
- Themes related to the MoPac Expressway South Environmental Study/MoPac Expressway Intersections projects:
  - » Participants would like to see improvements to the current bike and pedestrian connection at Barton Springs Road.
  - » Pedestrian beacons are necessary at all frontage road crossings.
  - » Noted that it is important to set the shared use path or sidewalk away from the curb in any locations where it is possible.
  - » At Diverging Diamond Interchange(DDI) crossings, the bike/ped best practice is to create a separate grade crossing for cyclists.
  - » Several participants underscored the feeling that DDI are dangerous for bikes/peds and that serious thought should be given to how to better accommodate in this intersection. Noted that DDI force some cyclists to use the shoulder of the main lanes by way of the entrance ramp, which is dangerous and not recommended, even for experienced cyclists.
  - » It is important to improve intersection mobility for bike/ped users to the same degree as for drivers.
  - » Most bike/ped traffic in the area of the MoPac Expressway bridge north and asked what would be done to widen accommodations in the area.
  - » 8-foot wide paths are the absolute minimum, with 10 feet being better, and 12 feet being the best. Shade trees, path set back from the curb, and safety lighting are also desirable. 5-foot sidewalks, even with a tall curb, are not enough for safety.
  - » Explore narrowing the frontage road in some areas (specifically Tuscan Way to Zilker Park) to create a wider-than-8-foot sidewalk. Alternately, they would like to narrow the frontage road to provide a buffer between the driving lanes and the sidewalk that does not take away from the current width.
  - » Eliminate a frontage road lane and turn it into a two-way cycle track with a concrete barrier.
  - » Accommodations at Ben White were a major concern, as the current proposal is to tie-in to a 5 feet wide sidewalk in the area. This was supported across several groups.
  - » A suggestion is to at least provide a tall barrier in the area and utilize a narrower frontage road to ensure that the space for the barrier is not taken out of the current 5 feet. but added to it.
  - » They recognized that they would prefer more than this, but this is a minimum suggestion that could salvage the existing sidewalk.
  - » Examine the opportunity to provide wide sidewalks opposite from the SUP. This was supported across several groups.



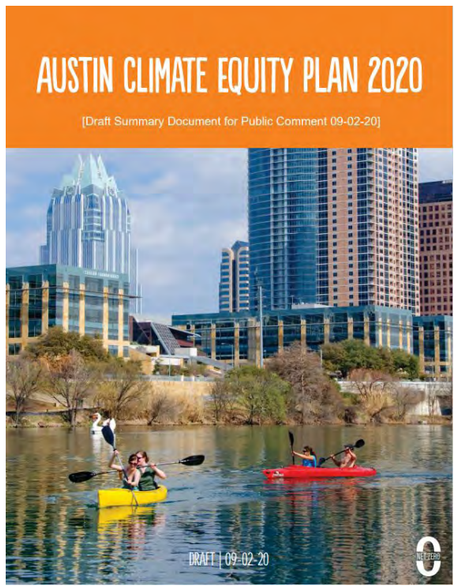
CAMPO 2045 Regional Transportation Plan

Appendix A of the 2045 Plan Document, the Regional Transportation Plan Projects Lists, includes the following MoPac Expressway South Improvements near Zilker Park:

MPO ID	51-00096-00
Roadway/ Facility Name	MoPac Expressway
Description	2 Express lanes in each direction
Location	From Cesar Chavez to Slaughter Lane
LET Year	2022
Anticipated Total Cost	$540,000,000

MPO ID	53-00015-00
Roadway/ Facility Name	US 290, MoPac Expressway
Description	Express route from Oak Hill to Downtown Austin
Location	From Oak Hill to Downtown Austin
LET Year	2026
Anticipated Total Cost	$18,000,000

MPO ID	53-00014-00
Roadway/ Facility Name	MoPac Expressway
Description	Express route from South MoPac Expressway to Downtown Austin
Location	From Circle C to Downtown Austin
LET Year	2025
Anticipated Total Cost	$34,000,000



2020 Austin Climate Equity Plan (Draft)

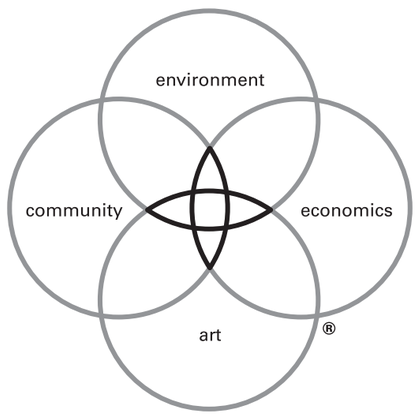
The signs showing climate change in Austin are clear and the natural system has significant role to handle this change. This reports set up goals and strategies to keep Austin's natural lands and farm land and reduce carbon emissions for a climate equity.

- **Goal 1**
  By 2030, legally protect an additional 20,000 acres of carbon pools on natural lands and manage all new and existing natural areas (approximately 70,000 acres total) with a focus on resilience.
  - » **Strategy 1**
    Protect natural lands
  - » **Strategy 2**
    Manage natural lands for resilience
  - » **Strategy 3**
    Increase community access and positive perceptions of public land
  - » **Strategy 4**
    Protect water sources
- **Goal 2**
  By 2030, protect 500,000 acres of farmland from development in the 5-county region through legal protections and/or regenerative agriculture programs.
  - » **Strategy 1**
    Protect working lands
  - » **Strategy 2**
    Reform agricultural tax appraisals
  - » **Strategy 3**
    Support farmers through financial assistance
  - » **Strategy 4**
    Provide farmers with resources
  - » **Strategy 5**
    Expand composting
  - » **Strategy 6**
    Workforce development for farmers
- **Goal 3**
  Achieve at least 50% citywide tree canopy cover by 2050, with a focus on increasing canopy cover equitably.
  - » **Strategy 1**
    Protect canopy cover on City lands
  - » **Strategy 2**
    Promote tree protections and landscape regulations
  - » **Strategy 3**
    Increase community tree planting
  - » **Strategy 4**
    Promote tree health and resilience on private and non-City public lands
- **Goal 4**
  By 2030, include all City-owned lands under a management plan that results in neutral or negative carbon emissions and maximizes community co-benefits.
  - » **Strategy 1**
    Prioritize carbon neutrality for public lands
  - » **Strategy 2**
    Reclaim public space and prioritize green infrastructure
  - » **Strategy 3**
    Promote community stewardship
  - » **Strategy 4**
    Promote carbon farming

Watershed Protection Master Plan

The plan is for reducing the impact of flooding, erosion, and water pollution to the communities. The detailed goals are below:

- Protect lives and property by reducing the impact of flood events.
- Protect channel integrity and prevent property damage resulting from erosion.
- Protect and improve Austin's waterways and aquifers for citizen use and support of aquatic life.
- Improve the urban environment by fostering additional beneficial uses of waterways and drainage facilities.
- Meet or exceed all local, state, and federal permit and regulatory requirements.
- Maintain the integrity and function of Utility Assets.
- Optimize City resources by integrating flood, erosion, and water quality control measures.



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