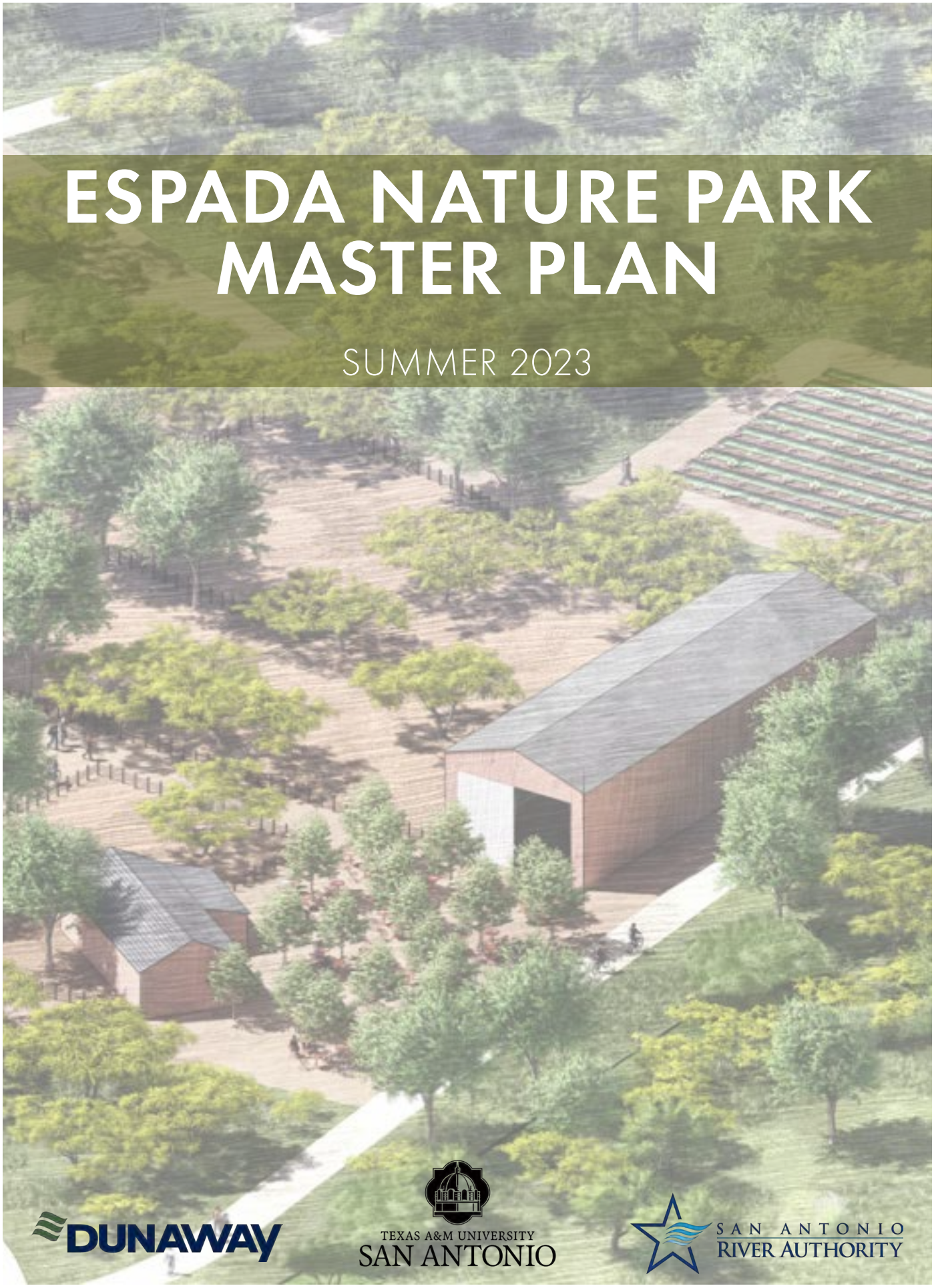
ESPADA NATURE PARK MASTER PLAN

SUMMER 2023



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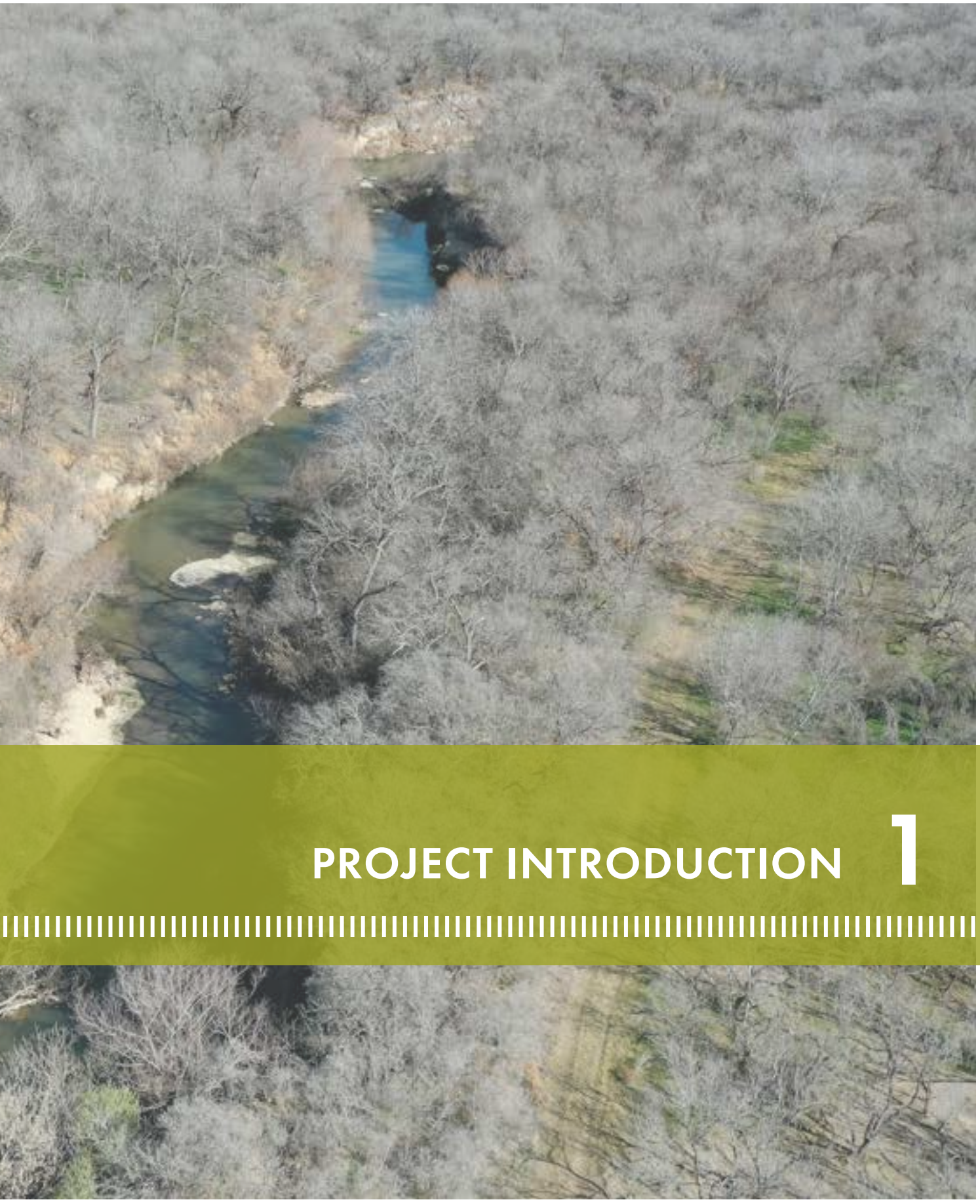
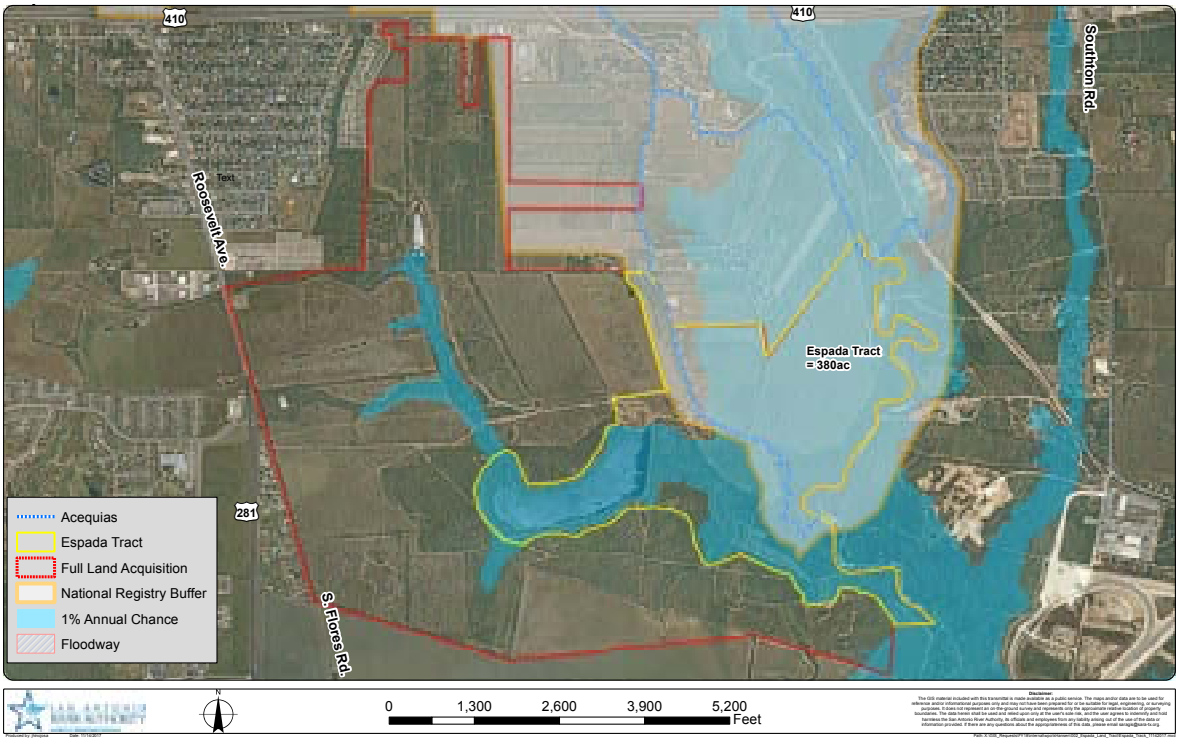


PROJECT INTRODUCTION 1

EXECUTIVE SUMMARY



Project Introduction

The San Antonio River Authority (SARA), along with Texas A&M - San Antonio (TAMU-SA), were granted the Espada Tract by the Marmaxx Corporation for community recreational, educational, and research purposes, and included a Conservation Easement held by Texas Land Conservancy. This Conservation Easement is further explained in the following section of this Master Plan. Given the size of the Tract, SARA and TAMU-SA moved forward with establishing a Master Plan of the site to guide future park development.

Due to the flood plain of the San Antonio River, wildlife habitats, and Conservation Easement terms, the property will mostly consist of passive recreation experiences, such as trails, restoration areas, and interpretive signage. Two permitted building areas of the site, the Northern and Southern Tracts, are out of the flood plain and designated to each SARA and TAMU-SA, respectively.

Excited with the opportunities that the Espada Tract presented, San Antonio River Authority selected Dunaway to assist in creating a conceptual plan for the site that could protect and restore its heritage, serve the community, and enhance the site.

Partnership & Stakeholders

The San Antonio River Authority (SARA) is working alongside with Texas A&M University - San Antonio (TAMU-SA) to design the Espada Nature Park site to be a place for both students and community members to enjoy. These entities also took into consideration the surrounding area residents and general public, Bexar County, the City of San Antonio, the World Heritage Organization, and the National Park Service. Dunaway, the design consultant, facilitated the Espada Nature Park Master Plan and helped guide SARA and TAMU-SA to its publication.

Conservation Easement

In June of 2022, the Marmaxx Corporation established a Conservation Easement and granted the 379.61 acre Espada Tract (depicted on the following page) to the Texas Land Conservancy. This Conservation Easement set aside resource-specific Conservation Values that were to be protected within the easement. These included:

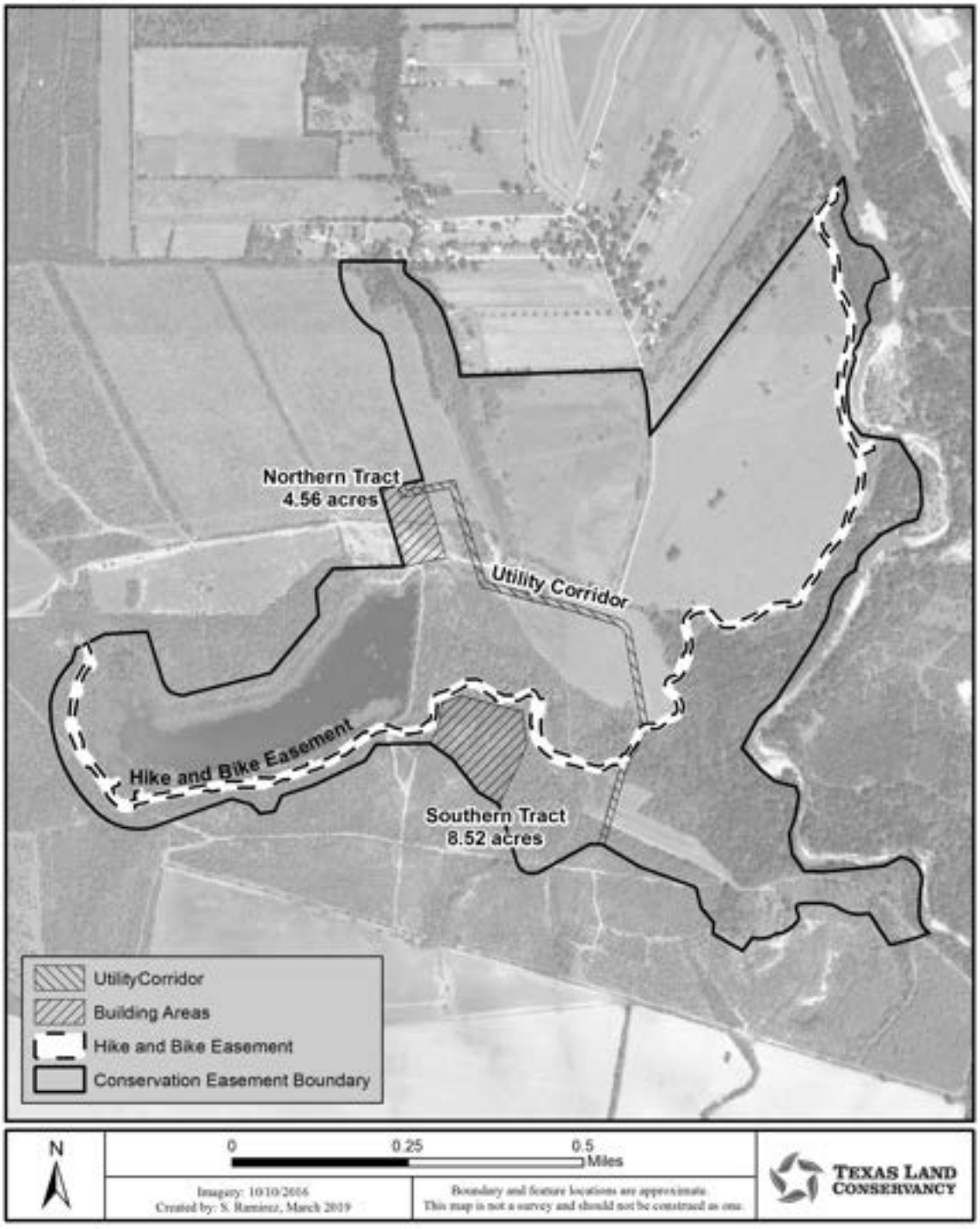
- Unique plant and animal life and ecological features indigenous to floodplain riparian forest, grassland, shrubland and brush, and open water and wetland of the Northern Blackland Prairie ecoregion (including resident and migratory wildlife).
- The water quality and quantity, and hydrologic functions of Cassin Lake, Minita Creek, San Antonio River, and other surface and groundwater resources within, around, and downstream of the property.
- Scenic views of the undeveloped property from public right-of-ways including the City of San Antonio Greenway Trails System and San Antonio River paddling trails.
- Ecosystem services to absorb within the Property: rainwater that otherwise might cause erosion and flooding downstream of the Property, carbon sequestration in plants and soil to mitigate rising atmospheric carbon levels, and other healthy ecosystem processes.
- The availability of the property for traditional uses such as non-commercial agriculture, community recreation, conservation preservation, and education.
- The prevention of soil loss and depletion and minimization of sediment run-off into San Antonio River watershed.
- The historical Espada Acequias built in the 18th century during Spanish colonization.

The Easement was established to provide for the "preservation of open space...for the scenic enjoyment of the general public." The purpose of this Easement was (1) the property will be retained forever predominately in its natural and scenic condition, (2) to protect native plants, animals, and plant communities on the Property and associated habitat, and (3) prevent use of the property that will significantly impair with conservation values.

Two permitted building areas were established by the Easement, the Northern Tract (4.56 ac) and the Southern tract (8.52 ac). In each tract, one 5,100 square-foot building can be built for community educational and/or recreational purposes. One habitable structure can be built on the Southern Tract, no more than 2,500 square-foot, for the use of a temporary caretaker. No new above-ground utilities may be placed on the site, all utilities must run below-ground. Site improvements such as roads and structures below 250 square feet in size can be built on the site, but the site is subject to an impervious cover limit. The impervious cover limit is outlined below:

- No more than 50% of the total acreage of the Northern Tract and no more than 25% of the total acreage of the Southern Tract may be impervious.
- No more than 4% of the property shall be impervious cover.
- The City of San Antonio Greenway Trail does not count towards impervious cover limit.

Property Overview

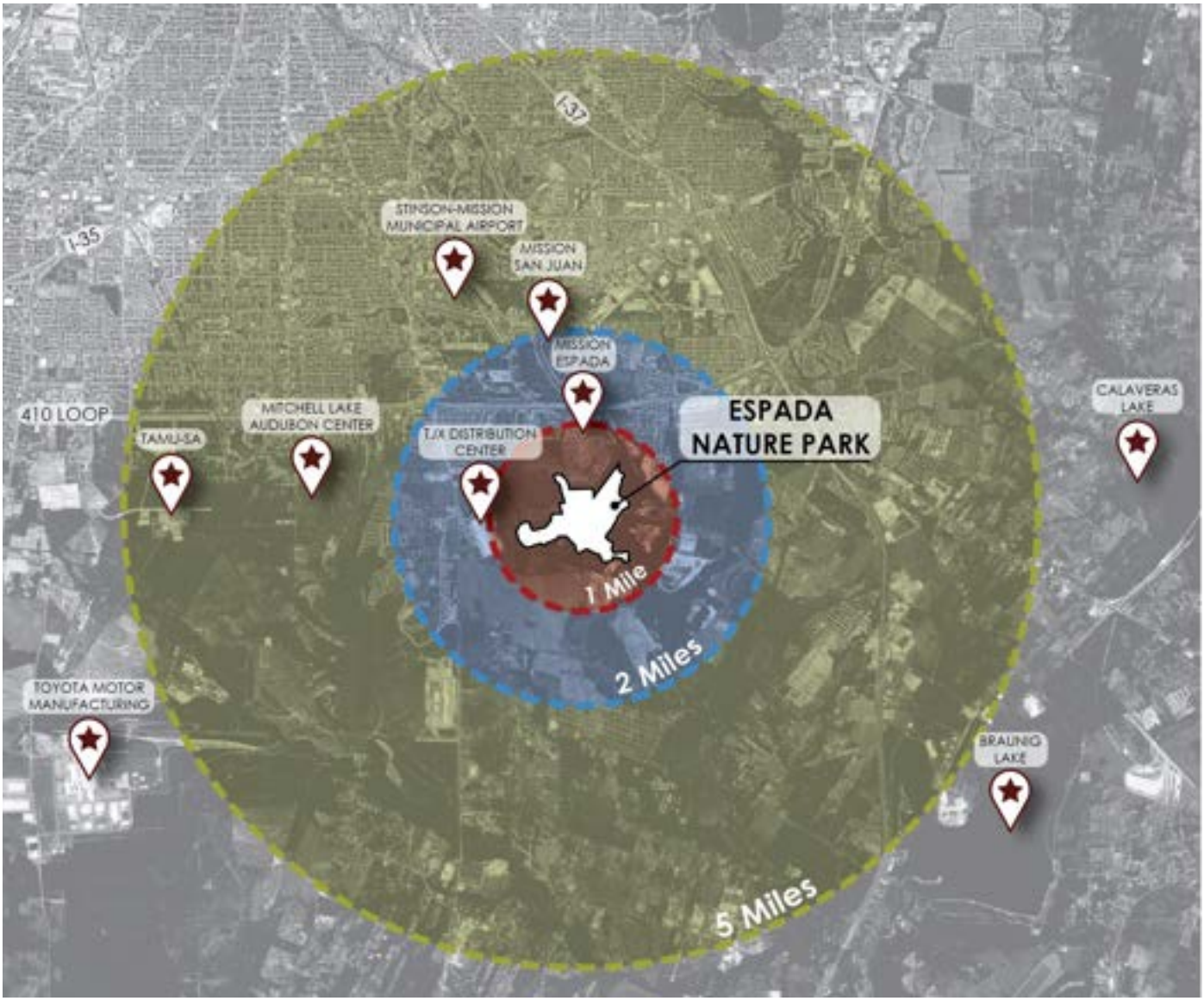


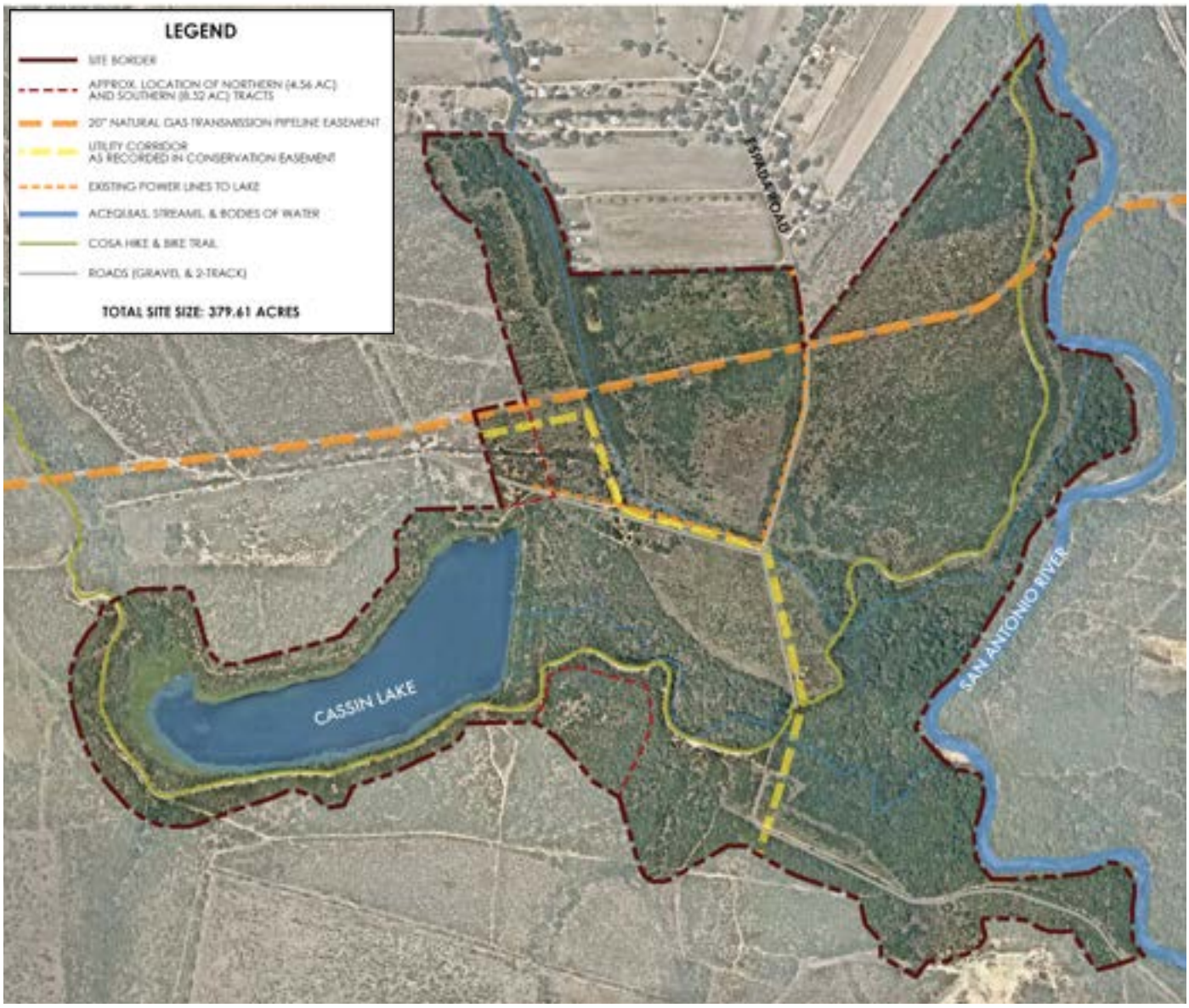
The map above, provided by Texas Land Conservancy in the Conservation Easement, shows existing features on the Espada Tract site such as a utility corridor, hike and bike easement, and site boundaries. Displayed on this map are the building areas established by the easement, known as the Northern and Southern Tracts.

SURROUNDING CONTEXT

Site Location

The Espada Nature Park site is located southeast of downtown San Antonio with its only current access being from Espada Road north of the site. It lies less than a mile away from and directly south of its namesake, Mission Espada. The Mission Reach section of the San Antonio River Walk is just north of the site, approximately two and a half miles upriver. Mission San Juan and the TJX Distribution Center are located within a 2 mile radius of the site. Mitchell Lake Audubon Center, Stinson-Mission Municipal Airport, and the Texas A&M University - San Antonio campus are located within a 5 mile radius of the site, or an approximately 12 minute drive. Other notable locations nearby include Calaveras Lake, Braunig Lake, and the Toyota Motor Manufacturing facility. Major roadways adjacent to the site include 410 Loop, Interstate 35, and Interstate 37.





The Espada Tract

The graphic above displays an aerial image of the Espada Tract site and various lines depicting existing features. Running through the north of the site is a natural gas transmission pipeline easement, from which trees have been cleared. Existing power lines run from the Espada Road access north of the site to the old homestead and barn area on the site. A utility corridor established by the Conservation Easement runs from the Northern Tract to the south end of the site. The City of San Antonio's Howard W. Peak Greenway trail follows the San Antonio River on the east side of the site, crosses the site towards Cassin Lake, and exits northeast of the site. Roads on the site consist of two-track dirt roads or old gravel roads from previous site use.

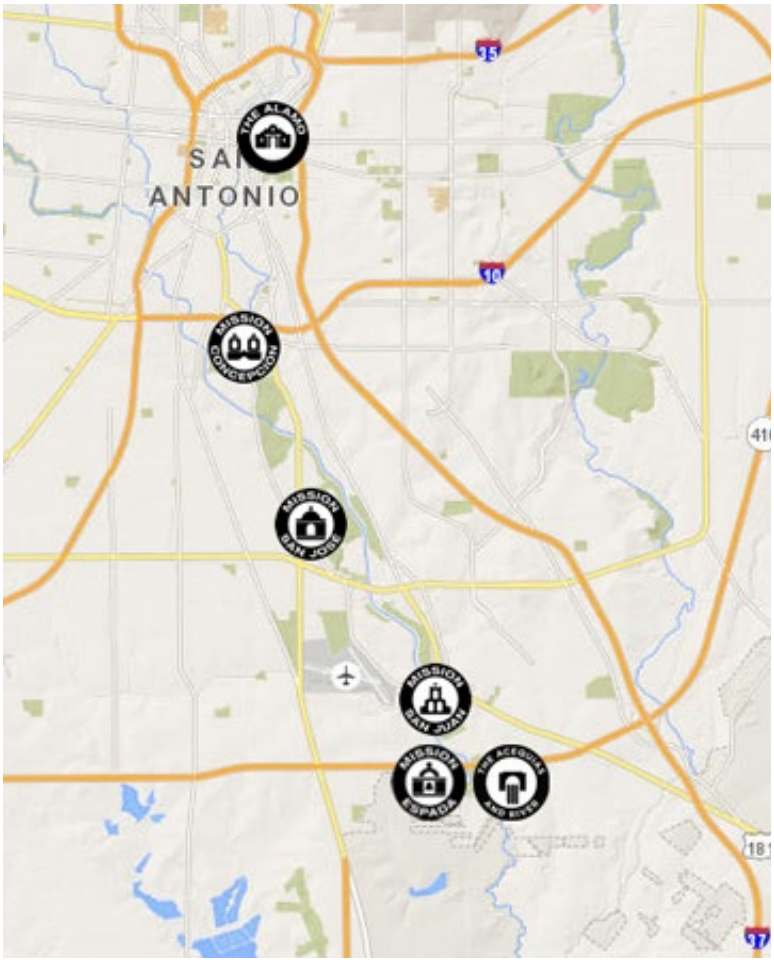
Images and descriptions of what was found during the site visits by the design team may be found in the following Site Inventory & Analysis section.

PAST & PRESENT USE

Historical Significance

Located just south of Mission Espada, the Espada Nature Park site holds significant cultural and historic significance to the Mission Reach and San Antonio. The San Antonio Missions were established by Spanish Franciscan friars in the 1700s. This group brought with them technology and engineering not before seen in the Americas. The Missionaries knew of the need for irrigation to have successful farmlands and harvests, and installed several miles of acequias, an aqueduct, and dams. The Espada Acequia, likely constructed in the mid-1740s, was reported to have extended from Mission San Juan at Espada Dam south to San Francisco de la Espada Mission and terminate at Minita Creek, which flows into the San Antonio River. The Espada Nature Park site contains a portion of this acequia and its return into the San Antonio River.

The Espada Acequia and the ditches are part of the National Historic Civil Engineering Landmark by the American Society of Civil Engineers, and the Espada Acequia and Espada Aqueduct are National Historic Landmarks. The acequias and ditches are significant for their engineering as well as the role they played in the early part of Texas and national history. In 2015, the San Antonio Missions, including associated features such as the irrigation systems, were listed as the 23rd World Heritage Site by UNESCO. These Acequias remain on the site today, as well as remnants of the previous farmlands along them.



Source: World Heritage

Espada Aqueduct

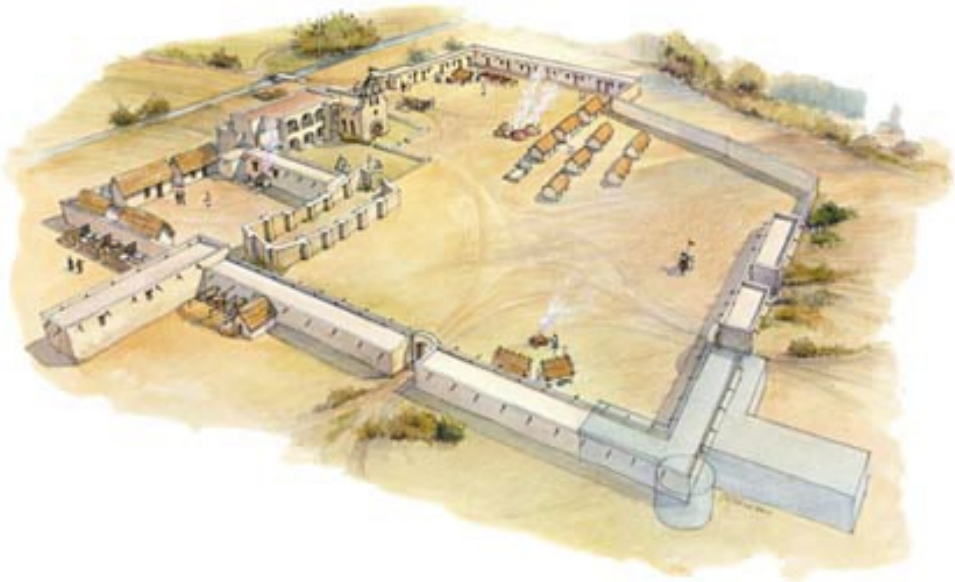
Farmland irrigated by the Espada Acequia

Mission Espada

A Spanish Colonial Mission, Mission Espada was the first mission in the province of Texas. It was founded in 1690 as San Francisco de los Tejas near Weches, Texas, and abandoned in 1693. In 1731, the mission was relocated from east Texas to its current location along the San Antonio River and renamed as Mission San Francisco de la Espada. It is the southernmost mission in San Antonio. "La Espada" means "sword" in Spanish and is believed to be the surname of a distinguished person. The sacristy, granary, and two-story convento of the mission were completed in 1745. The stone church that is at the mission was completed by 1756. The mission was partially secularized in 1794 and fully secularized by Mexico in 1824.

Following government policy, Franciscan missionaries sought to make life within mission communities closely resemble that of Spanish villages and Spanish culture. In order to become Spanish citizens and productive inhabitants, Native Americans learned vocational skills such as blacksmithing, weaving, masonry skills, and carpentry work under the direction of craftsmen contracted by the missionaries. After secularization, these vocational skills proved beneficial to post-colonial growth of San Antonio. The legacy of these Native American artisans is still evident throughout the city of San Antonio today.

During the first year of the missions, the indigenous peoples, under the instruction of the craftsman, began construction of the Espada Dam, cleared land for farming, and built temporary structures. The acequia construction began around 1731 and was completed by 1745. The acequias have been flowing ever since construction was completed. The Espada Aqueduct brought water traveling in an acequia from the San Antonio River over a creek that maintained the elevation and potential energy of the water. This potential energy would carry the water from its original exit point on the San Antonio River to the farmlands of Mission Espada.

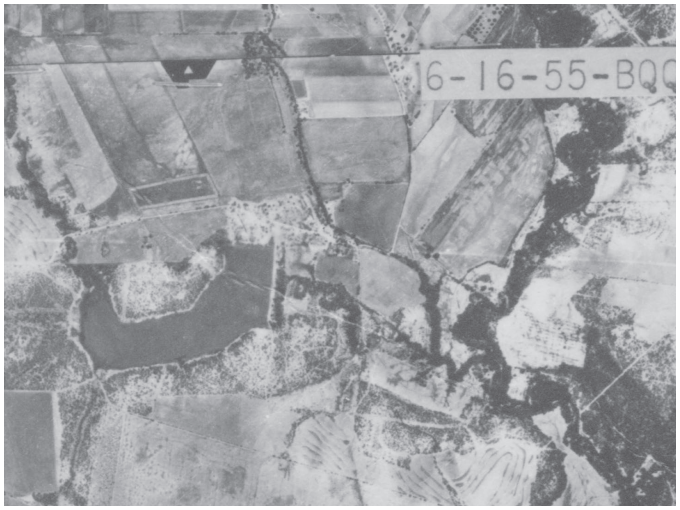


Source: NPS Website

HISTORIC AERIAL PHOTOGRAPHY - RIVER PATH & LAND USE

1938

In the oldest aerial, from 1938, Cassin Lake is seen on the west side of the site. The shape of the lake is the same as it is today, almost 100 years later. The path of the river is seen by the dark line of trees on the east side of the site. Much of the north side of the site is cleared for farmland.



1955

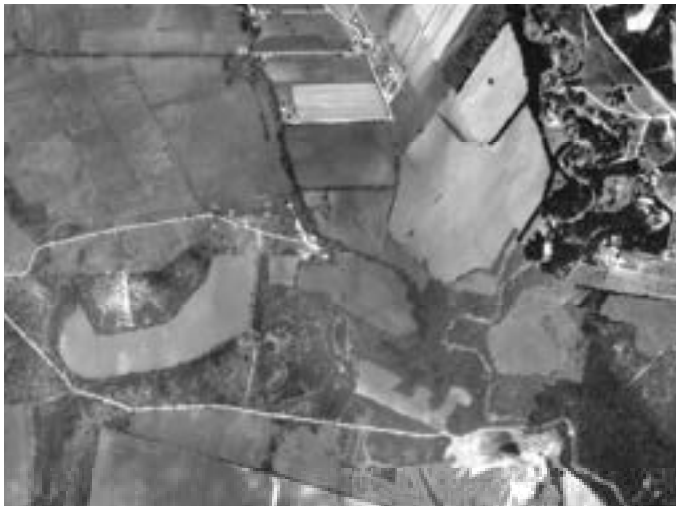
The next aerial, dated 1955, the land around the Espada Tract is terraced for agricultural and farmland use. The path of the river has not significantly changed, and the homestead and barn does not appear to be constructed on the site yet.

1995

In this aerial from 1995, the river has a winding path through the landscape. Much of the northern part of Espada Tract is open fields and farmland, and the southern portion of the site is mesquite thicket.

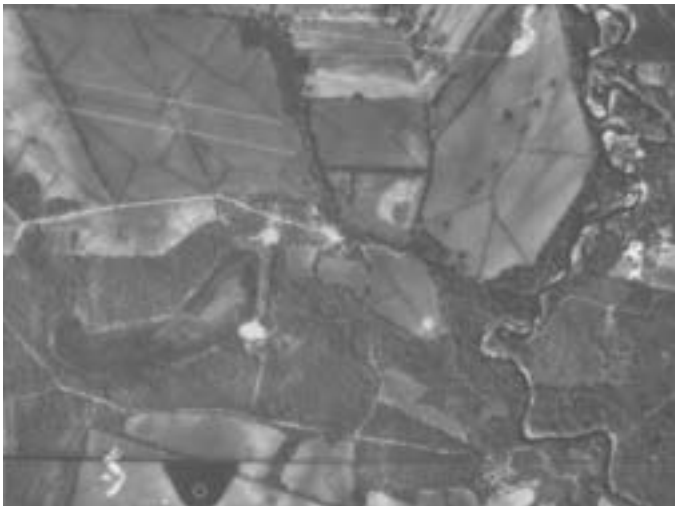
2005

After 10 years, the river path has shifted significantly to a straighter path. Areas that curved along the river have been cut off or narrowed, and new river bank areas have appeared.



1977

Twenty years later, roads have been constructed on the site and the homestead area begins to take shape. The gravel quarry on the southeast side of the site is now in use.



1992

In 1992, there appears to be construction or work on the Cassin Lake Dam. Farmland around the site is in use, and the river's path is carving into the landscape, creating steeper cliff banks.

2015

Another 10 years down the road, the river has continued to narrow to a straighter path, reducing sharp curves. The water level of Cassin Lake has decreased. The COSA Howard W. Peak Greenway trail is not yet constructed.

2023

In the most recent aerial of the Espada Tract, the Howard Peak Greenway trail has been constructed, the Cassin Lake water level is slightly higher, and mesquite thicket growth has spread into areas that were previously farmland or pastures.

HISTORIC AERIAL PHOTOGRAPHY - HOMESTEAD & BARN AREA

1977

In the oldest aerial photograph of the homestead area, one can see the house structures, various farm equipment around this area, and gravel roads. The barn and corral fence do not appear to be constructed yet.

2003

Over 25 years later, one can see the land in this area being utilized for farming, as well as a corral located behind the barn. The homestead on the south side of this area shows a home with a red roof. Cattle roam the area.

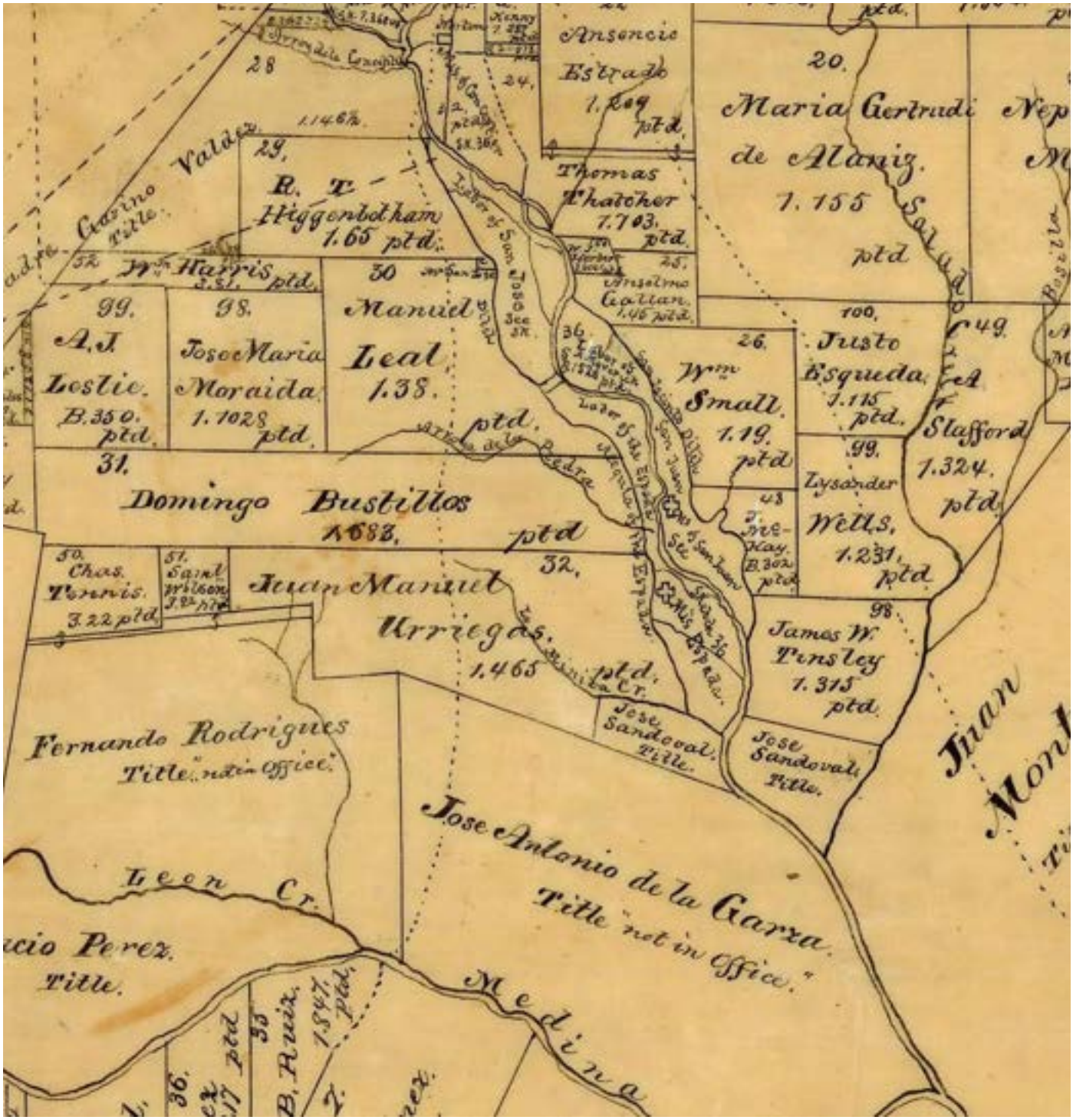
2018

Fifteen years later, between 2017-2018, the homestead building and smaller barn on the south side of this area are removed, along with old cars and equipment previously scattered in this area. The land is still being used for cattle ranching and grazing, as they are seen roaming on the aerial.

2021

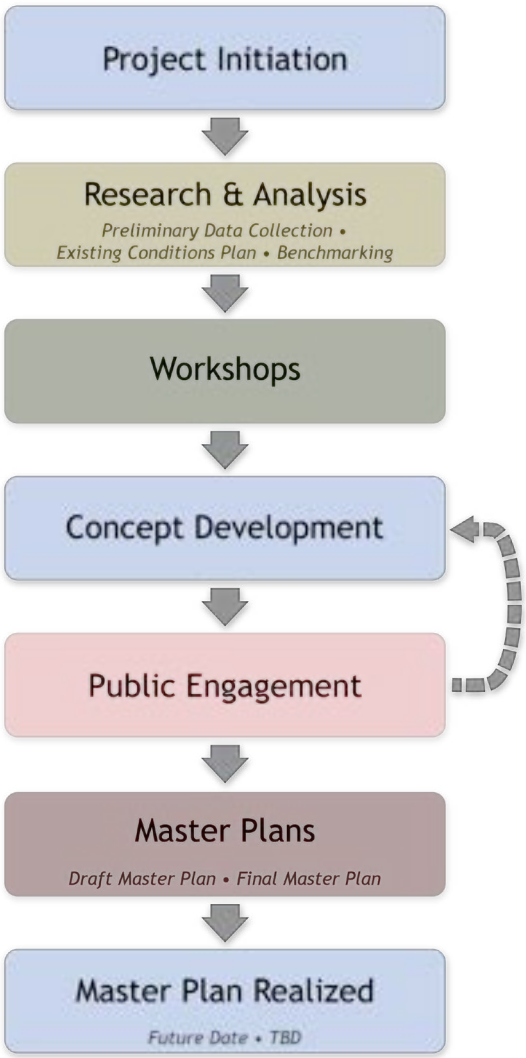
On the most recent aerial photograph of this area, mesquite thicket growth has moved into the area. Cattle are not seen on aerials of the site. Native plant growth has increased on the site, as the land has been vacated for some time.

LAND GRANTS OF BEXAR COUNTY, 1878



Provided by the Texas General Land Office, this historic map of Bexar County, dated 1878, shows the land grant records of the Espada Tract. Minita Creek (which flows through the Espada Tract) is displayed on this map, as well as Mission Espada (which is directly north of the Tract). The San Antonio River, which flows on the east side of the site, is also shown.

CONCEPTUAL PLANNING PROCESS



Project Initiation

The initial kick-off meeting was held with San Antonio River Authority (SARA) and Texas A&M University - San Antonio (TAMU-SA) staff to introduce the design team, discuss the existing conditions of the site and the intents for its future. The design consultant (Dunaway) also outlined the design processes including preliminary data collection, research and analysis, benchmarking, workshops, concept development, public engagement and the master plan. The initial project timeline was discussed and agreed upon.

Research & Analysis

The design team, in conjunction with SARA staff and TAMU-SA staff and students, conducted three site visits to understand the existing site conditions. During these visits, the team also evaluated areas desirable for research opportunities. Key observations found will be discussed in the following section.

Workshops

Two workshops were held between the design team members (SARA, TAMU-SA, and Dunaway) to discuss the master plan of the Espada Tract. The first workshop served as an introduction to the site and visualizing what it could possibly become, while also discussing the challenges and constraints the site contains. The second workshop was held after the first public meeting to review feedback from the community, reviewing the site concept plan, and discussing the next steps in the master plan process.

Workshop #1 - December 8, 2022

- Introduce the planning process.
- Discuss the existing conditions, site analysis.
- Review benchmarking examples.
- Visualize what the site could become.

Workshop #2 - March 24, 2023

- Review public meeting #1 feedback.
- Introduce the preliminary concept plan along with enlargements and imagery.
- Discuss public meeting #2 presentation and next steps.

Conceptual Development

Based on the information gathered from site visits, analysis of the site, and workshops between the design team, conceptual plans of the Espada Nature Park began to take form. This conceptual development began by establishing large regions of the site and the experiences a visitor may have within these regions. Then, the design team moved further into detail, using imagery to visualize the amenities that these spaces may contain. This conceptual development was then presented during the public engagement phase to receive feedback on how the site may be utilized by the visitor and accepted by the surrounding community.

Tommy Mitchell (SARA) presents at the second public meeting.

Public Engagement

Two public meetings were hosted, one on the TAMU-SA campus and one at the Mission Reach Operations Center, to display the project and conceptual development to the public, and gain feedback. These meetings also gave community members the opportunity to voice their concerns or excitement through various feedback methods such as comment cards, dots on imagery boards, or by speaking to members of the design team. This feedback helped shape the final master plan of Espada Nature Park.

Public Meeting #1 - February 9, 2023

- Approximately 90 community members present.
- Review the partners and stakeholders.
- Introduce the planning process.
- Discuss the existing conditions, site analysis.
- Visualize what this site could become.

Public Meeting #2 - May 4, 2023

- Approximately 40 community members present.
- Review public meeting #1 feedback.
- Introduce the preliminary concept plan along with enlargements and imagery.

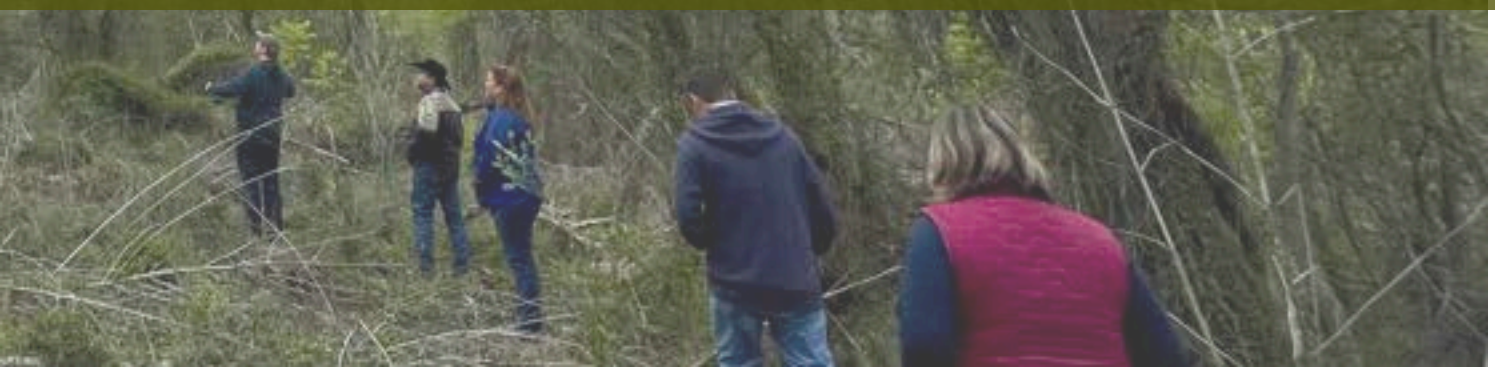
Master Plans

The conceptual plans were designed with several rounds of feedback during the workshops in addition to public engagement meetings. The initial step was the creation of the conceptual diagram, which established large areas and experiences on the site, with little detail provided. With feedback from the design team during Workshop #1 and community members through Public Meeting #1, this was developed into the initial concept plan.

The final concept plan for Espada Nature Park was developed after combining the feedback from Workshop #2 and Public Meeting #2. This final concept plan was presented to team members of the San Antonio River Authority and Texas A&M - San Antonio and was approved.

Along this way, the Master Plan of Espada Nature Park (this book) documented the process. The intent of this Master Plan is to create a framework to guide phased development of the site through the vision that the design team created, while maintaining the integrity and overall goals established during the master planning process.

SITE INVENTORY & ANALYSIS 2



EXISTING CONDITIONS

Significant Features

For the three site visits to the Espada Nature Park, locations were established beforehand to guide each visit and collect as much information as possible. These locations were found using various methods such as researching historic aerial imagery and reviewing topography data. The numbers on the map (right) show these established locations. Each site visit consisted of visiting about four locations, spending time walking and observing each area, taking inventory of the opportunities and constraints throughout the site. Photographs from each of these areas are shown on the following sheets. Summaries of each site visit are given after these photographs.

Location #	Description
1	Minita Creek Waterway
2	Cassin Lake Access
3	Northern Tract
4	Historic Espada Ditch
5	Barn & Homestead Areas
6	Southern Tract & High Point of Site
7	Grassland Savanna
8	Pecan Mott
9	San Antonio River Overlook
10	Historic River Oxbow
11	Previous Gravel Quarry
12	River Access Point

Site Visit Locations

1

Boulders and pipelines are visible where Minita Creek enters the site.

Additional boulders in the Minita Creek waterway.

2

An aerial view of Cassin Lake. The dam is seen on the left side of this photograph, and a possible lake access area to the lower right.

The Cassin Lake water edge is an important area for animal and bird habitats.

3

An aerial view of the Northern Tract. Cassin Lake is seen in the distance.

An aerial view of the Northern Tract. This tract is designated for the San Antonio River Authority's use.

4

The historic Espada Ditch.

This waterway was previously used to bring water to farmland in the area.

5

A barn stands on the site near the previous homestead area.

An aerial of the barn area shows the corral fencing that still stands adjacent to the barn.

6

The Southern Tract of the site contains a high point, from which downtown San Antonio may be viewed.

The Southern Tract is designated for use by Texas A&M University - San Antonio.

7

This area of the site has been most recently been used for farming purposes and is now returning to a grassland savanna habitat.

Mesquite growth is entering the area, but most of the vegetation consists of grass species.

8

A few large pecan trees are within the mesquite thicket of the site.

These large pecan trees provide food and a unique habitat for animals that may live on the site.

9

The San Antonio River is seen on this aerial of the Espada Nature Park site.

Access to the river is difficult for most of the site, as there are steep banks and drop-offs along the river.

10

A unique ecosystem has formed in an area of the site that previously had an oxbow of the river going through it.

Since the river changed paths and retreated from the area, dense vegetation has reclaimed the area.

11

On the southern edge of the site, a previous gravel quarry is evident.

This area contains rocky soils and some steep topography.

12

On the southeastern corner of the site, the topography along the San Antonio river allows for access.

The river bank is lower in this area, and the river contains larger rocks and boulders.

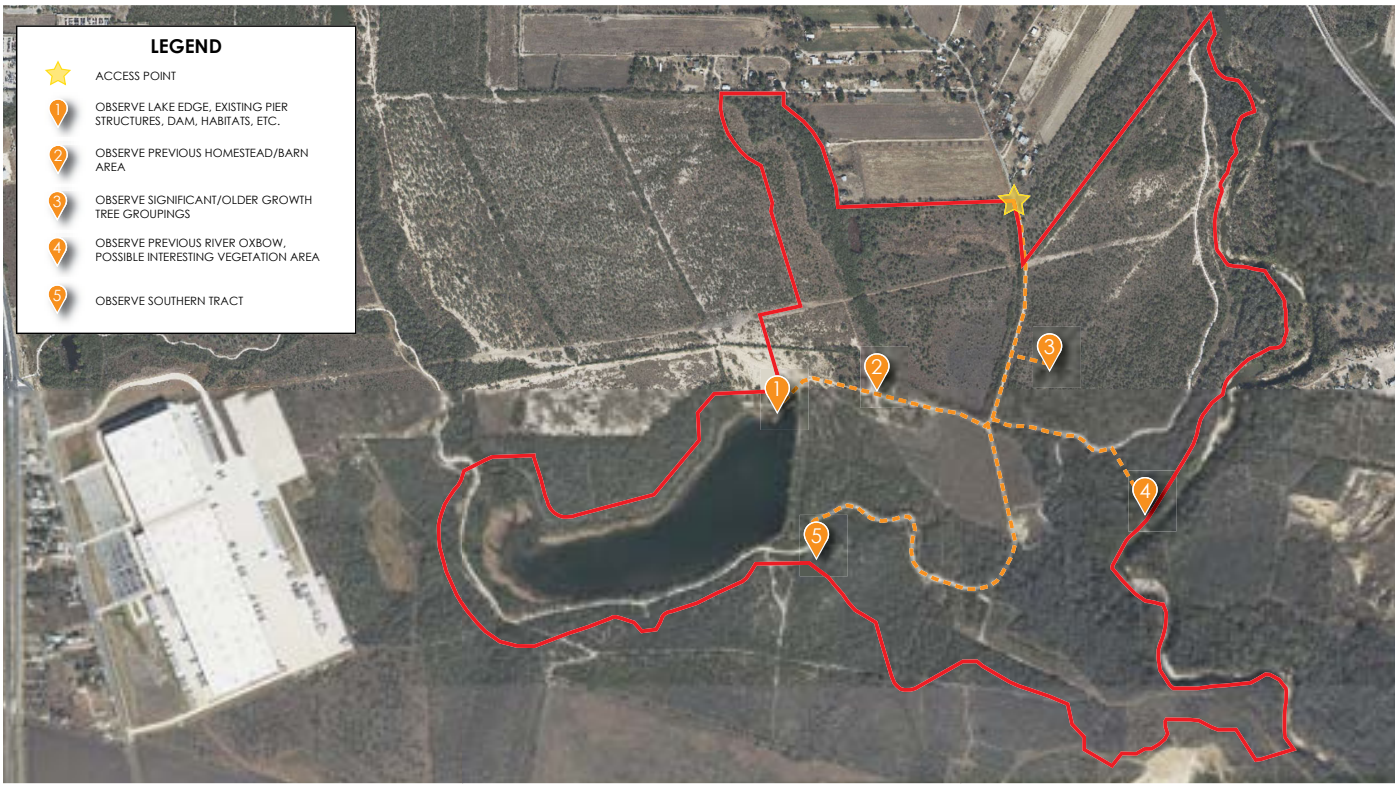
SITE VISITS

Site Visit 1 - November 2, 2022

The points of interest to visit during the first site visit at the Espada Nature Park were established by reviewing historic aerials of the site and analyzing the project team's future plans for the site. The first location visited was the lake edge and dam structure. Next, the team observed the historic barn and homestead areas. The barn structure and corral remain on the site, but the homestead structure has been removed, with D'Hanis bricks and stone walls remaining as remnants of previous use. This area presented an opportunity to show the history of the use of the site.

The next areas of the site visited were older tree growth areas and an area near the river. However, topography at the river area proved challenging, and this area was postponed to a later site visit when an easier path could be established.

Lastly, the team attempted to visit the Southern Tract of the site. Again, the steep topography and thick vegetation in this area made access difficult. This location was postponed to a later site visit, to allow for some vegetation clearing for access to the area.



Site Visit 2 - November 18, 2022

The next site visit the project team went on consisted of four locations. These locations were established after analyzing the topography of the site and historic aerials. Before this site visit, SARA coordinated a crew to go out to the site and clear access to areas that were previously not accessible.

The first location on this visit was the wetland/creek area where Minita Creek flows into Cassin Lake. The second location was the Southern Tract of the site, which is the tract belonging to TAMU-SA. This tract had a high point on the site and interesting cactus vegetation.

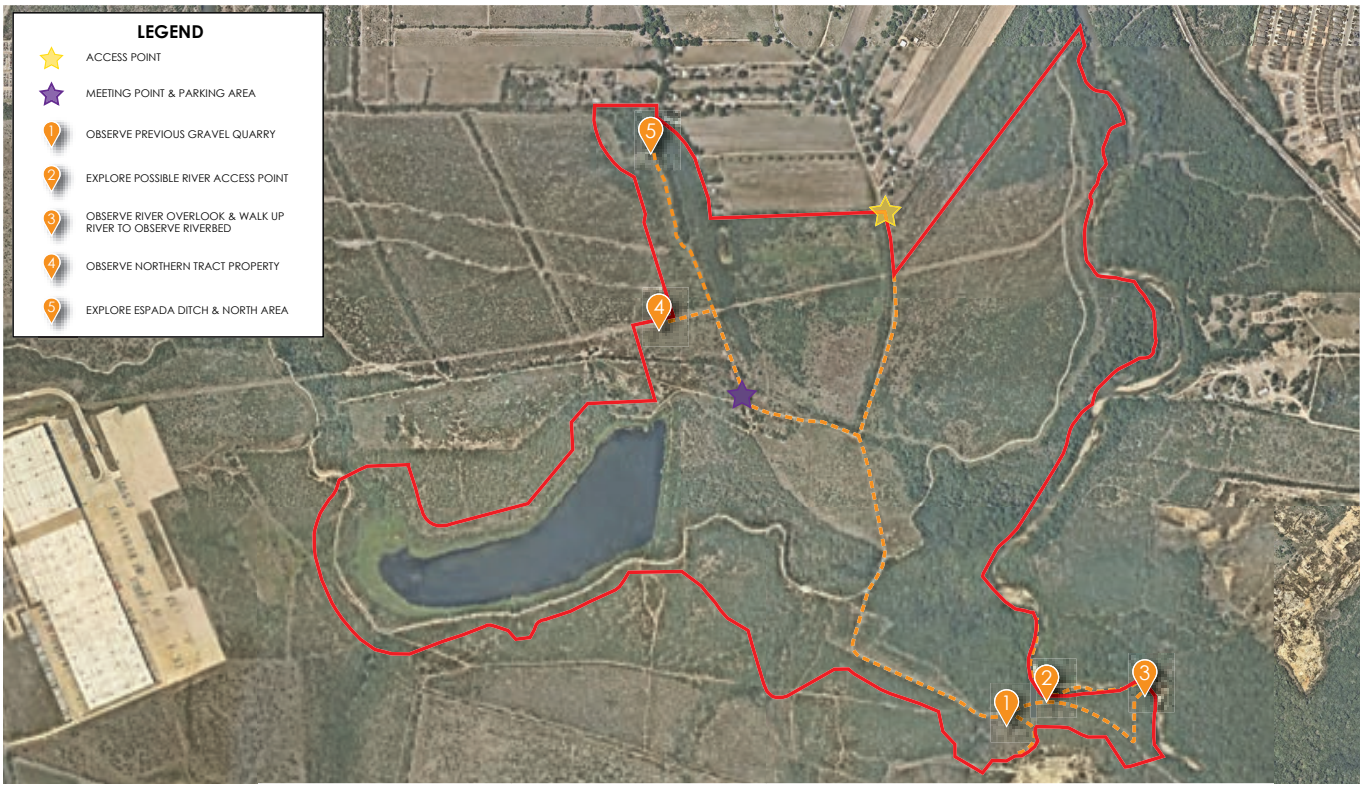
Next, the team went on to an area of the site that was previously a river oxbow on the San Antonio River, but the river has since changed paths. This area was observed to have unique vegetation based on aerials of the site, and the team was not disappointed in what they found on this special area of the site. Lastly, the team visited an area of mature ash trees within the mesquite thicket that covers most of the site.

Site Visit 3 - January 6, 2023

The final site visit the project team took to the site consisted of five final locations that were not visited by the team previously. First, the team visited an area on the southeast corner of the site that is near a previous gravel quarry mine. The topography of this area rises as you get closer to the site boundary and closer to the quarry mine area.

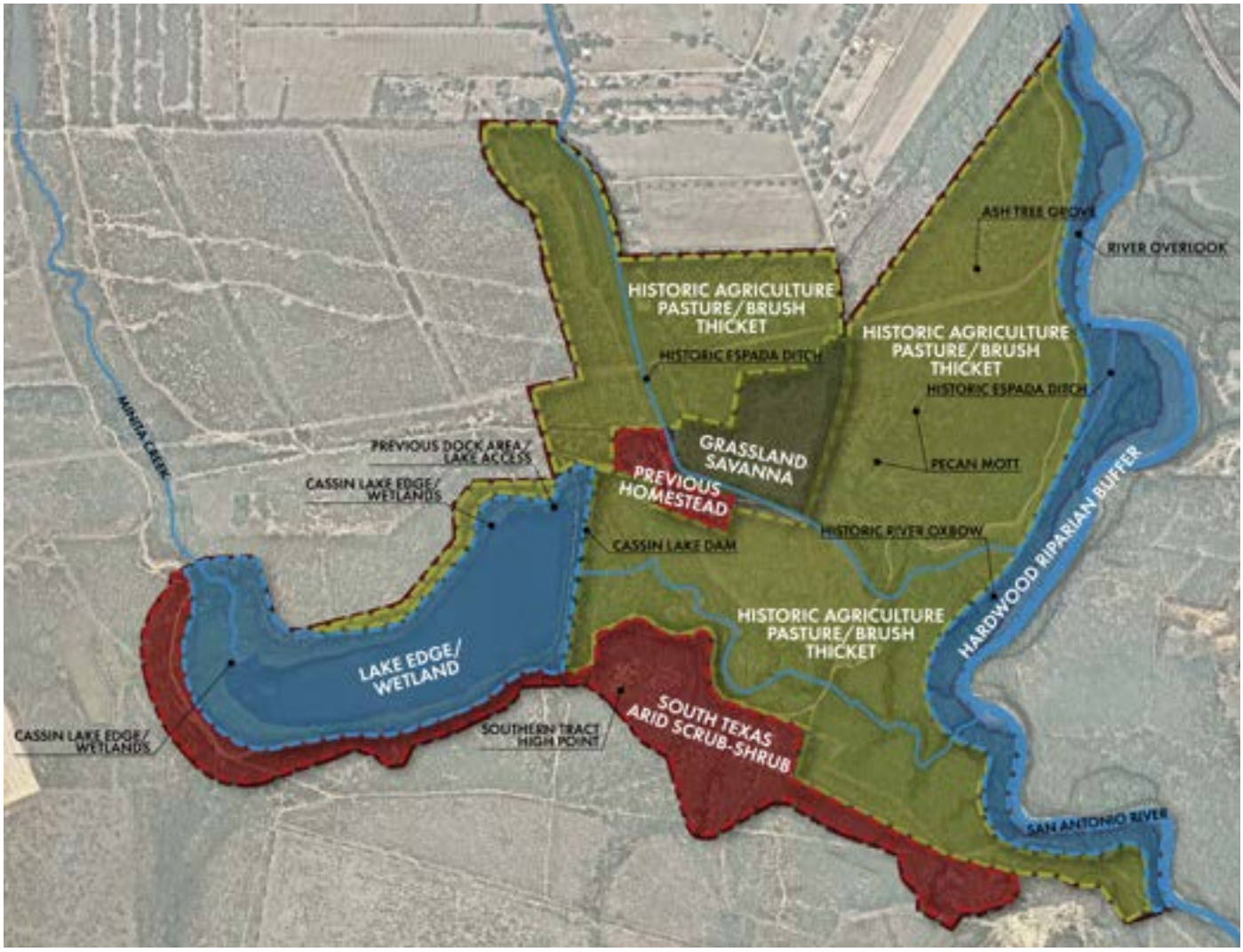
Next, the team visited two locations along the San Antonio River in the southeast area of the site that appeared to have lookout and river access opportunities based on the topography of the site.

The team then headed north, to view the Northern Tract, the tract belonging to SARA, and to view the historic acequias north of the site.



SITE ANALYSIS

Site Regions & Points of Interest



From the three site visits and data collected, the site was analyzed and unique regions were established throughout the site. These regions are depicted on the map graphic above. The text in black points to locations of interest, many of which pictures can be seen on pages 22-25.

This map shows many areas of opportunity for the site, where a visitor may have a unique experience or connect to the site. However, the site also contains many constraints which may hinder development. These constraints are discussed in the following section.

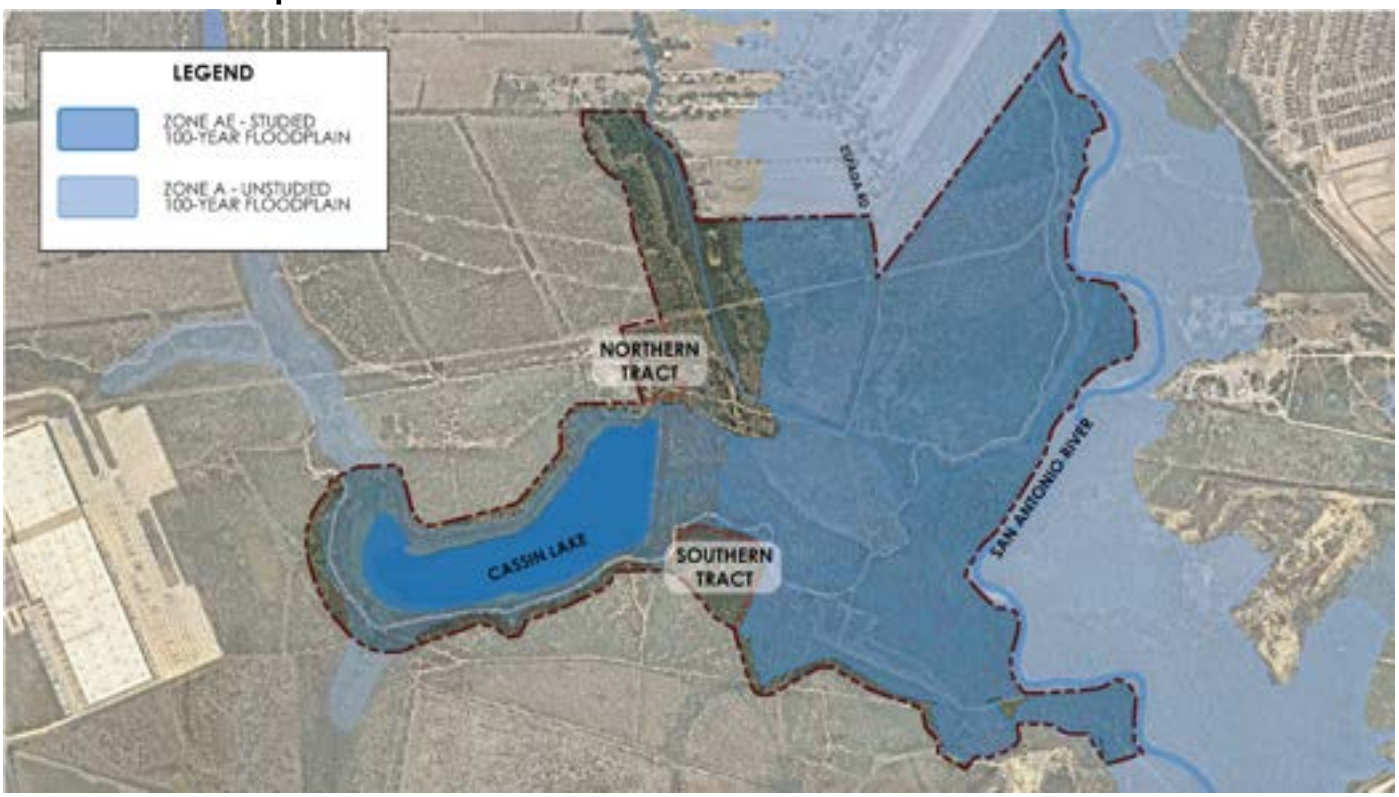
SITE ANALYSIS

Constraints Overview

The Espada Nature Park Site is located along the San Antonio River. Due to its close proximity and low elevations, most of the site is located within the studied 100-year floodplain. The Northern and Southern Tracts of land are positioned out of this floodplain on higher elevations. On the west side of the site, an unstudied 100-year floodplain follows Minita Creek entering the site and surrounds Cassin Lake. The design team identified five key constraints that will influence design of the park, which are explained in the following images. The constraints are as summarized as:

- Floodplain
- Site Access
- River Access
- Conservation Easement Restrictions
- Southern Tract Topography

Constraint: Floodplain



The 100-year floodplain covers most of the Espada Tract site, with few areas being out of the floodplain. Most of this floodplain spans from the San Antonio River, with some of the (unstudied) floodplain being centered on Minita Creek. The few areas that are out of the floodplain are the previous homestead/barn area, the Northern Tract, the Southern Tract, and the northern portion of the site along the Espada Ditch.

Constraint: Site Access

Current access to the site is limited to Espada Road, shown by the yellow asterisk symbol. Residents along Espada Road have concerns with the single access point to the site and possible increased traffic. Alternate access point(s) may need to be established. A possible route is shown by the yellow dashed line.

Constraint: River Access

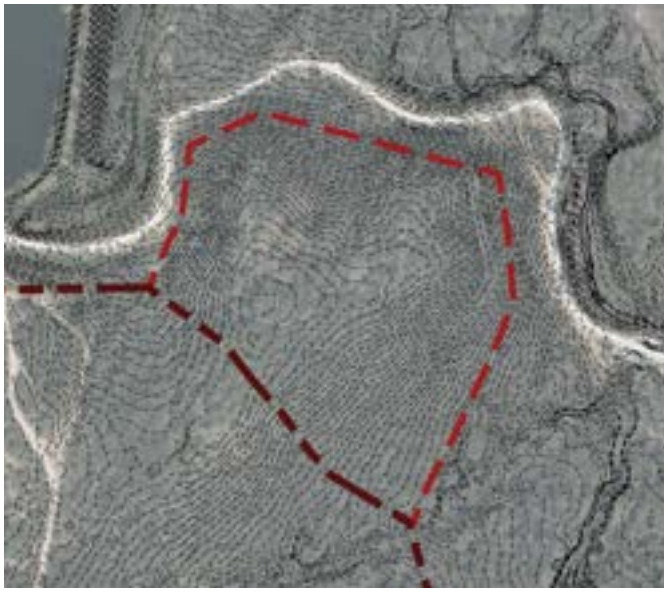
The San Antonio River along the east side of the site has steep topography and drop-offs, making access to the river an issue. The drop-off photographs shown were taken at the yellow asterisk symbol.

Constraint: Conservation Easement Restrictions & Dam Integrity

The Conservation Easement restrictions, which is further outlined on page 8 of this Master Plan, pose various limits and restrictions to the site by which the development must abide. The main constraints are as follows:

- Property will be retained forever predominately in its natural and scenic condition.
- Impervious cover limits:
  - No more than 50% of Northern Tract Area.
  - No more than 25% of Southern Tract Area.
  - No more than 4% of the total property.
- In each tract, one 5,100 square foot building can be built for community educational or recreational purposes.
- One habitable structure (2,500 square feet) can be built for the use of a temporary caretaker.
- Any other structures or property are limited to 250 square feet each, and must be for educational or recreational purposes.
- Dam repairs will possibly be needed (dam location shown by the yellow asterisk symbol).

Constraint: Southern Tract Topography



The Southern Tract of the site (shown by the yellow asterisk symbol), which is designated for use by Texas A&M - San Antonio, contains steep topography. This topography my cause design challenges for this area. There is also dense vegetation covering this site, and limited access to this tract of land without crossing the Howard W. Peak Greenway trail.

DESIGN EXAMPLES

benchmarking

- *gathering and comparing qualitative information about how an activity is conducted through people, processes, and technology.*
- *used to measure performance and success in relation to best-practice processes, which allows organizations to develop plans on how to make improvements or adapt specific best practices, usually with the aim of increasing some aspect of performance.*

Cibolo Center for Conservation

Located in Boerne, Texas, the Cibolo Center for Conservation is over 160 acres large and home to two campuses: Cibolo Nature Center and Herff Farms. The nature center is designed to highlight the different ecosystems it contains including tall grass prairie, woodlands, marsh, tree arboretum, monarch meadow, and honey bee meadow.

In addition to an extensive variety of plants, the Cibolo Center has an abundance of amenities such as a historic barn, nature school and learning village, Herff Homestead, farmers market and inspiration garden, pavilion, and a teaching garden and barn. This expansive site contains more than 6 miles of trails, allowing its visitors to explore. Herff Farms contains a nature preschool, community gardens, Farmers Market, and Edwards Aquifer. This unique site also contains the Cibolo Creek watershed that feeds the Trinity and Edwards Aquifer.

The Cibolo Center for Conservation was a helpful benchmark for this project, as it is nearby in location. The specific regions and habitats in this park, which create unique experiences for the visitor, is something the design team wanted to include in Espada Nature Park.

Shangri La Botanical Gardens & Nature Center

The Shangri La Botanical Gardens and Nature Center is located in Orange, Texas and spans over 250 acres of land. This picturesque site contains various gardens, interactive spaces, and educational displays.

With a focus on education and exposure, this site has a plethora of amenities scattered throughout. Featured amenities include the wetland demonstration garden and the exhibition greenhouses, which include the display and classroom greenhouses. The children's interactive garden has kid-friendly educational opportunities such as vegetable, sensory and butterfly/bird gardens, and a demonstration bee hive.

Shangri La has year-round programs and events like their summer programs, adult workshops. They host season events such as the Scarecrow Festival, Autumn Fair, and Christmas Stroll.

The design team used Shangri La as a benchmark for programming and educational opportunities that could be utilized in Espada Nature Park. The low-impact design of the Nature Center's buildings is also a significant example for the development of Espada Nature Park.

A map of Shangri La shows regions and unique experiences for the visitor to enjoy.

WORKSHOPS & COMMUNITY ENGAGEMENT 3

PUBLIC MEETING 1

February 9, 2023
Texas A&M University - San Antonio
1 University Way, San Antonio, TX 78224

Goals of the Meeting

- Describe the process for the Public Presentations.
- Introduce partnerships and stakeholders.
- Familiarize everyone with the location, context, and existing conditions of the site.
- Discuss potential vehicular access to the site.
- Provide visioning examples for the park.
    - Examples of what it could become.
- Receive community input & feedback.

Next Steps

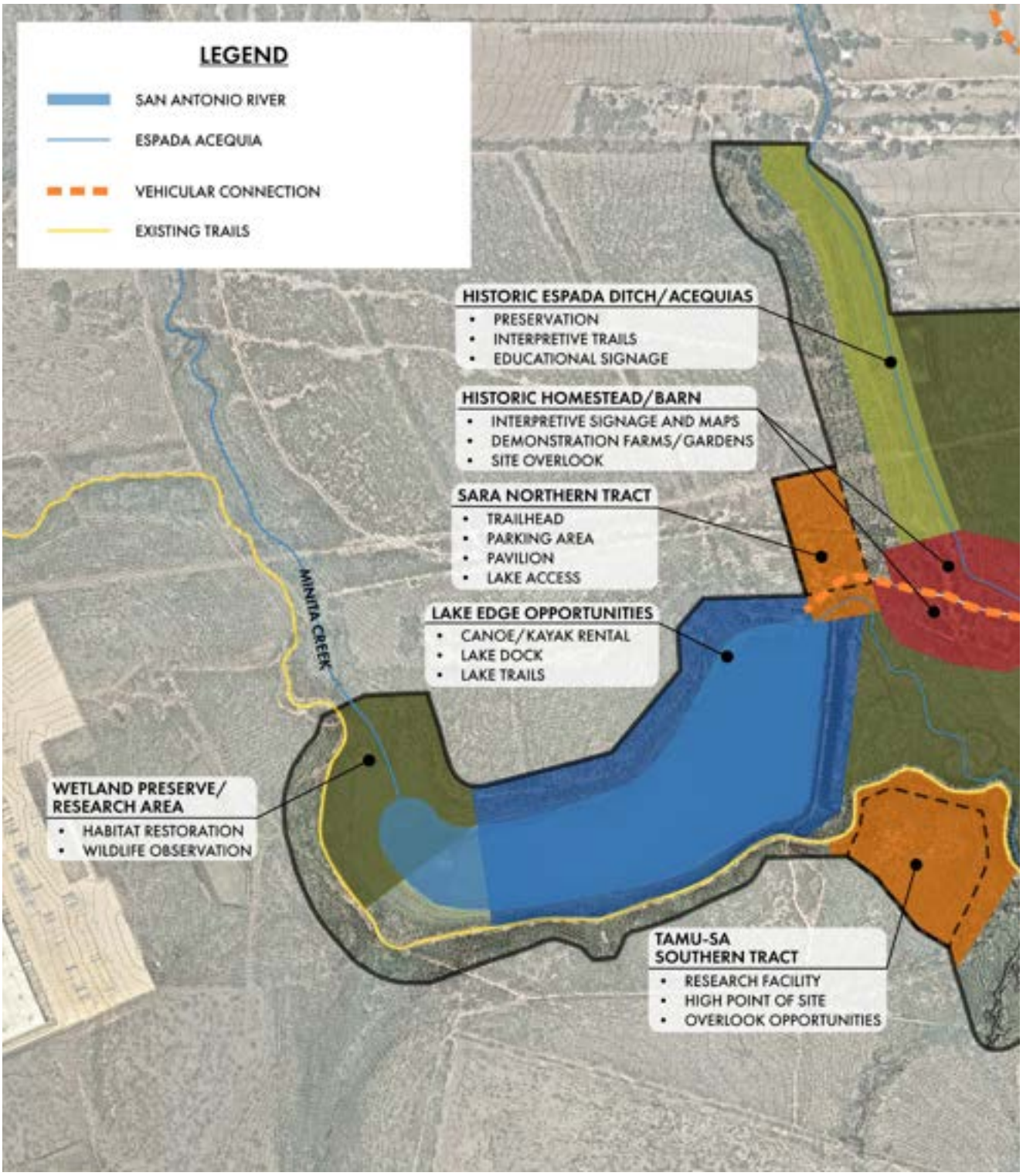
- Provide the community with results from initial public meeting in a graphic and quantifiable method.
- Provide initial concept plan of elements and amenities.

Community Feedback

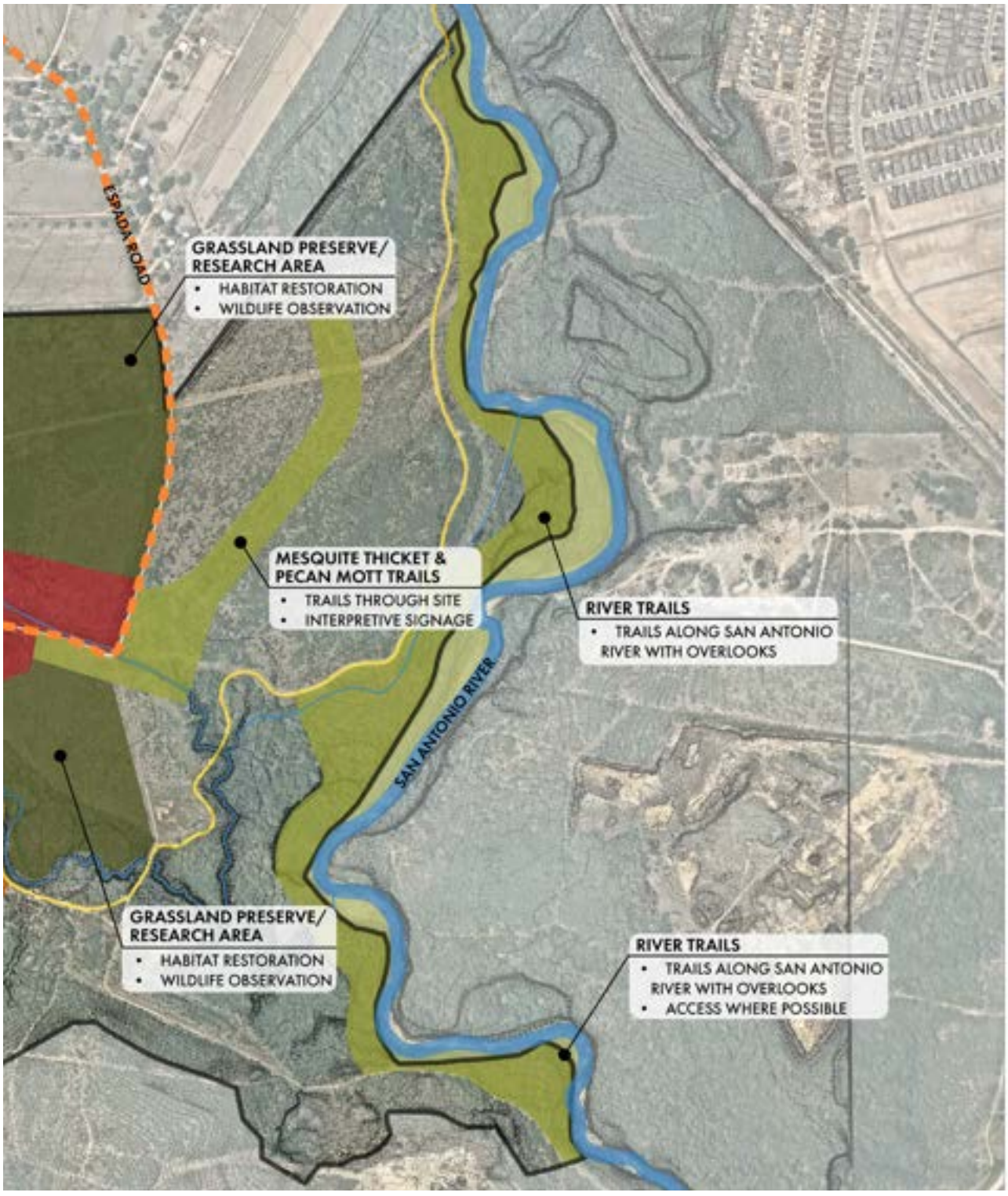
- Many community members had concerns regarding Espada Road as the primary entrance to the park.
- Some community members had concerns about kayak rentals attracting too many users to the lake.
- Parking was a major concern and some mentioned wanting parking closer to the lake.
- Many mentioned wanting the buildings to be sustainable and include green infrastructure and non-toxic materials.
- Community members wanted signage to help tell the story of the site in recent history (ranching) and earlier history (Native Americans).
- Many were in favor of an observation deck to view the entire site from one point.
- There was a large interest in guided tours being provided, specifically ones you can access online as you walk around the site.
- Many community members want some of the site reserved for research for TAMU-SA and SARA use only.
- There were concerns on the ability for the lake to sustain fishing recreation.
- Some people brought up planning for trash and other problems that typically ruin public parks.
- Many were in favor of including naturalistic art that tell the story of the history or present use of the site.
- A community member commented on the National Parks Service involvement on this project due to the stretch of the acequia.
- Some community members mentioned wanting a variety of nature play options.
- Many people mentioned that access to the river is imperative on this site.
- Several community members spoke about wanting to keep the park very natural.
- One person spoke about the need to restore the site since it has been altered already.
- There were concerns about park visitors respecting wildlife and the vegetation.

Preliminary Concept Plan

The concept plan below was displayed at the first public meeting to gauge interest and receive feedback on the park's design. Image boards for possible amenities in each of these areas were shown at the meeting as well.



Community members provided feedback to the concept plan and proposed elements through various methods. The summary of this feedback is in the following section.



Feedback Methods

At the first public meeting, community feedback was received through three different methods. This ensured the most voices were heard by the design team, so the Master Plan of the park could be adapted as needed.

Seven image boards were displayed at the meeting, which are shown on the following pages. Each of these boards corresponded with a region of the park, and showed example imagery of the amenities that could be in an area of the park. The images were numbered on the board for feedback purposes.

The first method of feedback were dot stickers, red and green colored, given to the attendees to place on the boards. Green dots were a positive mark, for amenities that the community member would like to see at the park. Red dots were a negative, for items that the community did not want present at the park. The design team did not receive a large amount of feedback in this method, but it was helpful nonetheless.


PUBLIC MEETING #1 FEEDBACK
ESPADA NATURE PARK - SAN ANTONIO, TX
FEBRUARY 9, 2023
DUNAWAY
SAN ANTONIO
LAKE EDGE OPPORTUNITIES
HISTORIC & INTERPRETIVE TRAILS
PRESERVE/RESEARCH AREAS
HISTORIC HOMESTEAD & BARN

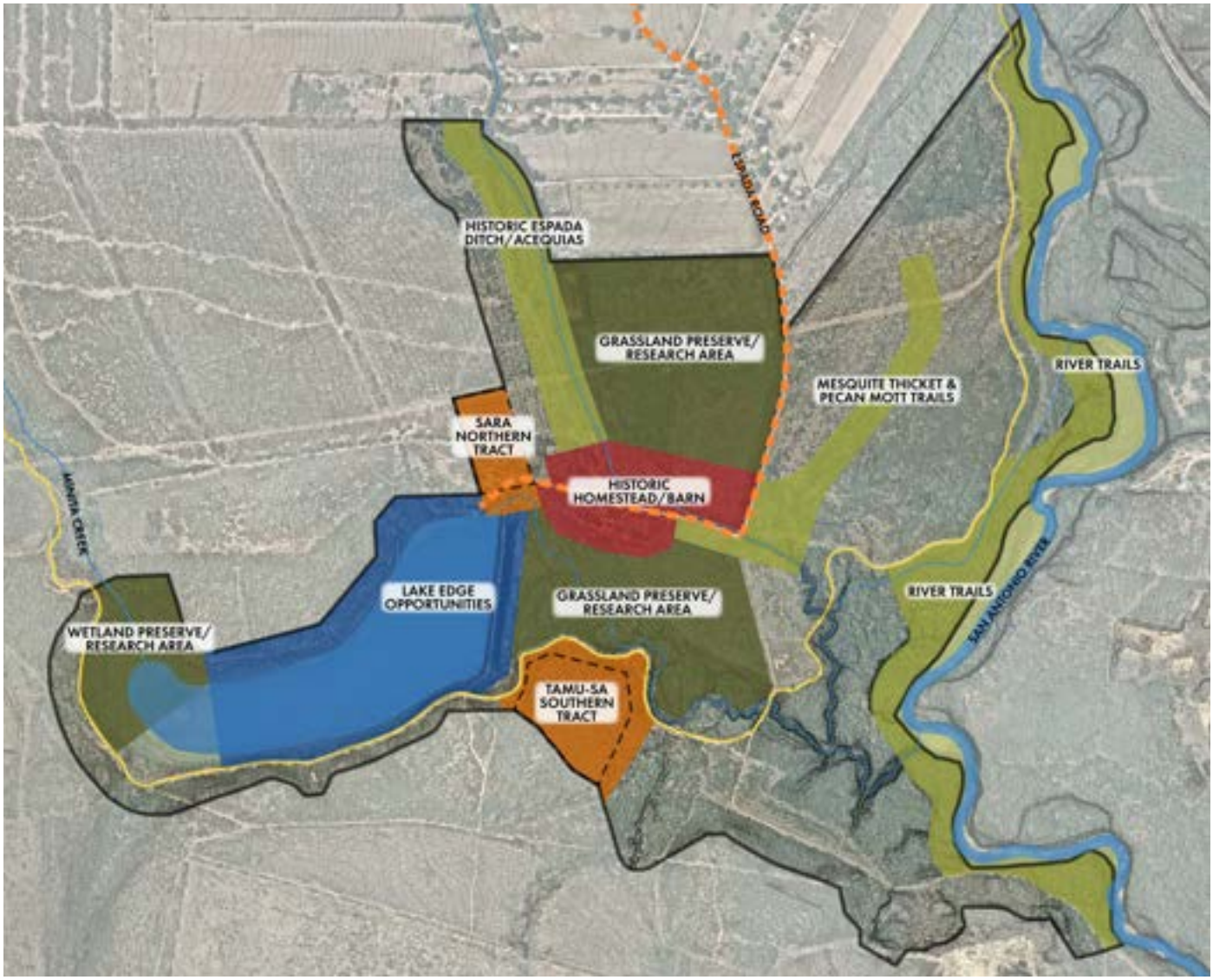
Example of a circle feedback sheet.

The second method of feedback were circle feedback sheets, as shown on the example to the right. These sheets had boxes for each image board. Inside the boxes for each board were the numbers and descriptions corresponding to the images on each board. Attendees at the public meeting were given these sheets and instructed to circle the number corresponding to the amenities they would like to see at this park. This feedback method was effective as it explained what the image was displaying for the community members to understand. The design team received the most feedback from this method.

Lastly, the third method of community feedback was through open-ended feedback sheets. These were essentially pieces of paper with lines on them provided to attendees so they may write any additional feedback they feel is relevant to the project. Much of this feedback has been recorded in the "Community Feedback" on each public meetings' summary section in this master plan.

With this feedback from the surrounding community and feedback from members of SARA and TAMU-SA, the design team reevaluated the preliminary concept plan as it transformed into the final concept plan. Working with this feedback from the public meeting attendees helped the design team know they were creating a park that would be welcomed and enjoyed by the community surrounding it.

Regional Concept Plan



The plan above is a high-level version of the preliminary concept plan, which shows regions of the park and the opportunities within these regions. This plan was shown on all image boards to identify the areas of the park. The image boards displayed examples of possible amenities for each region shown on the plan above. There were seven boards total:

- Lake Edge Opportunities
- Historic & Interpretive Trails
- Preserve/Research Areas
- Historic Homestead & Barn
- River Trails, Overlook & Access Point
- SARA Northern Tract
- TAMU-SA Southern Tract

The feedback received on each of these image boards is summarized on the following pages.

Image Board: Lake Edge Opportunities

Community Feedback Results

Top 3 Voted Amenities

Observation Deck

Restrooms

Pavilion/Picnic Areas

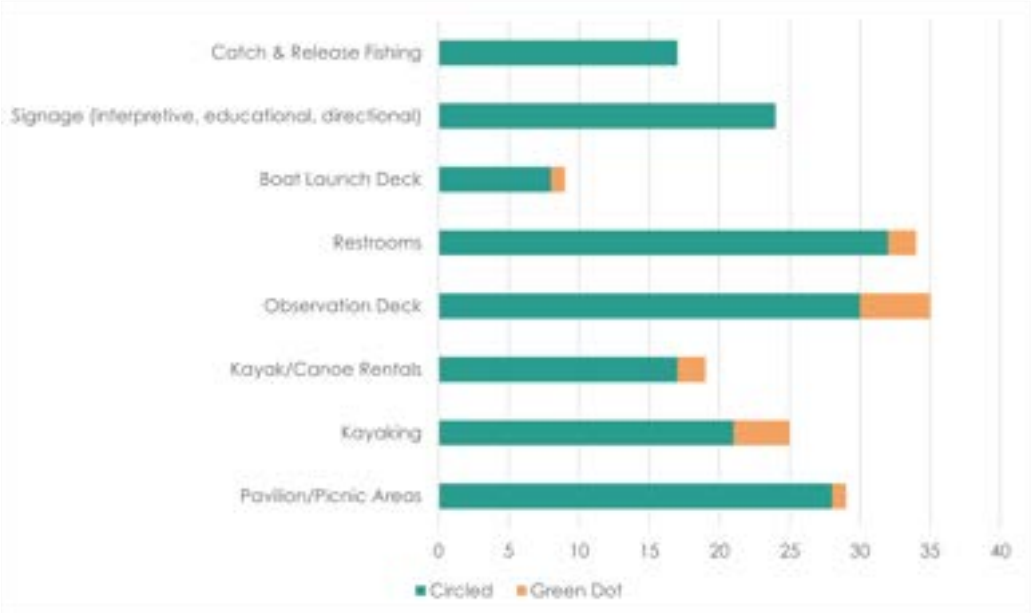


Image Board: Historic & Interpretive Trails


Community Feedback Results

Top 3 Voted Amenities

Natural Hiking Trails

Acequia Education

Art Installations

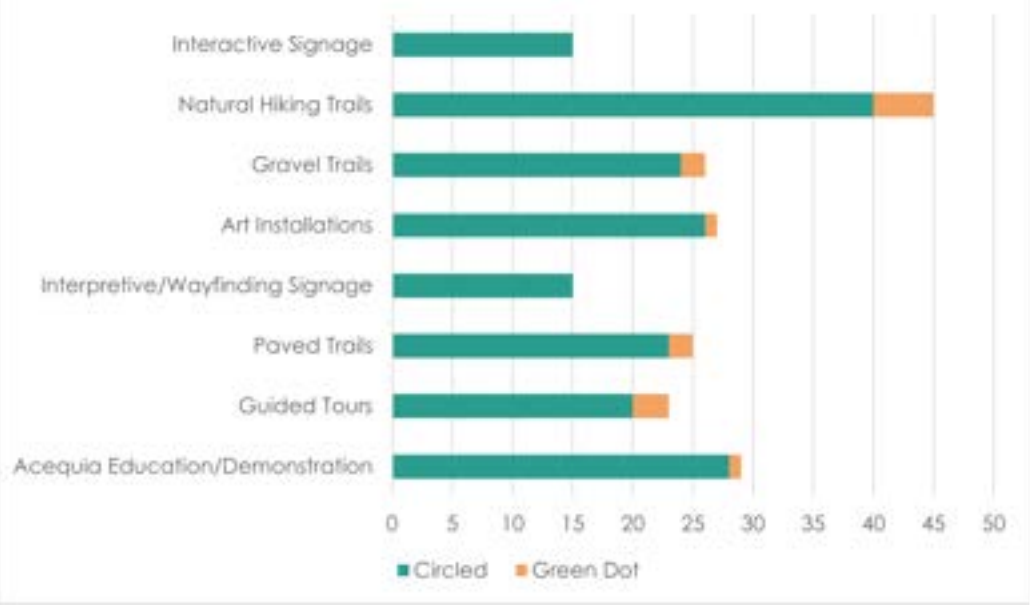


Image Board: Preserve/Research Areas

Community Feedback Results

Top 3 Voted Amenities

Habitat Restoration

Wetland & Lake Research

Grassland Restoration & Wildlife Research

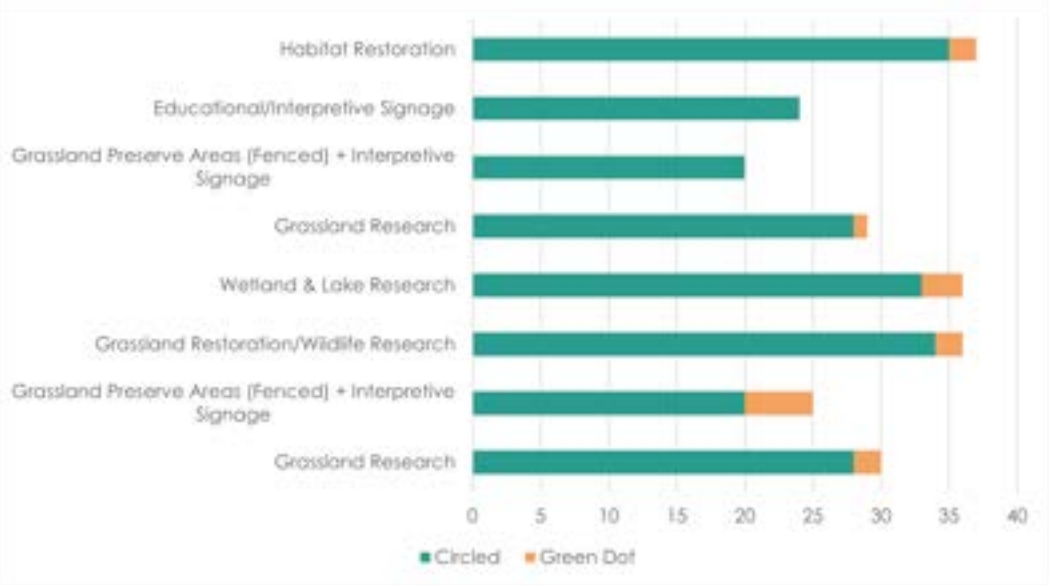


Image Board: Historic Homestead & Barn

Community Feedback Results

Top 3 Voted Amenities

Overlook Platform

Interactive Farm Area

Historic Farm Restoration (Interactive)

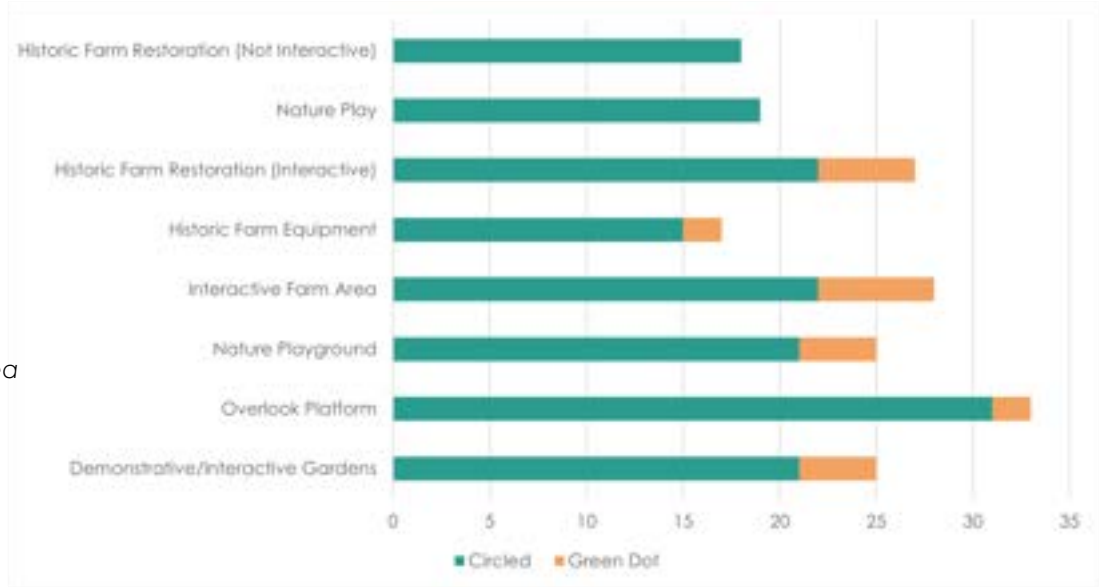


Image Board: Preserve/Research Areas

Community Feedback Results

Top 3 Voted Amenities

River Overlook Areas

Natural Trails

River Research Opportunities

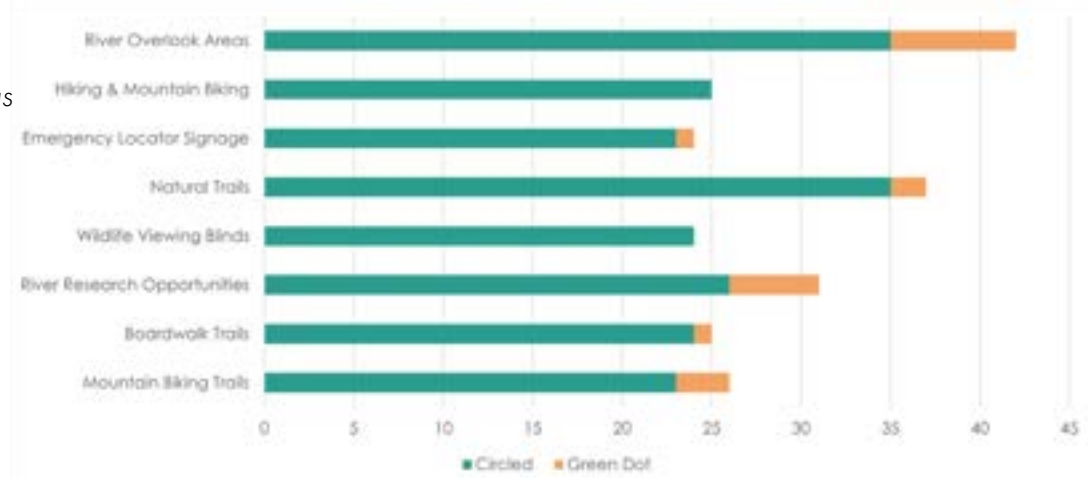


Image Board: Historic Homestead & Barn

Community Feedback Results

Top 3 Voted Amenities

Lake Dock/Fishing Pier

Wildlife Viewing & Interpretive Signage

Outdoor Classroom

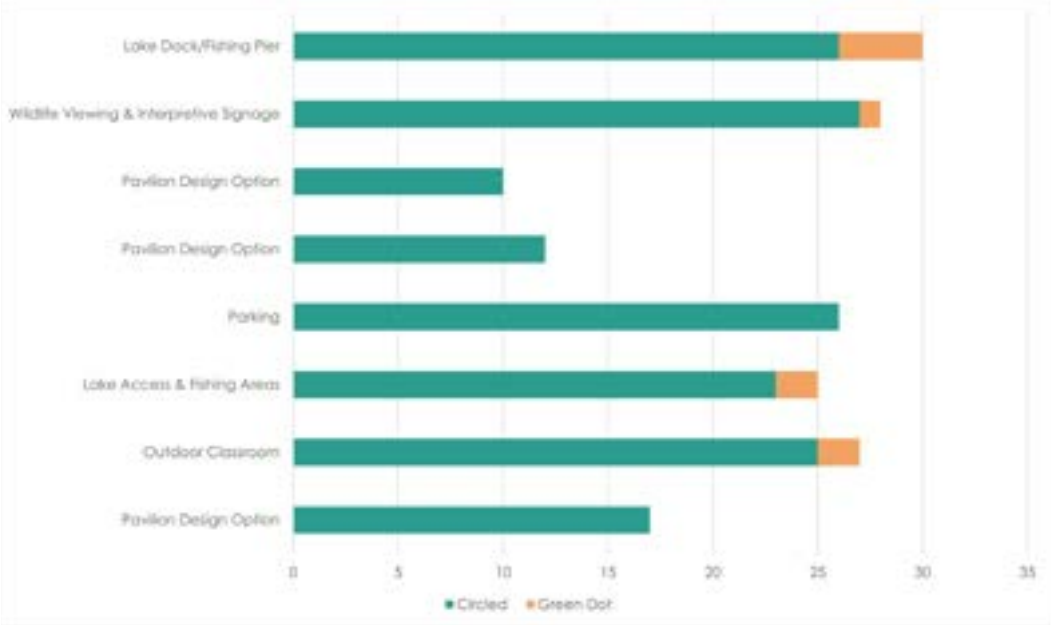


Image Board: Preserve/Research Areas

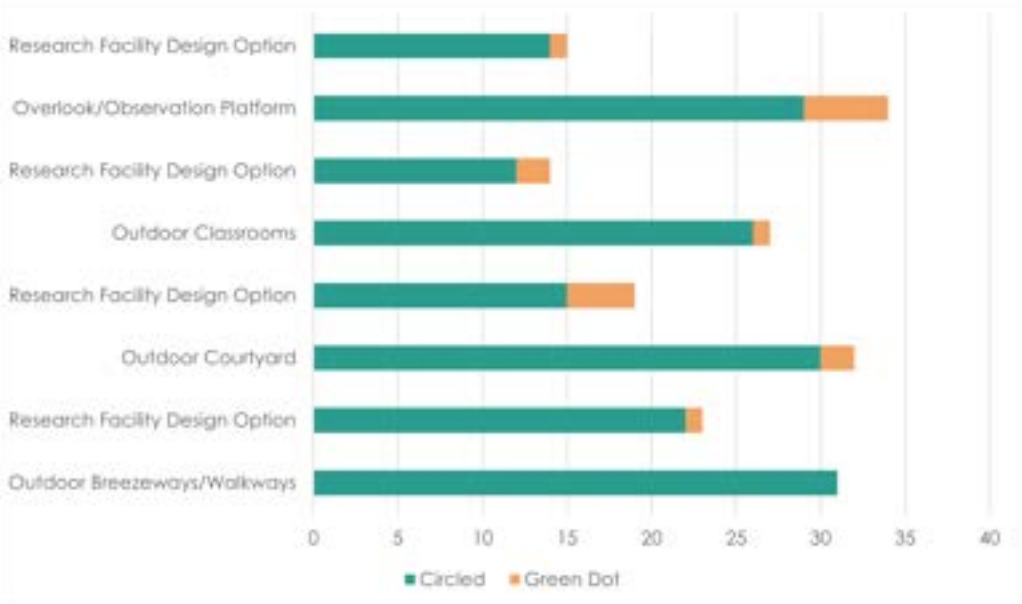
Community Feedback Results

Top 3 Voted Amenities

Overlook/Observation Platform

Outdoor Courtyard

Outdoor Breezeways/ Walkways



PUBLIC MEETING 2

May 5, 2023
Mission Reach Operations Center
8510 Mission Parkway, San Antonio, TX 78214

Goals of the Meeting

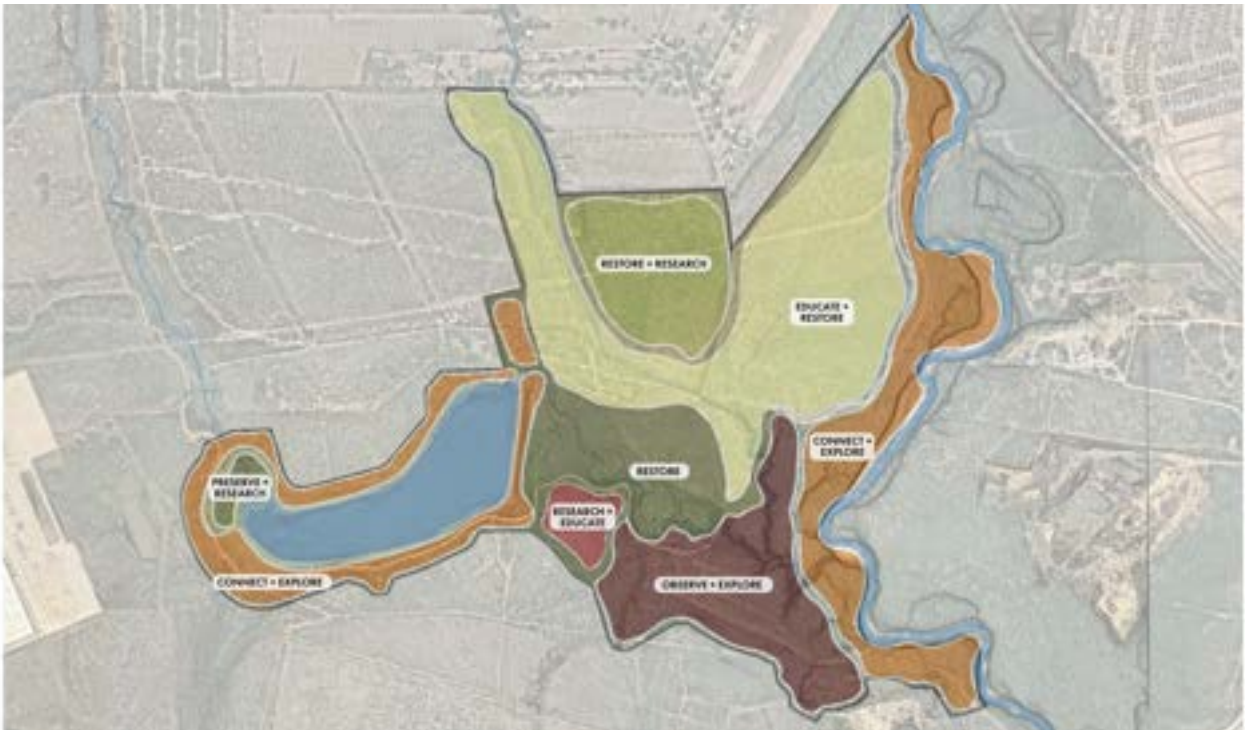
- Re-introduction of the site and stakeholders.
- Review initial concept plan presented in initial meeting.
- Review initial meetings comments & feedback.
- Discuss regions of concept plan.
- Introduce concept plan.
    - Enlargement plans with element icons.
    - Example imagery.
- Partners (TAMU-SA and SARA) speak on the specific research they intend to conduct.

Next Steps

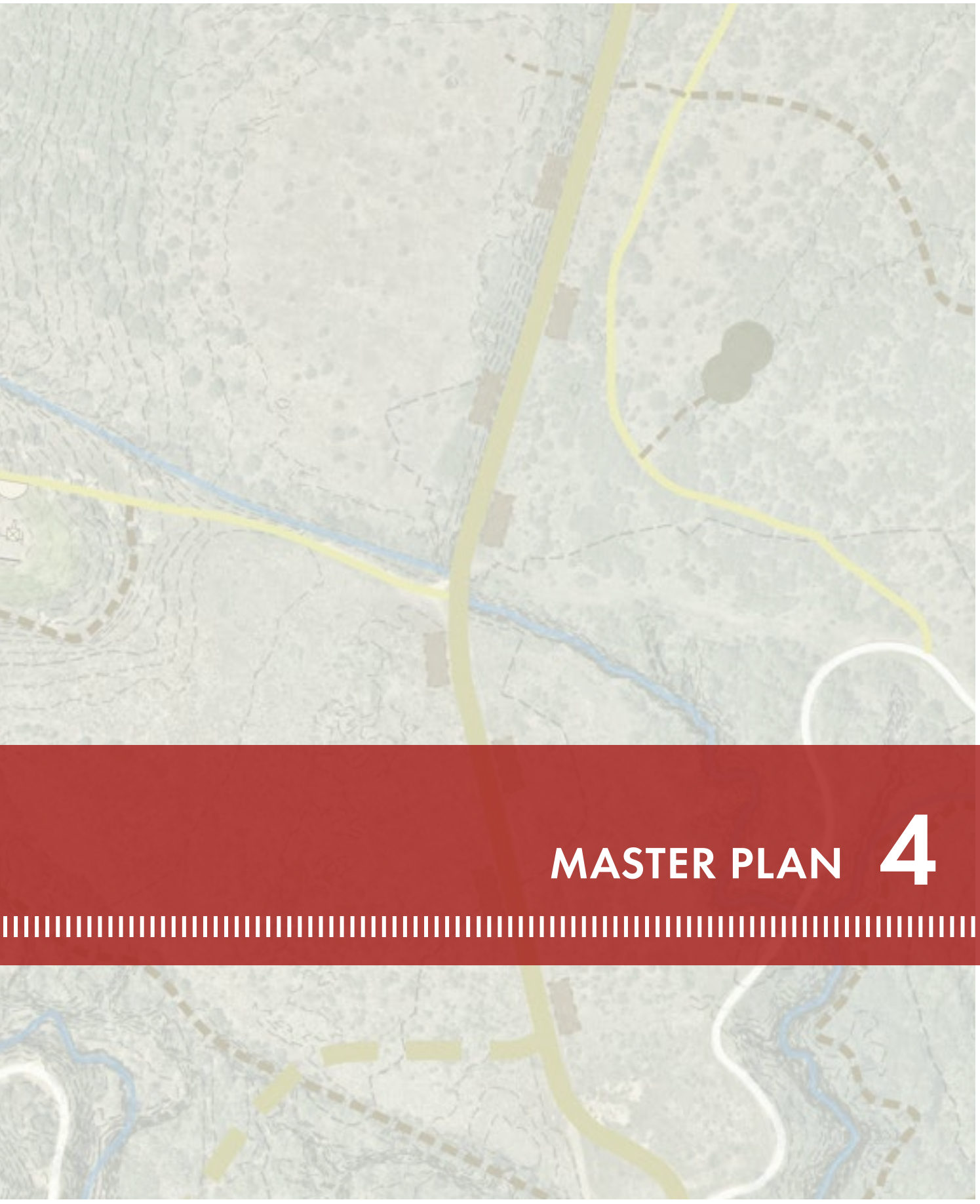
- Draft Master Plan for stakeholder review and approval.
- Establish implementation plan for future park development.

Community Feedback

- Many liked that the majority of the site is left natural and undeveloped.
- A few community members mentioned liking the natural trail along the north side of Cassin Lake.



The final concept plan was presented at Public Meeting #2. See sheet 57 for an enlargement of this concept.



MASTER PLAN 4

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MASTER PLAN VISION & OBJECTIVES

Vision of Espada Nature Park

In the initial meeting and site visits with the San Antonio River Authority and Texas A&M - San Antonio, the design team envisioned Espada Nature Park as a space where both students and community members may visit and enjoy. The site presented its challenges with access, topography, and conservation easement constraints. However, the 379 acre parcel of land has opportunities to **connect** and **educate** the visitor of its history, **restore** the native grasslands and historic acequias that were once there, and **preserve** unique regions for wildlife conservation. Another important aspect of the Park is **research** of the ecosystems and species of the site by SARA and TAMU-SA staff and students. With these objectives in mind, the design team worked with the community during two public meetings to gain feedback on what the park could become.

- **CONNECT**
  join together so as to provide access and communication.
- **EDUCATE**
  give one training in or information on a particular field.
- **PRESERVE**
  maintain something in its original or existing state.
- **RESTORE**
  return something to a former condition, place, or position.
- **RESEARCH**
  the systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions.

FINAL MASTER PLAN

Experiences Identified

Based on site visits, analysis, workshops, and feedback, the design team recognized and establish seven experiences that are unique to various regions of the site. These experiences provide recreational amenities for visitors, while restoring and preserving ecosystems throughout the site. These experiences are as follows:

RESTORE + RESEARCH

Restore the ecosystem to a state before drastic alterations were made by humankind. Research this ecosystem, its habitats and species.

EDUCATE + RESTORE

Educate students and visitors of the history, ecosystems, and habitats of a region. Restore the ecosystem to a state before drastic alterations were made by humankind.

CONNECT + EXPLORE

Connect visitors and students to a unique region of a the site and its features. Allow exploration of the region as to educate and provide experiences within the area.

OBSERVE + EXPLORE

Observe the region, the flora and fauna within, and its characteristics. Allow exploration of the region as to educate and provide experiences within the area.

RESEARCH + EDUCATE

Research the region in its current state and how it evolves over time. Educate students and visitors of the history, ecosystems, and habitats of a region.

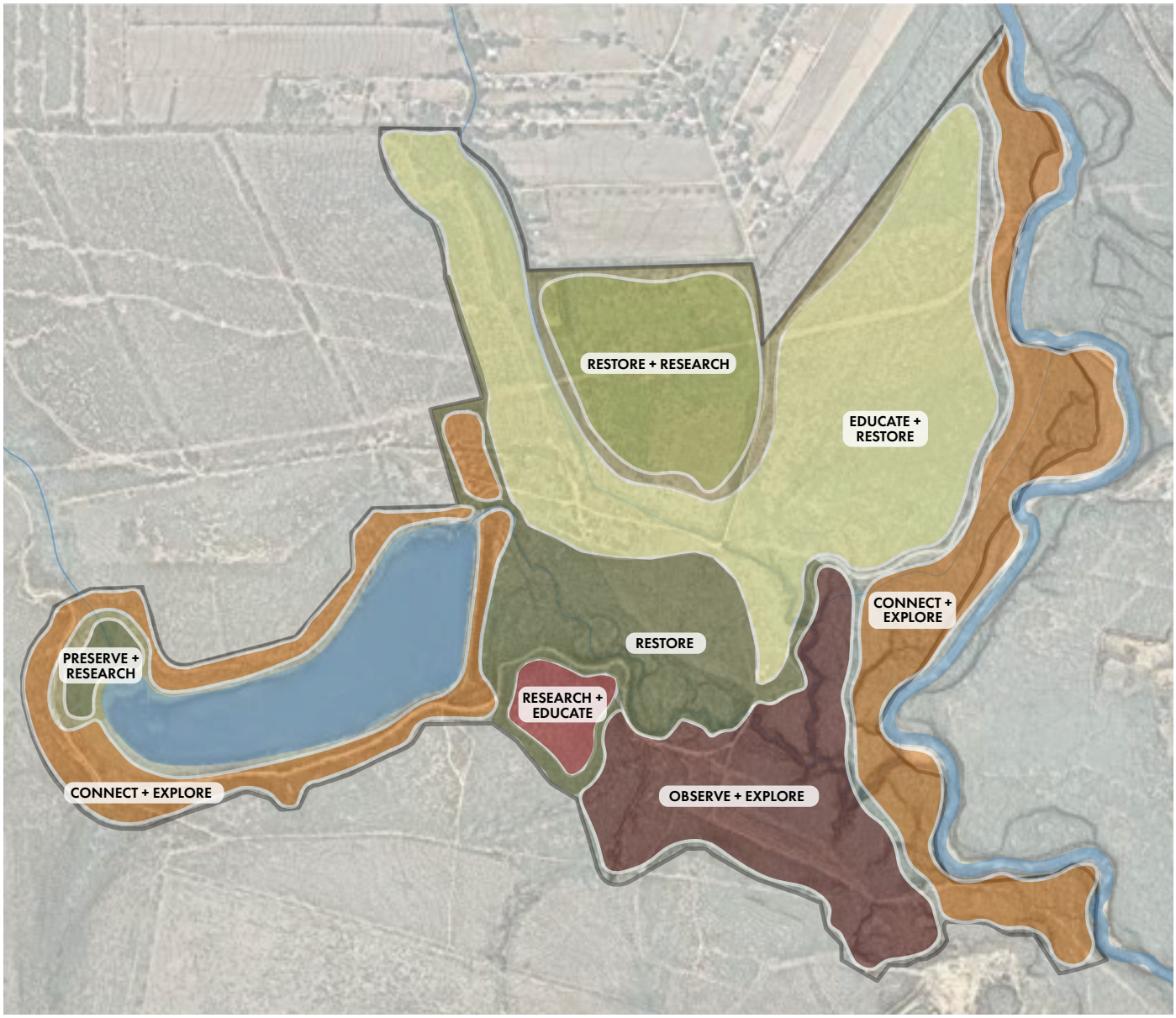
RESTORE

Restore the ecosystem to a state before drastic alterations were made by humankind.

PRESERVE + RESEARCH

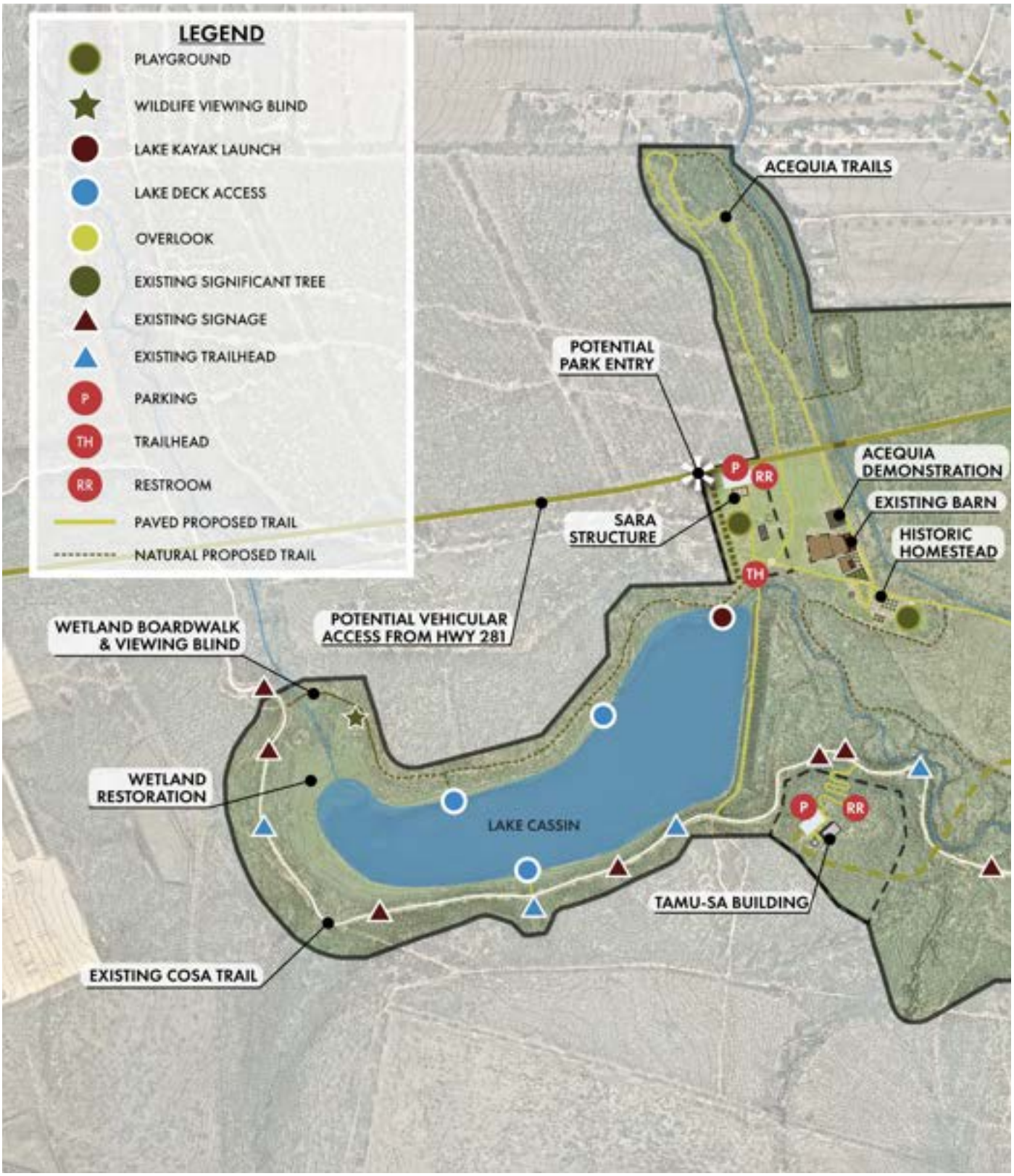
Preserve the ecosystem of an area in its current state, protecting the area from harm or destruction. Research the region in its current state and how it evolves over time.

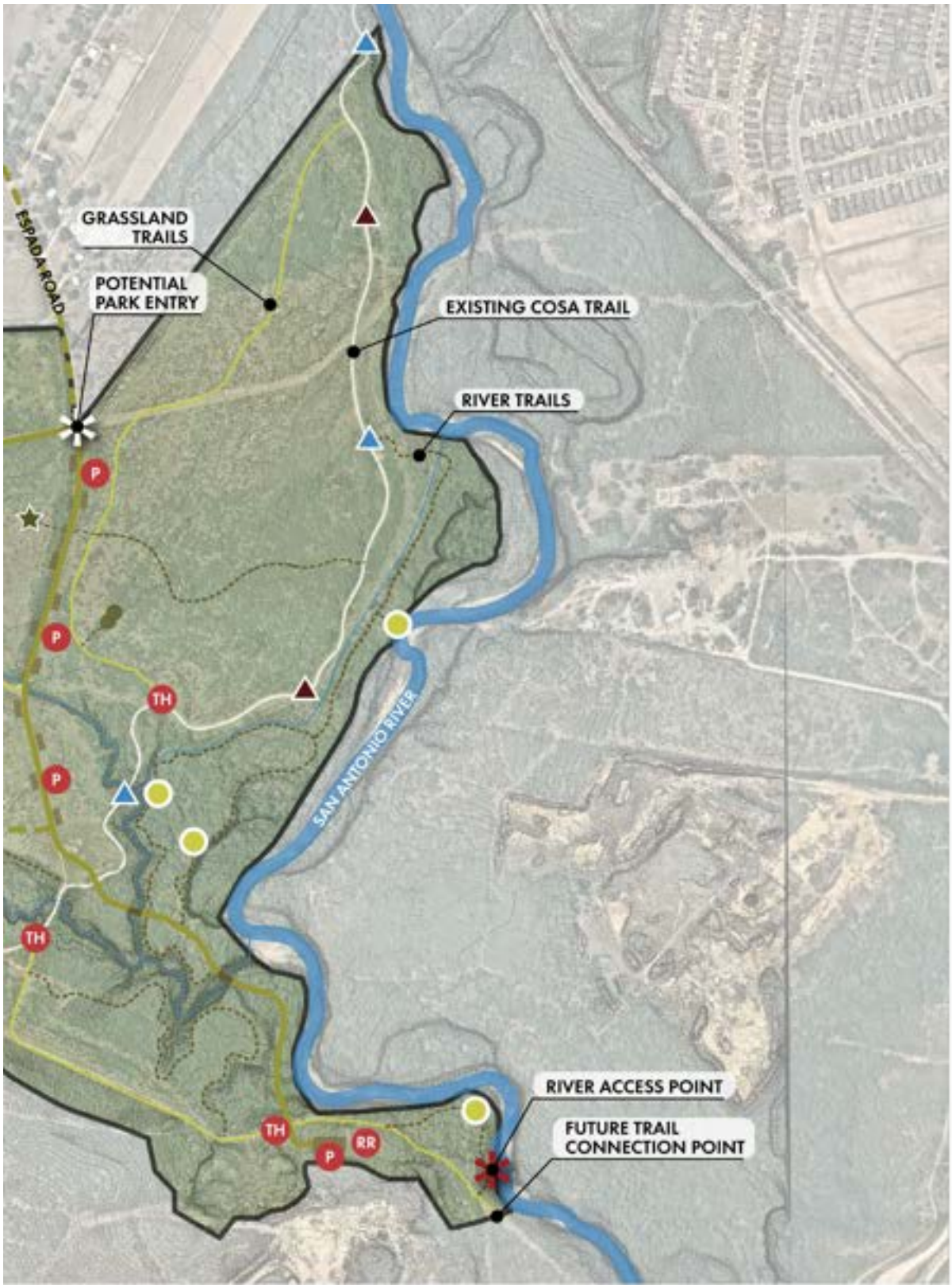
Experiences Throughout the Park



Each of these experiences corresponded to areas throughout the park, which are identified on the plan above. In the final master plan, the design team utilized these regions to determine the amenities and development throughout the park. Maintaining restored and preserved areas of the site for research and native habitat were an important part of the design, as well as a requirement of the site through the Conservation Easement. This was executed while also making sure community members, SARA and TAMU-SA staff and students are able to utilize and enjoy the park.

FINAL MASTER PLAN




ESPADA ROAD
GRASSLAND TRAILS
POTENTIAL PARK ENTRY
EXISTING COSA TRAIL
RIVER TRAILS
SAN ANTONIO RIVER
RIVER ACCESS POINT
FUTURE TRAIL CONNECTION POINT
P
TH
RR

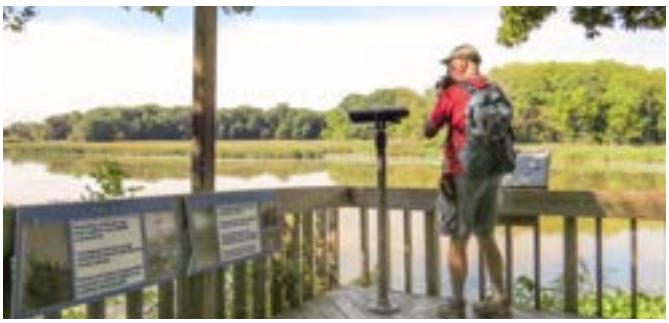
FINAL MASTER PLAN

Areas of the Espada Nature Park

On the north side of the site, the **SARA Tract** will serve to welcome visitors into the site with a parking area, pavilion, and picnic areas. The homestead and interactive barn area nearby will educate the community about the history of the site and its previous land use. An acequia demonstration will illustrate to visitors how the Espada Ditch used to bring water in to irrigate the land.

Adjacent to Cassin Lake, the **Lake Edge** area of the site will bring visitors closer to the water edge with amenities such as paved trails, catch and release fishing, and picnic areas. Interpretive signage will educate the visitor about the lake and the habitats surrounding it. The wetland area where Minita Creek feeds into the lake will be preserved and protected for research by staff and students.

Grassland Trails will wander through the east side of the site, taking visitors through areas of habitat restoration and grassland research. Interpretive signage and wayfinding signage will guide the user, and emergency locators will be located along the trails. Small parking areas will be located along the access road into the site.



The **River Trails** along the San Antonio River will lead the visitor closer to the river's edge, along boardwalk and natural trails. Overlooks will be located along the river with interpretive signage. Dedicated river research areas will be included for SARA and TAMU-SA staff and students' use. Along these trails, the visitor may see unique habitats and ecoregions, such as the historic river oxbow.

On the south side of the site, the **TAMU-SA Tract** will contain areas for research and education. A research facility, natural trails, and habitat restoration areas will allow for research by staff and students. Natural trails and an outdoor classroom will provide educational areas where visitors may enjoy and utilize the site.

CONNECT + EXPLORE

SARA TRACT AMENITIES

- Guided Tours
- Pavilion & Picnic Area
- Paved Trail
- Boardwalk Trail
- Nature Play
- Outdoor Classroom
- Parking
- Interpretive Signage
- Acequia Demonstration
- Restroom
- Art Installation
- Interactive Barn Area
- Nature Playground
- Interactive Garden
- Historic Farm Equipment
- Wayfinding Signage

CONNECT + EXPLORE

SARA TRACT

SARA Northern Tract

Interactive Barn Area: Before

Interactive Barn Area: After

PRESERVE + RESEARCH

LAKE EDGE AMENITIES

- Wetland Research
- Lake Deck Access
- Paved Trail
- Boardwalk Trail
- Catch & Release Fishing
- Outdoor Classroom
- Wildlife Viewing Blind
- Interpretive Signage
- Kayak Launch
- Natural Trail
- River Overlook

RESTORE + RESEARCH

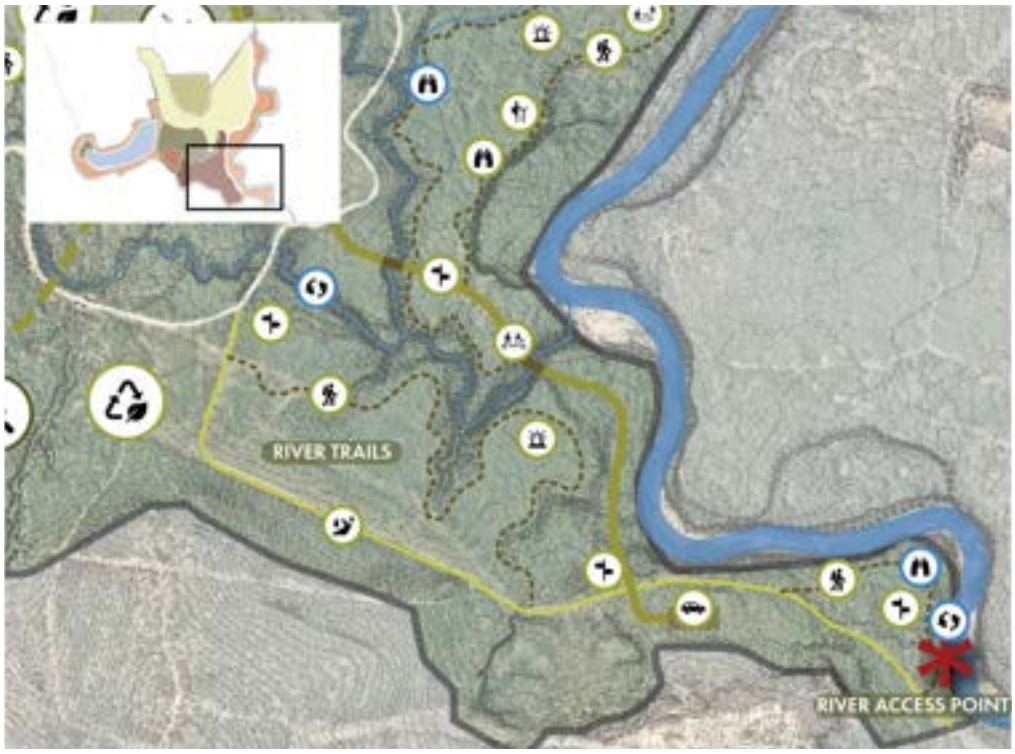
GRASSLAND TRAILS AMENITIES

- Guided Tours
- Picnic Area
- Paved Trail
- Habitat Restoration
- Research
- Grassland Research
- Parking
- Interpretive Signage
- Viewing Blind
- Wayfinding Signage
- Art Installation
- Natural Trail
- Emergency Locator
- Boardwalk Trail

RESTORE + RESEARCH

GRASSLAND TRAILS

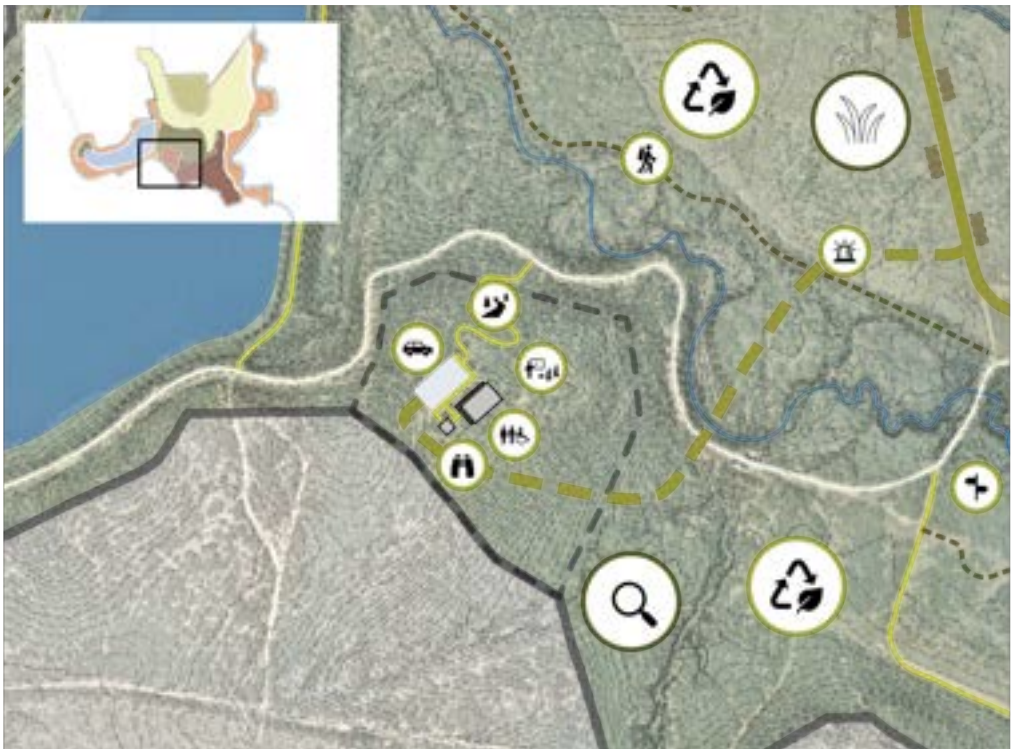
CONNECT + EXPLORE



RIVER TRAILS AMENITIES

- Natural Trail
- Emergency Locator
- Overlook
- Boardwalk Trail
- River Overlook
- Wayfinding Signage
- River Research
- Interpretive Signage
- Parking
- Habitat Restoration
- Research

RESEARCH + EDUCATE



TAMU-SA TRACT AMENITIES

- Natural Trail
- Emergency Locator
- Overlook
- Habitat Restoration
- Paved Trail
- Outdoor Classroom
- Restroom
- Research
- Parking
- Wayfinding Signage
- Grassland Research

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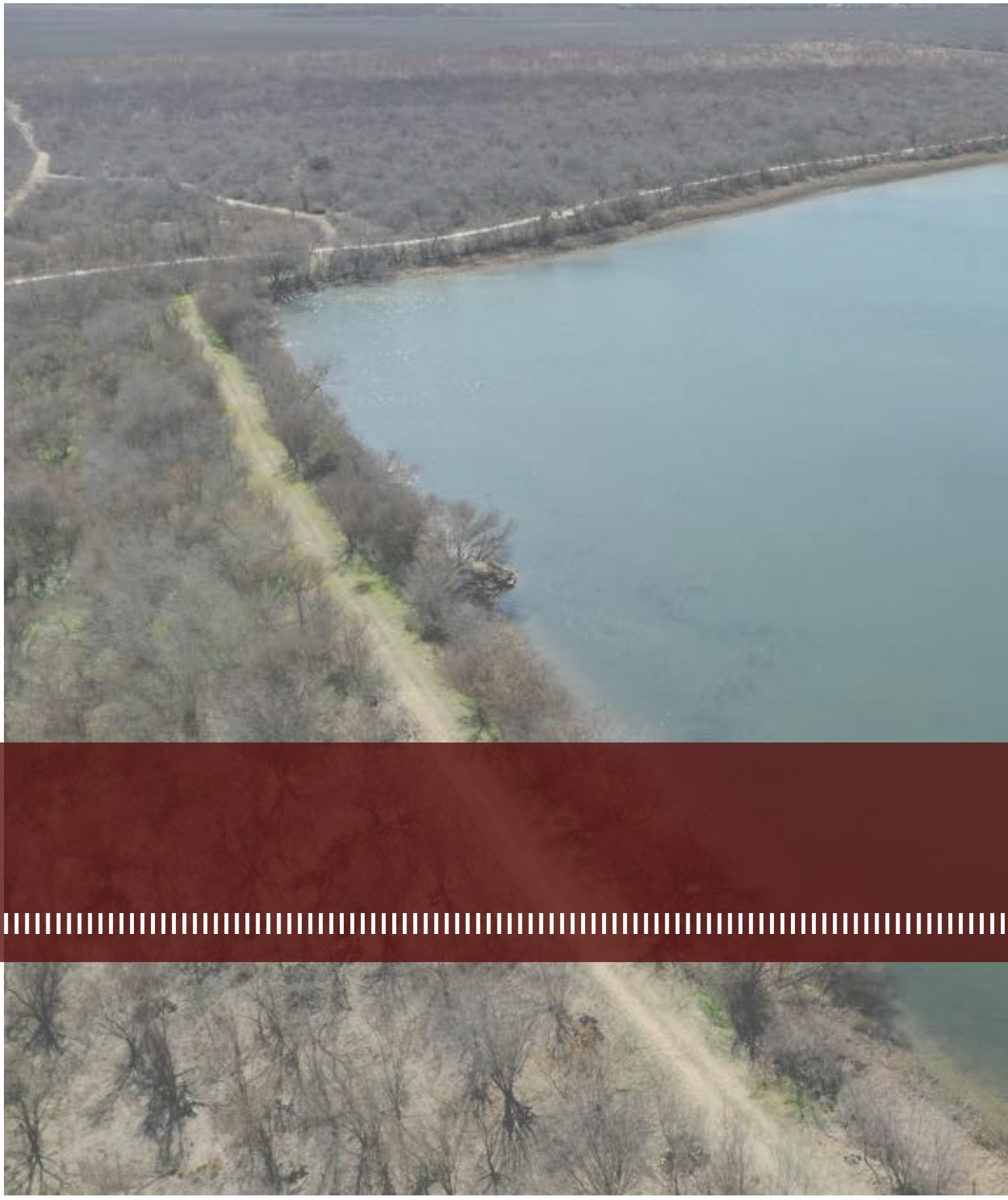

IMPLEMENTATION 5

COST ESTIMATE

Dunaway constructed the below Cost Estimate based on the final concept plan approved by the design team in May 2023. Most items on this Cost Estimate serve as allowances or estimates of probable construction costs. Budget predictions are based on recent unit pricing from similar project types. Actual construction costs may vary depending on market conditions. Inflation rates may vary and be calculated at an estimated rate of 2% to 3% per calendar year.

Opinion of Probable Construction Costs

General Site Items

• Site Preparation & Mobilization	$325,000.00
• Demolition	$25,000.00
• Earthwork	$50,000.00
• Lighting & Electrical	$125,000.00
Subtotal	$525,000.00

Structures

• SARA (Northern Tract) Building	$1,250,000.00
• Pavilion Allowance	$75,000.00
• TAMU-SA (Southern Tract) Building	$1,000,000.00
• TAMU-SA Overlook Platform	$30,000.00
Subtotal	$2,355,000.00

Parking & Pavement

• Vehicular Road (Asphalt)	$1,050,000.00
• Trail (Concrete)	$1,320,000.00
• Trail (Natural)	$805,000.00
• Parking Lot	$270,000.00
• Boardwalk Trail	$1,040,000.00
Subtotal	$4,458,000.00

Site Amenities

• Nature Playground	$75,000.00
• Playground Allowance @ Homestead	$100,000.00
• Wildlife Blinds (3)	$15,000.00
• Signage (Interpretive & Wayfinding)	$30,000.00
• Outdoor Classroom	$10,000.00
• Site Furniture	$75,000.00
• River Overlooks (7)	$49,000.00
• Lake Dock	$75,000.00
• Emergency Locators	$15,000.00
• Barn Restoration	$25,000.00
• Landscape & Irrigation	$75,000.00
• Dam Repair	$60,000.00
• Trailhead (Large - 2)	$100,000.00
• Trailhead (Small - 3)	$60,000.00
• Art Installations (2)	$20,000.00
Subtotal	$834,000.00

Summary of Construction Totals

• General Site Items	$525,000.00
• Structures	$2,355,000.00
• Parking & Pavement	$4,485,000.00
• Site Amenities	$834,000.00
Base Subtotal	$8,199,000.00
+/- 20% Contingency	$1,639,800.00
Construction Total	**$9,838,800.00**

CONCLUSION

The Master Plan of Espada Nature Park was created by compiling the history of the site, the existing conditions and features of the property, and the stakeholders and surrounding communities' vision for the park. While this grand vision gives a sense of hope and excitement, the cost of the park becoming its final vision may not be feasible all at once. The San Antonio River Authority and Texas A&M University - San Antonio may consider phasing out the development of the Espada Nature Park, choosing to prioritize certain site features over others in the path to final master plan realization. The following phases are recommended but could be adapted as SARA and TAMU-SA see fit. Some phases, such as Phases 2 through 4, could be reordered as desired by the stakeholders.

Phase 1: Park Access

- Establish main roadway corridors throughout the site.
- Clear trail paths and lay gravel on some trails.
- Establish (temporary or permanent) parking areas within the site.
- Implement basic wayfinding signage.
- Establish some emergency locator signage locations.

Phase 2: SARA Tract

- Design and construct the pavilion and picnic areas.
- Construct the parking lot.
- Construct amenities such as a restroom, dock on the lake, nature playground, and park signage.

Phase 3: TAMU-SA Tract

- Design and construct the research facility with restroom and outdoor classroom.
- Establish high point location and construct overlook.
- Provide vehicular access and parking to this area.

Phase 4: Homestead and Barn Area

- Renovate the barn and corral area to create an interactive farm.
- Create the acequia demonstration.
- Construct the historic homestead site and trailhead.

Phase 5: Trail Establishment

- Pave some trails (as Conservation Easement allows).
- Construct the boardwalk trails at Cassin Lake.
- Implement additional signage, wayfinding and interpretive/educational as needed.
- Construct picnic areas along the trails.
- Enhance internal park connectivity.
- Establish additional emergency locator signage.
- Locate and construct wildlife viewing blinds.
- Organize guided tours throughout the site.

Phase 6: River Access Enhancement

- Locate and construct river overlooks.
- Construct the river boardwalk trails.
- Establish the San Antonio River takeout point.
- Provide vehicular access to the river takeout point (public or private access).

The design team of Texas A&M University - San Antonio, the San Antonio River Authority, and Dunaway wish to thank the Texas Land Conservancy, the World Heritage Organization, the City of San Antonio, and the surrounding community members and participants for their assistance in establishing the Espada Nature Park Master Plan.


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