

Cypress Creek Nature Preserve Masterplan



ALVARADO
WORKS



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Project Credits

City of Wimberley

City Mayor: Susan Jaggers

City Council Members: Place 1: Rebecca Minnick, Place 2: Craig Fore, Place 3: Christine Byrne, Place 4: Gary Barchfeld, Place 5: Bo Bowman

Parks and Recreation Director: Rebecca Manning (through July 2019), Kelly Schmidt (Current)

City Administrator: Shawn Cox

Wimberley Valley Watershed Association

Executive Director: David Baker

Managing Director: Ashley Waymouth

AlvaradoWorks Planning and Design

Founder and Principal: Daniel Alvarado

Community Stakeholders

Hays County Master Naturalists

Preservers Group

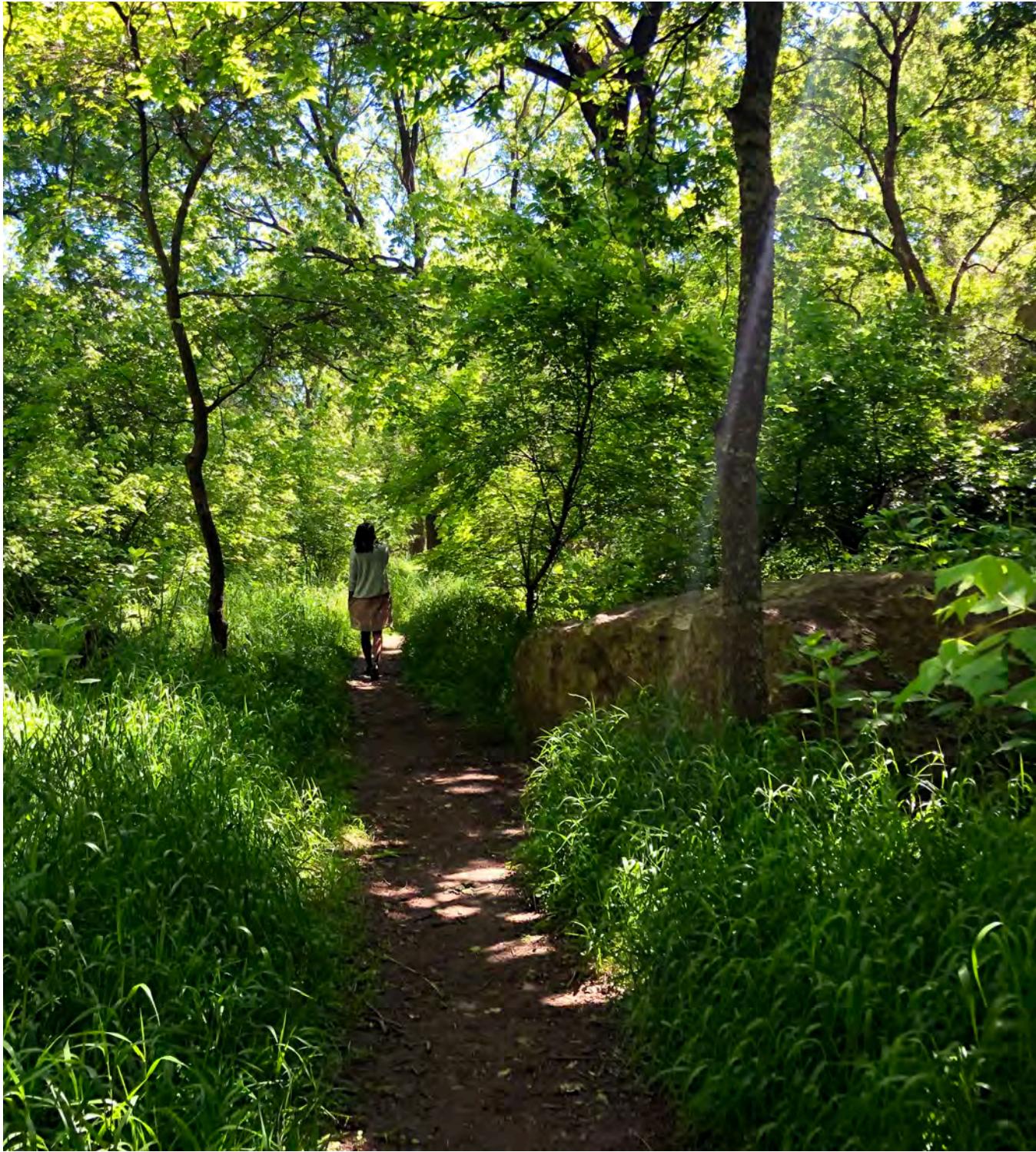
Wimberley Outdoor Educators

Keep Wimberley Beautiful

Wimberley Birding So

...and many more!





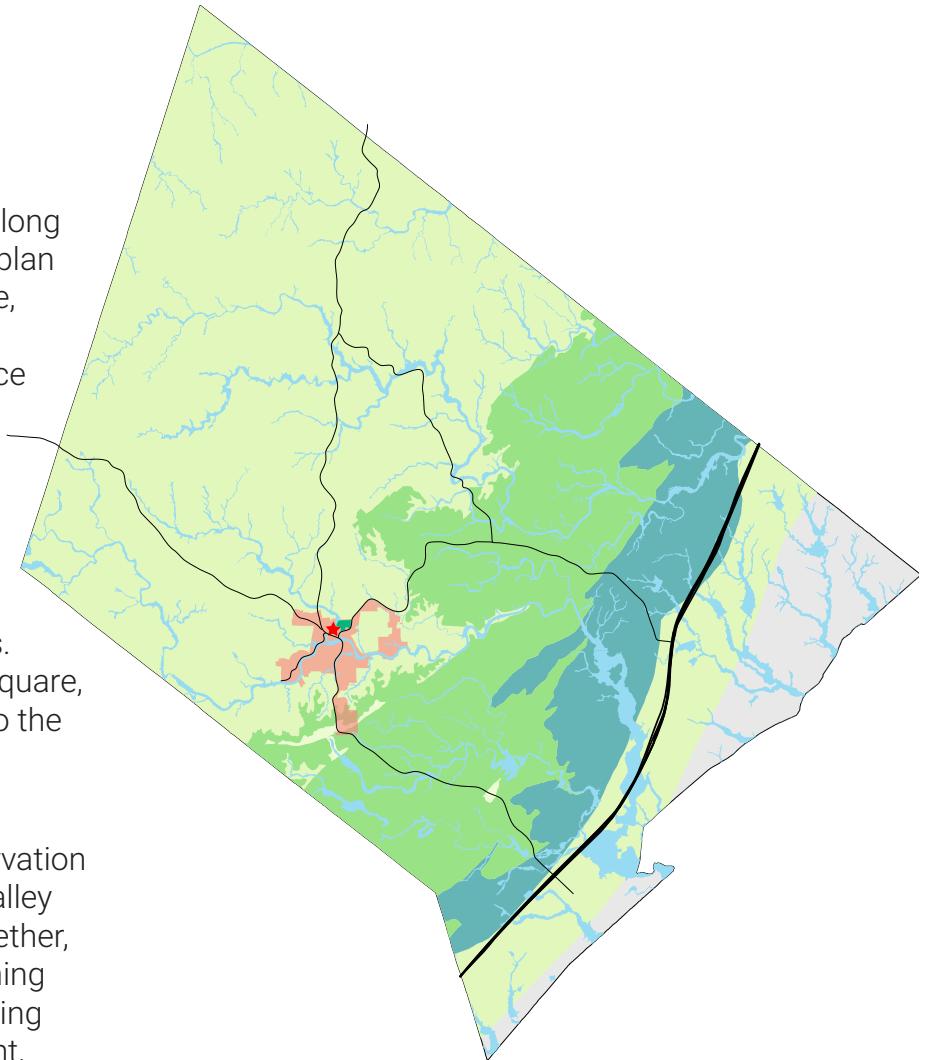
Introduction

This document intends to establish a long term management and development plan for the Cypress Creek Nature Preserve, located in the heart of the City of Wimberley, Texas. The plan will balance the delicate riparian ecology of the preserve, the thoughtful integration with the surrounding parks and property owners, and the significant educational and recreation opportunities the preserve provides for Wimberley's residents and tourists. Due to its proximity to popular town square, the preserve is a crucial component to the city's economy and identity.

The preserve is owned by the City of Wimberley (the City), while the conservation easement is held by the Wimberley Valley Watershed Association (WVWA). Together, WVWA and the City initiated the planning process to address challenges regarding the preserve's consistent management, the ongoing ecological restoration, and the stainability of the preserve's trail system.

In addition, a number of stakeholder groups who manage or develop various aspects of the preserve support the plan to provide a cohesive vision and management plan moving forward.

This plan thus represents a response to a common nexus of challenges in the Texas Hill Country: balancing sensitive water resources with increased demand with community heritage and desires. The authors of this plan hope it to be a model for other natural areas in the region in the future.



History and Geography

Located in the Hill Country of Central Texas, the Cypress Creek Nature Preserve is part of the complicated hydrology that is unique to the Edwards Plateau. The Preserve's namesake waterway, Cypress Creek, flows eastward through Hays county until it joins the Blanco River, just south of downtown Wimberley. The segment that flows through the nature preserve is kept almost continuously flowing thanks to Jacob's Well, an artesian spring fed by the Trinity Aquifer. Meanwhile, the segment north of Jacob's Well, known as the "dry Cypress," only flows during times of heavy precipitation.



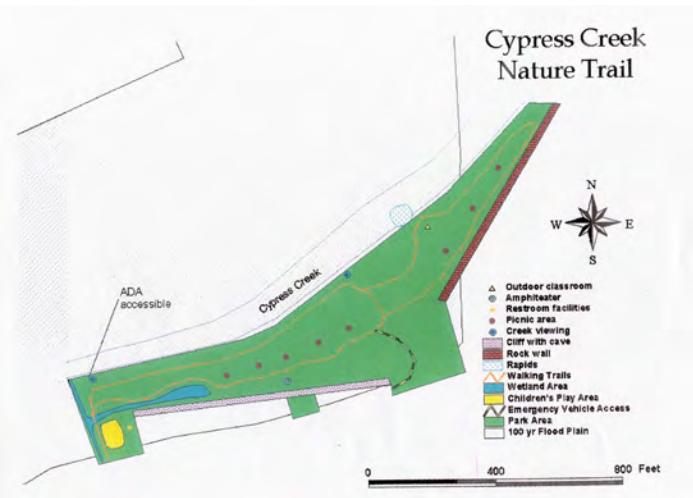
Aerial photo from 1958, depicting downtown Wimberley and surrounding properties, with the rough boundaries of the Nature Preserve have been superimposed. Image from USGS

It is highly likely that the land that is now the Cypress Creek Nature Preserve has supported human habitation for thousands of years. Significant archeological evidence demonstrates that the artesian springs of the Edwards Plateau such as Jacob's Well, San Marcos Spring, Barton Springs, and San Antonio Spring have sustained human habitation for at least 12,000 years, making the region one of the longest continuously occupied places in North America.

At the time of European colonization, first by the Spanish, and later by Anglos, the area around Wimberley was often a stopping

place for nomadic Native Americans groups. By a stroke of historical luck, the land within the preserve has been preserved in a relatively natural state, despite the City of Wimberley growing up around it.

Directly adjacent to the preserve, a previous landowner cleared a swath of the riparian area to create what was likely a quite productive farm. The farmer also built a low stone wall, along the border of the probable historic flood zone, which today forms the northeastern border of the preserve. The wall is the only significant man made structure within the preserve.



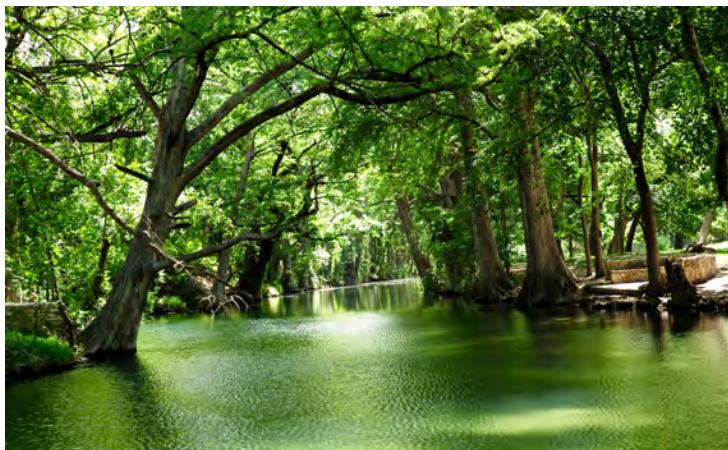
Conservation Easement Adopted **2002**

2001

**City
Purchases
Preserve**

2005

**Blue Hole Parkland
Purchased**





**Memorial Day Flood
2015**

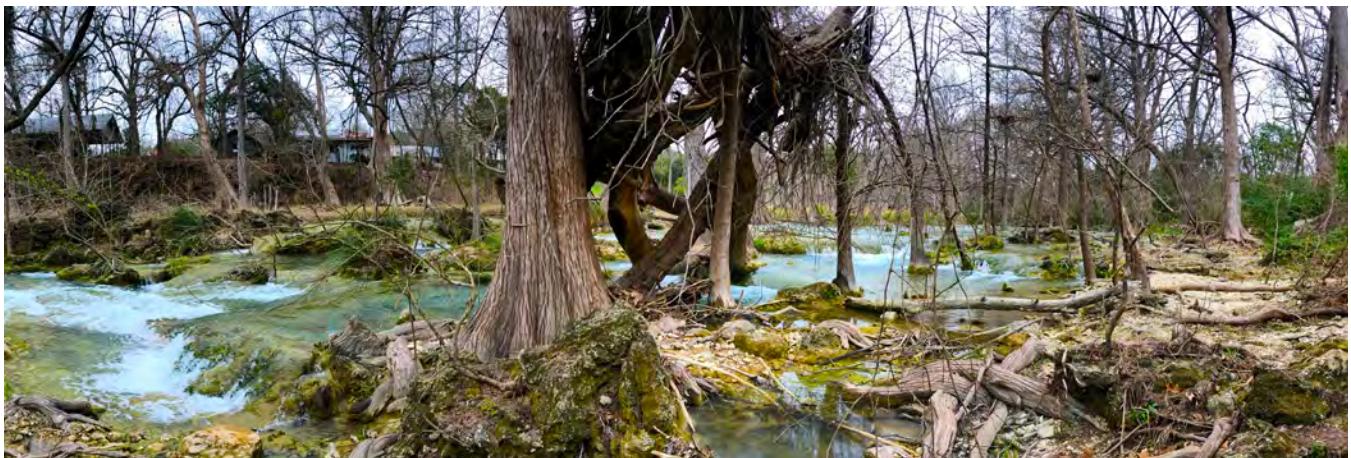
**Community
Engagement Period
April 2019**

February 2019

**Masterplan
Commissioned**

**Masterplan Draft
Release**

May 2019



Conservation Easement

The Cypress Creek Nature Preserve is owned by the City of Wimberley, but is managed under a conservation easement held by the Wimberley Valley Watershed Association. The easement was adopted 2002, to ensure the strict protection of the preserve's pristine environment, while effectively interfacing with neighboring land uses.

The conservation easement includes specific stipulations that strictly limit the development and activities that occur within the preserve. These stipulations include:

- Prohibition of any permanent structures in the preserve, except for unobtrusive signage, seating made from natural materials, and certain amenities within the entrance area from the square.
- Any footpath through the preserve must be designed to minimize impact on the preserve's ecology, and be made of permeable material.
- Prohibition of using power tools, motorized vehicles, or any other loud or polluting machines within the preserve, EXCEPT in cases of human health and safety or emergency.
- Prohibition of any artificial light, except within the entrance area.
- Prohibition of the alteration of the preserve's ecology, including clearing, mowing, cutting down native trees, introduction of non-native species, or use of chemical pesticides and herbicides.

STATE OF TEXAS

COUNTY OF HAYS

\$
\$
\$

Conservation Easement

This Conservation Easement ("Agreement") is entered into between Village of Wimberley, ("Grantor"), and Wimberley Valley Watershed Association, ("Grantee"), a Texas non-profit public interest corporation whose mailing address is 1405 Mt. Sharp Road, Wimberley, Texas 78676.

RECITALS

Grantor is the owner in fee simple of that certain real estate consisting of approximately 7.19 acres of land located along the bank of Cypress Creek near the Wimberley square, more particularly described in Exhibit A attached hereto and made a part of this agreement.

The property in its present state consists of a highly pristine remnant tract of land that lies entirely (or almost entirely, depending upon definition) in the flood way and/or flood plain of Cypress Creek.

The property has special conservation value due to its survival in a totally natural state without any significant man-made structures, improvements or development of any kind other than a very old stacked-rock wall that dates from the 1800's located along one section of its perimeter. Massive cypress trees, native pecan, black walnut, sycamore, elm, juniper, oak, mulberry, yaupon and many other species proliferate throughout its extent. There are multiple levels of habitat from the extremely high tree canopy to the deepest pools in Cypress Creek that are still fed by flowing springs. The waters are inhabited by catfish, black bass, Rio Grande perch, sun perch, carp, turtle, cotton-mouth water moccasin and an occasional migrating eel from the sea. Waterfowl including blue heron, purple gallinule and blue Kingfisher inhabit the tract, along with an extraordinary variety of other bird species among which are the large red-shouldered hawk, many different owl, purple martin, painted bunting, scarlet tanager, red-headed woodpecker, and cardinal to name only a few. The extremely rare and fragile chatterbox orchid still grows from the roots of the cypress trees near rapidly flowing water around the waterfall about the mid-point of the tract. The property constitutes a true remnant wilderness tract that has never been subjected to any substantial level of agricultural, recreational, chemical pollutants or other human traffic of any kind, excepting only the occasional visitor or passer-by who have come to appreciate its extraordinary natural state.

Grantor, as owner of the Property, intends to convey to Grantee the right to preserve and protect the conservation values of the Property in perpetuity, and represent to Grantee that the Property is free and clear of all liens and encumbrances except those which have been specially declared to Grantee prior to the date hereof.

Grantee is a public interest charitable organization described in Section 501(c)(3) of the Internal Revenue Code, as amended, and the regulations thereunder (the "Code"), whose primary

- The use of the property for commercial purposes, or any purpose other than those that are educational, recreational, charitable, or archeological.

The conservation easement compliance monitoring is conducted annually by Plateau Land and Wildlife Management. The latest compliance evaluation, conducted on December 20th, 2018 concluded that

"Based on the inspection and information provided in the meeting with the WVWA representative, the owners are not violating any specific restrictions and appear to be in compliance with all aspects of the granted CE."

The full compliance monitoring document is available in the appendix.

Environmental Services

As previously stated, this plan is intended to balance the important conservation value of the preserve with the needs and desires of the Wimberley community. This plan makes clear that these goals are not at odds with each other, and in-fact complimentary. through careful planning and education shifting public

perception to that of a preserve, rather than a park, the City can achieve this balance synergistically.

The Cypress Creek Nature Preserve is central to Wimberley's identity as an oasis of clean, clear water in the Hill Country. As a rare instance of an unspoiled wilderness area in the heart of a developed area, it demonstrates the capacity of Hill Country residents to live in harmony with their ecology. The preserve's value as an example of natural stewardship will undoubtedly grow as the Hill Country

develops, positioning the City of Wimberley as a leader and early adopter of sustainable open space management in the region.

The value of the preserve is far from simply moral or aesthetic, however. In a region increasingly facing environmental challenges such as flooding, drought and public health risks, the preserve performs vital environmental and economic functions for the city. In summary

- The preserve helps prevent flooding in the Wimberley town square, and downstream on the Blanco, by slowing and stabilizing the flow of water during heavy precipitation
- The preserve dense riparian ecology improves groundwater infiltration in the area, reducing the negative effects of drought
- The preserve reduces the environmental effects of urbanization by improving air quality, reducing the heat island effect, which have a positive effect on public health
- The preserve creates a crucial wildlife corridor that support beneficial pollinators, aquatic life, and charismatic mammals
- The preserve provides locals with recreational opportunities, improving people's mental and physical health
- The preserve contributes to the tourism economy by multiplying opportunities in the town square area, and supporting numerous Bed and Breakfast businesses on its northern banks.

Public Engagement

The Cypress Creek Nature Preserve is a vital component to the City of Wimberley's civic identity. In order to craft a masterplan that addresses the concerns of the city, neighbors, and the public at large most effectively, significant public engagement was undertaken. This included:

- A public town hall style meeting
- A public design charrette meeting
- A management coordination meeting between key stakeholders
- City Council updates
- A online survey

The following section describes in detail the outcomes of the public engagement process.

Public Meeting #1: Town Hall 3.30.19

On the morning of Saturday, March 30th, 26 people attended a public town hall style meeting to kick off the public engagement process. The purpose of this meeting was to present the initial findings of the research and analysis portions of this plan, present a first draft of the trail alignment map, and trail design guidelines.

Following the presentation, the audience was asked to critique the existing conditions of the preserve, share their feedback and ask questions about the plan and its process. The feedback was recorded on a large



notepad and categorized as either strengths, opportunities, weaknesses and threats. The feedback was as follows:

Strengths:

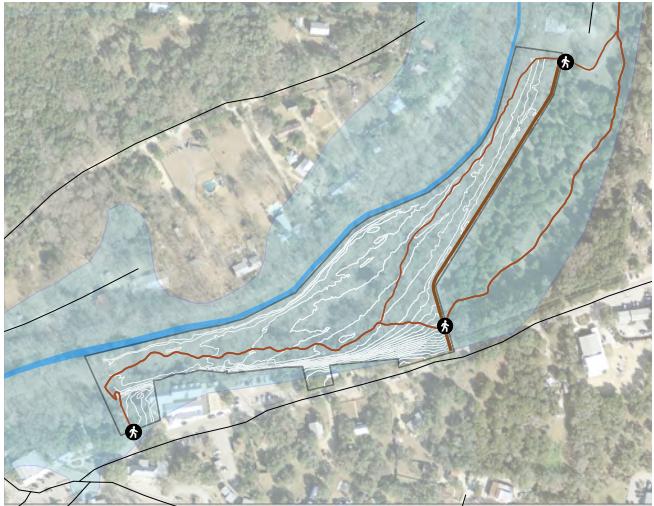
- Trail is part of original history of Wimberley
- The preserve is in overall excellent condition, only a few areas of notable degradation

Opportunities:

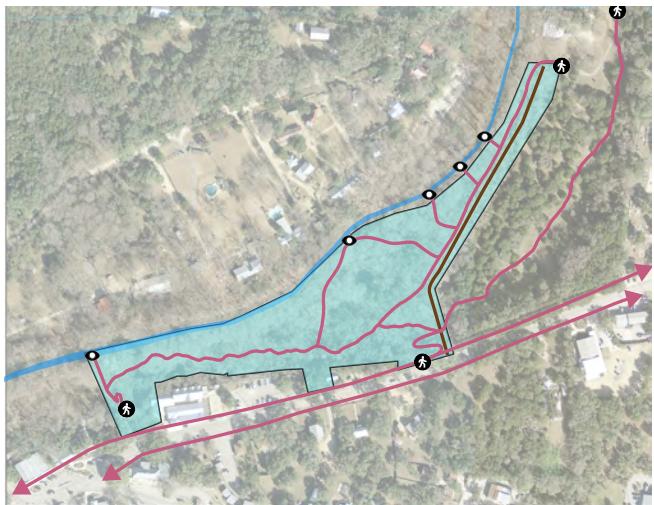
- Birdwatching area off old Kyle Rd
- Nodes for interpretive signage
- More meandering trail in lower section of preserve
- Master naturalists are prepared to conduct regular maintenance

Weaknesses:

- Lack of coherent management structure



Existing Conditions as of meeting #1



Trail alignment Draft #1

- trail compaction could lead to more erosion
- Poor access control from Inoz (neighboring property)

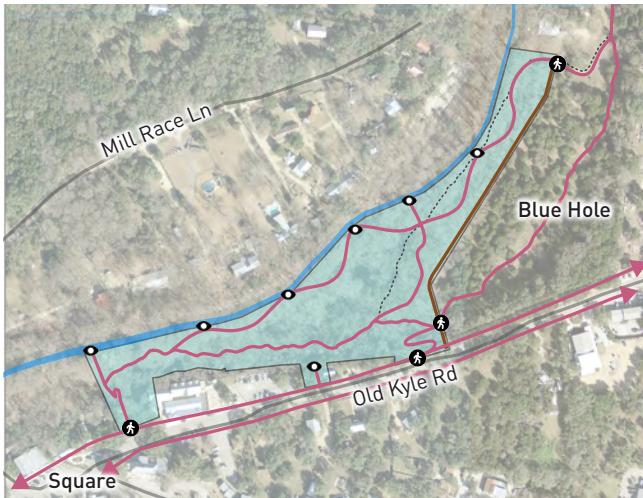
Threats:

- Invasive species such as arundo are very aggressive
- Future flood could damage trees, destabilizing the banks

In response to the trail alignment draft #1 (seen below), the audience expressed support for mitigating erosion zones, but disappointment in the loss of opportunities to walk along creekside, a crucial component of their preserve experience. They requested that the next draft include more trail "meanders" rather than the "nodes" proposed in draft #1.

Public Meeting #2: Charrette 4.11.19

In the evening of April 11th, 2019, roughly 40 people attended a public charrette. The meeting was to again present the initial findings of the research and analysis portions of this plan, present a second draft



Trail alignment Draft #2

of the trail alignment map, and trail design guidelines.

After the presentation, attendees were asked to participate in a design charrette process in which the attendees were randomly assigned to a small group, where they corroboratively designed solutions for various elements of the masterplan. The

attendees first drew out their ideal solutions on an activity sheet (seen below), and then were asked to consolidate their ideas within their table into one set of solutions, compromising within their group on points of disagreement.

After about 40 minutes of collaboration, each group was asked to present their compromise solutions to the rest of the attendees.

Draw Your Ideal Trail Alignment and Trailheads	Sensitive Area Protection Measures
LEGEND	Notes
Floodplain Preserve Trails Trailhead	Trailheads should be combination of both Restroom Meeting & who is going to maintain trails DETER BANGER FENCE + man-made PAPER Junction
Signage Design and Information	
Notes Modern signs help like it will last longer Signs - showing tourists the rules on all entrances	

Draw Your Ideal Trail Alignment and Trailheads	Sensitive Area Protection Measures
LEGEND	Notes
Floodplain Preserve Trails Trailhead	Trail Design to bring people where they should go, and keep them out of sensitive areas. Firm, but friendly Signage. Give trail an easy creek visibility station at each end. Native planting & naturalistic low railings
Signage Design and Information	
Notes Minimal, but necessary signage. Firm, but friendly.	

Draw Your Ideal Trail Alignment and Trailheads	Sensitive Area Protection Measures
LEGEND	Notes
Floodplain Preserve Trails Trailhead	Open, welcome Stewardship group of website.
Signage Design and Information	

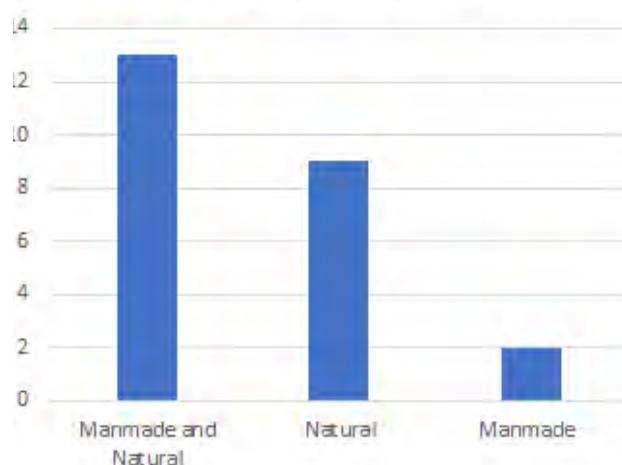
2 of 24 charette responses from Meeting #2

The following charts represent some of the main takeaways from the charrette responses. Note that these charts represent number of times a certain preference was mentioned in the open-ended responses, NOT how many individuals answered in a certain way. The full results of the charrette are included in the appendix.

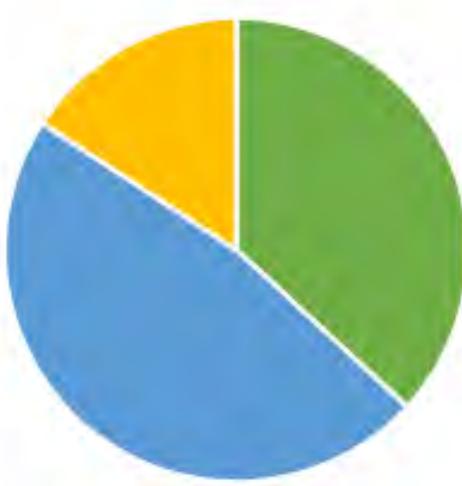
Preserve Accessibility



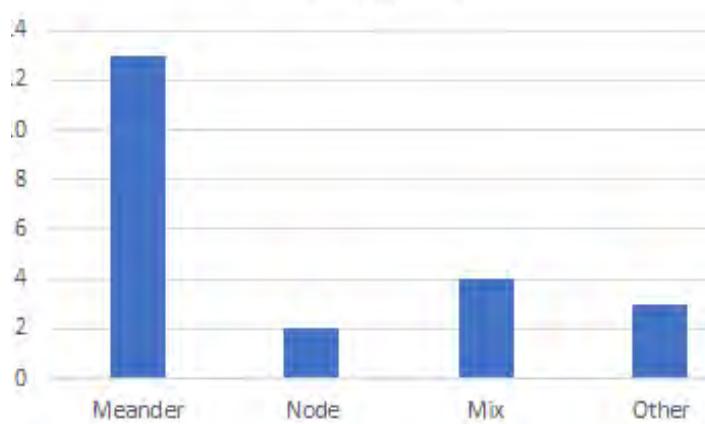
Wilderness Protection Measure



Signage Type



Trail Alignment



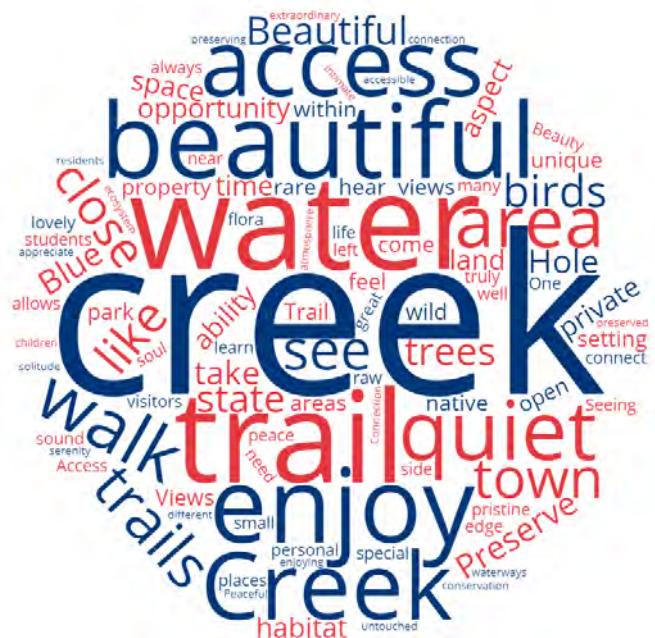
■ Rustic/Traditional ■ Modern ■ Hybrid

Survey Results

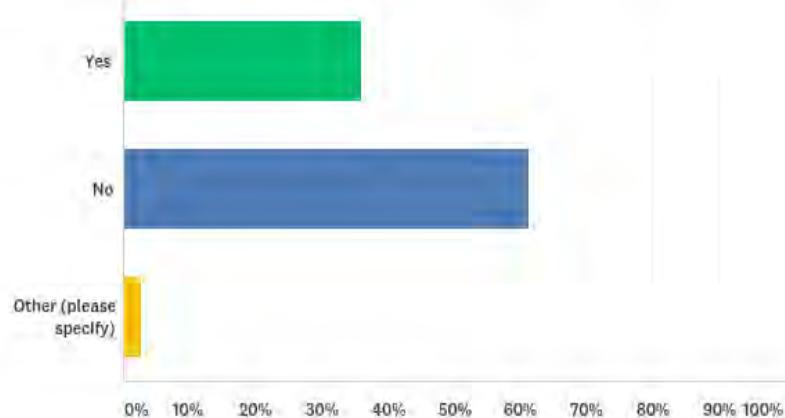
In addition to the public engagement meetings, a publicly accessible survey was conducted that asked specific questions regarding the individual use, perceptions and desired future conditions of the preserve. The survey was open for two periods, one before the first public meeting, and another between the first and second public meetings. The highlights of the results are outlined below. See the Appendix the full results.

Survey respondent demographics:

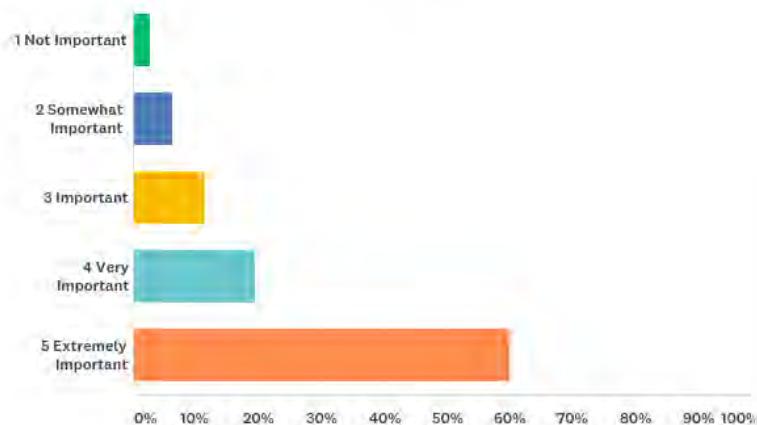
- 323 respondents
 - 45% between 51- 70 years old
 - 71% female
 - 62% reside within Wimberley City limits



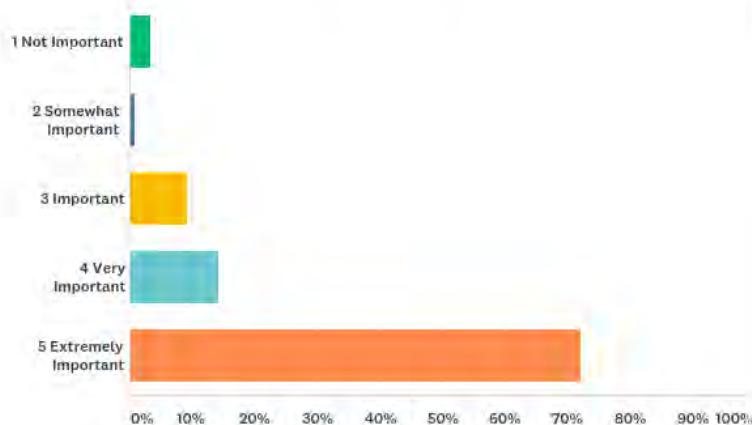
Q4 Where you currently reside, do you have waterfront (creek, river, or other) access?



Q9 On a scale of 1 – 5, how important are views of Cypress Creek to your experience of the Preserve?

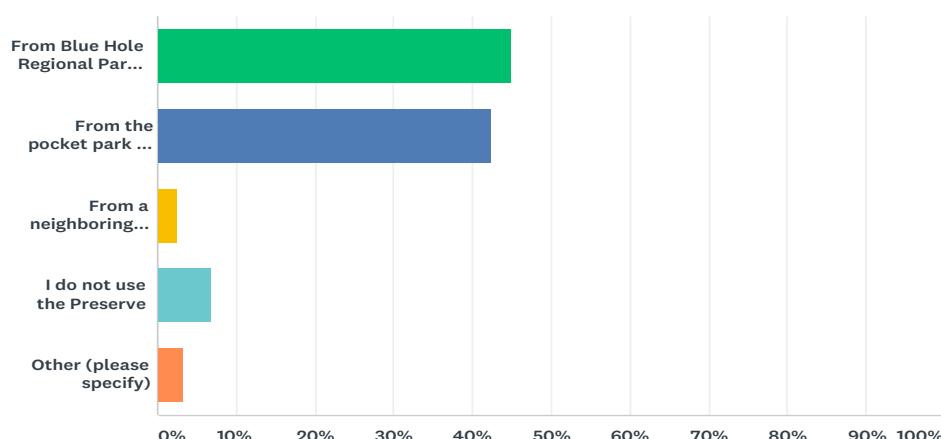


Q8 On a scale of 1-5, how important is public access to trails on the Preserve?



Q6 When using the Preserve, where do you typically enter the property?

Answered: 323 Skipped: 0



Open-ended Questions Highlights

"My two children attend Blanco River Academy... The Cypress Creek Trail provides vital access and a safe passage to these students to the downtown square where they frequently go for lunch and other activities."



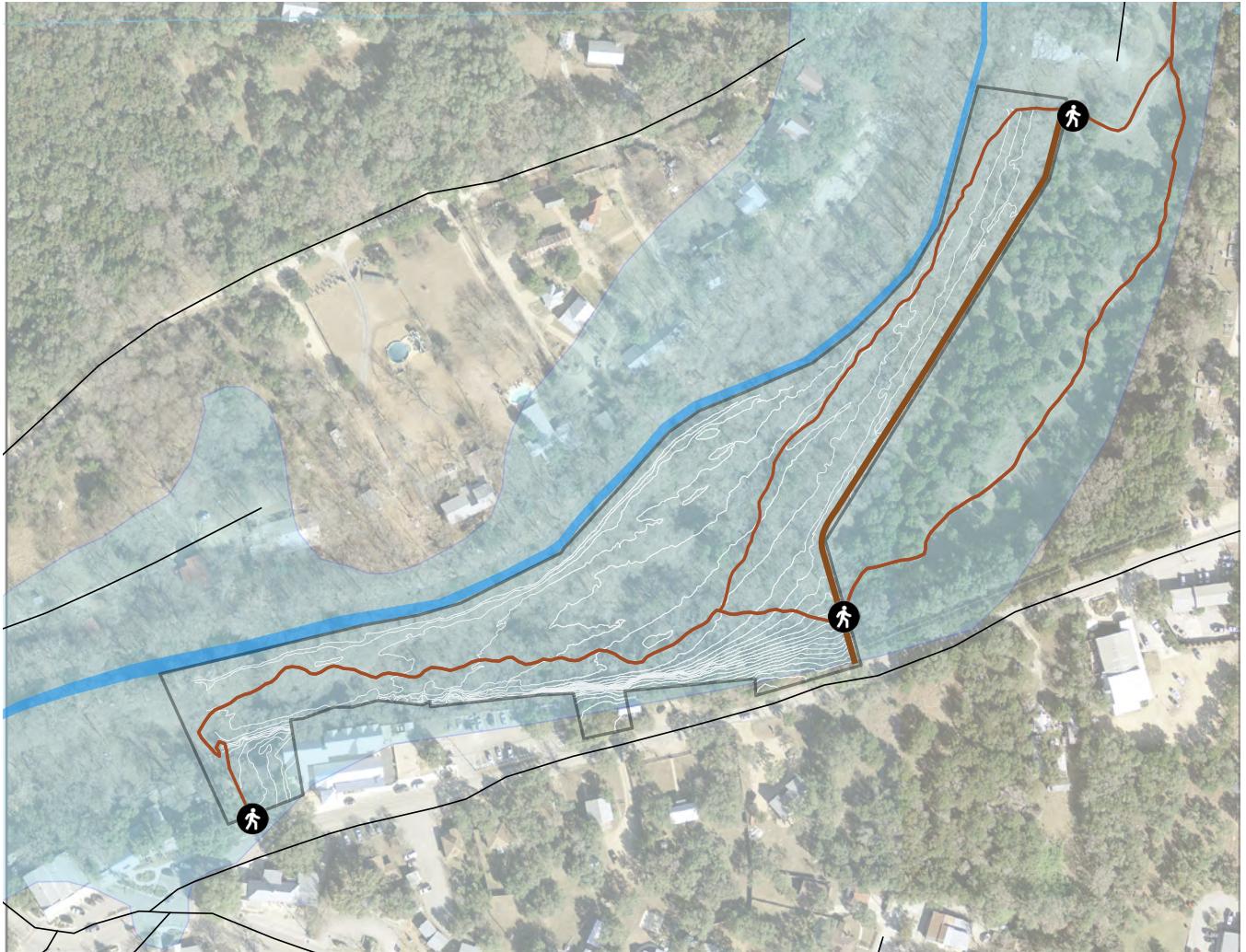
In Open-Ended Question,

1/4

of Respondents Emphasized Maintaining Public Access as a Necessity

“To walk the path surrounded by lush green, thriving plant life and the chirping of the birds. It feels like sacred ground to me.”

“There’s nothing quite like the solitude of the trail and the isolated sounds of the creek that truly settle the soul.”



Floodplain



Trails



Creek



Preserve



Wall



Trailhead

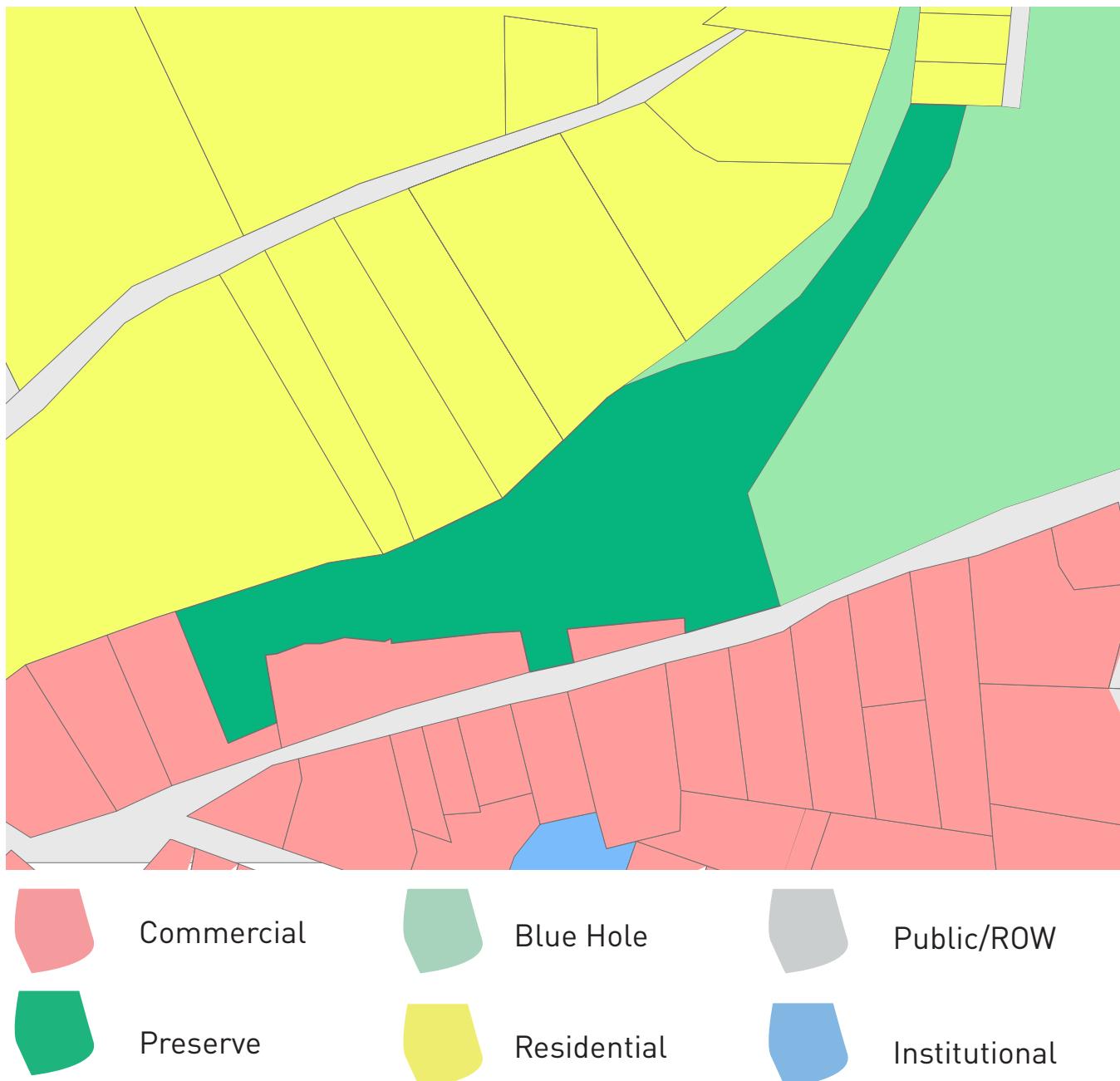
Created by Yusuf Khan
Stern Nature Project

Analysis

While the preserve is largely in healthy, natural condition, the effects of nearby development and unsustainable trail design has begun to take its toll. These effects are not so severe to require large scale and costly restoration efforts, but they will require

deliberate and continuous attention as well as a thoughtful redesign of the preserve's trail system.

Land Use

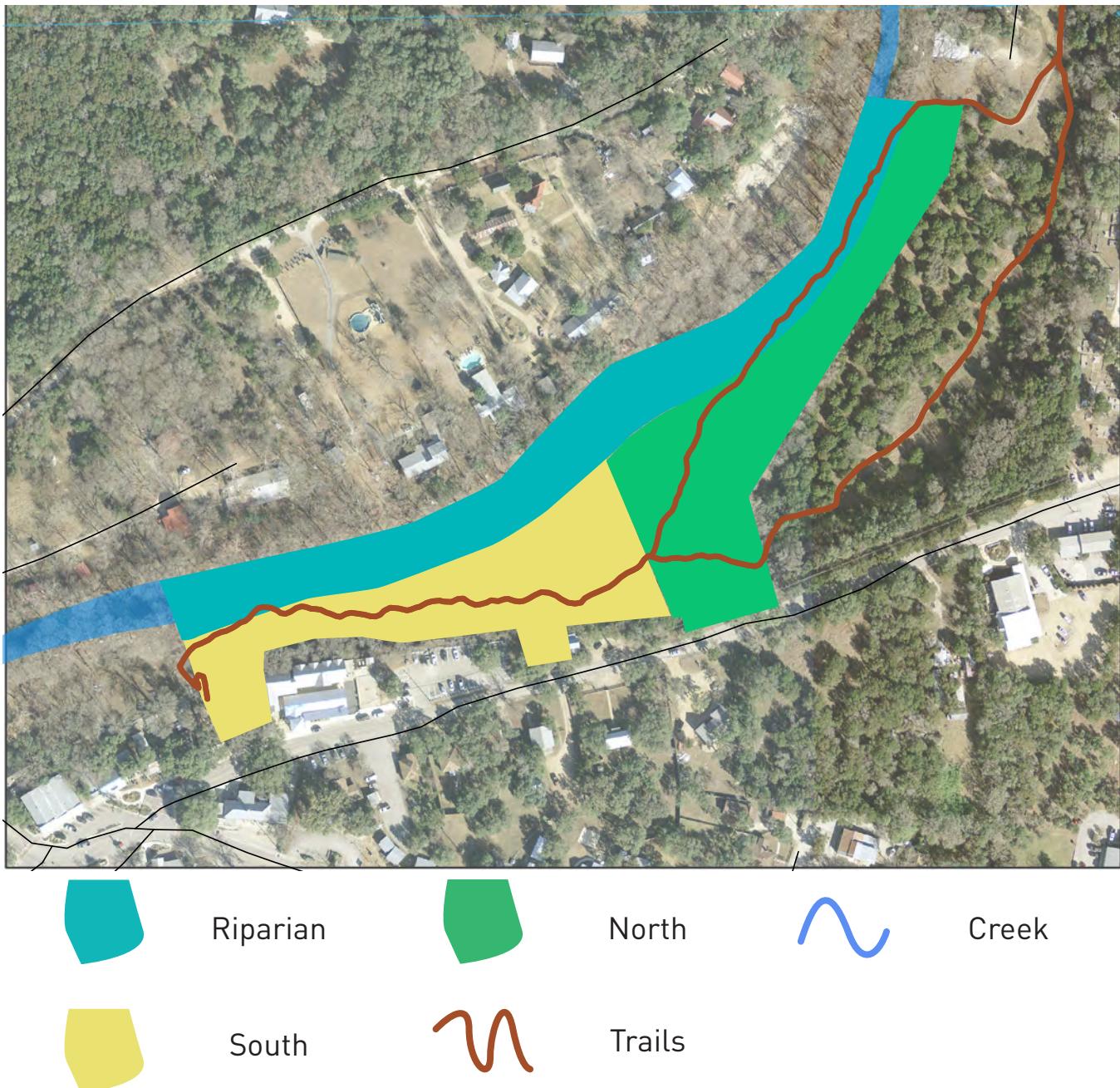


Preserve Context

The preserve is situated at the physical and cultural center of the City of Wimberley. The land use map above demonstrates the semi-urban context of the preserve, with a busy commercial center to the south, a park and cemetery to the east, and a residential area

to the north. Less than a mile to the south, Cypress Creek is a major tributary to the Blanco River.

Maintaining a permeable border between the preserve and its neighbors is crucial to maintain the vital ecosystem services the preserve provides to the Wimberley Community.



Ecological Evaluation

For the sake of this plan, the preserve has been split into three different zones: Riparian, Southern, and Northern, which roughly correspond to the microbiomes present in the preserve. The following outlines the environmental conditions of each zone,

including a native and invasive species survey conducted by the Hays County Master Naturalists.



Riparian Zone

The riparian zone is perhaps the most sensitive environmentally, yet also is the most valuable in terms of education and recreation. The zone is quintessential Central Texas riparian ecology, featuring stately Cypress trees anchoring the bank, and biodiverse thickets of grasses, shrubs and other tree species.



In the southern section of the riparian zone, the shoreline is well defined and steep. However in the central section, the shoreline becomes less well defined where the creek is shallower, braided, and features small waterfalls, known as the ripples section. This section (featured above) is perhaps the most attractive to visitors for its natural beauty and approachable shoreline.

In the northern section of the riparian zone, the shoreline once again becomes steep and well defined. This section arguably has the most ecological degradation, including high



compaction and erosion in the Cypress tree root zones, and some physical root damage, pictured above.

The following page features some of the results of the Native and Invasive species survey conducted by the Hays County Master Naturalists. The complete list will be included in the final appendix of this report.



Riparian Zone



**Bald
Cypress**



**Inland
Sea Oats**



**Mexican
Buckeye**



**Chatterbox
Orchid**

Common Name	Type	Native / Invasive
American elm	Woody, Tree	Native
Ashe juniper	Woody, Tree	Native
Baby blue-eyes	Herbaceous	Native
Beggar's lice	?	Native
Black walnut	Woody, Tree	Native
Box elder, Box Elder Maple	Woody, Tree	Native
Catchweed bedstraw	Herbaceous	Exotic/ Invasive
Cedar elm	Woody, Tree	Native
Chinese honeysuckle	Woody, Vine	Exotic/ Invasive
Chinese Ligustrum	Woody, Tree	Exotic/ Invasive*
Dayflower	Herbaceous	Native
Death camas	Herbaceous	Native
Eastern woodland sedge	Herbaceous, Graminoid	Native
False Dayflower, Widows tears	Herbaceous	Native
Hedge parsley	Herbaceous	Exotic/ Invasive*
Inland sea oats	Grass	Native
Japanese bromegrass	Grass	Exotic/ Invasive
Largeseed forget-me-not	Herbaceous	Native
Maidenhair fern	Herbaceous, Fern	Native
Mexican buckeye	Woody, Shrub	Native



North Zone

The north zone of the preserve is characterized by dense riparian forests, sections of the Wimberley fault including limestone seeps, the historic rock wall and two official trailheads. The forest is notably full of downed trees and brush, presumably from the multiple flood events of the previous years. Despite some community member's



requests that these downed trees be removed , their perceived untidiness is in fact key to the remediation of the riparian zone after a flood event, and the minimization of future flood impacts by slowing flow and capturing sediment.

The significant limestone outcroppings along the Wimberley fault offer habitat to small creatures, and provide unique canopy height views from the cliff above. The fault creates a natural amphitheater which could be used for interpretive sessions in the future.

While the north zone is generally in very healthy condition, there is some minor erosion being caused by the stormwater outfall from old Kyle rd. This erosion is being compounded by unknowing visitors mistakenly using the gully as a social trail, as it leads directly from the road to the creek.



Future mitigation efforts will need to focus on establishing a well marked, sustainable, official trail leading from Old Kyle Rd, to prevent future erosion. Meanwhile, efforts should be made to slow the stormwater flow and promote infiltration rather than runoff.



North Zone



Box Elder



**Mustang
Grape**



**Virginia
Creeper**



**Japanese
Honeysuckle**

Common Name	Type	Native/ Invasive
American sycamore	Woody, Tree	Native
Ashe juniper	Woody, Tree	Native
Beggar's lice	?	Native
Black Snakeroot	Herbaceous	Native
Black walnut	Woody, Tree	Native
Blue-Curls	Woody, Shrub	Native
Blue-eyed grass	Herbaceous	Exotic/Invasive
Box elder, Box Elder Maple	Woody, Shrub	Native
Bristly greenbriar	Herbaceous, Graminoid	Native
Catchweed bedstraw	Herbaceous	Exotic/Invasive
Cedar elm	Herbaceous	Native
Cedar sedge	Herbaceous	Native
Chatterbox orchid	Herbaceous	Native
Cherokee Sedge	Herbaceous	Native
Chinese parasol tree	Woody, Tree	Native
Death camas	Grass	Native
Emory sedge	Grass	Exotic/Invasive
False Dayflower, Widows tears	Woody, Vine	Exotic/ Invasive*
False garlic	Herbaceous	Native
False gromwell, Bexar marbleseed	Herbaceous	Native



South Zone

The South zone of the preserve is characterized by a somewhat more open riparian forest, a natural depression where water pools after heavy rains, limestone outcroppings, and a transition into the semi-developed urban realm adjacent to the town square.



As the riparian forest opens up, the space is filled with high grasses and shrubs, and a number of areas large boulders which have eroded off of the fault line outcropping over time. The natural depression acts as a rain garden, encouraging infiltration of water. This report recommends enhancing this functionality while mitigating longterm stagnation of water to prevent attracting mosquitos.

This section also sees a significant amount of urban/wild interface. The border between the preserve and the privately owned and managed creekside recreation area directly to the south offers a stark contrast between a healthy, natural riparian ecosystem, and functionally deficient, human-centric one. The mowed, cleared private area may be good for picnics, but offers little in the way of habitat or flood mitigation. This contrast may actually be an effective educational tool.



Additionally, the pocket park on the southernmost section of the preserve offers some interesting interpretive opportunities, and has preserved some heritage trees. However, ecologically it is less functional. Finally, the major stormwater outfall leading from the square down to the creek is a serious erosion and water quality concern, to be addressed in later chapters.

South Zone



Black Walnut

A large tree to 100 feet tall and a trunk to 3 feet or more, with a straight stem often clear of branches for half of its height, and an open, rounded crown of foliage.



Yaupon Holly

The plant was used by Native Americans to make a tea containing caffeine. The plant is the only known indigenous plant to North America that contained caffeine.



Chinese Ligustrum

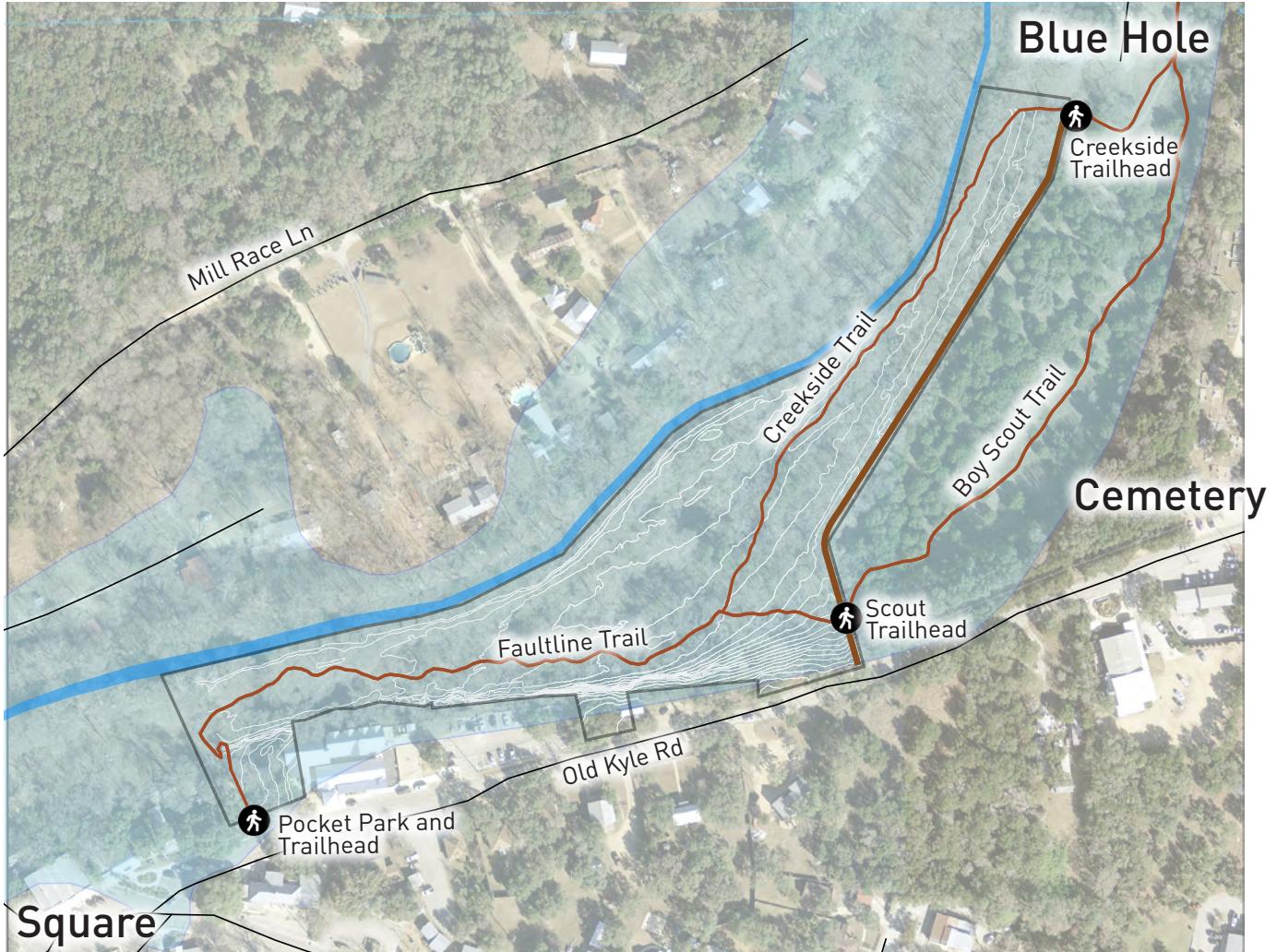
This bushy tree was originally introduced as an ornamental, but has spread extensively as an invasive species. Can quickly decimate entire forests by choking out native saplings with a thick canopy.



Heavenly Bamboo

Despite the common name, it is not a bamboo but an erect evergreen shrub. It is invasive in Central Texas.

Common Name	Type	Native/Invasive
Ashe juniper	Woody, Tree	Native
Bald cypress	Woody, Tree	Native
Beggar's lice	?	Native
Black Snakeroot	Herbaceous	Native
Box elder, Box Elder Maple	Woody, Tree	Native
Bush croton	Herbaceous	Native
Cedar elm	Woody, Shrub	Native
Cedar sedge	Herbaceous	Native
Chickweed	Herbaceous	Exotic/Invasive
Death camas	Woody, Tree	Native
False gromwell, Bexar marbleseed	Herbaceous	Native
Frostweed	Herbaceous	Native
Golden groundsel	Herbaceous	Native



Floodplain



Trails



Creek



Preserve



Wall



Trailhead

Created by Yusuf Khan
from Neat Project

Existing Trail System

The existing trail system includes .75 miles of trails, stemming from three official trailheads, and at least one informal trailhead. These trails and trailheads vary significantly in

quality and sustainability, and lack a cohesive design or planning strategy. The follow section outlines the trail conditions in detail.

Trails

There are currently two official trails within the preserve, one that leads from the Blue Hole to the Preserve and a number of informal trails that are in various forms of use or restoration.



The longer trail, known henceforth as the "[Faultline Trail](#)" is runs between the Square Trailhead, and the Scout Trailhead along the eastern edge of the preserve. It is a natural surface, singletrack trail, roughly two feet wide and roughly .25 miles long.



[The Faultline Trail](#) tracks roughly along the Wimberley Faultline, providing a number of interpretive opportunities along the way. Additionally, it includes access to the natural amphitheater, which is currently not identified from the trail or seemingly in regular use.

The second trail, known henceforth as the [Creekside Trail](#), is accessible from the Creekside Trailhead, and intersects the Faultline trail roughly at the central point of

the preserve. This trail is very popular due to its access to the iconic Ripples section of Cypress Creek. However, due to its popularity and proximity to the creek, it also the most problematic in terms of sustainability and neighbor concern.



The trail roughly tracks the creekside, where heavy foot traffic has compacted a wide dirt path and significantly exposed the roots of the Cypress trees on the creek side banks. Lack of access controls has led significant erosion along the shoreline, and unauthorized swimming in the creek itself. This has led to conflict with neighbors, who seek to uphold the terms of the easement prohibiting swimming and off-trail hiking.



Participants in the community engagement meetings and survey expressed very strong personal connections to the experience of walking along the creekside trail, and the gratitude for access to such a public amenity so close to town.

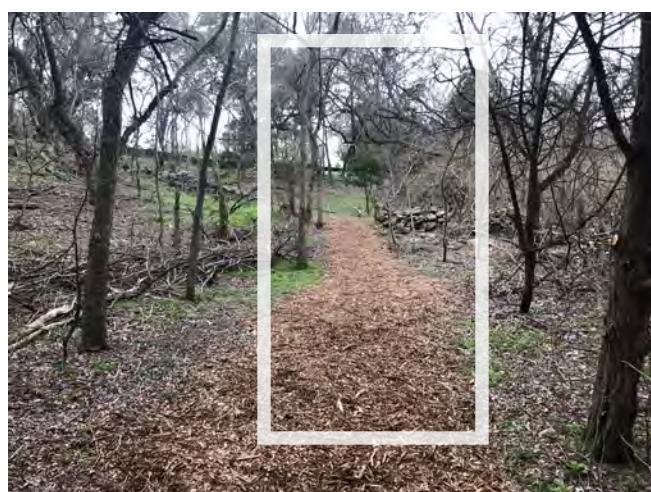


The third trail, known henceforth as the "Boy Scout Trail" is not technically within the preserve, however it forms a vital passage from the Blue Hole to the preserve, and was created as a means to relieve thru-traffic along the more sensitive Creekside Trail.

The Boy Scout Trail is also roughly .25 miles, is a woodchip surface, and is roughly 5 feet wide. It traverses from the Blue Hole parking lot south to the Boy Scout Trailhead,

and eventually forks - one fork leads to the Creekside trail, the other merges with the Faultline Trail.

Finally, a number of informal trails have formed over the years, however recent efforts by the preservists have blocked them from foot traffic with impairments such as brush and logs. Many of these informal trails are not sustainably designed, leading to significant erosion along their path. An informal connection between the private section of creek frontage and the preserve has also been blocked with fencing and brush, seen below.



Trailhead Count Results



	Scout Trailhead	Creekside Trailhead	Square Trailhead
Thursday, March 14 9 AM - 10 AM	1	0	5
Thursday, March 14 1 PM - 2 PM	1	18	78
Friday March 15 9 AM - 10 AM	0	0	0
Friday March 15 1 PM - 2 PM	1	9	35
Sunday March 17 1 PM - 2 PM	5	23	82

Trailheads

The trailheads themselves are important gateways into the preserve, and offer different levels of amenities and information as visitors enter the space. The Wimberley Parks Department conducted a count of visitors entering the preserve at various moments throughout the day and week, elucidating some interesting trends.

From the trail count, it is clear that afternoons and weekends are the times with the most visitors. Additionally, the Square Trailhead is clearly the most popular trailhead, however more data is needed to know if locals are using the other trailheads in the early morning, as indicated anecdotally by participants in the public engagement meetings.

The most heavily trafficked trailhead is accessed directly from the town square, and will thus be referred to as the Square Trailhead henceforth. This trailhead directly abuts the privately owned section of riparian land between the preserve and the Highway 12 bridge, but does not provide access to that section. It is very accessible and includes numerous amenities, including:

- Bathrooms
- Pavilion
- Trailhead signage and landmark
- Water fountains
- Decorative/educational fountain
- Playground
- Natural shade from Heritage Oak trees
- ADA compliant ramp down to trail
- More...



The other two official trailheads are accessed via the southern terminus of the Blue Hole Regional Park's Boy Scout Trail. The Blue Hole Regional Park directly abuts the nature

preserve, however there is currently little no indication to a trail user that they are transitioning from the park to the preserve.

The first of these trailheads is on the Northeast side of the preserve, where the trail crosses the historic stone wall, known henceforth as the "Scout Trailhead." Currently, a nonfunctional gate is the only marker of this transition.



The second of these trailheads is at the Northernmost point of the preserve, at the terminus of the historic wall and very near the shore of Cypress Creek. There is currently a small sign indicating a transition into the Nature Preserve. This trailhead will henceforth be referred to as the Creekside Trailhead.



There is also an informal trailhead leading from Old Kyle Rd to the Faultline Trailhead, which has been identified as a possible future official trailhead. Currently, however, the lack of design controls has caused this trailhead to be erosive and difficult to traverse as it leads down a steep slope.



Connectivity Between the Square and Blue Hole

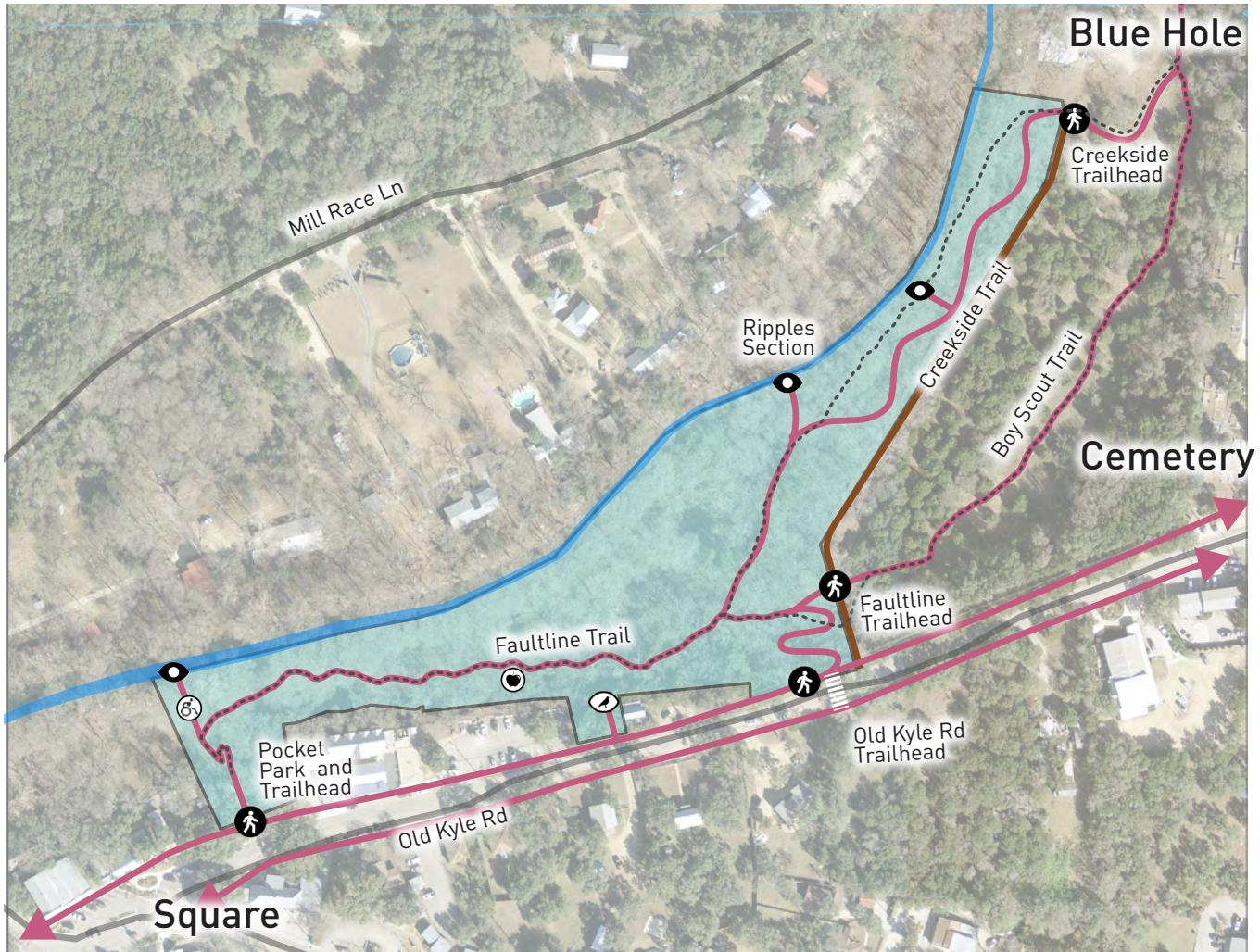
Beyond the above mentioned trailheads, there is very limited connectivity between the preserve and the city. Most notably, the lack of sidewalks or access points along Old Kyle Rd between the Lumbyard and Blue Hole Regional Park mean there is no safe way to walk between the preserve, the park, and the square without hiking through the preserve, which is time consuming and creates unnecessary impact on the preserve resources. Additionally, there is currently no connectivity between the preserve and the Wimberley Cemetery, which is contiguous with the preserve and Blue Hole Park.



The current connectivity between the preserve and privately owned neighbors is unclear and has led to conflicts. For instance, there is no connectivity between the private section of creek frontage and the preserve, despite being contiguous. This leads to confused visitors attempting to access one side or the other, only to have to backtrack and shuttle through the square, decreasing the effective circulation on the sometimes congested sidewalks. Additionally, lack of wayfinding and boundary clarity in the northern section of the preserve has led to some visitors inadvertently trespassing on private property, or otherwise creating nuisances.



Preserve Site Plan



Preserve



Historic Wall



ADA Accessible



Proposed Trails

Scenic View



Birdwatching Area



Existing Trails



Trailhead



Outdoor Classroom

This section coalesces the public engagement and analysis outlined in the previous sections to develop a comprehensive site plan that addresses the concerns and opportunities presented in this plan. The site plan includes new trail alignments, consolidated creek access points, formalized existing and new trailheads, location of existing and new interpretive areas, location of stormwater management controls, and restoration areas.

Meanders and Nodes

The trail alignment within the preserve is perhaps the most challenging aspect of the masterplan's goals due to significant differences in preferences between various segments of the public. Feedback from the two stakeholder meetings generally landed in two camps: those who favor a trail that "meanders" close to the creek, providing the most enjoyable trail experience, and those who preferred a trail with "nodes" that creates protected viewsheds at strategic points along the trail that allow for visitors to experience the creek, but prioritizes shoreline protection.

The proposed trail alignment (previous page) represents a combination of both preferences which provides a significant amount of



"meander" segments which are designed

not to hug the shoreline for any significant distance. In the upper section of the preserve, where the most erosion damage has occurred, the trail is pulled back from the shoreline, and the trail employees "nodes" to allow visitors to experience the creek at important points while allowing the riparian zone to regenerate.

This balance is achieved by adding a new segment of trail that meanders near the shoreline in the lower section of the preserve, an extension of the existing shorelines trail. Additionally, it maintains the current trail alignment of the faultline trail, and the ADA accessible node that leads from the Pocket Park entrance, and the outdoor classroom in the rockfall section.

Additionally, it formalizes the social trailhead and trail leading from Old Kyle Rd to the Faultline trail with a sustainably built switchback trail that descends the steep slope, and avoids contributing erosion in from the stormwater outfall. Finally, it adds a birdwatching area accessible from Old Kyle Rd, allowing for a canopy level viewpoint.

Old Kyle Rd Shared-Use Path

This plan also recommends the development of a shared-use path along Old Kyle Rd. This path should connect the existing sidewalks in the Town Square to the shared-use path system in the Blue Hole Regional Park.

This connection will not only create a safe and enjoyable route between downtown and the Blue Hole trail system, but should also alleviate some of the demand on the Preserve's trail resources. Currently, many users report using the trails through the preserve to the Blue Hole simply to avoid more dangerous and less pleasant experience of walking along Old Kyle Road.



The precise alignment of this path is not within this plan's scope, but in general, the path should be built to accommodate pedestrian and casual cyclists, which generally requires a minimum of 8 feet (but preferably 12 feet in width.) The path should be concrete paved or crushed gravel to match the design of the existing shared - use paths. Ideally, both sides of Old Kyle Rd should have pedestrian facilities, however R.O.W. limitations will likely mean one side will be a traditional sidewalk, while the other a wide shared-use path. A pedestrian crosswalk should be installed where the Oak tree is currently growing in the middle of Old Kyle to access the planned Old Kyle rd Trailhead.

With the addition of popular new businesses on Old Kyle Rd, traffic has increased substantially, and visitors are parking on the road shoulder, forcing pedestrians to walk in the narrow road. The addition of a path will eliminate conflicts between vehicles and pedestrians, while connecting downtown to auxiliary parking further down Old Kyle Rd. The city might address its current lack of parking by partnering with the privately owned lots further down Old Kyle Rd to create a shared parking scheme, however this is a question that should be addressed in a future downtown or comprehensive plan.

Trail Design Guidelines

The following section outlines in detail the trail design specification for the preserve, to be used in all realigned and future trails. While some aspects of trail design will require on the ground design decisions, this section will identify the typical trail design including:

- Trail surface, width, and maximum grades
- Trailhead gateway and amenity specifications
- Trail barrier materials and concepts

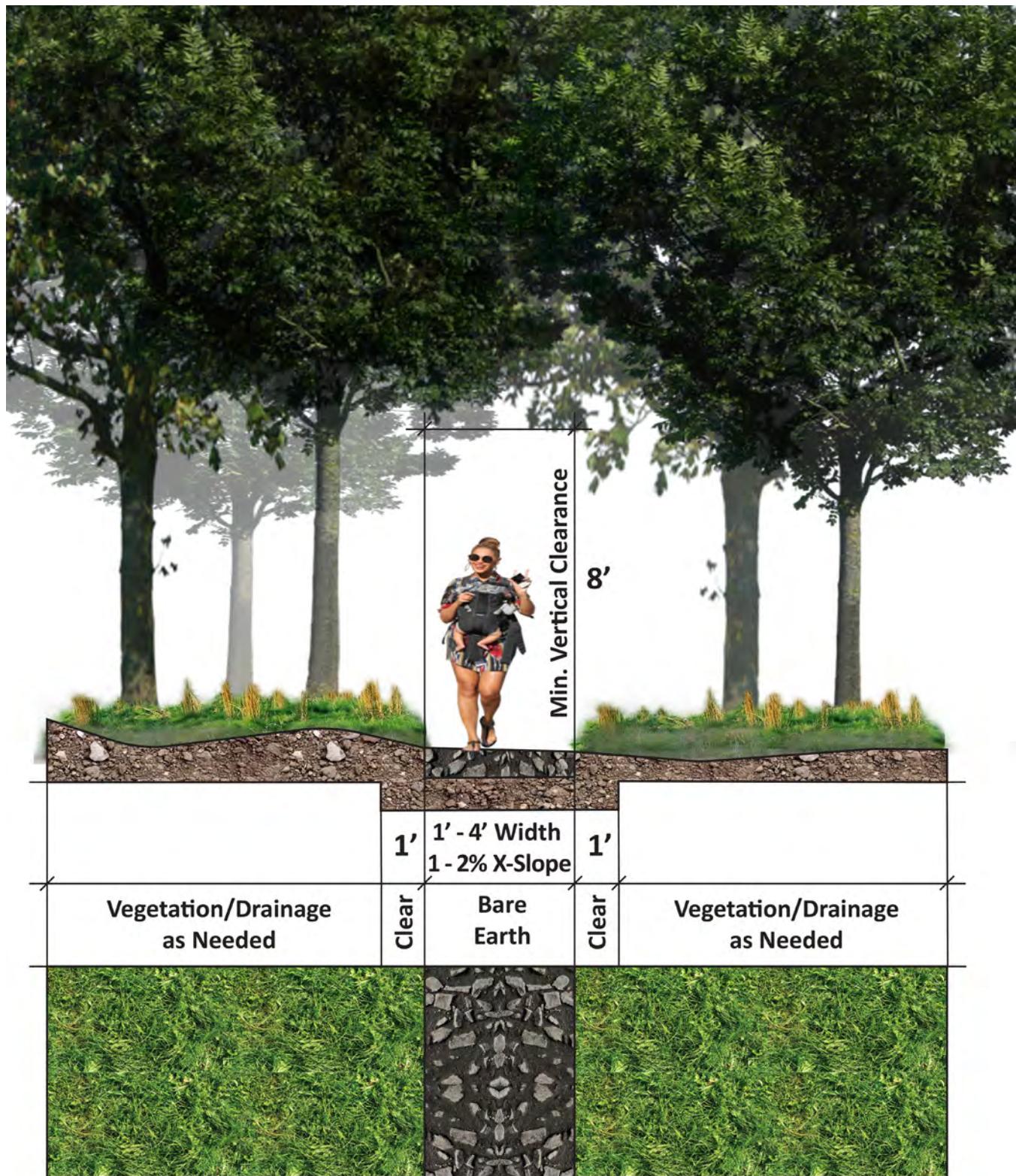
As outlined in the diagram on the next page, and stipulated in the conservation easement, the preserve's trail system should be built to minimize the impact on the preserve's ecology and without any permanent structural improvements.

Accessibility and Erosion

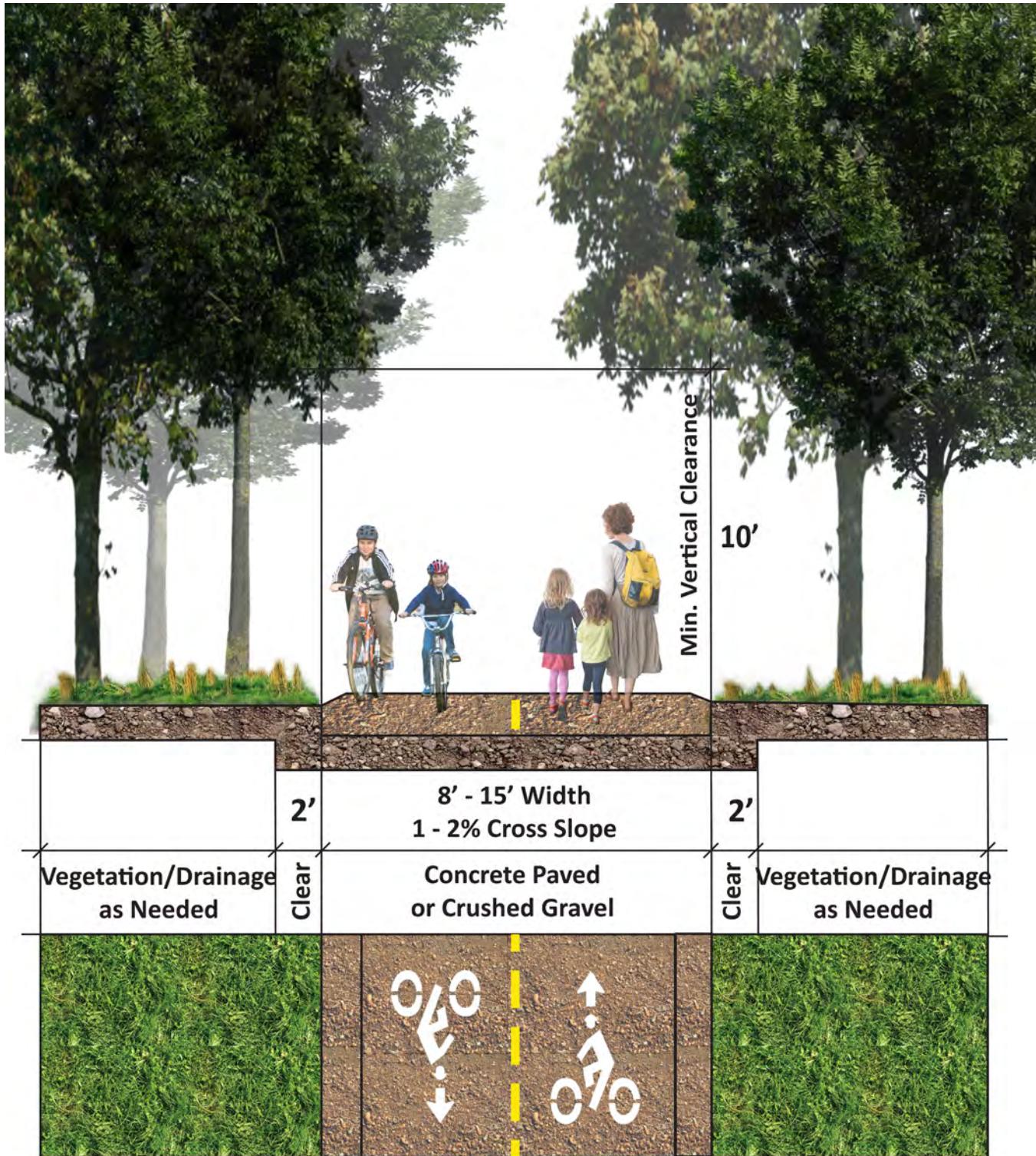
Currently some sections of trail are severely eroded due to poor drainage control. This poses a particular challenge for disabled visitors, where currently the ADA accessible trail section is no longer passable by wheelchair.

In order to minimize erosion and maintain accessibility for the most amount of people, the maximum sustained gradient of any trail should be no steeper than 5%, with a maximum cross-gradient of 2%. Short sections may be steeper if the terrain requires, however they should be balanced with frequent flat rest points. Additionally, "water bars" and other sustainable trail design techniques should be employed to divert stormwater from the trail alignment into a drainage area.

Singletrack Trail Design Guidelines



Shared-Use Path Design Guidelines



Natural and Artful Trail Barriers

Due to the Preserve's easement stipulations restricting the installation of permanent elements in preserve, including fencing and railing, creative solutions will have to be



employed to prevent visitors from leaving the designated trails. Keeping visitors on the trails is vital to maintaining the ecological integrity of the preserve, as well as protecting the privacy of adjacent landowners.

The first and most obvious method to prevent visitors from leave the trail is to simply allow the native grasses, shrubs and trees to regenerate to the point that they are virtually impenetrable to a typical visitor. During times of heavy rain and warm weather, this is hardly difficult, given the rapid rate of growth. However certain areas that have

seen significant soil compaction or other degradation may need to be manually planted to restore biodiversity and density.

However, during times of little rain or in the winter, vegetation will go dormant or die, allowing for the easy formation of new social trails and creek access points. In this case, this plan recommends partnering with WVA, volunteers and artists to create "Artful Barriers" created with biodegradable, natural materials arranged or woven in such a way to create a whimsical or otherwise artistic temporary sculpture. WVA can contract with artists and volunteer groups to install pilot programs for artful trail barriers in sensitive areas.

These artful barriers have been employed in parks and preserves across the world, gaining popularity due to their minimal to positive impact on the ecology and their aesthetic qualities.

Trailheads and Amenities



Trailheads are the beginning of any trail user experience and provide crucial information and amenities for trail users. Each trailhead in

the Cypress Creek Preserve will need different kinds of access controls, signage and amenities, detailed below.

Pocket Park Trailhead

The Pocket Park trailhead is by far the most developed trailhead, as it is the only section where permanent structures are allowed and it also serves as a small urban park for the square. Little is needed in improvements to this trailhead as it is currently well maintained and used, except for the following

- Updated and improved signage
- possible access controls
- Improved ADA accommodations

- Artful gateway with possible access controls
- Wayfinding, interpretive and regulation signage
- Ecological restoration around social trails

Signage with detailed information regarding trail route, distance, conditions, and regulations and wayfinding and interpretive signage along trail routes will be a vital tool to help manage the preserve in the future.

Old Kyle Rd Trailhead

The proposed Old Kyle Rd Trailhead will require completely new facilities, including:

- Artful gateway with possible access controls
- Wayfinding, interpretive and regulation signage
- Possible amenities such as benches, shade and water

Faultline Trailhead

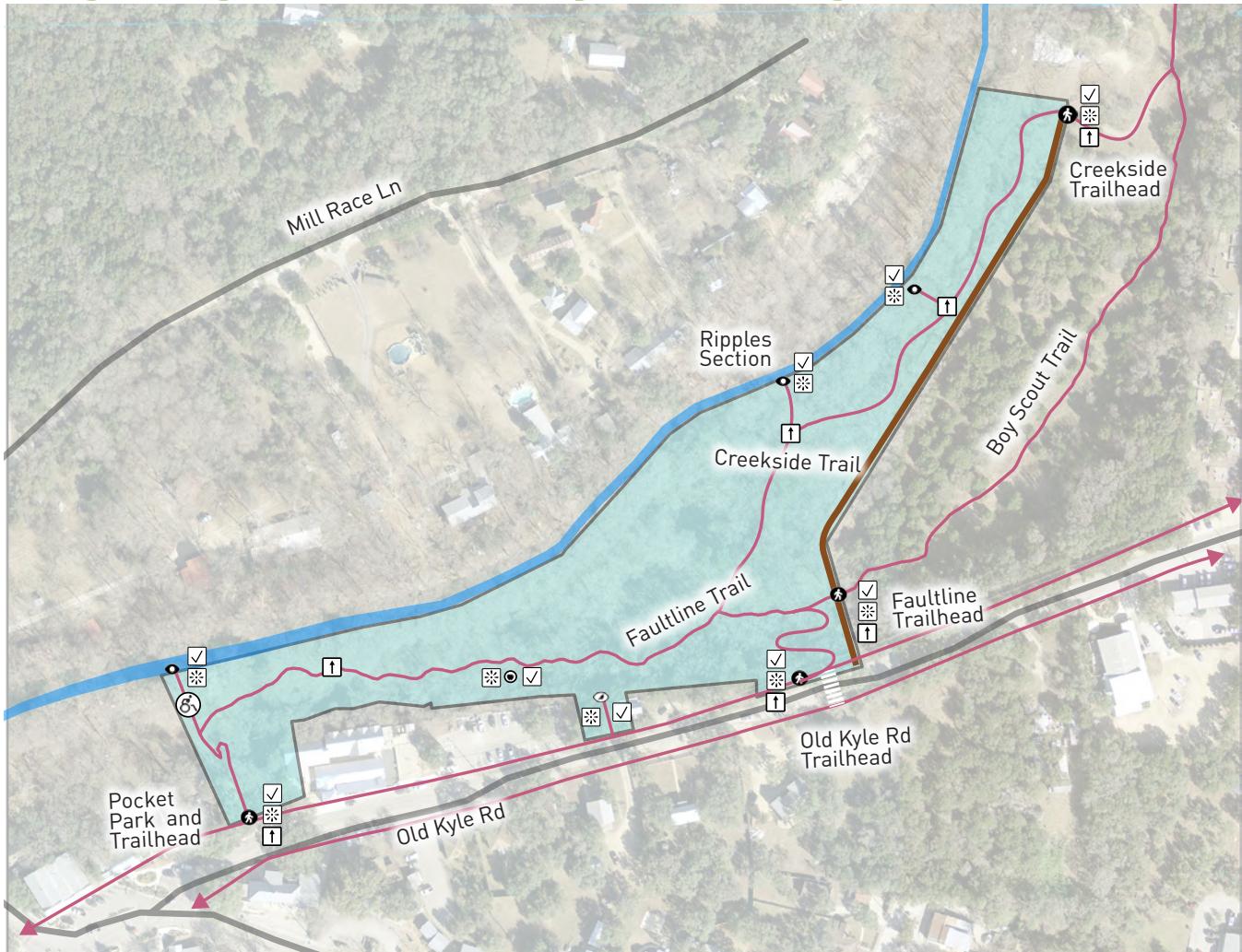
The Faultline Trailhead requires some improvements, including:

- Artful gateway with possible access controls
- Wayfinding, interpretive and regulation signage
- Ecological restoration around social trails

Creekside Trailhead

The Creekside Trailhead requires some improvements, including:

Signage and Wayfinding



Wayfinding



Rules and Regs



Interpretive

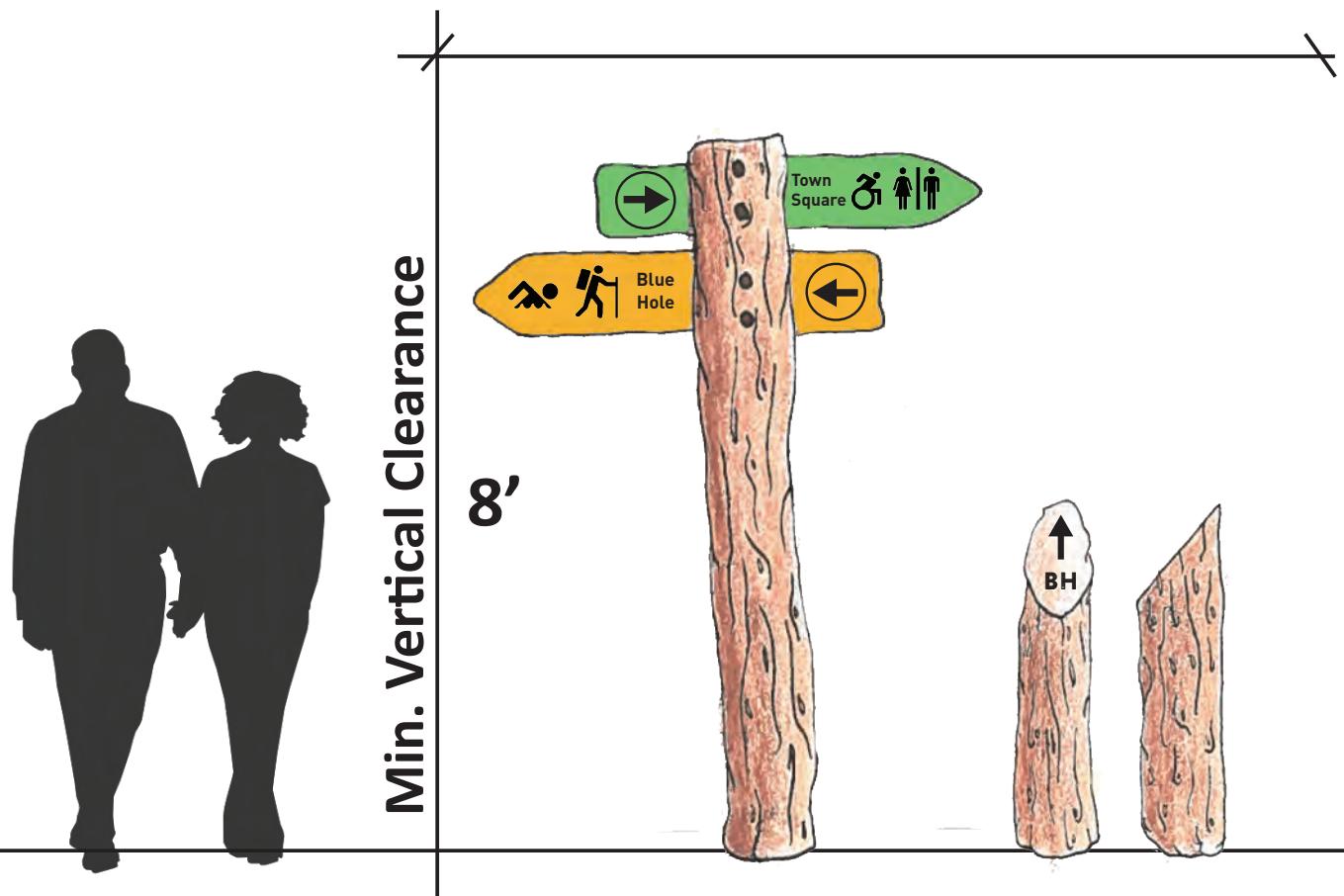
Wayfinding and signage along routes inform users of their current location, distance and direction to destinations, identify other trails at intersections, inform users of sensitive ecological features, and educate users regarding the preserve's ecology and history.

For the purposes of this plan, signage has been divided into three categories: Wayfinding, Rules and Regulations, and Interpretive. Each of these types of signs display different kinds of information, outlined below.

Wayfinding Signage

Wayfinding signage includes but is not limited to:

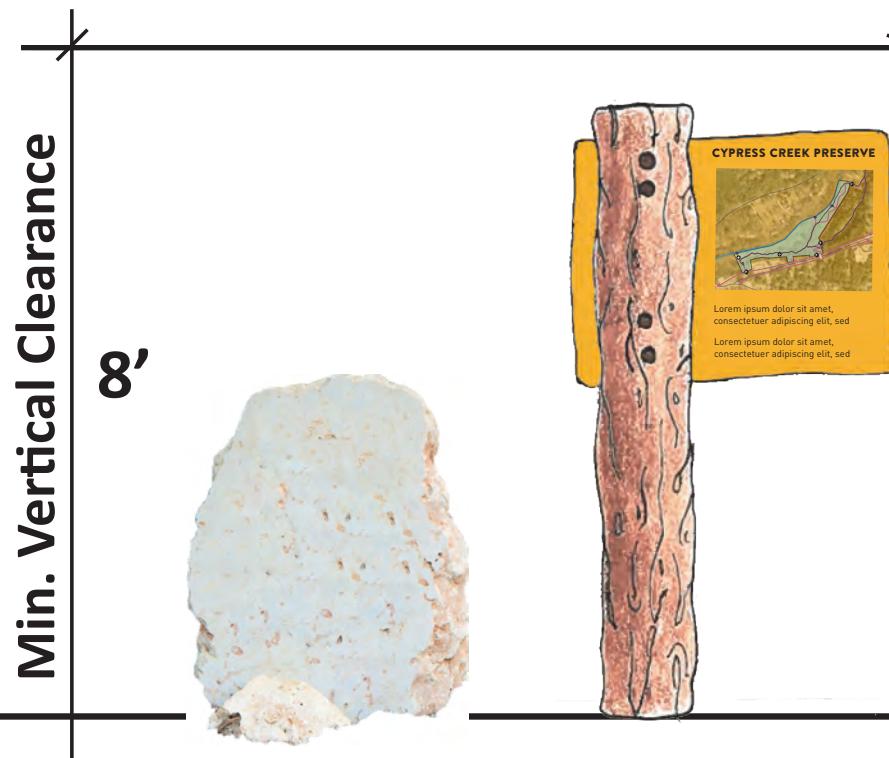
- A general Trail Map, with descriptions, distances and accessibility information
- Confirmation and distance signs along the trail to help visitors navigate
- Decision signs at trail forks and intersections



Rules and Regulations Signage

Rules and Regulation signage includes but is not limited to:

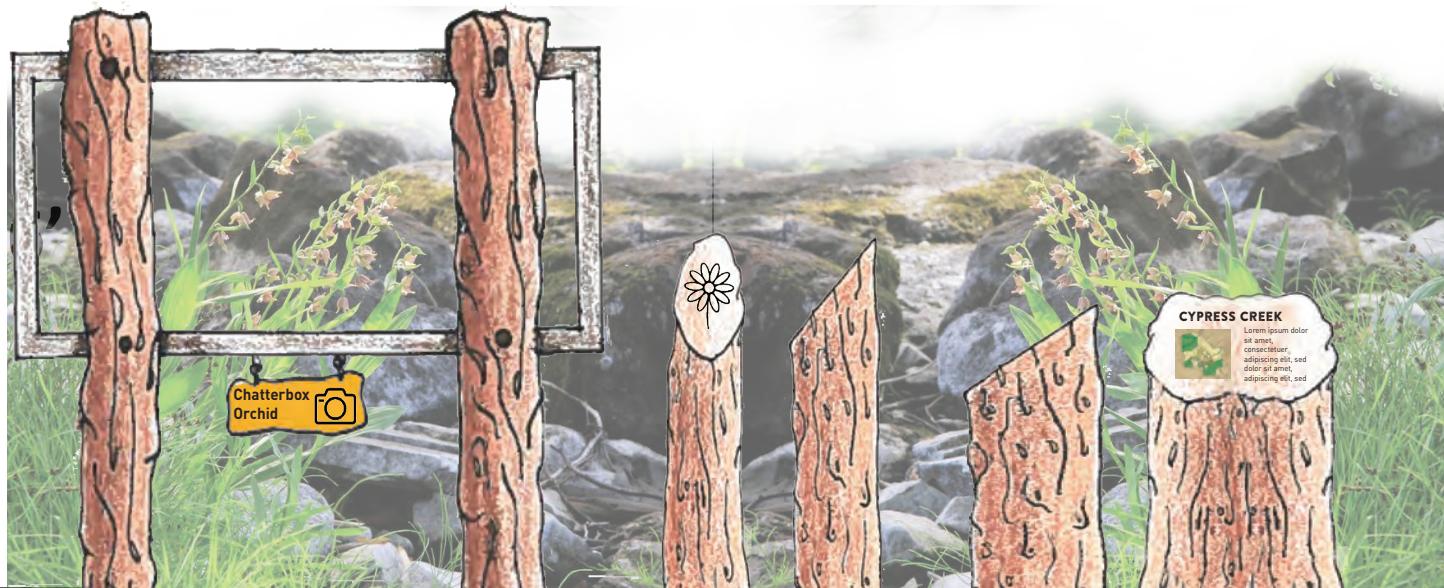
- Limitations on activities, including: biking, swimming, off-trail hiking, camping, dog-walking, fishing, and any other activities stipulated in the conservation easement
- Access Hours
- Rules for respecting neighboring landowners
- Designating particularly sensitive ecological areas, including identifying important protected species
- Identifying hazards



Interpretive Signage

Interpretive signage includes but is not limited to:

- Information regarding the ecological function of the preserve, including: native plants, native animals, riparian function, water cycles, flood mitigation, seasonal information, restoration efforts
- Information regarding risks to the preserve, including: Invasive species, bank erosion, soil compaction, pollution, and climate change
- Information regarding the history of the Preserve, Wimberley, and the region.



Faultline Trailhead (from Boy Scout Trail)



Ripples Section, Creekside Trail Node



Creekside Trailhead (from Boy Scout Trail)



Old Kyle Rd Shared-Use Path

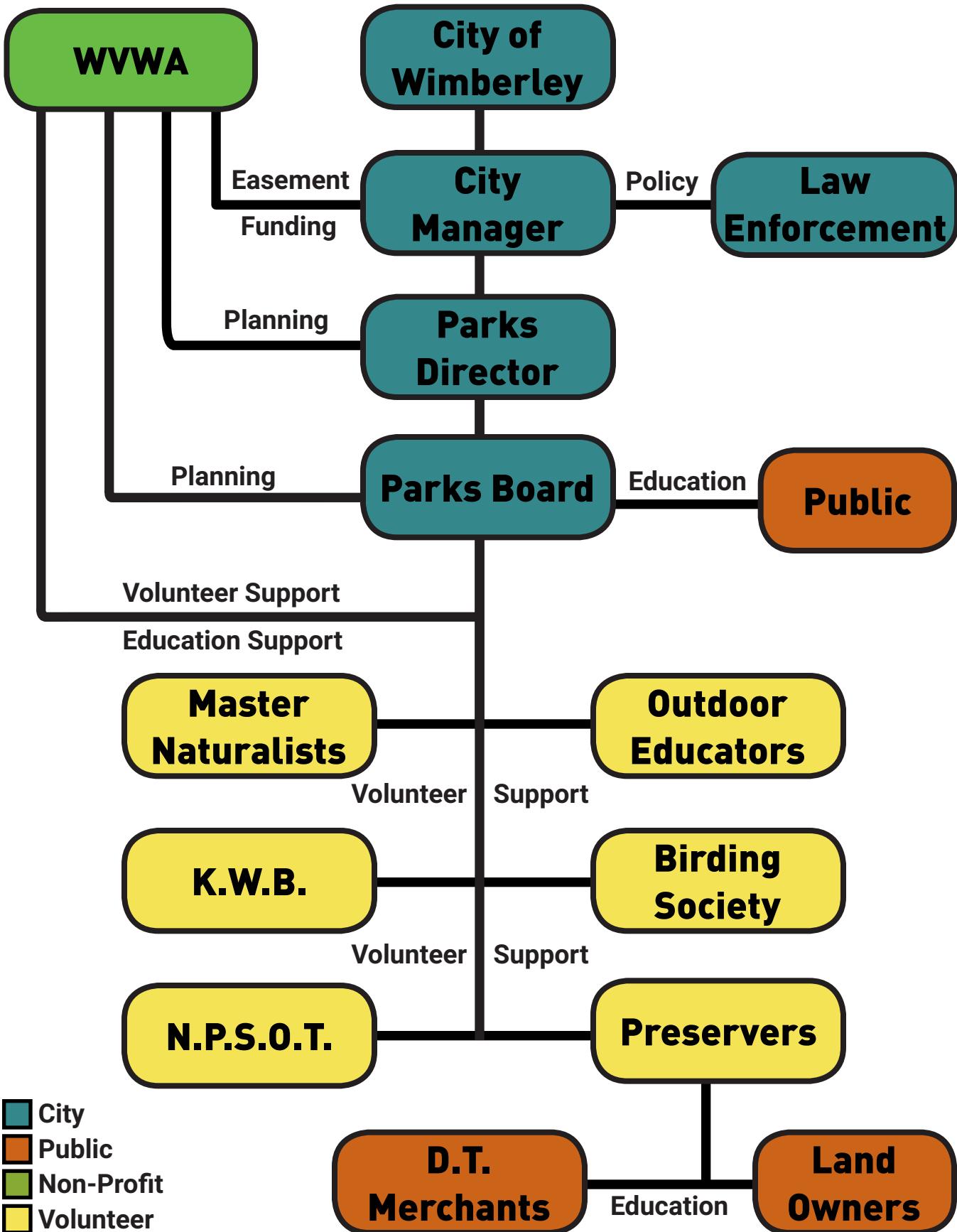


Stewardship Structure

A crucial component to the success of any plan, particularly one with many stakeholders, is a clear understanding of the various roles and responsibilities of each stakeholder. This section identifies the hierarchy and relationships between each stakeholder, including the city, its various departments, WVWA, volunteer organizations, and the public.

The stewardship structure was identified after evaluation of each organization's historic roles and current capacity. The broad strokes of this structure were identified at a stakeholder meeting on Friday, April 19th at the Preserve Pocket Park, pictured below. Specific roles were then fine tuned via correspondence with the various stakeholder groups.





City of Wimberley/City Manager

- Initiates and oversees long-term planning
- Appoints one council member as park liaison
- Assists with funding including capital investments and grant partnership
- Sets agenda and oversees work done by Parks Department
- Coordinates enforcement efforts
- Serve as liaison between WVWA and parks staff, Parks Board
- Receives annual update on preserve including information regarding plants, violations, changes, usage, etc

WVWA

- Planning for long-term stewardship and short-term problem solving
- Annual inspect the conservation easement
- Monitors the condition of vegetation, structures, but does not conduct enforcement on day to day basis
- Procures and disseminates funding for upkeep and improvements
- Serve as a conduit for stakeholder groups between the city and the public
-

Wimberley Parks Director

- Manages day to day maintenance and enforcement priorities
- Directs and collaborates with volunteer organizations maintenance efforts

- Executes masterplan goals and policies
- Coordinates with parks in region to align goals and capacities
- Document changes such as new paths and conducts early mitigation efforts and organizes rapid response to daily changes

Law Enforcement

- Enforces city ordinances and possibly resume daily walk-thru of preserve
- Contributes to the development of protocol for rule breaking in preserve

Hays County Master Naturalists

Increase Park staff capacity by expanding regular maintenance work done at Blue Hole to the preserve

- Boots on the ground for controlling invasive species and conducting trail maintenance
- Conducts educational tours
- Conducts Plant and animal surveys with Riparian Network), records findings to iNaturalist

Keep Wimberley Beautiful

- Conduct regular maintenance work limited to the Pocket Park
- Provides grants for small projects including restoration work

Wimberley Outdoor Educators

- Conducts annual educational tours

- Produces and installs seasonal and interpretive signage for kiosk at Pocket Park
- Provides outdoor education curriculum to other groups for free

Preservers

- Supports volunteer efforts through rapid response to new trails and maintenance of signage
- Acts as a liaison to neighboring land owners and businesses
- Will possibly transition to a "Friends of Cypress Creek Nature Preserve" group with expanded role in promoting community pride and stewardship

Wimberley Birding Society

- Conducts occasional birding tours
- Provides advice for interpretive signage and educational materials regarding birds

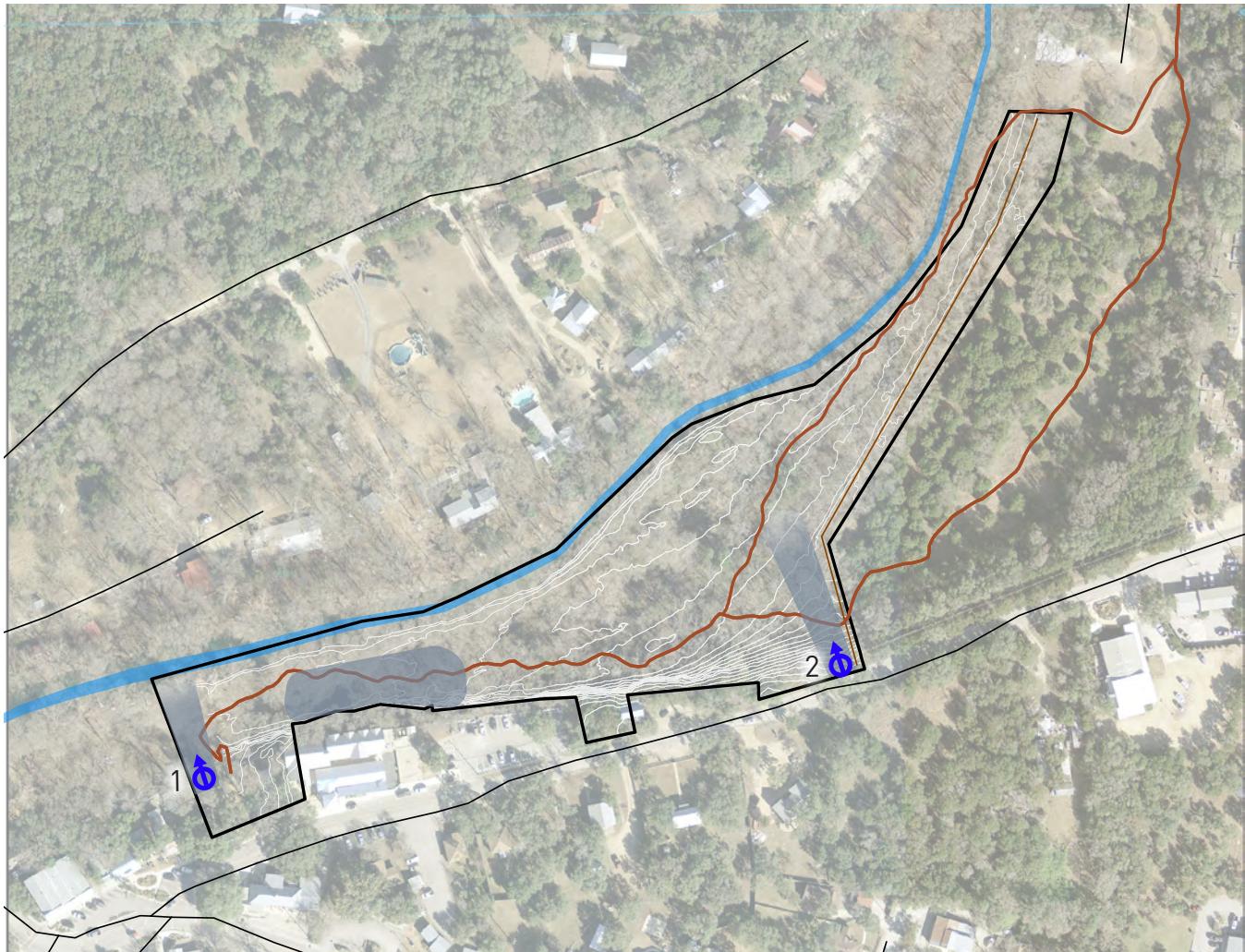
Maintenance Schedule

Stewardship will depend on regular maintenance and monitoring to improve ecological function while maintaining an enjoyable and educational experience for visitors.



Weekly	Monthly	Quarterly	Annually
Assessment of preserve resources for damage, such as social trails, vandalism, or erosion.	Pocket Park landscape maintenance conducted by Keep Wimberley Beautiful	Master Naturalists native/invasive species survey	Third Party review of easement condition and report to City Council. Includes invasive/native species survey.
Cleaning of Pocket Park restroom facilities and Pavilion		Review habitat restoration areas and relocate trail alignment protections (natural fencing, signage) as needed	
		Review effectiveness of stormwater mitigation efforts, adjusting as needed	Parks internal review of Masterplan CIP progress,
		Wimberley Outdoor Educators produce and install seasonal interpretive material for pocketpark Kiosk	Apply for grant funding for preserve CIP projects

Stormwater Mitigation



Stormwater
Outfall



Drainage Area



Existing Trails

The Cypress Creek Preserve is subject to two stormwater outfalls which have caused significant erosion and have effected the sustainability of the trails in the preserve. Outfall #1 originates from the Wimberley Town Square, while outfall # 2 originates from Old Kyle Road.

These outfalls spill directly into the preserve, without any significant erosion control in place. This chapter provides design solutions for the stormwater outfalls that are contextually sensitive while mitigating the erosion and water quality problems.

Precedents for Stormwater Mitigation Design

"Green Infrastructure", as mentioned in the previous chapters, utilizes natural processes to provide services for humans and wildlife alike. Central Texas experiences intense rainfall which can cause serious erosion and damage to property.



Photo: Earth Design Inc

This plan recommends using a step-pool drainage system to mitigate the possible damage caused by heavy rainfall and impervious cover. The Step-Pool System encourages infiltration and improves water quality while slowing the rapid runoff caused



Regenerative Step-pool drainage. Photo: My Green Montgomery



Regenerative Step-pool drainage. Photo: My Green Montgomery

by heavy rain. The Step-Pools can be designed to utilize local materials that are appropriate for natural contexts.

Outfall #1

Outfall #1, located at the pocket park entrance, is significantly eroded, threatening the structural integrity of the main entrance to the preserve. Additionally, the outfall has caused erosion on the trail which directly access Cypress Creek, eliminating ADA access to the creek and encouraging social trails. Regardless, it establishes an informal barrier between the semi-private park to the south and the preserve, which is currently designated by a rope fence.



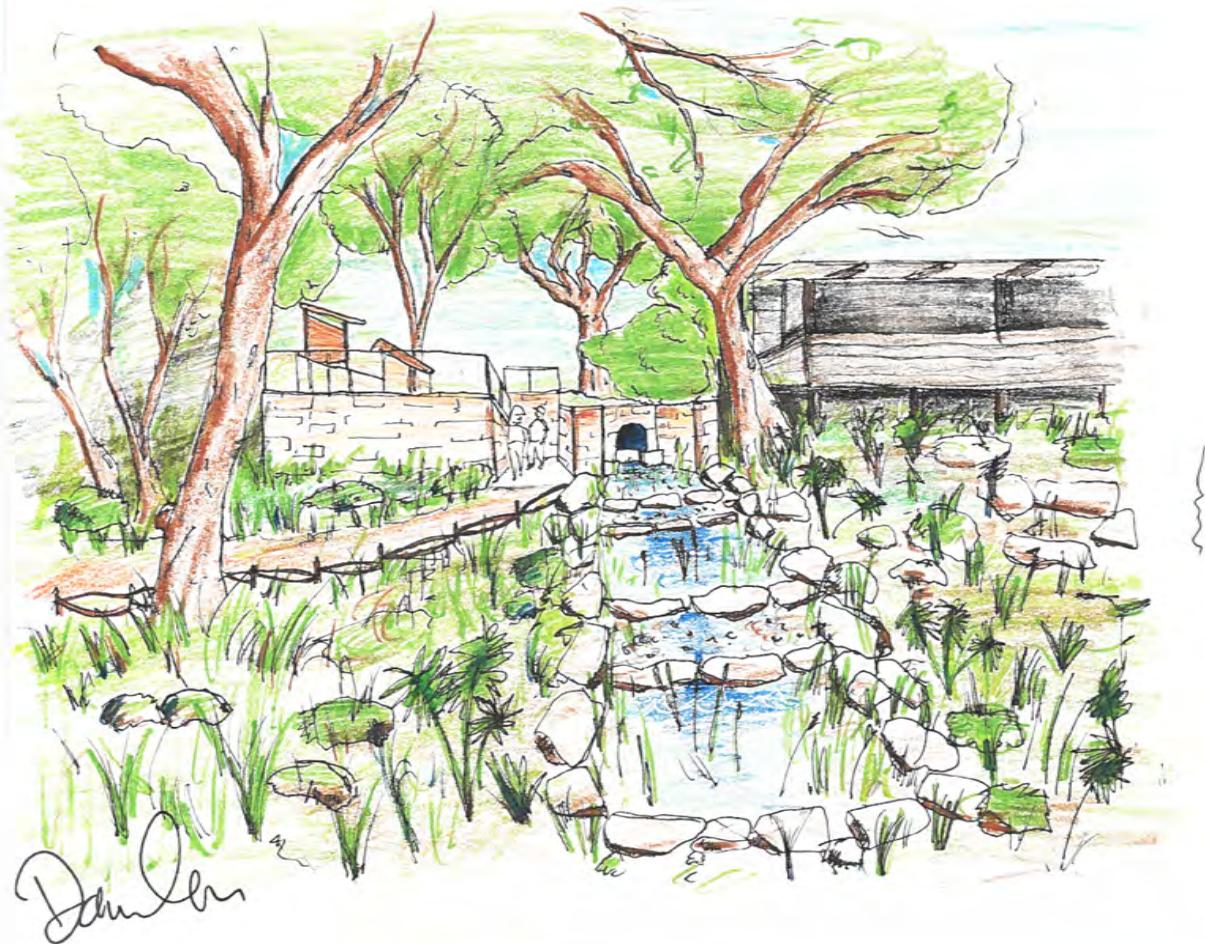
Outfall #1, Winter 2019



Outfall #1 - Erosion and Fencing, Winter 2019

This outfall will require collaboration with the neighboring landowners to create a sustainable stormwater management feature that also provides a barrier between the private and public space.

The following illustrations demonstrate the step pool drainage system in the Cypress Creek Nature Preserve under heavy stormwater load from the Wimberley Town Square. The step pools should use locally sourced boulders, river rocks and



vegetation to channel stormwater away from the ADA accessible trail. Meanwhile, the ADA accessible trail should be realigned to the north and lead to a sustainably designed creek observation node.

Outfall #2

Outfall #2, located along Old Kyle Road, has also caused erosion and has led to the formation of social trails along the drainage. As demonstrated in the photographs to the right and below, various attempts to prevent erosion and social trails have seen mixed results. A well constructed Step-pool drainage



system, and a realigned Boy Scout Trail can alleviate these issues. As demonstrated in the trail alignment chapter, the Boy Scout Trail entrance should be repositioned at a lower point in the preserve's elevation to prevent erosion and ease maintenance.

The following illustrations demonstrate the step pool drainage system alleviating erosion and social trail issues. The historic rock wall provides a significant barrier to flooding, and can be mimicked in the construction of the step-pool system.



Capital Improvements Plan

Project Description	Time frame	Lead Org	Estimated Cost	Funding
Trail realignment: move trail off riparian bank in upper section of preserve, add viewing nodes along upper section	2019 - 20	City and Master Naturalists	\$1,000 - \$3,000 for labor, natural materials	TPWD, GEN, LOCAL
Artistic trail protection barriers: Develop pilot project with WVWA and local artists, develop program for rotating installation of nature based barriers	2019-20, Ongoing	City, WVWA	Volunteer labor, Staff	GEN, LOCAL
Riparian Restoration: repair and armor eroded areas along creek bank, seed/ plant native plants	2019 - 20	City and Master Naturalists	\$250 - \$1000 for seeds and seedlings, Volunteer labor, Staff	TPWD, GEN, LOCAL
Implement Signage Plan: Hire a singage and wayfinding fabrication firm or fabricate in house using local materials and artisans	2019 - 21	City	\$10,000 - \$50,000, Depending on quality and fabricator	TPWD, GEN, LOCAL
Create Trailhead gateways for both Creekside Trailhead and Boy Scout Trailhead. Move Boy Scout trailhead off slope.	2020 - 21	City and WVWA	<\$500 for Volunteer Labor, \$500 - \$1000 for hired artist	GEN, LOCAL
Engineer and construct Green Stormwater outfalls based on concepts provided in this plan. May require reiterations and maintenance after rains	2020 - 2022, ongoing	City and WVWA	\$10,000 - \$40,000 Depending on Engineering need, labor, materials	TPWD, TWDB, GEN, LOCAL
Engineer and Construct Birdwatching Outpost off of Old Kyle Rd	2021- 2023	City, Wimberley Birding Society	\$10,000 - \$25,000 depending on design	TPWD, GEN, LOCAL
Engineer and Construct Shared-Use Path along Old Kyle Rd, Construct Old Kyle Rd Trailhead and connector trail	2022 - 2024	City	\$20,000 - \$60,000, depending on paved/unpaved, engineering need	TPWD, CDBG, GEN, LOCAL
Conduct seasonal native/invasive plant Surveys	Ongoing	Master Naturalists	Volunteer labor	LOCAL, TPWD
Conduct semi-annual/as needed invasive species removal campaigns	Ongoing	Master Naturalists, City	Volunteer labor, staff	LOCAL, TPWD, GEN

GEN = City of Grapeland Municipal Funds; CDBG = Community Development Block Grant Program; Local = Donations from private citizens, organization, and local businesses; TPWD = Texas Parks & Wildlife Department; TxDOT = Texas Department of Transportation, TWDB = Texas Water Development Board

Funding Sources

Project Type	Deadline	Organization	Program Name	Description	Grant/Loan Amount	Local Contribution
Infrastructure	August 31	Texas Parks & Wildlife (TP&W) www.tpwd.state.tx.us	Small Community	Funds can be used for development or rehab of any public outdoor recreation facilities. City would be required to self-administer the project.	Up to \$75,000	1 to 1 match. Can be cash, land, or in-kind.
Infrastructure	February 15; September	Keep Texas Beautiful	Bring Back the Monarchs to Texas	KTB offers several grant opportunities though their programming may change. BBMT funds may be awarded to nature centers, schools, educational groups and other to help fund development of Monarch demonstration gardens or Waystations on public sites in their immediate areas.	Up to \$400	A written report submitted by July 30
Infrastructure	August 31	TP&W	Outdoor Recreation	Funds can be used for development or rehab of any public outdoor recreation facilities. Must have master park plan completed by May 31st to apply.	Up to \$400,000	1 to 1 match. Can be cash, land, or in-kind.
Infrastructure	October 12, February 15	Lowes	Toolbox for Education Grants	Funds can be used for a variety of projects including reading gardens, vegetable gardens, fitness areas, school landscaping projects, nature trails, and playgrounds. Applicants are limited to K-12 schools or parent-teacher organizations. www.toolboxforeducation.com	\$2,000 to \$5,000	No match required.
Programming	February 1	TP&W	Outdoor Outreach	Funds can be used to purchase supplies and equipment for outdoor programs. No construction allowed.	Up to \$40,000.	No match required, but match improves chances of funding.
Infrastructure	February 1	TP&W	Recreational Trails	Funds can be used for new trail development or rehab of existing trails, and trail amenities such as parking areas, restrooms, drinking fountains.	Up to \$200,000	20% of total project cost required as local match (can be cash, land, or in-kind).
Infrastructure	February 5	TxDOT & Keep Texas Beautiful	Governor's Community Achievement Awards	Funds can be used for landscaping along public right of way. Location and type of project is decided by the community and TxDOT.	By population: <3,000=\$90K; <5,000=\$110K; <9,000=\$130K	N/A

Project Type	Deadline	Organization	Program Name	Description	Grant/Loan Amount	Local Contribution
Infrastructure/ Programming	September 30, February 28th	Captain Planet Foundation	CPF Grants	Funds can be used for community gardens, native plant gardens, learning trails, cleaning up local parks, maintaining/ restoring environmentally sensitive areas such as forests and prairies, wetlands, rivers, streams. Preferential consideration is given to projects seeking seed funding of \$500 or less or projects that have at least a 50% match or in-kind contribution in funding. www.captainplanetfoundation.org	Up to \$2,500	No match required, but match improves chances of funding.
Infrastructure/ Programming	Ongoing	National Gardening Association	The Garden Registry http://grants.kidsgardening.org/	The program connects communities with various grant programs available through the National Gardening Association depending on the community's need.	varies	No match required.
Infrastructure	December 15	Fiskars	Project Orange Thumb http://www2.fiskars.com/Community/Project-Orange-Thumb	The program awards grant recipients a combination of financial funding and Fiskar tools to build or make over community gardens.	\$5,000	No match required.
Drainage	October each year	Texas Water Development Board (TWDB) www.twdb.state.tx.us	Flood Mitigation Assistance Program	Funds for planning and project grants to develop or update the flood hazard component of a Multi-Hazard Mitigation Plan (prepared by the COG) and for constructing flood mitigation projects. Eligible applicants must have zoning and building code jurisdiction over a particular area having special flood hazards and be participating in the NFIP.	Planning grant max: \$50,000; Construction: < \$3.3 million over a 5-year period.	25% match of which not more than half (12.5%) can be of in-kind services.
Drainage	Annually	TWDB	Flood Protection Planning	Funds for regional/watershed-wide planning to evaluate structural and nonstructural solutions to flooding problems.	Varies	1 to 1 match

Project Type	Deadline	Organization	Program Name	Description	Grant/Loan Amount	Local Contribution
Drainage	Ongoing	National Resource Conservation Service	Emergency Watershed Protection (EWP) Program	Funds for debris removal from stream channels, road culverts, and bridges; reshaping and protecting eroded banks; correcting damaged drainage facilities; establish cover on critically eroding land; repair levees and structures; and repair conservation practices. Eligible applicants include public and private landowners. Eligible applicants must be represented by a sponsor, such as a city, county, general improvement district, or conservation district.	Varies – funding subject to Congressional approval	25% local match required, cash or in-kind services
Multiple	None	Meadows Foundation www.mfi.org	Multiple	The Meadows Foundation provides grants and loans statewide for a variety of causes. Ideal projects already have at least 50% of needed funding and the organizational and financial capacity for execution beyond the grant period. The Foundation should be contacted for information about whether a given project fulfills its priorities.	Varies	Local organizational capacity
CBD - Infrastructure	Yearly	TDA	TCF – Grants for Main Street Communities	Funds can be used for public infrastructure improvements such as parking, sidewalks, lighting, utility upgrades in the designated "historic commercial district" of participating Main Street communities. Engineering costs are not eligible to be paid with TCF-DRP funds so those costs must be paid for with local funds.	Up to \$150,000	Cash or in-kind. 10% minimum, but points awarded for 20% or 30%. E.G.: on a \$150,000 grant, \$15,000 is required, but points awarded for \$30,000 or \$45,000
CBD - Infrastructure	Yearly	TDA	TCF – Downtown Revitalization Program	Funds can be used for public infrastructure improvements such as parking, sidewalks, lighting, utility upgrades in designated "historic commercial district." Engineering costs are not eligible.	Up to \$150,000	Cash or in-kind. 10% minimum required, but points awarded for 20% or 30%. Example: on a \$150,000 grant, \$15,000 is required, but points awarded for \$30,000 or \$45,000

Cypress Creek Nature Preserve Masterplan Appendix



ALVARADO
WORKS



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STATE OF TEXAS §
 §
COUNTY OF HAYS §

Conservation Easement

This Conservation Easement ("Agreement") is entered into between Village of Wimberley, ("Grantor"), and Wimberley Valley Watershed Association, ("Grantee"), a Texas non-profit public interest corporation whose mailing address is 1405 Mt. Sharp Road, Wimberley, Texas 78676.

RECITALS

Grantor is the owner in fee simple of that certain real estate consisting of approximately 7.19 acres of land located along the bank of Cypress Creek near the Wimberley square, more particularly described in Exhibit A attached hereto and made a part of this agreement.

The property in its present state consists of a highly pristine remnant tract of land that lies entirely (or almost entirely, depending upon definition) in the flood way and/or flood plain of Cypress Creek.

The property has special conservation value due to its survival in a totally natural state without any significant man-made structures, improvements or development of any kind other than a very old stacked-rock wall that dates from the 1800's located along one section of its perimeter. Massive cypress trees, native pecan, black walnut, sycamore, elm, juniper, oak, mulberry, yaupon and many other species proliferate throughout its extent. There are multiple levels of habitat from the extremely high tree canopy to the deepest pools in Cypress Creek that are still fed by flowing springs. The waters are inhabited by catfish, black bass, Rio Grande perch, sun perch, carp, turtle, cotton-mouth water moccasin and an occasional migrating eel from the sea. Waterfowl including blue heron, purple gallinule and blue Kingfisher inhabit the tract, along with an extraordinary variety of other bird species among which are the large red-shouldered hawk, many different owl, purple martin, painted bunting, scarlet tanager, red-headed woodpecker, and cardinal to name only a few. The extremely rare and fragile chatterbox orchid still grows from the roots of the cypress trees near rapidly flowing water around the waterfall about the mid-point of the tract. The property constitutes a true remnant wilderness tract that has never been subjected to any substantial level of agricultural, recreational, chemical pollutants or other human traffic of any kind, excepting only the occasional visitor or passer-by who have come to appreciate its extraordinary natural state.

Grantor, as owner of the Property, intends to convey to Grantee the right to preserve and protect the conservation values of the Property in perpetuity, and represent to Grantee that the Property is free and clear of all liens and encumbrances except those which have been specially declared to Grantee prior to the date hereof.

Grantee is a public interest charitable organization described in Section 501(c)(3) of the Internal Revenue Code, as amended, and the regulations thereunder (the "Code"), whose primary

purpose is land conservation for the preservation of open spaces and wildlife habitat.

Grantor and Grantee recognize the natural, scenic, ecological, and fragile special character of the Property as described above and have the common purpose of the conservation and protection of those special values in perpetuity through the use of restrictions on the property designed to preserve its character as described above. With the transfer from Grantor to Grantee of affirmative rights for the protection of the Property, the parties intend the grant of such restrictions and rights to qualify as a "qualified conservation contribution" as that term is defined under Section 170(h)(2)(c) of the Code.

EASEMENT GRANT

In consideration of the facts recited above and of the mutual covenants, terms, conditions and restrictions contained herein, and pursuant to Section 170(h) of the Code and the laws of the State of Texas, including TEX. NAT. RES. CODE ANN. §§ 183.001 to 183.005, Grantor hereby gives, grants, and conveys unto Grantee and permitted assigns a conservation easement (the "Easement") in perpetuity over the Property of the nature and character and to the extent hereinafter set forth. Grantor hereby declares that the Property shall be held, mortgaged, encumbered, transferred, sold, conveyed, used and occupied subject to the covenants, conditions, restrictions and easements hereinafter set forth, which covenants, conditions, restrictions, and easements shall be deemed to run with the land and to burden the Property in perpetuity without every being subject to subordination.

1. *Purpose.* The purpose of this Conservation Easement is to ensure that the Property shall retain forever its special natural, scenic and undeveloped remnant wilderness character as described above; to protect its native plants, animals, habitat and plant communities on the Property; and to prevent any use of the Property that will pollute, impair or interfere with those conservation values and to assure the availability of the Property only as a nature preserve and for the education and edification of the public as to its character. It is expressly agreed that the purposes of this easement promote the public purposes of the Village of Wimberley.

2. *Rights of Grantee.*

2.1 To accomplish the purpose of this Conservation Easement, Grantor grants the following rights to Grantee, which rights shall be in addition to, and not in limitation of, any other rights and remedies available to Grantee:

(a) To preserve and protect the conservation values of the Property, and enforce the terms of this Agreement in the case of breaches by Grantor or third persons (whether or not claiming by, through or under Grantor) by appropriate legal proceedings, after providing Grantor (in case of a breach by Grantor) with reasonable notice and a reasonable opportunity to cure, except in the case of an emergency which in Grantee's reasonable judgment requires immediate action to prevent or mitigate otherwise irreversible damage to the conservation values of the Property, in which case notice and opportunity to cure are dispensed with;

(b) to enter onto the Property at any time (without bringing any significant harm to the conservation values described herein) in order to monitor Grantor's compliance with the covenants and purposes of the Easement;

(c) to prevent Grantor or third persons (whether or not claiming by, through or under Grantor) from conducting any activity on or making any use of the Property that is inconsistent with the purpose of this Easement and to require of Grantor or third persons the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use; and

(d) to obtain injunction and other equitable relief against any violations, including relief requiring removal of any offending structures, improvements, vegetation, uses, regulations or signage and/or to provide other restoration of the Property to the condition that existed prior to any such violations (it being agreed that remedies otherwise available at law would be wholly inadequate); and

(e) to place one or more discrete and dignified signs on the Property advising visitors of the existence of the conservation easement and its requirements and stating the name, address and telephone number of the Grantee.

2.2 Forbearance Not a Waiver. Any forbearance by Grantee to exercise its rights under this Easement in the event of a breach of any of its terms shall not be deemed or construed as a waiver of such term or of any subsequent breach of the same or any other terms of this Easement or of any of Grantee's rights under this Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach shall impair such right or remedy or be construed as a waiver.

2.3 Acts Beyond Grantor's Control. Nothing in this Easement shall be construed to furnish Grantee a cause of action against Grantor for damages as a result of, or to compel Grantor to restore the condition of the Property after, any act of God or other event over which Grantor had no control, or as a result of any prudent action (including best efforts to prevent or minimize damage or impairment of natural values) taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes.

3. Prohibited Uses. Except as provided and permitted under paragraph 4 below, Grantor shall not perform or commit, and shall not knowingly permit third persons to perform or commit, any act on and affecting the Property that is inconsistent with the purposes of this Easement. Without limiting the generality of the foregoing, the following acts or uses are expressly prohibited on, over, under, or in connection with the Property:

(a) excavating, dredging, or removing soil, loam, peat, sand, gravel, rock, caliche, or other surface or near-surface minerals or natural deposits from the Property, changing the topography of the Property, or building roads;

(b) mining, drilling, producing, or exploring for oil, gas, or other minerals

on the surface of the Property;

- (c) commercial or industrial uses of the Property;
- (d) subdividing the Property;
- (e) constructing or placing any transmission or receiving tower or energy facility on or above the Property or granting any easements or rights-of-way over or across the Property;
- (f) installing underground storage tanks or placing, filling, storing, or dumping waste, refuse, trash, rubbish, debris, junk, soil, vehicle bodies or parts, or other substances, whether or not generated on the Property;
- (g) cutting or removing any native trees or plants from the Property (except in extremely rare cases based upon sound ecological advise in writing from a qualified source that such cutting or removal is necessary to preserve natural balance).
- (h) planting any non-native trees, shrubs or plants.
- (i) disturbing natural habitat by plowing, clearing, burning, chemical uses, or the introduction of non-native animals;
- (j) altering, depleting or extracting existing or future surface water, natural water courses, ponds, lakes, marshes, subsurface water or any other water bodies,
- (k) placing any commercial signs, billboards or advertising on the Property;
- (l) erecting or establishing any artificial lighting or illumination of any kind on the Property except at the entrance area of nature preserve hereinafter described;
- (m) erecting any man-made structure whatsoever other than the permitted foot path along the length of the Property and the permitted structures in the entry area;
- (n) no noisy or pollution-emitting power vehicles or contrivances of any kind shall ever be permitted upon the Property except in cases of human health and safety emergency; and
- (o) any unanticipated use or activity on or at the Property which would impair significant conservation values unless such use or activity is necessary for the protection of the conservation values that are the subject of this Easement, in which case such use or activity shall be subject to the prior approval of Grantee.

4. *Reserved Rights*, By the grant and conveyance of this Easement, Grantor intends to

dedicate the Property to wilderness preservation as a nature preserve. Grantor agrees that except for the areas identified below, and a fully permeable nature trail hereinafter described, the Property will be left in a totally natural wilderness state in order to preserve the conservation values described herein. Accordingly, the provisions of Paragraph 3 notwithstanding, the following rights, uses, and activities of, or by Grantor and its successors and assigns are permitted on the Property:

(a) the right to conduct educational, charitable, and/or archeological research and investigation so long as it does not impair the natural wilderness character of the Property;

(b) the right to maintain the Property as a nature preserve and to permit visitors to traverse the Property for educational purposes and for aesthetic appreciation of nature on a specially designed permeable foot path through the length of the Property, which path shall be established in such a way as to reduce to a minimum the area that it occupies and to minimize its impact on the delicate ecology of the Property by guiding visitors away from rare species, nesting sites, and the most fragile areas. The foot path may be furnished with seats of natural materials and unobtrusive informational signs for visitors; however nothing in this agreement shall be construed as itself providing public access or right of use to the public except as Grantor or its successor-in-interest may permit in accordance with any applicable maintenance or conservation plan that complies with the terms of this agreement.

(c) the right to establish a nature preserve entry area and gate at the point nearest the Wimberley square where the Property may be accessed from Old Kyle Road. Structures in the entry area shall be confined to the area above the bluff and access down the bluff but shall not otherwise extend down into the Cypress Creek flood way. Permitted structures in entry area shall be limited to a suitable gate through which the nature preserve may be accessed from the Wimberley square and Old Kyle Road, appropriate signage, seating, landscaping, playscape for children, picnic tables, walk ways, fountain, restroom facility and necessary structures for water run-off and drainage management, and

(d) the right to fence the dry ground perimeter of the Property from the upstream water's edge to the downstream water's edge, and to make appropriate use of that area above the bluff adjacent to the Lumber Yard touching Old Kyle Road. An appropriate use of the identified area might be parking or other use generally supportive of the goals of the nature preserve.

5. *Transfer of Easement.* The benefits of this Easement shall not be voluntarily assignable by Grantee, except (i) to a non-profit organization that at the time of transfer is a "qualified organization" under section 170(h) of the Code, or any successor statute then applicable, and authorized to acquire and hold conservation easements under Chapter 183 of the Texas Natural Resources Code (or any successor statute) or the laws of the United States, and (ii) as a condition of such assignment, the assignee must agree that the purposes of this Easement will continue to be carried out. Grantee agrees to give Grantor written notice of any such assignment at least 30 days in advance; such assignment shall be subject to the prior written approval of Grantor or Grantor's

successors, but approval will not be unreasonably withheld, taking into consideration the compatibility of the stated corporate and charitable purposes of the proposed assignee with the protection of the conservation values of the Property. Any attempted assignment by Grantee contrary to the terms of this paragraph shall be invalid but shall not operate to extinguish this Easement. If Grantee ceases to exist a court having jurisdiction shall transfer this easement to another qualified organization having similar purposes that agrees to assume Grantee's responsibilities hereunder.

6. *Transfer of Property.* Any time the Property, or any interest therein, is transferred by Grantor to any third party, Grantor shall notify Grantee in writing at least thirty days prior to the transfer of the Property, and Grantor agrees to expressly incorporate, and the conveyance shall be subject to, this Easement.

7. *Amendment.* If circumstances arise under which an amendment to or modification of this Easement would be appropriate, Grantor and Grantee may by mutual written agreement jointly amend this Easement. Any such amendment shall be consistent with the purposes of this Easement and shall comply with section 170(h) and 501(c)(3) of the Code and with Chapter 183 of the Texas Natural Resources Code and any regulations promulgated thereunder. Grantor and Grantee have no right or power to agree to any amendment that would affect the enforceability or perpetual duration of this Easement.

8. *Termination of Easement; Eminent Domain.* If circumstances arise in the future that render it impossible to fulfill the conservation purposes set forth above, this Easement may only be terminated, whether in whole or in part, by judicial proceedings in a court of competent jurisdiction. If at any time the grantee fails to use the property in a manner that primarily promotes the public purposes of the Village of Wimberley set out in Section 1 of this agreement, the easement shall automatically terminate and all interests held by the grantee shall revert to the Village of Wimberley.

9. *Parties Bound.* The covenants, terms, restrictions, and conditions of this Easement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors, and assigns, and shall continue as a servitude running in perpetuity with the Property.

10. *Termination of Rights and Obligations.* A party's rights and obligations under this Agreement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive the transfer.

11. *Counterparts.* This Easement may be executed in several counterparts and by each party on a separate counterpart, each of which when so executed and delivered shall be an original, but all of which together shall constitute one instrument.

12. *No Merger.* The parties agree that the terms of this Easement shall survive any merger of the easement and fee simple estates in the Property.

13. *Subordination.* In the event that Blanco Ranches, L.P., or one or more of its partners or principals provides seller financing to accommodate sale of the property to the Village of Wimberley, and thereby carries a promissory note or notes from the Village of Wimberley for some part of the purchase price, and which note(s) are secured by vendor's, deed of trust or other lien on the property conveyed, then in such event this conservation easement shall be junior and subordinate to such lien reserved to secure payment of the balance of the purchase price. In the event of foreclosure of any such lien so that title passes back to Blanco Ranches, L.P., then such title shall pass back to Blanco Partners, L.P. free and clear of this conservation easement.

TO HAVE AND TO HOLD the Easement to Grantee and its successors and assigns forever. Grantor binds Grantor and Grantor's successors to warrant and forever defend the Easement, together with all and singular the rights and appurtenances thereto, unto Grantee and Grantee's successors and assigns, when the claim is by, through, or under Grantor but not otherwise.

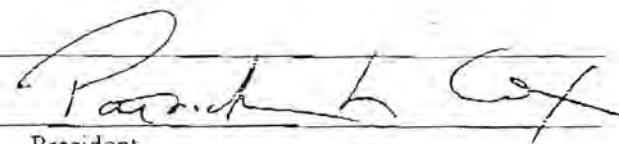
EXECUTED as herein shown.

GRANTOR:



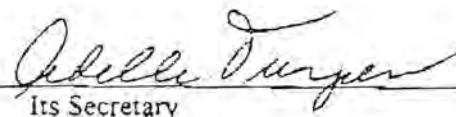
Mayor _____

GRANTEE:

By: 

President

ATTEST:

By: 

Its Secretary

STATE OF TEXAS §

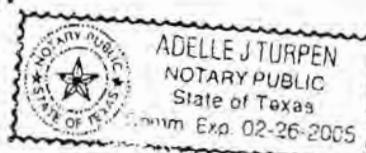
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COUNTY OF HAYS §

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This instrument was acknowledged before me on the 21 day of December, 2001, by
Linda Hewlett as Mayor of Village of Wimberley

Adelle J Turpen
 Notary Public, State of Texas



STATE OF TEXAS §

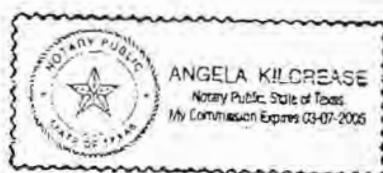
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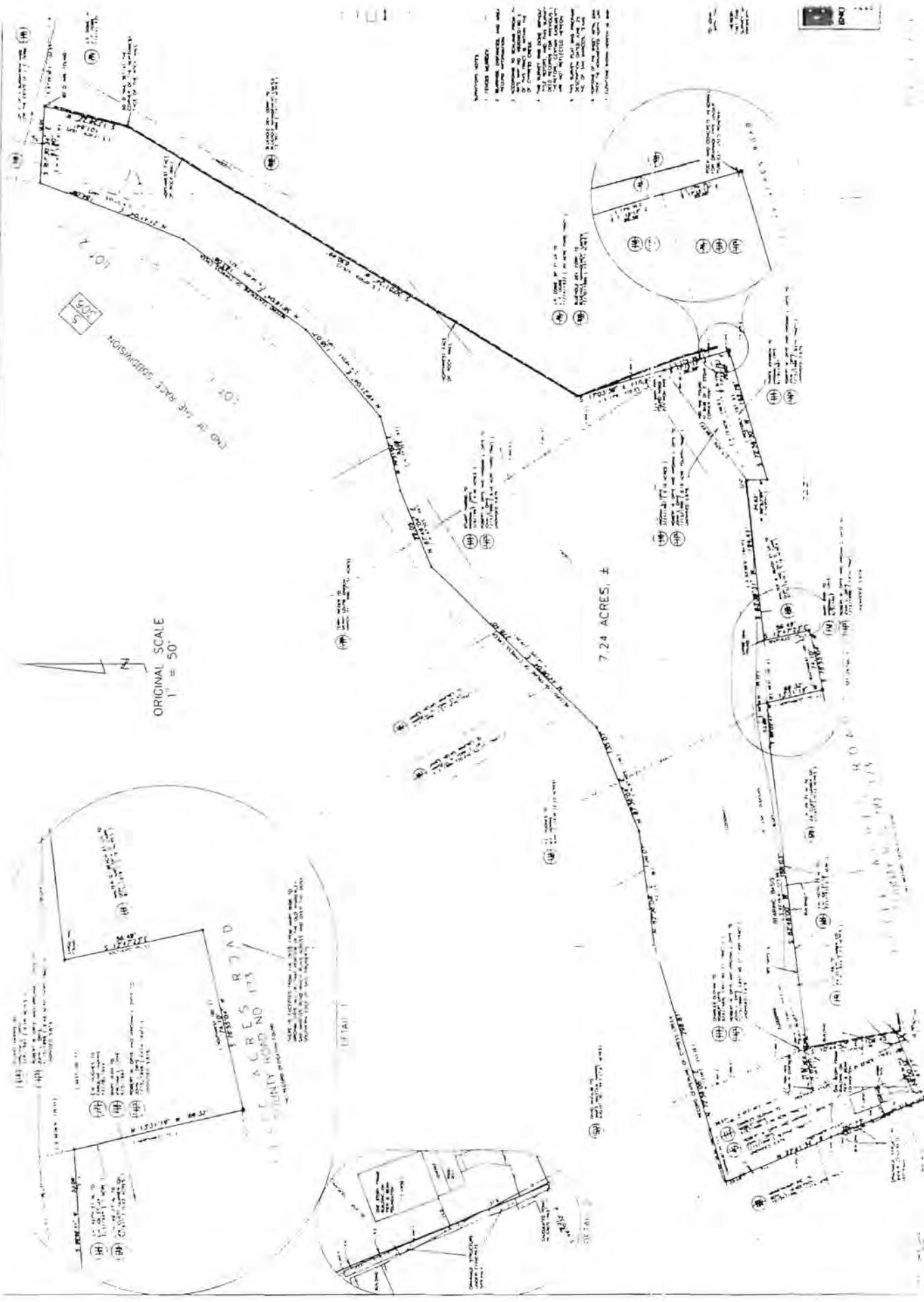
COUNTY OF HAYS §

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This instrument was acknowledged before me on the 21st day of December, 2001,
 by Patrick L Cox as President of Wimberley Valley watershed
assoc

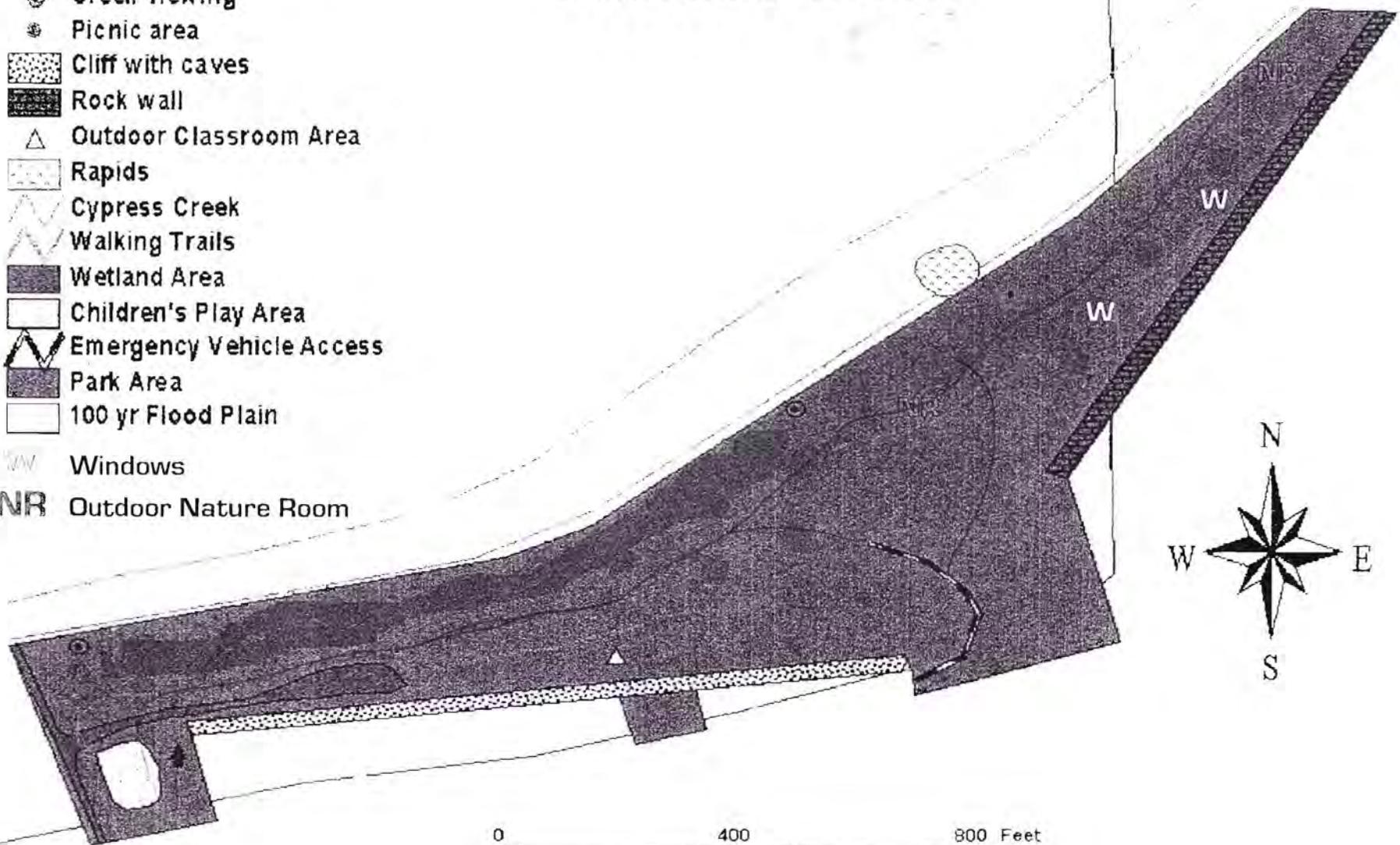
Angela Kilcrease
 Notary Public, State of Texas





Cypress Creek Nature Trail

- ↑ Restroom facilities.shp
- ◎ Creek viewing
- Picnic area
- Cliff with caves
- Rock wall
- △ Outdoor Classroom Area
- Rapids
- Cypress Creek
- Walking Trails
- Wetland Area
- Children's Play Area
- Emergency Vehicle Access
- Park Area
- 100 yr Flood Plain
- WW Windows
- NR Outdoor Nature Room



CONSERVATION EASEMENT COMPLIANCE MONITORING

CYPRESS CREEK NATURE TRAIL

± 7.19 ACRES

HAYS COUNTY

PREPARED BY: JAMES A. HALL, STAFF BIOLOGIST II

PLATEAU LAND & WILDLIFE MANAGEMENT

DECEMBER 20, 2018



COMPLIANCE MONITORING SITE VISIT

At the request of the Wimberley Valley Watershed Association (WVWA), a site visit was conducted on the +/- 7.19 acre Cypress Creek Nature Trail (Cypress Creek) property on December 20, 2018 to ensure that current activities on the property are in compliance with permitted uses and restrictions established by the property's Conservation Easement (CE), which is held by the WVWA. James A. Hall, Staff Biologist II of Plateau Land and Wildlife Management conducted the visit. The property is owned by the Village of Wimberley.

The property was inspected to document any modifications, current uses, and to observe current habitat conditions. Based on the inspection and information provided in the meeting with the WVWA representative, the owners are not violating any specific restrictions and appear to be in compliance with all aspects of the granted CE.

Any observed changes to the property, whether natural or man-made, are described below in the Discussion section with accompanying photo documentation. Photo point locations are indicated on Appendix A, with details of each photo point described on Appendix B.

DISCUSSION

Over the last couple of years, removal of any major patches of flood debris, which primarily included uprooted trees and large branches, was conducted to re-open the trail and allow visitor access. A significant amount of the debris remains and can provide a variety of benefits to the natural state of the property. Riparian habitat relies on natural detritus (such as decomposing plant material) to be utilized by microorganisms, which encourages the enrichment and proliferation of soil, provides nutrients for invertebrates, and in turn vertebrates, and contributes overall to a healthy ecosystem. Larger piles of downed trees and branches can also be left alone or strategically placed to help restrict visitors from straying off the trail, which aids in the protection of sensitive riparian vegetation, while still allowing woody and herbaceous establishment.

New and additional signage and temporary railings have been erected to exclude free roam hiking. In addition, some of the signage aims to educate the public about the property and the benefits of limited disturbance to sensitive riparian habitat. This type of educational and protective measures are strongly recommended to be expanded upon to encourage proper use and reduced damage to the property.

Exotic plants are relatively common, including nandina or "heavenly bamboo" (*Nandina domestica*), and ligustrum or glossy privet (*Ligustrum lucidum*). Exotic plant control should be considered as the next big project considered. This could be conducted on a community volunteer basis by Texas Master Naturalists or other groups who have knowledge of control methods and appropriate herbicide applicator licenses. Due to the proximity to the water source, water-safe herbicides such as RodeoTM should be used to control exotic plants, which are deemed safe for selective use in and around wetland areas. Additional volunteer opportunities exist, such as allowing organized trash pickup days, trail maintenance, bird tours/walks, and other events/activities. These types of projects are excellent for educational purposes, community

consecutiveness, and nature appreciation. Regardless, the overall state of the property does not necessitate any major changes in management strategy. It is a healthy natural area, and no violations to the restrictions of the CE could be noted.



Photo Point 1. Example of some of the new signage near the park's main entrance – signs describing the conservation project underway as well as the difference between healthy and unhealthy ecosystems are an important educational tool for visitors.



Photo Point 1A. Non-native ligustrum shrub (dark green/evergreen plant in the center of the photo). The exotic plant has always been present on site, but may be spreading along the banks of the creek. Control efforts are strongly recommended.



Photo Point 2. Additional signage encouraging visitors to stay on trails and off of recovering areas (following the destructive floods).



Photo Point 3. Remaining debris offers a glimpse into the amazing power that flood water can have.



Photo Point 4. Yet another sign example, placed in front of an area removed of excessive debris, which is exhibiting excellent recovery. Native grasses (inland sea oats picture) are prevalent, and provide a variety of benefits to the ecosystem.

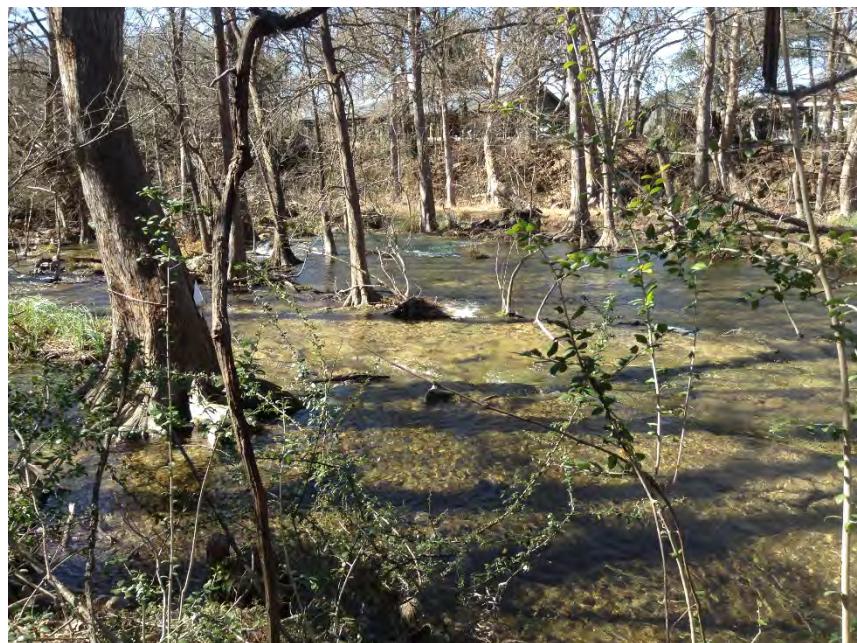


Photo Point 5. View of the Cypress Creek “falls” offering a serene spectacle.



Appendix A – Cypress Creek Nature Trail +/- 7.19 Acres - Hays County



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Cypress Creek Nature Trail; +/- 7.19 Acres – Hays County
Appendix B - Photo Point Summary

Photo Subject	Photo Point #	Lat	Long	Comment
Signs and habitat	1	29.99700	-98.09594	Signage used to educate visitors and protect sensitive riparian habitat along the trail
Ligustrum	1A	29.99700	-98.09594	Exotic/Non-native ligustrum is a common invader along creeks and rivers. Removing these plants form the CCNT is strongly recommended
Additional sign	2	29.99731	-98.09519	Additional sign used to keep foto traffic away from recovering habitat
Flood debris	3	29.99740	-98.09410	Though the flood debris that remains looks messy, it provides excellent cover for wildlife, as well a erosion control, and can encourage desirable woody growth in areas with high deer numbers
Additional sign	4	29.99795	-98.09333	Existing trap, which has so far resulted in 49 feral hogs removed in 2018
Falls	5	29.99866	-98.09276	View of the falls

Cypress Creek Nature Trails & Preserve Public Engagement

DRAFT Results

05/03/2019

Introduction

The following report outlines interim findings from the Cypress Creek Nature Trails and Preserve stakeholder meeting with public engagement.

The results are listed in the following sections:

THEMES

PROTECTION MEASURES

SIGNAGE

ANIMAL RELATED

EDUCATION

ACCESSIBILITY

TRAIL ALIGNMENT

ADDITIONAL OPEN-ENDED COMMENTS

PROTECTION MEASURES

- Manmade and natural protection measures 13
- Natural only 4
- No manmade structures 2
- Of course, as much natural as possible
- Minimal man-made
- No protection measures across from homes (people across the creek)
- Plan for maintaining is key! Especially after the flooding
- Trail design to bring people where they should go, and keep them out of sensitive areas
- Native plantings 3
- Naturalistic low railings
- Lateral viewpoints necessary

SIGNAGE

- Prefers rustic/traditional signage 4
- Prefers modern signage 8
- Descriptive – educational 3
- Modern or rustic/traditional 3
- Preserve separate from park 2

- Signage like Blue Hole 3
- Clear signage where preserve begins and ends 3
- Easy to read
- Vandal proof as much as possible
- Differentiated from Blue Hole 3
- Downtown signage needs to be changed – direct to upper path and sidewalk
- Minimal 4
- Firm but friendly 3
- Directional and educational Plant and tree info, etc.
- Modern looks like it will last longer
- More signs

ANIMAL RELATED

- Develop birding viewing areas off Old Kyle Rd (former Rotarian park site)
- Bird viewing
- Wildlife interpretation
- Viewing birds, trees

EDUCATION

- Focus education in BHRP

ACCESSIBILITY

- Limit trails in Preserve
- Fence boundaries of Preserve to minimize maintenance & prevent damage
- Sidewalk along Old Kyle Rd 5
- Overview along Old Kyle Rd 7
- Let us look at riffle but then direct the path closer to the wall is a good idea
- No Blue Hole trail entrance 3
- Give trail and early creek viewing at each end
- Sidewalk should also be a bike trail
- As many points of access to the water between trees as possible
- Need access from Old Kyle Road

TRAIL ALIGNMENT

- Trail adjacent to Cypress Creek in Blue Hole Regional Park
- Trail along Cypress Creek removed, old trail from downtown pocket park to junction at boy scout trail and out on boy scout trail only
- Meander preferred 7
- Mix of nodes and meandering 4
- Love the creek overlooks! Would love to see as many of these as possible!
- Middle floods 2
- I like draft #2 trail 6
- Waves not in front of home
- Trail closer to creek 2

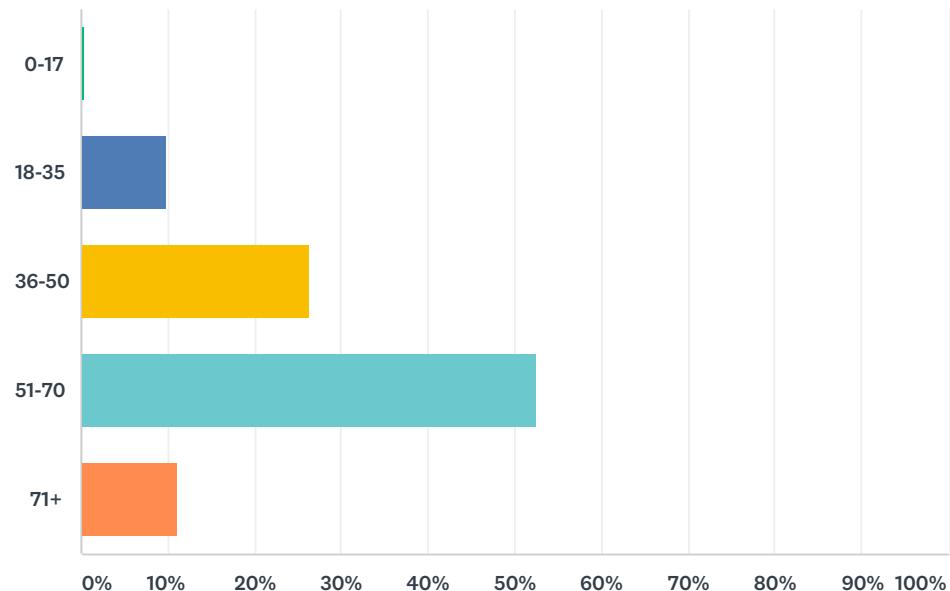
- Like the pathway
- Consideration for viewpoints
 - Privacy of neighbors
 - View of creek
 - Respects terrain & existing vegetation
 - Limits propensity to get in water
 - Maintenance to adjust/discourage outlaw paths
 - Plan for inspecting & restoring trail after flood
- OK to move slightly off creek
- Nodes
- As a trail running I love the loop concept
- Arches/Gateways 2
- Paths away from Cypress roots, points of water

ADDITIONAL OPEN-ENDED COMMENTS:

- Ask Hays County to fund as part of the hike and bike trail
- Benches on creekside of trail to give trail users an intimate, quiet experience on trail, while sitting
- Open, welcome stewardship group w/ webpage
- Pervious cover around iconic tree in the road
- Open connection along the water between Wim. Square and Blue Hole
- Art sculptures 2
- Who is going to maintain trails and outlaw paths?
- David Baker – Fencing = man-made ARBOR – distinction
- There is a very popular spot where people take pictures (marked at riffle)
- Obey the conservation easement
- Old Kyle Rd – could it be a boardwalk?

Q1 Choose your age range.

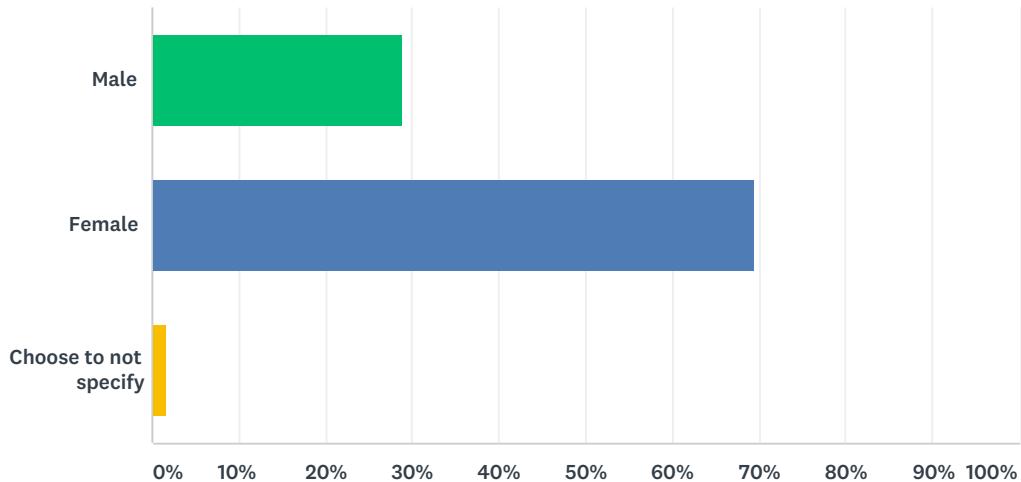
Answered: 236 Skipped: 1



ANSWER CHOICES	RESPONSES	
0-17	0.42%	1
18-35	9.75%	23
36-50	26.27%	62
51-70	52.54%	124
71+	11.02%	26
TOTAL		236

Q2 Choose your gender.

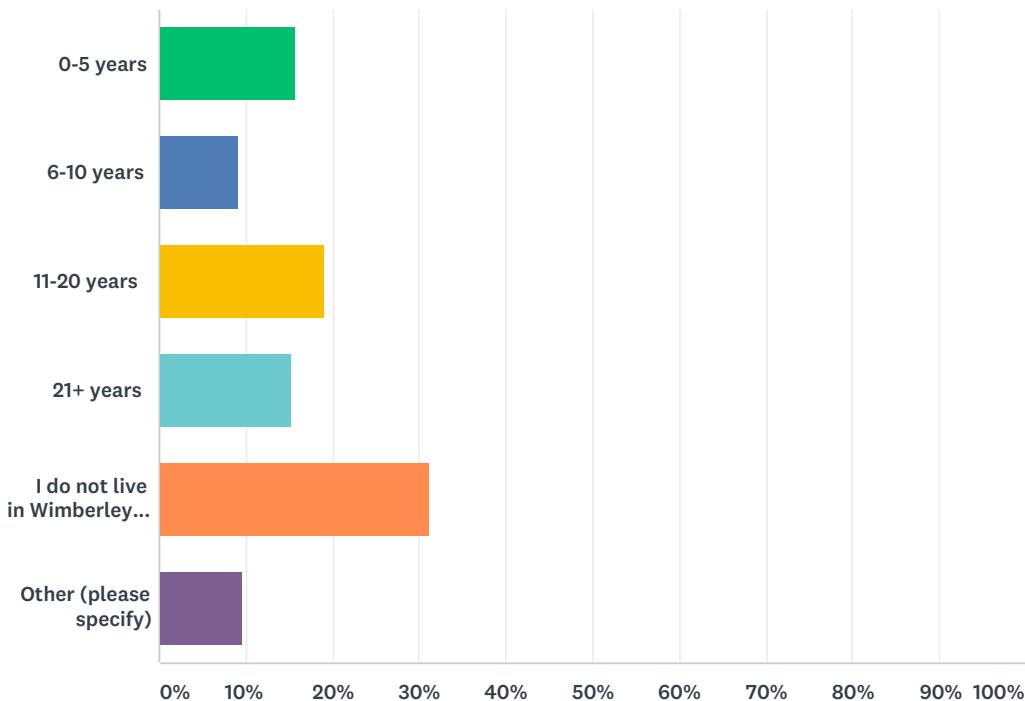
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ANSWER CHOICES	RESPONSES	
Male	28.81%	68
Female	69.49%	164
Choose to not specify	1.69%	4
TOTAL		236

Q3 How long have you lived in Wimberley city limits?

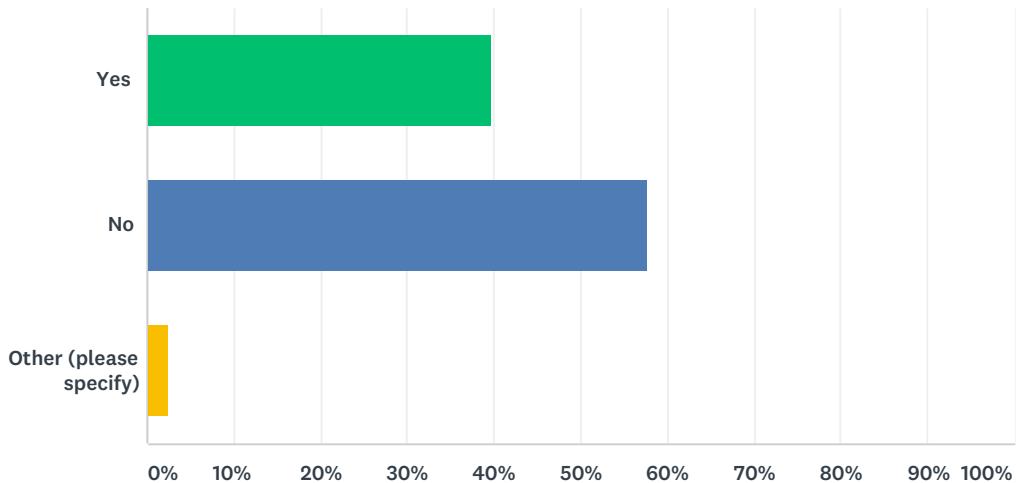
Answered: 237 Skipped: 0



ANSWER CHOICES	RESPONSES
0-5 years	15.61%
6-10 years	9.28%
11-20 years	18.99%
21+ years	15.19%
I do not live in Wimberley City limits	31.22%
Other (please specify)	9.70%
TOTAL	237

Q4 Where you currently reside, do you have waterfront (creek, river, or other) access?

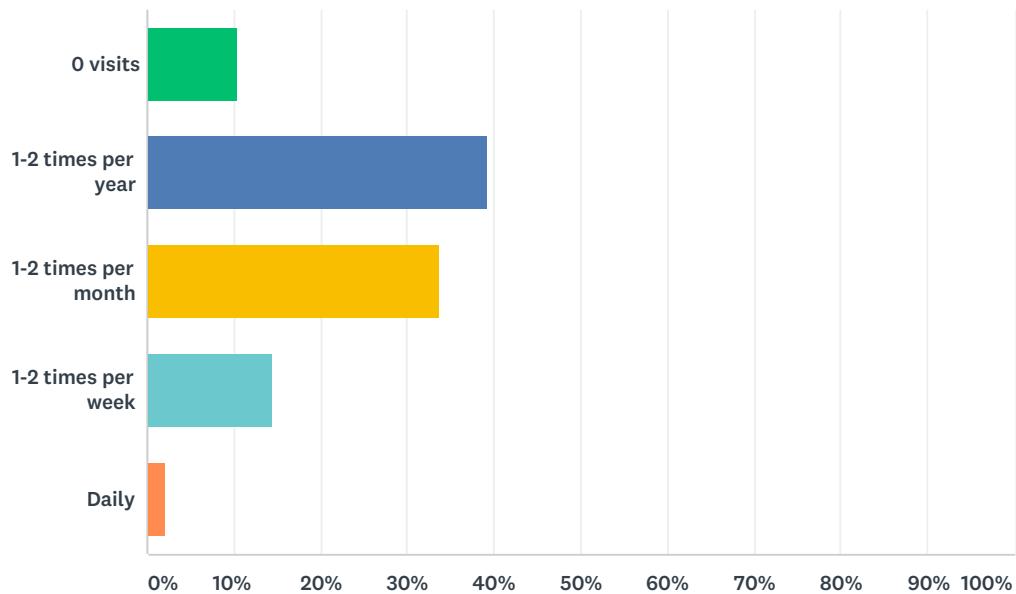
Answered: 237 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	39.66%	94
No	57.81%	137
Other (please specify)	2.53%	6
TOTAL		

Q5 In the past year, how many times have you used the Cypress Creek Nature Trail and Preserve (excluding the developed playscape area on Old Kyle Road)?

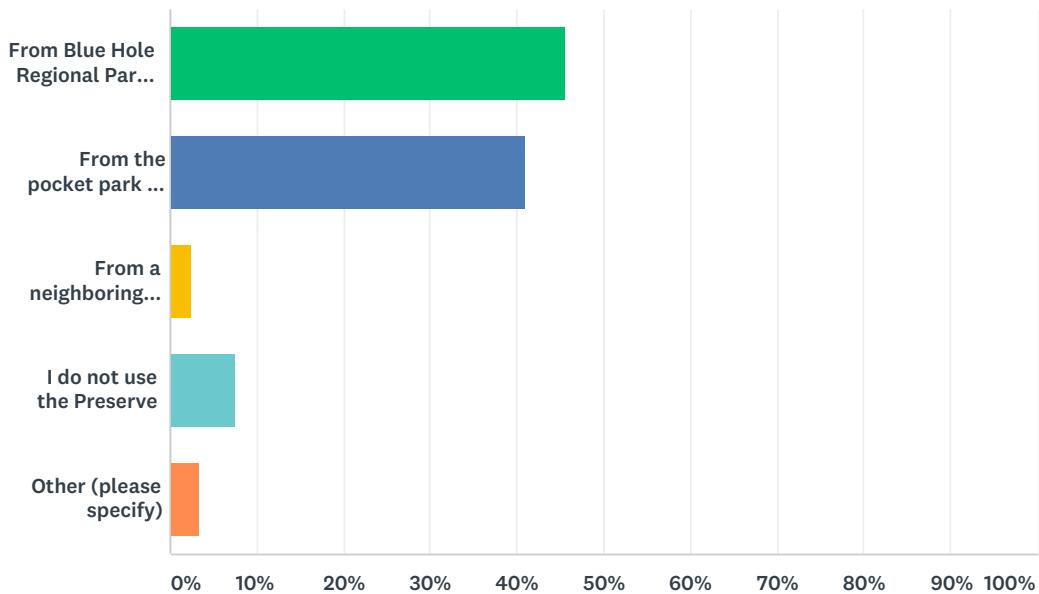
Answered: 237 Skipped: 0



ANSWER CHOICES	RESPONSES	
0 visits	10.55%	25
1-2 times per year	39.24%	93
1-2 times per month	33.76%	80
1-2 times per week	14.35%	34
Daily	2.11%	5
TOTAL		237

Q6 When using the Preserve, where do you typically enter the property?

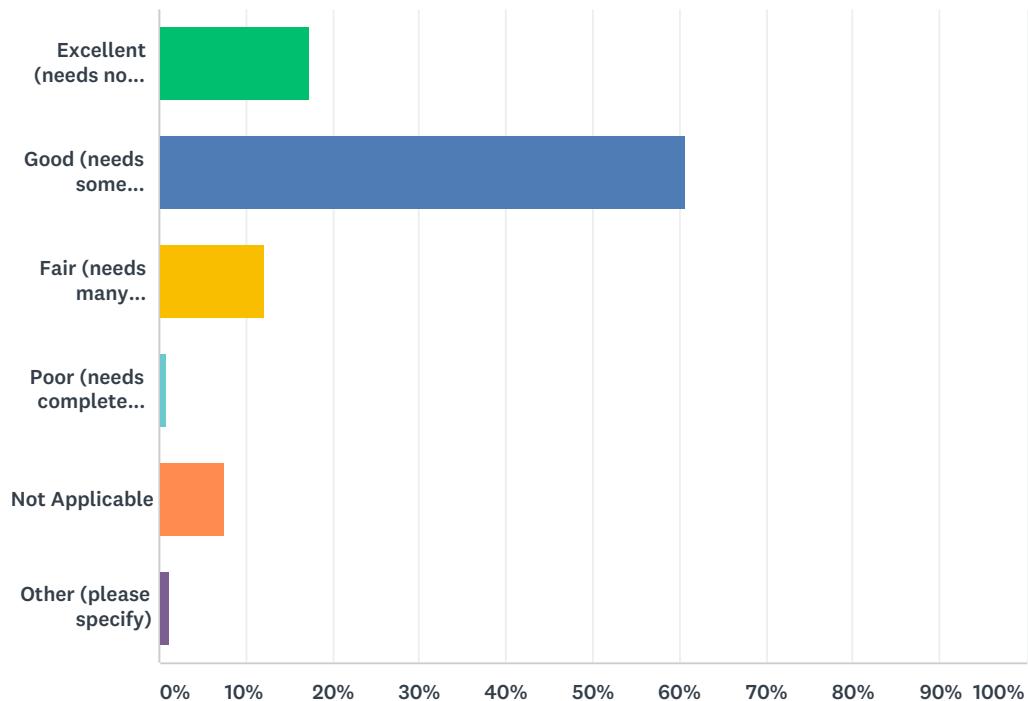
Answered: 237 Skipped: 0



ANSWER CHOICES	RESPONSES	
From Blue Hole Regional Park trail access	45.57%	108
From the pocket park on Old Kyle Road near “the Square” in downtown Wimberley	40.93%	97
From a neighboring property	2.53%	6
I do not use the Preserve	7.59%	18
Other (please specify)	3.38%	8
TOTAL		237

Q7 In general, in what condition do you consider the Preserve?

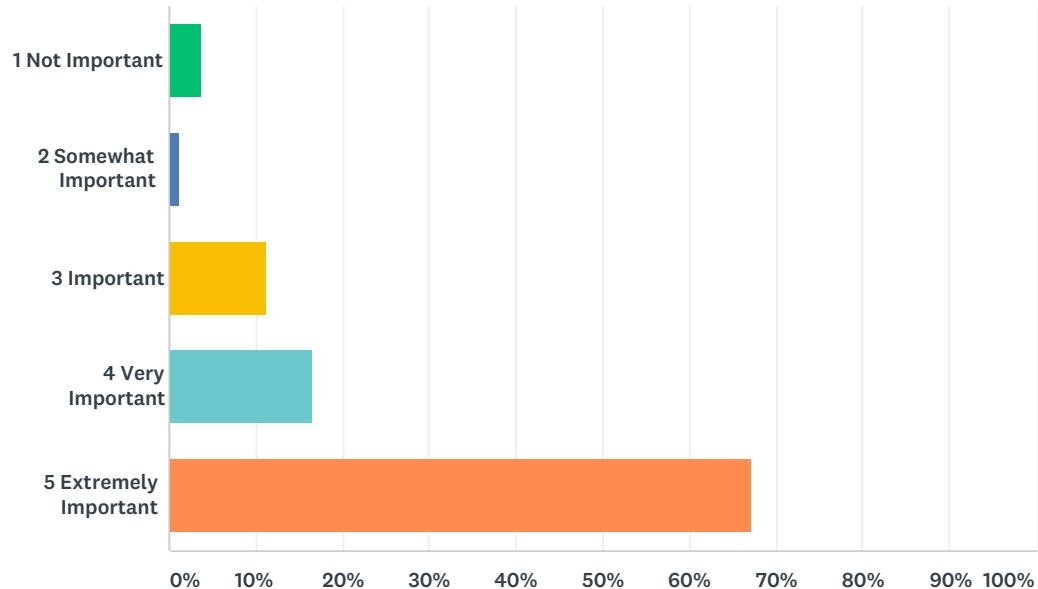
Answered: 237 Skipped: 0



ANSWER CHOICES	RESPONSES	
Excellent (needs no improvements)	17.30%	41
Good (needs some improvements)	60.76%	144
Fair (needs many improvements)	12.24%	29
Poor (needs complete redevelopment)	0.84%	2
Not Applicable	7.59%	18
Other (please specify)	1.27%	3
TOTAL		237

Q8 On a scale of 1-5, how important is public access to trails on the Preserve?

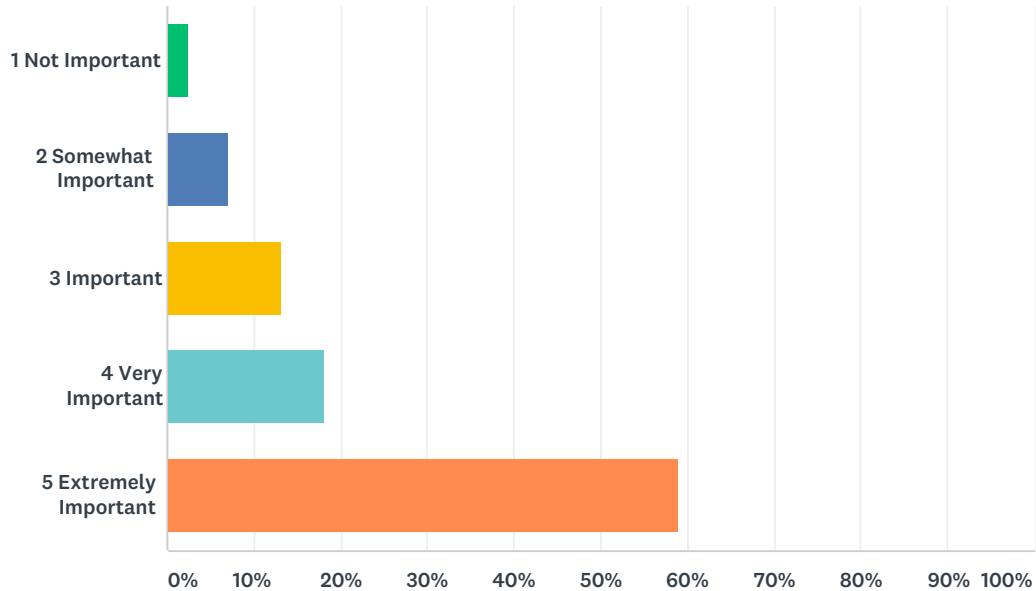
Answered: 237 Skipped: 0



ANSWER CHOICES	RESPONSES	
1 Not Important	3.80%	9
2 Somewhat Important	1.27%	3
3 Important	11.39%	27
4 Very Important	16.46%	39
5 Extremely Important	67.09%	159
TOTAL		237

Q9 On a scale of 1 – 5, how important are views of Cypress Creek to your experience of the Preserve?

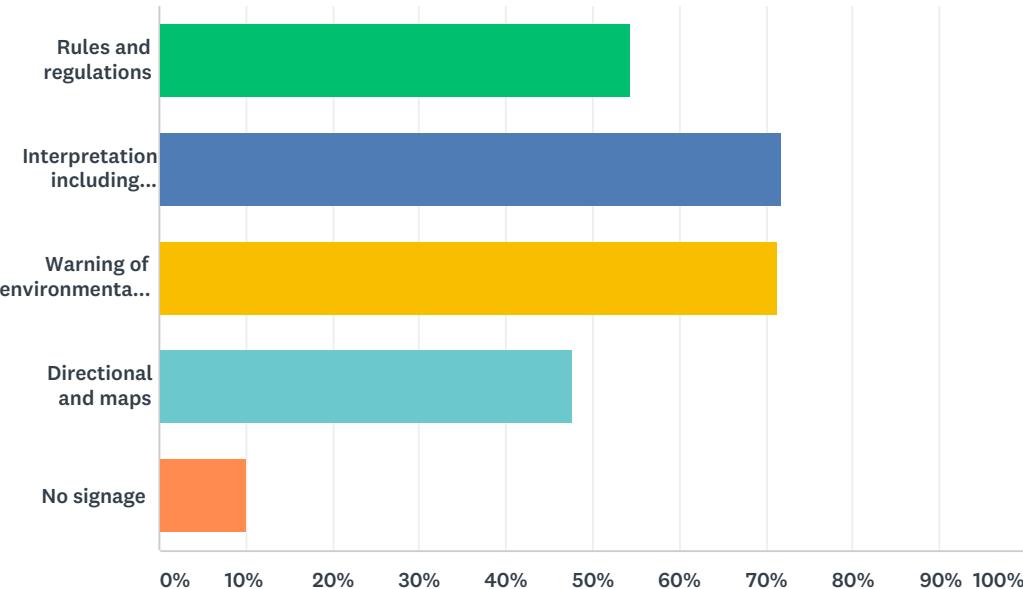
Answered: 237 Skipped: 0



ANSWER CHOICES	RESPONSES	
1 Not Important	2.53%	6
2 Somewhat Important	7.17%	17
3 Important	13.08%	31
4 Very Important	18.14%	43
5 Extremely Important	59.07%	140
TOTAL		237

Q10 What is your opinion on the type of signage needed within the Preserve? Check all that apply.

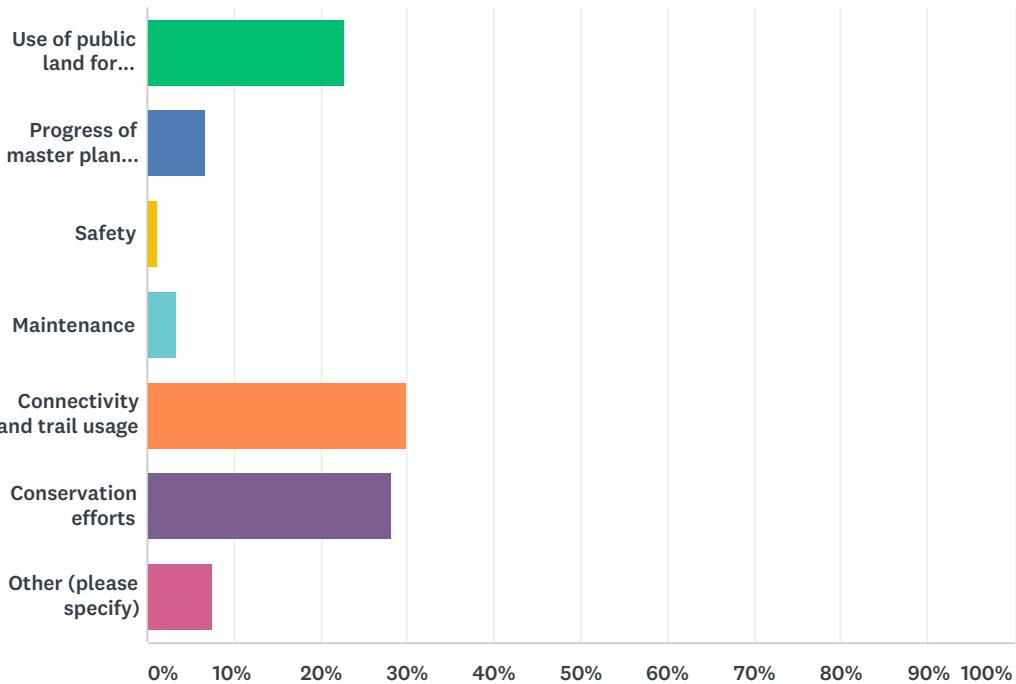
Answered: 237 Skipped: 0



ANSWER CHOICES	RESPONSES	
Rules and regulations	54.43%	129
Interpretation including environmental education, history of Preserve, etc.	71.73%	170
Warning of environmentally sensitive areas	71.31%	169
Directional and maps	47.68%	113
No signage	10.13%	24
Total Respondents: 237		

Q11 What concerns you most about the future of the Preserve?

Answered: 237 Skipped: 0



ANSWER CHOICES	RESPONSES	
Use of public land for private uses	22.78%	54
Progress of master plan initiatives	6.75%	16
Safety	1.27%	3
Maintenance	3.38%	8
Connectivity and trail usage	29.96%	71
Conservation efforts	28.27%	67
Other (please specify)	7.59%	18
TOTAL		237

Q12: Please share below your favorite aspect of the Cypress Creek Nature Trail and Preserve. Open-Ended Response

1. Being able to enjoy nature with others
2. This place is beautiful to visit.
3. So different from the cedar ecosystem
4. N/A
5. I love to escape from work and this is the perfect place
6. The naturalness of it
7. Viewing the water and trail access for pleasure walking
8. Walking on the trail helps me feel at peace and more connected to the heart of creation. The preserve and the water are beautiful and pristine. The land when left alone and not overly managed restores itself. Thanks to the City and everyone who cares for this special place.
9. it's WILD and there are few left and it is in the middle of a town. that's way cool!
10. Peace, beauty, high regard for its importance, open to all
11. I love hiking. Being able to feel deep into nature within a few steps is such a relaxing experience. I also love that my students at Blanco River Academy can walk through such beauty. This trail provides them education and a safe passage to downtown for their community lunch.
12. Clean and peaceful
13. Allowing all children and people the opportunity to learn to love conservation and the importance of preserving undeveloped tracts of land.
14. Solitude
15. Natural and peaceful setting
16. I love walking next to the creek - You can hear the water and see fish. Maybe a small sign talking about fragile creek banks would help keep people away from the water's edge, but I do not want that path closed - it needs to remain open.
17. The access and the beauty.
18. No
19. The views
20. The quiet
21. It's the one place in town for families to come and spend time together for free. Hiking, playgrounds and the camps
22. The beauty of the environment
23. Don't have one.
24. Naturalness, closeness to Cypress Creek, at an especially beautiful passage.
25. NA
26. Natural beauty
27. It's just a beautiful place to sit and reflect :)
28. Beauty and exercise
29. Don't have one but I plan to visit soon
30. One on one with nature.
31. That there is an open, wild public place that EVERYONE can enjoy nature.
32. It's a wild Wimberley trail along Cypress Creek.
33. It's quiet and soothing to your hike/walk.
34. Beautiful, natural and peaceful

35. The creek
36. The pristine natural state of the Nature Preserve
37. It's so very well preserved as a piece of nature. Nothing fancy, just quiet and it allows us to watch wildlife
38. Views of creek and connectivity with Blue Hole Park
39. The quietest part
40. The creek itself
41. NA
42. It's peaceful and beautiful
43. PRISTINE BEAUTY IN IT'S FINEST.
44. Views of the creek
45. The beauty of nature on a hot Texas day.
46. Experiencing a truly untouched and natural remnant forest in the middle of downtown Wimberley is extraordinary. The ability to walk from the Wimberley Square through Blue Hole and along Winters Mill Parkway is a fantastic experience and asset for the citizens of Wimberley and Woodcreek and visitors and tourist. To complete the loop along RR 12 with sidewalks to connect to Winters Mill Parkway should be a priority of the Cities Parks and Open Space plan. More educational opportunities need to be offered about the importance of natural riparian habitat to help control flooding and protect water quality. The City needs more public park land and incentives for protecting and managing private plans.
47. Feeling the earth beneath my feet, and the sounds and sights of nature.
48. All of it
49. Being with nature and enjoying cypress creek
50. All of it.
51. The peaceful quiet.
52. the creek.
53. Free public access to Nature, and protection of valuable natural resources are vital to sustain our beloved community.
54. One of the few places, that those of us that don't own creek/river property, to be close to this beautiful area of Wimberley.
55. The serenity of the trail. I hope it stays natural, clean, and accessible. Connection to the larger trail system is ideal.
56. Being close to the Creek and experiencing the birds along the trail.
57. It's natural state
58. The birds
59. The views
60. The birds, the varied plant life, the natural setting.
61. Only way to discover this beautiful gem.
62. The beauty of the rocks.
63. Natural conditions
64. Trails and wildlife
65. TREES!!
66. The scenery
67. There's always something new to see

68. Ease of access, beautiful view of the creek, conservation of fragile & unique area.
69. My favorite is the quiet and intimate access to viewing the creek. The birds are also different at the waters edge.
70. Nature & creek views.
71. It completes the trail
72. The chance to walk in nature next to a creek with very little public access.
73. A public place where people can be outdoors!
74. The trail. Incredibly healing.
75. Easy to access
76. It's raw beauty.
77. My favorite aspect is that you are right in town, but once you descend down the ramp it is like you are in a magical world.
78. Love the trail especially in the wooded areas. Beautiful open space for all to enjoy.
79. Its accessibility and beauty for a natural space right in the middle of town. I think it is a significant attraction for visitors.
80. The ability to walk so close to the creek and take in its quiet beauty is a pleasure that I hope to enjoy for decades to come.
81. 1
82. What a unique and truly "Wimberley" place. I relish time spent walking the trail with my family and feel a shared appreciation and gratitude among our neighbors in this community for the opportunity to connect with nature.
83. THE BEAUTY AND KEEPING IT GREEN!
84. It's an integral.part of what makes Wimberley Wimberley-we care so deeply about our environment and the continued ability to get out and enjoy it!!!
85. Beautiful
86. Conservation of undeveloped land. Public access & experience of undeveloped riparian forest.
87. The fact that it is a place I can go to appreciate the diversity of riparian habitat. I also like to take people there to teach them about the importance of such habitat.
88. Undeveloped- I was appalef to the damge to overuse and misuse
89. chance to stroll in a natural setting along a creek. a rare privilege in our private property crazed culture
90. It is a necessary refuge and green space in an increasingly bustling and developing small town.
91. The beautiful trees, waterways and all the wildlife that live and travel through seasonally. What a precious place we have.
92. Natural areas, easy access
93. How natural and unaffected by man's need to define it
94. Just being able to enjoy nature. Near a creek.
95. its unspoiled nature
96. The opportunity to see rare native species like orchids and the sense of peace this enchanting preserve provides

- | | |
|------|---|
| 97. | It's a beautiful walk that connects town to the park. |
| 98. | I love the connection of the Cypress Creek Nature Trail with Blue Hole and The Square. I walk these trails almost daily as a personal health practice and the wild nature of the Nature Preserve is my favorite aspect. |
| 99. | I enjoy walking and beautiful cypress creek offers a calming environment. |
| 100. | The quiet and the natural beauty |
| 101. | Impressed at accessibility inserted into "wildness" |
| 102. | Hardly anyone uses it |
| 103. | It's important to so many people |
| 104. | Being able to go and enjoy it all the time. |
| 105. | Thanks |
| 106. | Na |
| 107. | Pure Texas beauty. |
| 108. | Access to the creek in its natural form |
| 109. | Quiet |
| 110. | Having a place to take family to enjoy nature in our town |
| 111. | The creek and bluff. |
| 112. | Knowing it exists?!?! |
| 113. | No |
| 114. | That it's tucked away but relatively easy to access |
| 115. | The thick canopy and narrow trails allow you to completely lose yourself in nature. To have that in the middle of town is amazing. |
| 116. | Natural beauty. |
| 117. | Back to nature experience |
| 118. | The rapid in the creek near the Blue Hole side of the preserve |
| 119. | Beauty of the trail and observability of Cypress Creek. |
| 120. | I love the trails through the shady wooded areas in the heat of the summer. |
| 121. | It is quiet and peaceful. I also like the natural state, flood debris and all. |
| 122. | Allows visitors to enjoy nature |
| 123. | I love running by Cypress Creek; the sound of the water running is great for the soul! |
| 124. | accessability |
| 125. | It is a place where anyone can experience trees, grasses, water, quiet, and all the best that Nature has to offer in the Wimberley Valley. It is like being in a cathedral. |
| 126. | Quiet |
| 127. | Enjoying nature in a peaceful setting. |
| 128. | Birds, natural beauty |
| 129. | Beautiful flowing creek |
| 130. | The beauty of the flora and fauna as well as the unique qualities of the Cypress Creek. |
| 131. | Being able to see the water and interact with nature without it being destroyed with trash |
| 132. | Not applicable |
| 133. | Walk along the water |
| 134. | The cypress trees |
| 135. | Beautiful, natural, and enjoyable. |
| 136. | That it is primitive and you can walk close to the creek. |

137.	Looks natural, not over planned
138.	the river views, in it's natural state. That alone feels educational.
139.	the lovely atmosphere which gives one peace of mind always
140.	The wonder and awe of nature.
141.	Ability to enjoy nature in a state where most lands are private.
142.	It's a lovely place to walk. So beautiful.
143.	Cleanliness and upkeep of the trail, water and grounds.
144.	Views of creek
145.	Taking my kid for free into nature!! Right on the river by the square. It's so convenient.
146.	The quietude of the half mile preserve trail and the ability to see the creek most of the way.
147.	The delicate riparian ecosystem that supports such a unique stretch of the creek.
148.	The wildlife and native plants! Love to view the creek, trees, deer, Fox, snakes and bugs!
149.	Peace and quiet
150.	It's in a relatively natural state & it gives us a great opportunity to teach the importance of a natural riparian area.
151.	Access to the beautiful creek and nature for the public
152.	A way to escape easily into nature
153.	My kids love the playground
154.	The fact that I can enjoy before too many people using it ruin it.
155.	It's peaceful, and nice to take dogs and meet people with a smile.
156.	Nature
157.	Relaxing
158.	being able to get up close and personal to the creek...very rare to be able to do in the Wimberley area unless private property or pay
159.	It is as beautiful and pristine as it was when I was a child growing up here.
160.	Ability to observe nature at the creek
161.	nature
162.	Seeing the Creek
163.	Viewing and hearing the running water, especially the small rapids area and all the hanging vines.
164.	the creek and native flora
165.	A serene, natural area within our village that allows us to enjoy the beauty of the trails that traverse the preserve and join the trails at Blue Hole Park.
166.	I love walking along side Cypress Creek listening to the water and birds.
167.	I love the connection between the square and the park and that KAPS students have come to the trail to learn about riparian habitat.
168.	I have not been there.
169.	Peaceful,natural area
170.	Views of the creek
171.	I only went one time and it was beautiful
172.	N/A
173.	Fishing and enjoying the water.
174.	serenity

175.	My favorite aspect is the feeling this place evokes as I walk down away from the busy shopping atmosphere to be enveloped by nature. To walk the path surrounded by lush green, thriving plant life and the chirping of the birds. It feels like sacred ground to me.
176.	That is is untouched and undeveloped by humans
177.	The natural state available to all.
178.	The Beauty!
179.	I just love that Wimberley is preserving this land and offering it to residents to enjoy and explore. It is such a blessing.
180.	The trees and water with the sounds of birds. Peacefulness
181.	Being able to enjoy this jewel of a nature preserve that has access publicity less than 300 yards from our business so I can take a hike and commune with Mother Nature before or after my work day! It helps me stay humbled and appreciative of the blessings of Nature in almost my backyard!
182.	The walk along the creek that I have enjoyed for close to 30 years. Everyone should be able to enjoy this little gem in Wimberley.
183.	Cypress Creek
184.	The creek
185.	The raw, recovering nature of the trail is very special to us. Seeing the damage from the floods has opened up many environmental conversations with my kids.
186.	No.
187.	Riparian environment and habitat; trail accessibility
188.	The sound of the rushing water mixed with silence.
189.	accessibility to all
190.	All of it! Bravo!
191.	The birds!
192.	It's a wonderful natural area with a great variety of native plants and trees.
193.	Public space for residents to enjoy. We are very much lacking in that area.
194.	The natural beauty
195.	This is a quiet and intimate space that allows one of the only public accesses to the waters edge in the entire city. It is not widely known, well respected and utilized.
196.	Connection with Nature.
197.	Peaceful walk along cypress creek
198.	It's not a paved parking lot.
199.	My favorite aspect for ALL would be the educational opportunities found within the Cypress Creek Nature Trail and Preserve, where local schools and educational entities can bring eager students to learn about the incredible journey of our waterways and the special habitats they create for wildlife. My personal favorite aspect of the Cypress Creek Nature Trail and Preserve would be the sound of the water ripples across "the falls" located amidst the heart of the Cypress Creek Nature Trail and Preserve. There's nothing quite like the solitude of the trail and the isolated sounds of the creek that truly settle the soul. If your patient enough, you just might hear a rare golden cheeked warbler or see a beautiful sunfish come up for a bite.
200.	The privacy.
201.	Being outdoors in beautiful Wimberley. It is the only place with public trails in the area.
202.	The opportunity to experience the raw beauty of the riparian area.
203.	Bird-song, water flowing, quiet nature as God intended it to be.

204. Being able to take my children so close to nature and the water, where most water access points in town are either on private property, or have signage indicating you cannot stop to enjoy (as on Little Arkansas and Hidden Valley, the areas closest to us, but where we do not always feel comfortable). And I'm not talking about swimming, just even being able to get close.
205. I love the running water at the "falls" in the creek and the lovely trees along the trail.
206. Beautiful and quiet place to experience the best of Wimberley's natural assets.
207. no
208. Beautiful.
209. It's one of my favorite things about Wimberley.
210. Access to the most beautiful part of Wimberley.
211. One of the few places in town to access nature.
212. That it is there and the public can appreciate the area!
213. The beauty of it all. People need access to safe and easily accessible hiking trails to connect with nature.
214. The quiet, peaceful nature.
215. While I don't use it, I love that it is here, preserved for all to enjoy just like a national park.
216. It's one of the few places that the general public has access to Cypress Creek.
217. Trails and swimming area
218. Creek side stroll . Nature immersion.
219. I love walking on all trails inside the Preserve, but the creek-side trail is especially beautiful because you can see and hear the water, see aquatic and bird life, and get away from the traffic sounds along Old Kyle Road. I also really like the new trail leading in from Blue Hole - it makes a nice loop now.
220. Peaceful walks within a gorgeous nature trail, with water streaming past as one walks along. It is good for the soul.
221. Current public access.
222. Being able to see the creek up close any time I want.
223. Great for late afternoon hikes!
224. The trail along the creek, offering opportunities to see the creek, and experience the water of Cypress Creek.
225. Seeing and hearing the water from the trails!!
226. that the property is a preserve with managed public access
227. It's quiet place to pray and watch the water.
228. Serene calm while walking in nature along the creek.
229. The extraordinary variety of Hill Country flora!
230. Wilderness experience near the Cypress Creek
231. The ability to actually see and hear the creek as I walk.
232. It's darn near the only real thing left of Wimberley
233. The trickling creek
234. All the trails. The sports fields. The events held.
235. Plants
236. Nature trails,
237. It's wild solitude

Trees, Shrubs, Wildflowers, Grasses, and Other Vascular Plants Identified on the Cypress Creek Nature Trail and Preserve (March 2019)

ZONE 1 – southwestern portion of preserve, from convergence of scout trail to pocket park entrance (excluding from creekside trail to Cypress Creek)

ZONE 2 – northeast portion of preserve, from convergence of scout trail within preserve to rock wall scout entrance (excluding from creekside trail to Cypress Creek)

ZONE 3 - riparian, between creekside trail and banks of Cypress Creek, from Blue Hole entrance to pocket park entrance

ZONE 1

Scientific Name	Common Name	Growth Habit	Native/Exotic or invasive (n/ei)
<i>Acer negundo</i>	Box elder	Woody, Tree	n
<i>Adiantum capillus-veneris</i>	Maindenhair fern	Herbaceous, Fern	n
<i>Aesculus pavia</i>	Red buckeye	Woody, Shrub	n
<i>Allium drummondii</i>	Wild garlic	Herbaceous	ei
<i>Bromus japonicus</i>	Japanese brome	Grass	ei
<i>Calyptocarpus vialis</i>	Straggler daisy, horseherb	Herbaceous	n
<i>Carex blanda</i>	Eastern woodland sedge	Herbaceous, Graminoid	n
<i>Carex planostachys</i>	Cedar sedge	Herbaceous, Graminoid	n
<i>Chasmanthium latifolium</i>	Inland sea oats	Grass	n
<i>Combretum indicum</i>	Chinese honeysuckle	Woody, Vine	ei
<i>Commelina erecta</i>	Dayflower	Herbaceous	n
<i>Cornus drummondii</i>	Roughleaf dogwood	Woody, Shrub	n
<i>Eupatorium serotinum</i>	White boneset	Herbaceous	n
<i>Galium aparine</i>	Catchweed bedstraw, cleavers	Herbaceous	ei
<i>Hackelia virginiana</i>	Beggar's lice	?	n
<i>Ilex decidua</i>	Possumhaw	Woody, Shrub	n
<i>Ilex vomitoria</i>	Yaupon holly	Woody, Shrub	n
<i>Juglans nigra</i>	Black walnut	Woody, Tree	n
<i>Juniperus ashei</i>	Ashe juniper	Woody, Tree	n
<i>Ligustrum sinense</i>	Chinese Ligustrum	Woody, Tree	ei
<i>Malvaviscus arboreus</i>	Turk's cap	Herbaceous	n
<i>Myosotis macrosperma</i>	Largeseed forget-me-not	Herbaceous	n
<i>Nandina domestica</i>	Nandina, heavenly bamboo	Woody, Shrub	ei
<i>Nassella leucotricha</i>	Texas speargrass, wintergrass	Grass	n
<i>Nemophila phacelioides</i>	Baby blue-eyes	Herbaceous	n
<i>Onosmodium bejariense</i>	False gromwell	Herbaceous	n
<i>Packera obovata</i> (<i>Senecio obovatus</i>)	Golden groundsel	Herbaceous	n
<i>Parietaria pensylvanica</i>	Pennsylvania pellitory	Herbaceous	n
<i>Parthenocissus quinquefolia</i>	Virginia creeper	Woody, Vine	n
<i>Plantago rhodosperma</i>	Red-seeded plaintain	Herbaceous	n
<i>Polygonum pensylvanicum</i>	Pink smartweed	Herbaceous	n
<i>Rubus trivialis</i>	Southern dewberry	Woody, Shrub	n
<i>Smilax bona-nox</i>	Saw greenbriar	Woody, Vine	n
<i>Torilis arvensis</i>	Hedge parsley	Herbaceous	ei
<i>Ulmus Americana</i>	American elm	Woody, Tree	n
<i>Ulmus crassifolia</i>	Cedar elm	Woody, Tree	n
<i>Ulmus rubra</i>	Slippery elm	Woody, Tree	n

<i>Ungnadia speciosa</i>	Mexican buckeye	Woody, Shrub	n
<i>Verbesina virginica</i>	Frostweed	Herbaceous	n
<i>Vinca major</i>	Periwinkle	Woody, Shrub	ei
<i>Vitis mustangensis</i>	Mustang grape	Woody, Vine	n
<i>Yucca rupicola</i>	Twisted-leaf yucca	Woody, Shrub	n
<i>Zigadenus nuttallii</i>	Death camas	Herbaceous	n

ZONE 2

Scientific Name	Common Name	Growth Habit	Native/Exotic or invasive (n/ei)
<i>Acer negundo</i>	Box elder	Woody, Tree	n
<i>Aesculus pavia</i>	Red buckeye	Woody, Shrub	n
<i>Allium canadense</i>	Wild onion	Herbaceous	n
<i>Allium drummondii</i>	Wild garlic	Herbaceous	ei
<i>Bromus japonicus</i>	Japanese brome	Grass	ei
<i>Calyptocarpus vialis</i>	Straggler daisy, horseherb	Herbaceous	n
<i>Carex blanda</i>	Wood-sedge	Herbaceous, Graminoid	n
<i>Carya illinoiensis</i>	Pecan	Woody, Tree	n
<i>Celtis laevigata</i>	Sugar hackberry	Woody, Tree	n
<i>Chasmanthium latifolium</i>	Inland sea oats	Grass	n
<i>Cornus drummondii</i>	Roughleaf dogwood	Woody, Shrub	n
<i>Croton fruticulosus</i>	Bush croton	Woody, Shrub	n
<i>Eupatorium serotinum</i>	White boneset	Herbaceous	n
<i>Galium aparine</i>	Catchweed bedstraw, cleavers	Herbaceous	ei
<i>Hackelia virginiana</i>	Beggar's lice	?	n
<i>Ilex decidua</i>	Possumhaw	Woody, Shrub	n
<i>Ilex vomitoria</i>	Yaupon holly	Woody, Shrub	n
<i>Juniperus ashei</i>	Ashe juniper	Woody, Tree	n
<i>Lonicera japonica</i>	Japanese honeysuckle	Woody, Vine	ei
<i>Matelea reticulata</i>	Milkvine	Herbaceous	n
<i>Morus rubra</i>	Red mulberry	Woody, Tree	n
<i>Myosotis macrosperma</i>	Largeseed forget-me-not	Herbaceous	n
<i>Nandina domestica</i>	Nandina, heavenly bamboo	Woody, Shrub	ei
<i>Onosmodium bejariense</i>	False gromwell	Herbaceous	n
<i>Packera obovata</i> (<i>Senecio obovatus</i>)	Golden groundsel	Herbaceous	n
<i>Parthenocissus quinquefolia</i>	Virginia creeper	Woody, Vine	n
<i>Plantago rhodosperma</i>	Red-seeded plaintain	Herbaceous	n
<i>Rubus trivialis</i>	Southern dewberry	Woody, Shrub	n
<i>Salvia lyrata</i>	Lyre-leaf sage	Herbaceous	n
<i>Smilax bona-nox</i>	Saw greenbriar	Woody, Vine	n
<i>Taxodium distichum</i>	Bald cypress	Woody, Tree	n
<i>Ulmus crassifolia</i>	Cedar elm	Woody, Tree	n
<i>Verbesina virginica</i>	Frostweed	Herbaceous	n
<i>Vinca major</i>	Periwinkle	Woody, Shrub	ei
<i>Vitis mustangensis</i>	Mustang grape	Woody, Vine	n
<i>Zigadenus nuttallii</i>	Death camas	Herbaceous	n

ZONE 3

Scientific Name	Common Name	Growth Habit	Native/Exotic or invasive (n/ei)
<i>Acer negundo</i>	Box elder	Woody, Tree	n
<i>Aesculus pavia</i>	Red buckeye	Woody, Shrub	n
<i>Adiantum capillus-veneris</i>	Maindenhair fern	Herbaceous, Fern	n
<i>Aesculus pavia</i>	Red buckeye	Woody, Shrub	n
<i>Allium canadense</i>	Wild onion	Herbaceous	n
<i>Allium drummondii</i>	Wild garlic	Herbaceous	ei
<i>Allium ampeloprasum</i>	Wild leek	Herbaceous	ei
<i>Calyptocarpus vialis</i>	Straggler daisy, horseherb	Herbaceous	n
<i>Carex planostachys</i>	Cedar sedge	Herbaceous, Graminoid	n
<i>Carex blanda</i>	Wood-sedge	Herbaceous, Graminoid	n
<i>Carex emoryi</i>	Emory sedge	Herbaceous, Graminoid	n
<i>Carya illinoensis</i>	Pecan	Woody, Tree	n
<i>Celtis laevigata</i>	Sugar hackberry	Woody, Tree	n
<i>Chasmanthium latifolium</i>	Inland sea oats	Grass	n
<i>Cladium mariscus</i>	Jamaica sawgrass	Herbaceous, Graminoid	n
<i>Cooperia pedunculata</i>	Rain lily	Herbaceous	n
<i>Cornus drummondii</i>	Roughleaf dogwood	Woody, Shrub	n
<i>Diospyros texana</i>	Texas persimmon	Woody, Tree	n
<i>Erigeron philadelphicus</i>	Philadelphia fleabane	Herbaceous	n
<i>Galium aparine</i>	Catchweed bedstraw, cleavers	Herbaceous	ei
<i>Hackelia virginiana</i>	Beggar's lice	?	n
<i>Hydrocotyle s.</i>	Pennywort	Herbaceous	?
<i>Ilex decidua</i>	Possumhaw	Woody, Shrub	n
<i>Ilex vomitoria</i>	Yaupon holly	Woody, Shrub	n
<i>Juniperus ashei</i>	Ashe juniper	Woody, Tree	n
<i>Lonicera japonica</i>	Japanese honeysuckle	Woody, Vine	ei
<i>Malvaviscus arboreus</i>	Turk's cap	Herbaceous	n
<i>Nandina domestica</i>	Nandina, heavenly bamboo	Woody, Shrub	ei
<i>Nothoscordum bivalve</i>	False garlic	Herbaceous	?
<i>Onosmodium bejariense</i>	False gromwell	Herbaceous	n
<i>Packera obovata</i> (<i>Senecio obovatus</i>)	Golden groundsel	Herbaceous	n
<i>Parthenocissus quinquefolia</i>	Virginia creeper	Woody, Vine	n
<i>Platanus occidentalis</i>	American sycamore	Woody, Tree	n
<i>Rubus trivialis</i>	Southern dewberry	Woody, Shrub	n
<i>Salvia lyrata</i>	Lyre-leaf sage	Herbaceous	n
<i>Sisyrinchium chilense</i>	Swordleaf blue-eyed grass	Grass	n
<i>Smilax bona-nox</i>	Saw greenbriar	Woody, Vine	n
<i>Thelypteris ovata</i> var. <i>lindheimeri</i>	Lindheimer's marsh fern	Herbaceous, Fern	n
<i>Torilis arvensis</i>	Hedge parsley	Herbaceous	ei
<i>Toxicodendron radicans</i>	Poinon ivy	Shrub	n
<i>Ulmus crassifolia</i>	Cedar elm	Woody, Tree	n
<i>Verbesina virginica</i>	Frostweed	Herbaceous	n
<i>Vitis mustangensis</i>	Mustang grape	Woody, Vine	n
<i>Zigadenus nuttallii</i>	Death camas	Herbaceous	n