

LEAGUE CITY

CLEAR CREEK MASTER PLAN

PUBLIC MEETING #3

July 26th, 2023

halff

PROJECT PURPOSE

The Clear Creek Master Plan is intended to serve as a policy guide for the future land use, development character, multi-modal connectivity, and recreation/tourism opportunities along Clear Creek. The Master Plan will include the layout and organization of proposed amenities and enhancements along the Study Area including city-owned parkland.

PROJECT SCHEDULE

Phase One
Project Initiation and Coordination

Phase Two
Data Collection and Site Inventory

Phase Three
Concept and Strategy Development

Phase Four
Implementation

MASTER PLAN OVERVIEW

Chapter 1
INTRODUCTION

- Existing facilities
- Existing site conditions
- History
- Environmental Characteristics

Chapter 2
PUBLIC ENGAGEMENT

- 2017 Parks Plan Feedback
- Community & Statistically Valid Survey Results
- Open Houses & Focus Group Meetings Summary

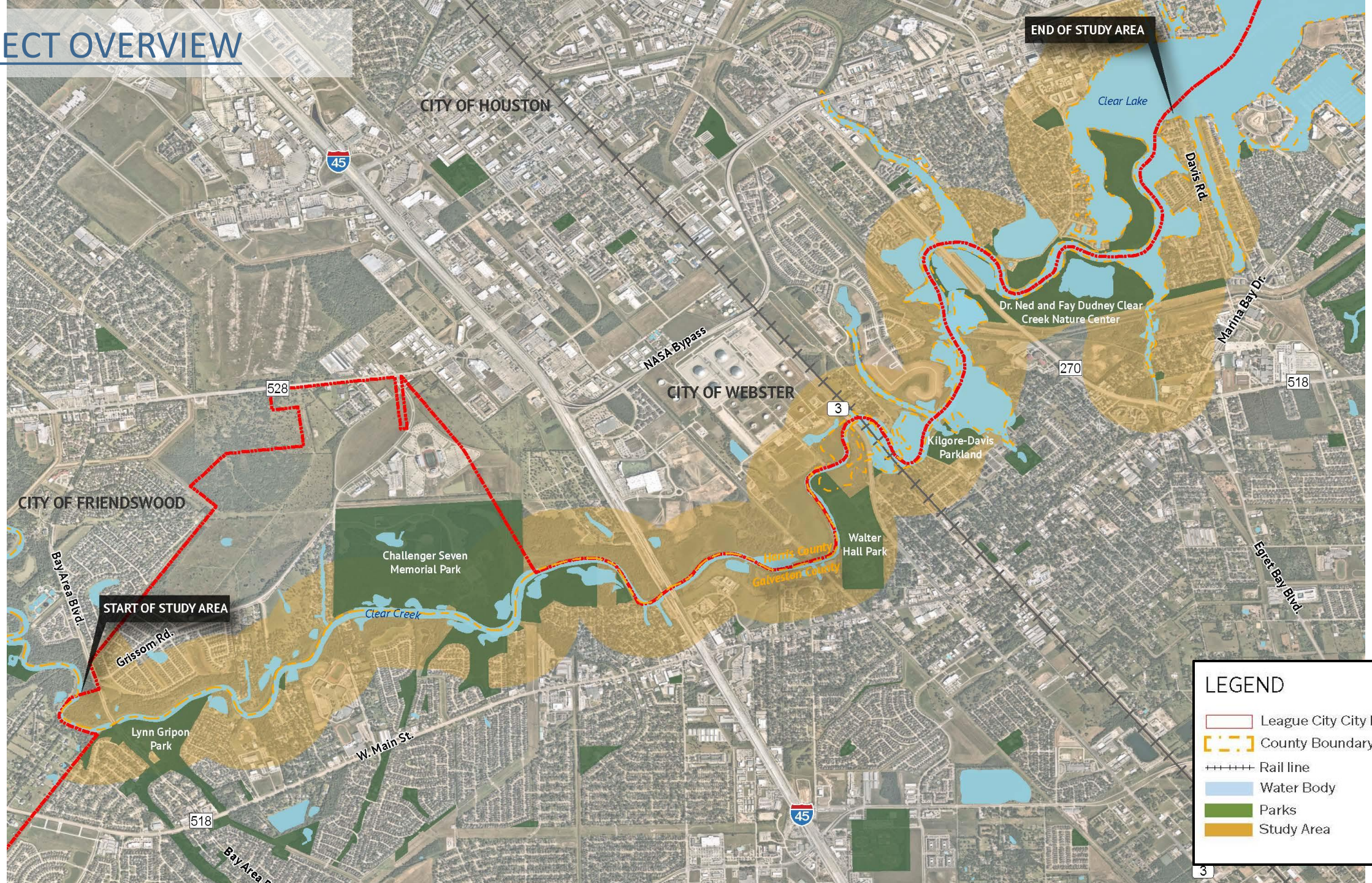
Chapter 3
RECOMMENDATIONS

- 3 Goals
- 9 Objectives
- 23 Strategies

Chapter 4
IMPLEMENTATION

- Order of Magnitude Costs
- Implementation Table
- Priority Criteria
- Partnerships / Action Leaders
- Funding & Grants

PROJECT OVERVIEW





COMMUNITY ENGAGEMENT FEEDBACK

COMMUNITY OUTREACH

Open House #1
March 8, 2023

- Approximately 30 in attendance
- Residents expressed concerns regarding the loss of wildlife due to development and the need for increased habitat preservation and conservation areas along Clear Creek
- Residents would like to see more planting/vegetation as well as maintenance along the Creek

Open House #2
May 31, 2023

- Approximately 60 in attendance
- Residents expressed need for increased enforcement and patrols for **safety** due to speeding boats
- Residents want to ensure that trail development does not reduce the value or presence of fauna and migratory bird habitat
- Residents were generally in favor of the boardwalks, trails, and passive programming at the concept park sites

Community Surveys

Community Survey Responses
Statistically Valid Survey Responses

What are three reasons you do not visit Clear Creek?

23% & **44%**	Safety Concerns
50% & **26%**	Lack of Access / Connectivity
50% & **20%**	Lack of Facilities / Amenities
33% & **26%**	Water Quality

What would you like to see more of along Clear Creek?

61% & **57%**	Boardwalks
40% & **38%**	Picnic Areas
34% & **29%**	Plantings / Vegetation
27% & **32%**	Pavilions / Gathering Spaces
27% & **20%**	Wayfinding / Signage
21% & **18%**	Boat Ramps
3% & **23%**	Event Lawn / Open Spaces

"Access for walking and biking, but mostly a 'wild' landscape to enjoy the few natural areas we have that are close to town ."
- Community Survey Respondent

"I'm afraid to canoe or kayak on Clear Creek because of speeding boats."
- Statistically Valid Survey Respondent

WHAT WE HEARD: KEY THEMES

- PRESERVATION & CONSERVATION OF WILDLIFE HABITATS AND NATURAL AREAS
- INCREASED AND IMPROVED AMENITIES, ACTIVITIES, AND PROGRAMMING
- WALKING/BIKING/TRAIL CONNECTIVITY TO THE CREEK
- BOARDWALKS AND IMPROVED KAYAK LAUNCHES ALONG CLEAR CREEK
- SAFETY FOR ALL USERS
- MULTI-JURISDICTIONAL COORDINATION
- LACK OF PUBLIC ACCESS & CONNECTIVITY
- INCREASED MAINTENANCE OF FACILITIES



VISION AND GOALS

PLAN VISION AND GOALS

"Clear Creek is a regional destination known for its variety and balance of habitat preservation and natural resources, paired with well-connected, high-quality recreational amenities."

GOAL 1: ACTIVATION | Continue to activate Clear Creek with safe public access trails, programming, and parkland while minimizing environmental impacts

GOAL 2: CONNECTIVITY | Improve multimodal access to Clear Creek with additional enhancements to signage & wayfinding along Clear Creek

GOAL 3: PRESERVATION | Utilize existing natural resources to enhance the biodiversity & viability of the Clear Creek ecosystem for future generations to enjoy

PLAN OBJECTIVES

GOAL 1: ACTIVATION

Objectives

- Continue to expand and improve the Clear Creek Paddle Trail.
- Continue to expand and improve the trail, boardwalks, and observation locations along Clear Creek to improve visitor experience.
- Continue to pursue opportunities for parkland establishment along Clear Creek.
- Incorporate safety and educational features along the creek to enhance visitor experience.

11 Strategies and Actions

GOAL 2: CONNECTIVITY

Objectives

- Work with neighboring municipalities to plan for intra-city pedestrian, bicycle, and paddle trail connections.
- Continue to provide connectivity from major thoroughfares to Clear Creek and between parks along Clear Creek.

3 Strategies and Actions

GOAL 3: PRESERVATION

Objectives

- Establish initiatives focused on tree canopy, ecosystem, and wetland preservation and replanting.
- Consider the addition of innovative natural landscapes, materials, and construction methods into park spaces.
- Continue to develop partnerships and work with local entities to help in the planning, maintenance, preservation, and advocacy of parkland, paddle trails, and natural areas along Clear Creek.

8 Strategies and Actions



OPPORTUNITIES

PLAN OBJECTIVES

GOAL 1: ACTIVATION

Major Strategies Include

- Develop additional Paddle Trail kayak launch sites and add a floating dock at the Lynn Gripon launch.
- Consider floating launch docks to address changing tidal patterns in Clear Creek
- Develop rest-stops with tie-posts and emergency signage for paddle trail users
- **Construct trails and boardwalks along Clear Creek as depicted in alignments on the Opportunities map**
- **Continue to seek partnership opportunities and shared-use agreements to increase parkland establishment along Clear Creek**
- Establish educational, informative, wayfinding and historical interpretive signage
- **Continue to incorporate safety signage and buoys along trails, kayak launch sites, and blueway routes.**

OPPORTUNITIES

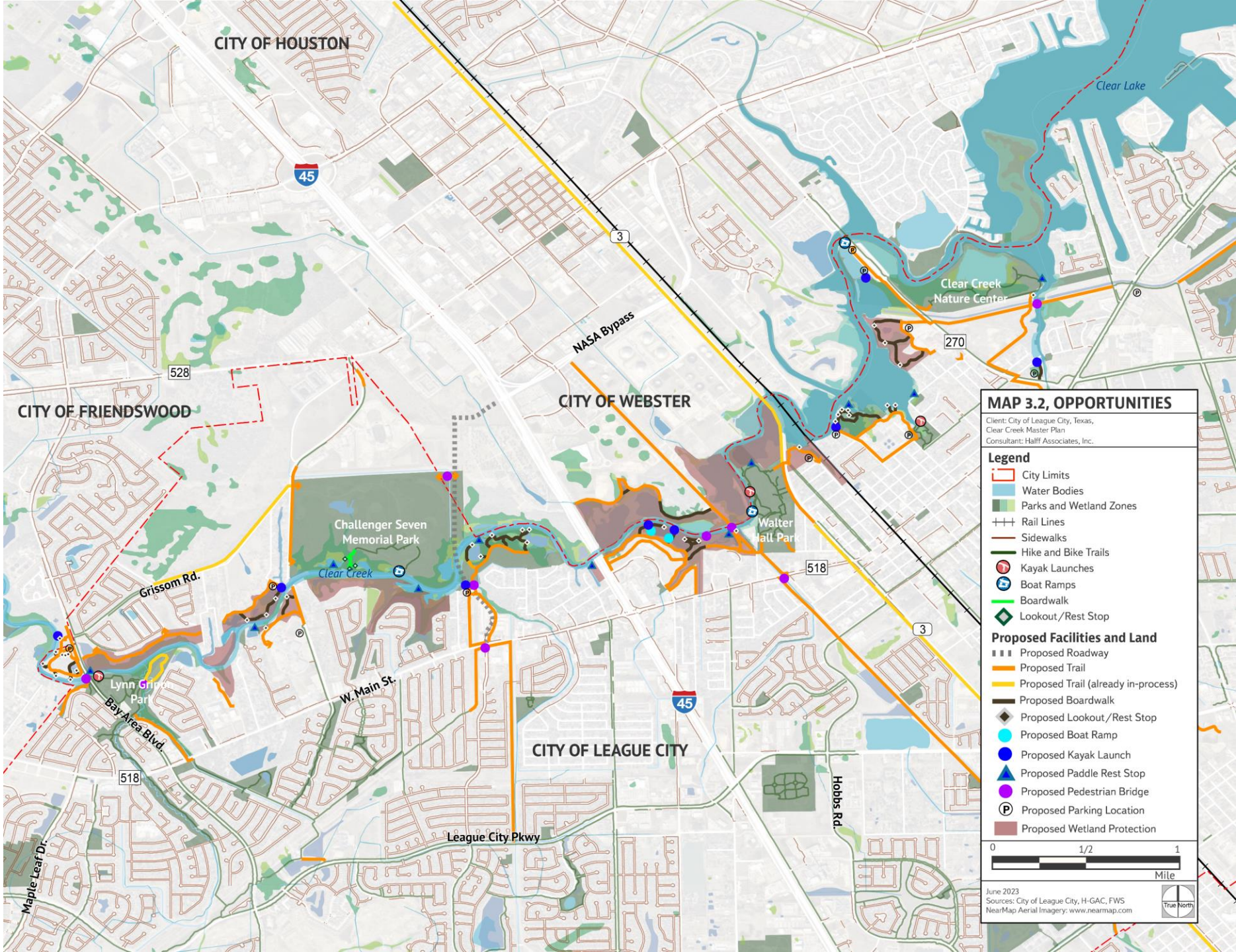
- **2 miles** elevated boardwalks
- **21 miles of** hike and bike trails
- **7** additional kayak launches

- Overlook observation areas

- Improved boat launch areas with additional parking

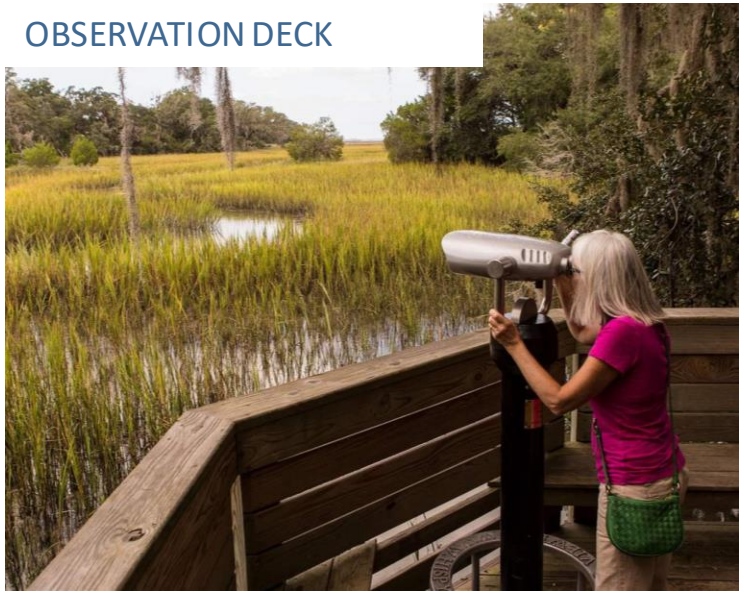
- Signage and wayfinding

- Proposed wetland protection areas

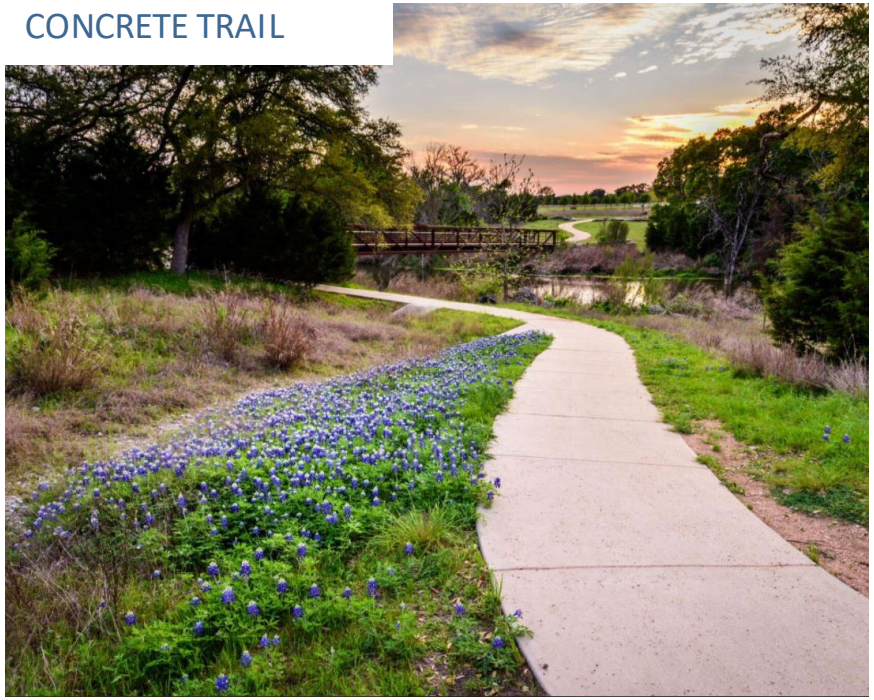


SPECIAL PARK AREA AMENITIES

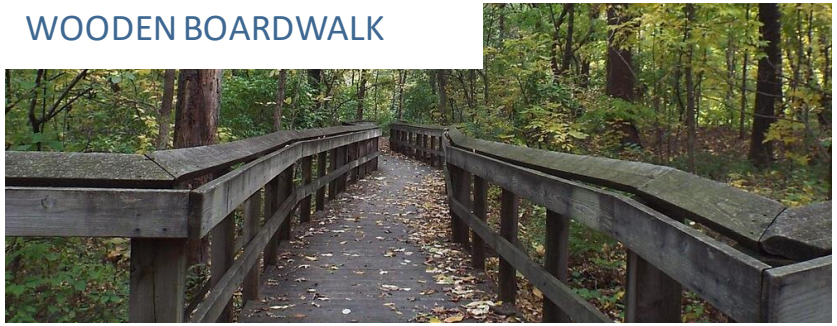
OBSERVATION DECK



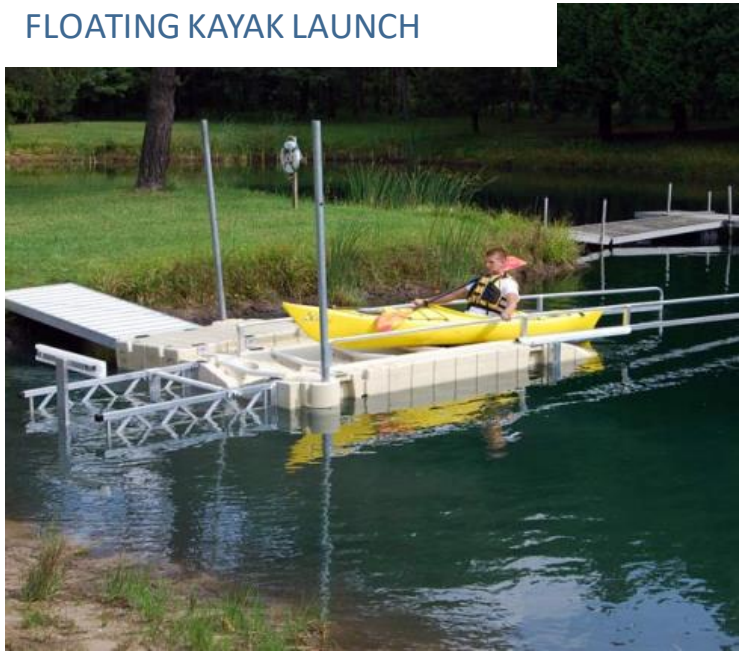
CONCRETE TRAIL



WOODEN BOARDWALK



FLOATING KAYAK LAUNCH



RIPARIAN RESTORATION



LIGHTING



WETLAND BOARDWALK



ADDITIONAL CONSIDERATIONS –SIGNAGE







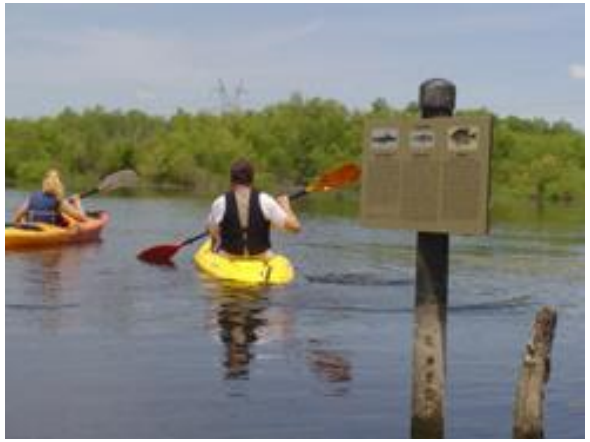












HCFCD CONCEPT

- 24.21 acres owned by Harris County Flood Control District
- Proposed concrete trails totaling **1.13 miles**
- Proposed wooden and pre-cast concrete boardwalks totaling **0.25 miles**
- **9** observation decks providing views of Clear Creek
- Kayak launch opportunities to access Clear Creek Paddle Trail



Harris County Flood Control Park Concept

Legend

A	Park Entry Signage	G	Wooden Elevated Boardwalk (5 ft.)
B	Wayfinding Signage & Bench	H	Mountain Bike Technical Trails
C	Parking Lot & Entry Drive	I	Covered Observation Deck
D	Concrete Trail (10 ft.)	J	Pavilion and Restrooms
E	Concrete Trail (8 ft.)	K	Kayak Launch
F	Concrete Elevated Boardwalk (6 ft.)	L	Planter Tree
		M	Unpaved Walking Paths

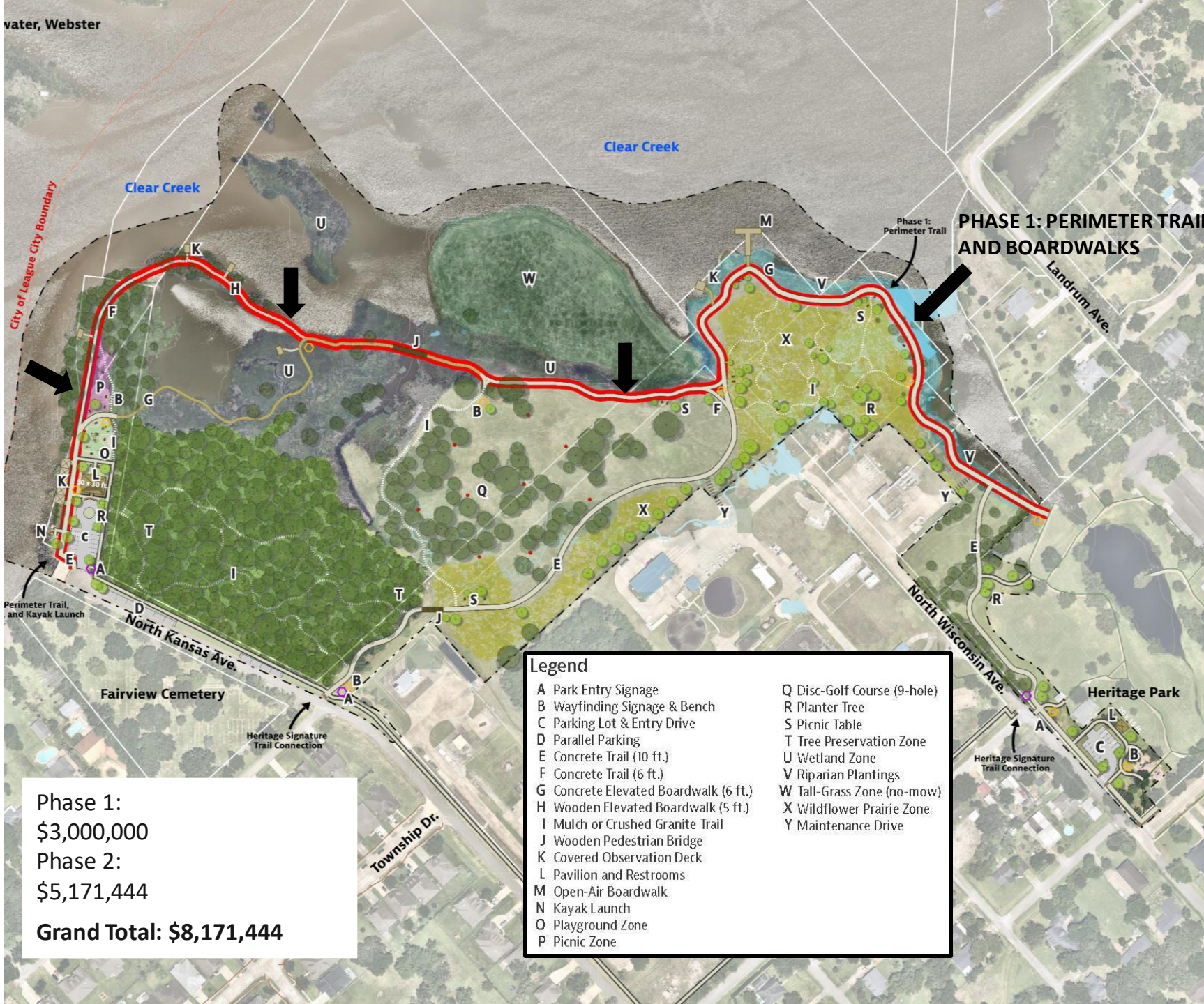
MYRTLE PARK

- 45.29 acres owned by City of League City
- Proposed concrete trails totaling **2.0 miles**
- Proposed wooden and pre-cast concrete boardwalks totaling **1 mile**
- **9** observation decks providing views of Clear Creek
- Kayak launch opportunities to access Clear Creek Paddle Trail
- Tree and wetland preservation zones



KILGORE TRACT

- 27.1 acres owned by City of League City
- Proposed concrete trails totaling **1.2 miles** with connections to Heritage Park
- Proposed wooden and pre-cast concrete boardwalks totaling **0.38 miles**
- **6** observation decks providing views of Clear Creek
- 9-hole disc golf course
- Wildflower and native grass preservation zones



PLAN OBJECTIVES

GOAL 2: CONNECTIVITY

Major Strategies Include

- **Work with neighboring municipalities to plan for future pedestrian and bicycle connections which cross and connect with Clear Creek**
- Continue to develop a City-wide multi-use trail system to provide bicycle and pedestrian connectivity throughout the community and to Clear Creek
- Continue to develop trail and sidewalk connections between parks to further provide connectivity to nearby neighborhoods and to Clear Creek

GOALS 2: CONNECTIVITY

















PLAN OBJECTIVES

GOAL 3: PRESERVATION

Major Strategies Include

- **Reconstruct, enhance, add, and preserve existing wetland habitats along the banks of Clear Creek**
- **Consider a required public-access buffer zone or easement for all new residential and commercial developments along Clear Creek**
- Consider a tree mandate which would require developers of property adjacent to Clear Creek to preserve existing tree canopy to an appropriate threshold
- **Work with partner agencies to mitigate the potential negative effects of construction and development along Clear Creek**
- Consider adding wildflower and tallgrass zones in parks along Clear Creek to reduce mowing and maintenance costs for unprogrammed passive natural areas
- Consider innovative construction and implementation methods to limit environmental impact
- Continue to pursue opportunities for alternative paving trail types such as decomposed granite, packed soil, boardwalks, natural dirt paths, and pre-cast concrete pavements

GOALS 3: PRESERVATION















SAFETY RECOMMENDATIONS

Safety Strategies and Legislation

- Texas Parks and Wildlife Code (Title 4 Water Safety, Chapter 31 Water Safety, Subchapter 31)
  - League City should establish a governing board which develops and oversees legislation, the rules, and enforcement of water safety and related infrastructure within the municipal jurisdictional waters
- Consider code language which includes “no wake” policies and patrolling policies, similar to Nassau Bay (Chapter 22, Article 2, Section 22-22), Corpus Christi, and Freeport.
- Consider additional boat patrols in collaboration with neighboring municipalities and Galveston County
- TPWD Regulatory Markers standards
  - Consider the addition of buoys, reflectors, floating signage, and post signage, including safety information at launch sites







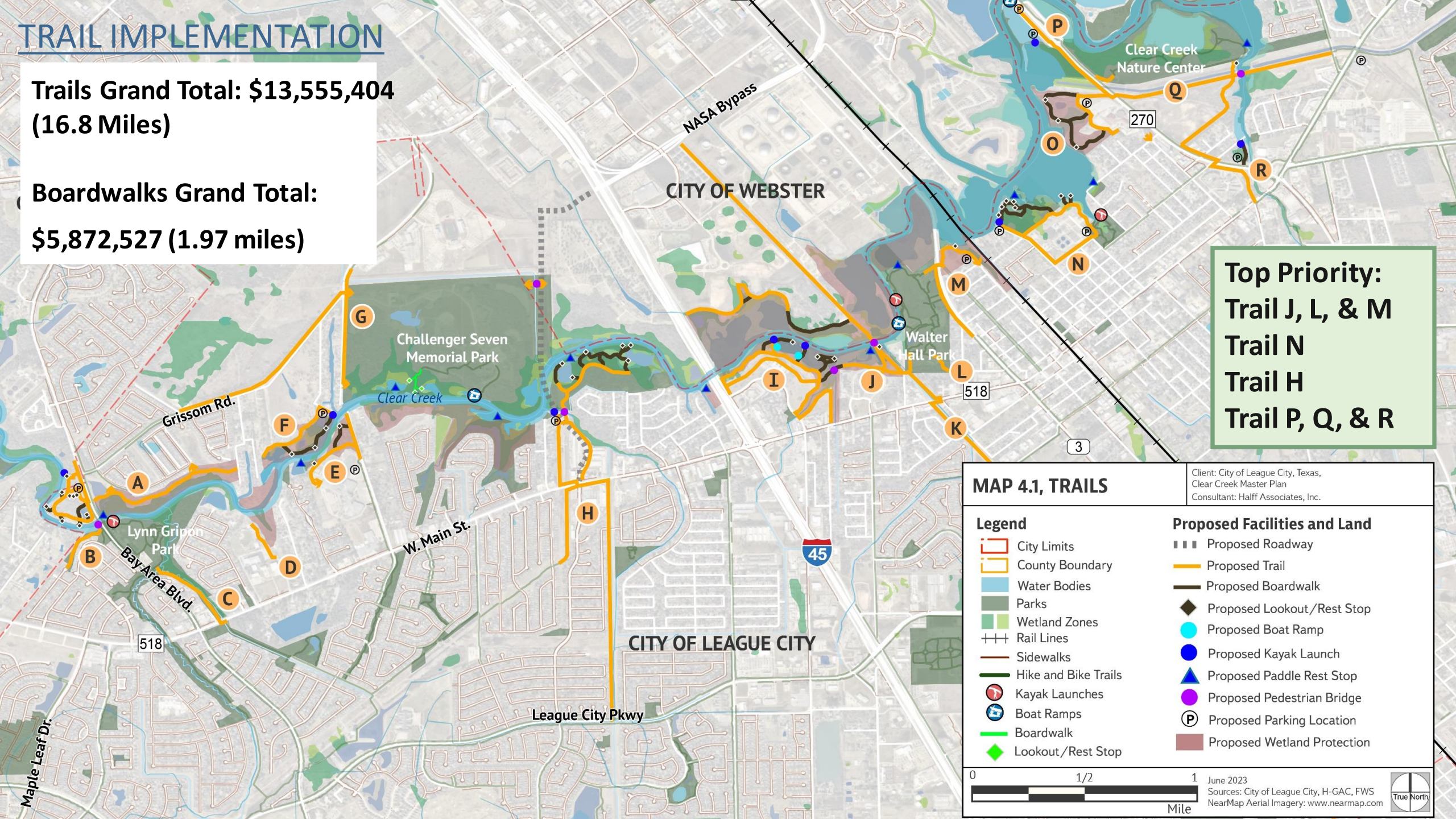


IMPLEMENTATION

TRAIL IMPLEMENTATION

Trails Grand Total: $13,555,404 (16.8 Miles)

Boardwalks Grand Total: $5,872,527 (1.97 miles)



Top Priority:
Trail J, L, & M
Trail N
Trail H
Trail P, Q, & R

MAP 4.1, TRAILS

Client: City of League City, Texas, Clear Creek Master Plan
Consultant: Halff Associates, Inc.

Legend

- City Limits
- County Boundary
- Water Bodies
- Parks
- Wetland Zones
- Rail Lines
- Sidewalks
- Hike and Bike Trails
- Kayak Launches
- Boat Ramps
- Boardwalk
- Lookout/Rest Stop

Proposed Facilities and Land

- Proposed Roadway
- Proposed Trail
- Proposed Boardwalk
- Proposed Lookout/Rest Stop
- Proposed Boat Ramp
- Proposed Kayak Launch
- Proposed Paddle Rest Stop
- Proposed Pedestrian Bridge
- Proposed Parking Location
- Proposed Wetland Protection

0 1/2 1 Mile

June 2023
Sources: City of League City, H-GAC, FWS
NearMap Aerial Imagery: www.nearmap.com

True North

IMPLEMENTATION TABLE

Table 3, Strategies and Recommendations

Action Leaders:

- BP Bayou Preservation Association
- CC Clear Creek ISD
- GB Galveston Bay Foundation
- HP Harris County Precinct Two Parks Department
- HF Harris County Flood Control District
- HA Home-owners Associations
- HG Houston-Galveston Area Council
- LE League City Engineering Department
- LW League City Public Works Department
- NM Neighboring Municipalities
- TT Texas Department of Transportation
- TP Texas Parks and Wildlife Department
- AC U.S. Army Corps of Engineers

GOAL 2: CONNECTIVITY	Timeframe: Short	Medium	Long	Action Leaders
OBJECTIVE 2.1: WORK WITH NEIGHBORING MUNICIPALITIES TO PLAN FOR INTRA-CITY PEDESTRIAN, BICYCLE, TRAIL, AND PADDLE TRAIL CONNECTIONS.				
Work with neighboring municipalities such as Webster, Nassau Bay, Kemah, and Friendswood to plan for future pedestrian and bicycle connections between the cities which cross or connect to Clear Creek	X	X	X	NM, HG, LE, LW, TT, TP
OBJECTIVE 2.2: CONTINUE TO PROVIDE CONNECTIVITY FROM MAJOR THOROUGHFARES TO CLEAR CREEK AND BETWEEN PARKS ALONG CLEAR CREEK.				
Continue to develop a City-wide multi-use trail system to provide bicycle and pedestrian connectivity throughout the community and to Clear Creek – particularly locations along Clear Creek that provide linkages between key destinations, such as neighborhoods, parks, and schools	X	X	X	CC, HA, LE, LW, TT, TP
Continue to develop trail and sidewalk connections between parks to further provide connections from nearby neighborhoods to Clear Creek and other destinations	X	X	X	CC, HA, HG, LE, LW
GOAL 3: PRESERVATION				
OBJECTIVE 3.1: ESTABLISH INITIATIVES FOCUSED ON TREE CANOPY, ECOSYSTEM RESTORATION, AND WETLAND PRESERVATION AND REPLANTING.				
Work with partner agencies to mitigate the potential negative effects of future dredging, bridge construction, and other developments along Clear Creek	X	X	X	BP, GB, HF, HG, LE, LW, TP
Reconstruct, add, and preserve existing wetland habitats along the banks of Clear Creek to help mitigate flooding impacts and retain ecosystem health / biodiversity	X	X	X	BP, GB, HF, HG, LE, LW, TP
Consider a tree mandate which would require developers of property adjacent to Clear Creek to preserve existing tree canopy to an appropriate threshold	X			LE, LW
Consider a required public-access buffer zone or easement for all new residential and commercial developments along Clear Creek	X			LE, LW
OBJECTIVE 3.2: CONSIDER THE ADDITION OF INNOVATIVE NATURAL LANDSCAPES, MATERIALS, AND CONSTRUCTION METHODS INTO PARK SPACES.				
Consider adding wildflower and tallgrass zones in parks along Clear Creek to reduce mowing and maintenance costs for unprogrammed passive natural areas	X	X	X	BP, GB, HG, LE, TP
Continue to pursue opportunities for alternative paving trail types such as decomposed granite, packed soil, boardwalks, natural dirt paths, and pre-cast concrete pavements	X	X	X	BP, GB, HG, LE, TP AC
Consider innovative construction and implementation methods to limit environmental impact	X	X	X	BP, GB, HG, LE, TP, AC
OBJECTIVE 3.3: CONTINUE TO DEVELOP PARTNERSHIPS AND WORK WITH LOCAL ENTITIES TO HELP IN THE PLANNING, MAINTENANCE, PRESERVATION, AND ADVOCACY OF PARKLAND, PADDLE TRAILS, AND NATURAL AREAS ALONG CLEAR CREEK.				
Work with entities such as the Galveston Bay Foundation, Bayou Preservation Association, and Clear Creek Foundation to assess and enact opportunities for wetlands and riparian habitat re-establishment and develop an invasive species removal and prevention program	X	X	X	BP, GA, HG, LE, LW, TP
Consider partnerships with Clear Springs High School, Bay Area Christian School, and/or Clear Creek Community Church to establish parkland for the benefit of the landowners and the public		X	X	CC, TP

Prioritization timeframes for proposed projects along Clear Creek includes:

SHORT-TERM 1-5 Years

Actions or projects which may require minimal capital investment, are adjacent to or aid in the development of existing efforts or projects, and / or provide an immediate impact on the entire Clear Creak system.

MEDIUM-TERM 5-10 Years

Actions or projects which may require moderate capital investment and planning, require a level of partnerships or community engagement, and / or requires additional infrastructure before development.

LONG-TERM 10-15 Years

Actions or projects which require a large capital investment and large effort of planning, require substantial grant funding, assistance, assessment, or collaboration, and / or minimally connects to or enhances existing infrastructure.

ACTION LEADERS AND PARTNERSHIPS

Clear Creek action leaders can include:

- ✓ Bayou Preservation Association
- ✓ Clear Creek ISD
- ✓ Galveston Bay Foundation
- ✓ Harris County Precinct Two Parks Department
- ✓ Harris County Flood Control District
- ✓ Home-owners Associations
- ✓ Houston-Galveston Area Council
- ✓ League City Engineering Department
- ✓ League City Project Management Department
- ✓ League City Public Works Department
- ✓ Neighboring Municipalities
- ✓ Texas Parks and Wildlife Department
- ✓ U.S. Army Corps of Engineers
- ✓ U.S. Army Corps of Engineers

Clear Creek partners can include:

Local Entities

- ✓ Butterfly Enthusiasts of Southeast Texas
- ✓ Galveston Bay Council
- ✓ Galveston Bay Area – Texas Master Naturalists
- ✓ Galveston Bay Foundation
- ✓ Gulf Coast Master Naturalists
- ✓ Keep Houston Beautiful
- ✓ Houston Audubon Society
- ✓ Houston Canoe Club
- ✓ Houston-Galveston Area Council
- ✓ Houston Wilderness
- ✓ Memorial Park Conservancy
- ✓ Native Plant Society of Texas – Clear Lake Chapter
- ✓ Trees for Houston

State Entities

- ✓ Bayou Preservation Society
- ✓ Indigenous Cultures Institute (ICI)
- ✓ Keep Texas Beautiful
- ✓ Land Heritage Institute with the EPIcenter
- ✓ Native Plant Society of Texas
- ✓ Sierra Club: Lone Star Chapter
- ✓ Texas A&M AgriLife Extension Service Texas A&M Forest service
- ✓ Texas Association for Environmental Education
- ✓ Texas Commission on Environmental Quality
- ✓ Texas Environmental Health Association
- ✓ Texas General Land Office
- ✓ Texas Living Waters Project
- ✓ Texas Master Gardeners
- ✓ Texas Master Naturalists
- ✓ Texas Ornithological Society (TOS)
- ✓ Texas Parks and Wildlife Department
- ✓ Texas Water Development Board
- ✓ Green Project Reserve Program (GPR)
- ✓ Texas Water Smart
- ✓ Texas Wildlife Association
- ✓ Texan By Nature

National Entities

- ✓ Arbor Day Foundation
- ✓ Bayou Land Conservancy
- ✓ International Society of Arboriculture – Texas Chapter
- ✓ U.S. Fish and Wildlife Service
- ✓ Migratory Bird Conservation Commission
- ✓ U.S. Environmental Protection Agency
- ✓ Rails to Trails Conservancy
- ✓ National Oceanic and Atmospheric Administration
- ✓ Office of Response and Restoration
- ✓ National Wildlife Federation

FUNDING

GRANTS

- ✓ TPWD Texas Paddling trails program community application for assistance
- ✓ TPWD Recreational trails grant
- ✓ TPWD Boating Access Grant
- ✓ TPWD Local parks non-urban outdoor recreation grants
- ✓ TPWD Community outdoor outreach program grants
- ✓ TPWD General conservation grant
- ✓ GLO Texas Coastal Management Program Grant
- ✓ EPA Wetland Program Development Grants (Region 6)
- ✓ EPA 5 Star Wetland and Urban Waters Restoration Grant Program
- ✓ Texas A&M Community Forestry Grant Program
- ✓ TCEQ Nonpoint Source Grant Program
- ✓ TCEQ Galveston Bay Implementation Grant Program
- ✓ USFWS Texas Coastal Program
- ✓ USFWS Coastal Wetlands Grants

LOCAL FUNDING

FUNDS AND FEES

- ✓ User Fees
- ✓ Voter Approved Parks Bond
- ✓ Section 4-B Economic Development Sales Tax
- ✓ Park Dedication Fees
- ✓ Special Districts

EXISTING POLICIES

- ✓ SEC. 102-53 HOA Parkland Dedication
- ✓ SEC. 102-55 Park Dedication Fees
- ✓ SEC. 102-57 A-B Additional Requirements/ Definitions
- ✓ SEC. 102-57 E Additional Requirements/ Definitions
- ✓ SEC. 102-5T Right-of-Ways, Private Streets, and Access General Design



DISCUSSION

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