Authentie Connected

Inclusive

Resilient

A VISION FOR BUFFALO BAYOU BUFFALO BAYOU BUFFALO BAYOU

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## About Buffalo Bayou Partnership

Established in 1986, Buffalo Bayou Partnership (BBP) is the non-profit transforming and revitalizing Buffalo Bayou, Houston's most significant natural resource. The organization's geographic focus is the 10-square mile stretch of the bayou that flows from Shepherd Drive, through the heart of downtown into the East End, and onto the Port of Houston Turning Basin. BBP has raised and leveraged more than \$200 million for the redevelopment and stewardship of the waterfront spearheading award-winning projects such as Sabine Promenade and Sesquicentennial Park, protecting land for future parks and green space, constructing hike and bike trails, and operating comprehensive cleanup and maintenance programs. In 2015, BBP completed the \$58 million Buffalo Bayou Park project that includes beautiful gardens and native landscaping, trails, the go-to dog park in the city, public art, a creative nature play area, and two visitor centers. Buffalo Bayou Partnership also activates the waterway through pedestrian, boating and biking amenities; volunteer activities; permanent and temporary art installations; and wide-ranging tours and programs that engage tens of thousands of visitors each year.

## BUFFALO BAYOU EAST MASTER PLAN CONSULTANT TEAM

#### MICHAEL VAN VALKENBURGH ASSOCIATES Landscape Architecture

HR&A ADVISORS Economic Development

HUITT-ZOLLARS Engineering and Transportation

> LIMNOTECH Hydrology

UTILE Urban Design and Architecture

## **DEAR FRIENDS**,

Buffalo Bayou East, the stretch of Buffalo Bayou from US Highway 59 to the Port of Houston Turning Basin, is a place that will pique your curiosity like no other. What awaits you is a waterway with a distinctively different character than Buffalo Bayou Park and other green spaces in Houston. You will discover intriguing industrial remnants from long ago standing side by side with today's active and thriving businesses. You will enjoy a natural beauty that feels far removed from the city, despite being minutes away from Downtown. Bordering the Bayou are the Greater East End and Fifth Ward—two historic neighborhoods that still retain their rich cultural heritage and traditions. Buffalo Bayou East is a part of Houston, truly inspiring and unique unto itself.

If there is one theme that is woven throughout the Buffalo Bayou East Master Plan, it is connection. Long separated from their Bayou, each other, and Houston as a whole, these neighborhoods will be united physically, socially, and culturally. A system of waterfront trails will link the parks and green spaces to the west, while bikeways and "green fingers" form a network deep into the East Sector neighborhoods and beyond. Although a current barrier, the Bayou can become a meeting place for two communities that have a shared working-class heritage, distinct cultural legacies, and enormous neighborhood pride. And with an influx of newcomers that are calling it home, Buffalo Bayou East also can serve as a meeting point for shared conversations and experiences among people of all incomes and backgrounds.

Throughout a two-year planning process, Buffalo Bayou Partnership engaged residents, community groups, and stakeholders to envision how the Bayou's East Sector can be transformed. At meetings, unique activities allowed participants to work collaboratively with their neighbors to share their hopes, hear one another's points of view, and tackle challenging questions. In a shared environment, they voiced similar dreams and desires as well as concerns—affordable housing, health and wellness, and economic disparity. As we implement this Master Plan, we are committed to delivering a place that offers new social, economic, and environmental improvements that will benefit Buffalo Bayou East and the entire city.

This Master Plan will not be implemented overnight. It will take many years to unfold. As with past Buffalo Bayou projects-and

any undertaking of this scale and importance—public private partnerships, wide-ranging and innovative funding approaches, and dedicated community collaborations will be essential to the Plan's success. We welcome the challenges, hard work, and ongoing commitment required to drive this ambitious effort forward.

We look forward to partnering with you to build a sense of community and common ground along Buffalo Bayou East, bringing a collective vision for the Bayou to life.

## Sincerely, Sture 01800

Anne Olson President, Buffalo Bayou Partnership

## EAST : 2

BUFFALO BAYOU EAST brings the community's vision for its waterfront to life, building from a rich history and refined through a comprehensive master planning process.

Over the next nine chapters, you will learn about the many integral pieces that drive this vision, integrating new open spaces and trails, dynamic waterfront destinations, and connections to surrounding communities.



#### **BUFFALO BAYOU EAST**

introduces the Master Plan for Buffalo Bayou's East Sector and highlights the guiding values and key components that make it a place locals and visitors will enjoy for generations.

#### **YESTERDAY AND TODAY**

provides an overview of the East Sector's rich history and the many assets—cultural, natural, built—that make it a unique environment for a dynamic open space network, not just in Houston, but anywhere.



BUFFALO BAYOU EAST REIMAGINED takes a close look at the master planning and engagement processes through which the community helped set goals and priorities.











community's ambitions and priorities in conjunction with on-the-ground conditions to lay out key objectives and strategies that transform Buffalo Bayou East into a destination like no other.

## A DAY ALONG BUFFALO BAYOU EAST takes you on a visual journey from the eastern edge of the future Bayou network, at the present-day Hidalgo Park, to Downtown Houston and back—stopping at key centers of activity along the way.

BUFFALO BAYOU EAST TRANSFORMED provides a focused view of the design concepts for every individual section of Buffalo Bayou East and describes the wide variety of potential activities and destinations that appeal to locals and people from across the city and region.

## A NETWORK OF CONNECTIONS shows how new destinations in Buffalo Bayou East link to each other and to surrounding neighborhoods. In addition

neighborhoods. In addition to the identified land and water connections that increase accessibility, social and cultural connections present opportunities for disconnected communities to come together on the Bayou.



#### A RESILIENT BAYOU

describes the strategies and design elements that allow Buffalo Bayou East to withstand chronic stresses and acute shocks the area could face in the coming years. These resiliency strategies not only show how destinations in Buffalo Bayou East can be protected, but how communities can be bolstered as well.



IMPLEMENTATION details how to achieve this Master Plan over time in collaboration with partners—the public sector, private landowners, philanthropists, collaborating non-profits, affordable housing developers, and the local community—and how parks and trails are operated over their lifetimes.

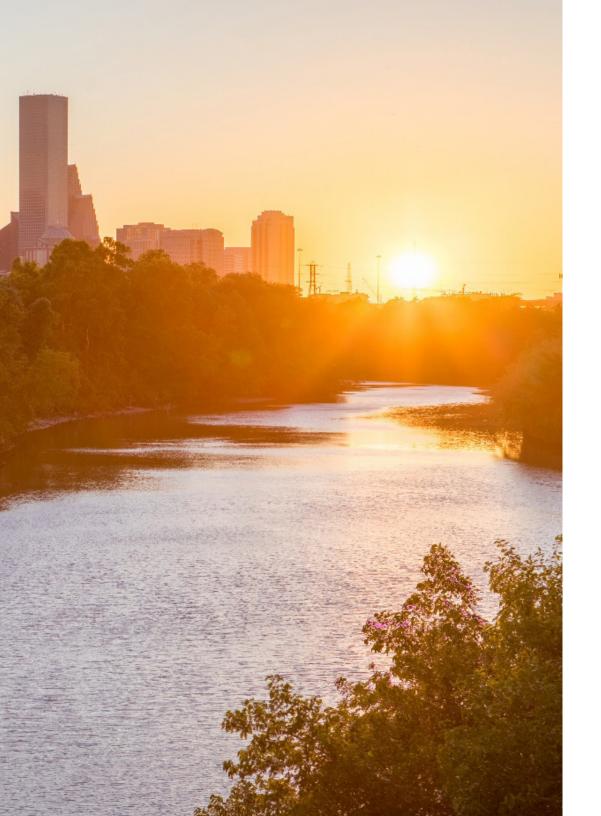


# BUFFALO BAYOU EAST

DANH

Neighborhoods in Buffalo Bayou East are home to long-established communities and a vibrant cultural legacy that highlight the diversity of what Houston has to offer.





## **REDISCOVER, ENHANCE, CELEBRATE**

Along the banks of Buffalo Bayou hides a natural gem discovered by only a few. Bald cypress line the water's edge and kingfishers and osprey make their home as the Bayou curves through the Greater East End and Fifth Ward. At many former industrial sites, nature has taken over, and vines grow across a landscape of concrete and steel. Despite being minutes from Downtown, you could be a million miles away.

Communities of the Greater East End and Fifth Ward have long been separated from their Bayou and from one another. Large active and abandoned industrial sites create obstacles between the Bayou and upland neighborhoods, and, in many cases, street linkages and visual connections to the waterfront remain broken. The Bayou has been the East Sector's back door, and a barrier. No longer. Neighborhoods in Buffalo Bayou East are home to long-established communities and a vibrant cultural legacy that highlight the diversity of what Houston has to offer. Whether it's the Greater East End's Tex-Mex cuisine of Ninfa's restaurant, the vibrant colors of the area's numerous murals, or the birthplace of zydeco in the Fifth Ward, this rich cultural heritage is Houston, something to celebrate and discover as the Bayou flows east.

Buffalo Bayou East remains a place of change and transition. In many cases, proximity to Downtown has spurred a desire for new residents to call it home, and creative entrepreneurs have found industrial buildings for makerspaces. While it is important that Buffalo Bayou East continues to improve and evolve within an ever-changing Houston, it is essential that existing families from the area are able to remain and participate in revitalizing this hidden corner of the city.

EAST : 8



Step by step, piece by piece, Buffalo Bayou East will pay tribute to Houston's industrial roots, celebrate culturally rich neighborhoods, and serve as an important symbol for the city's continuing commitment to accessible park space for all.



Buffalo Bayou East brings regional equity to open space investment in Houston, adding new signature parks and leveraging this investment to strengthen Greater East End and Fifth Ward communities.

Buffalo Bayou Partnership's (BBP) original 2002 Buffalo Bayou and Beyond Master Plan envisioned a network of green spaces along the Bayou stretching from Shepherd Drive to the Port of Houston Turning Basin. Today, countless Houstonians and visitors enjoy the extensive network of parks, open spaces, and trails along the waterfront to the west. Besides becoming a place for all Houstonians to congregate and a symbol of the city's revitalization, Buffalo Bayou Park has transformed local residents' attitudes towards our city's bayous from seeing them as unloved to cherishing them as natural treasures. A far more limited set of open space and trail improvements has benefited the lesser-served communities to the east. This plan extends the network of parks and open spaces east of Downtown while helping to connect surrounding neighborhoods to the Bayou and each other.

Today marks an important step forward for the future of Buffalo Bayou, a transformation that will take decades and require creative new partnerships. Step by step, piece by piece, Buffalo Bayou East will pay tribute to Houston's industrial roots, celebrate culturally rich neighborhoods, and serve as an important symbol for the city's continuing commitment to accessible park space for all.



Though not as widely recognized, BBP's accomplishments east of Downtown, such as key property acquisitions, construction of hike and bike trails, and development of Yolanda Black Navarro Buffalo Bend Nature Park, have been equally integral to Buffalo Bayou's revitalization. Captivating sites, structures, and spaces to be incrementally redeveloped in Buffalo Bayou East represent a further extension of the open space network so many Houstonians have embraced. In embarking on a comprehensive master planning effort for the area, BBP has developed an expansive vision that lays the groundwork for future investments in the East Sector. By incorporating significant community feedback, the Master Plan ensures future open spaces, destinations, and connections throughout the area reflect the character, culture, and history of Buffalo Bayou East.

Japhe Creek

Lockwood South

#### Lockwood Water Treatment Works

**EAST SECTOR** 

Yolanda Black Navarro Buffalo Bend Nature Park

**Hidalgo Park** 

Clinton Dr

**Turkey Bend** 

vigation Blvc

Lockwood Water

**Treatment Works** 

Canal St

Yolanda Black Navarro Buffalo Bend Nature Park

II I MII

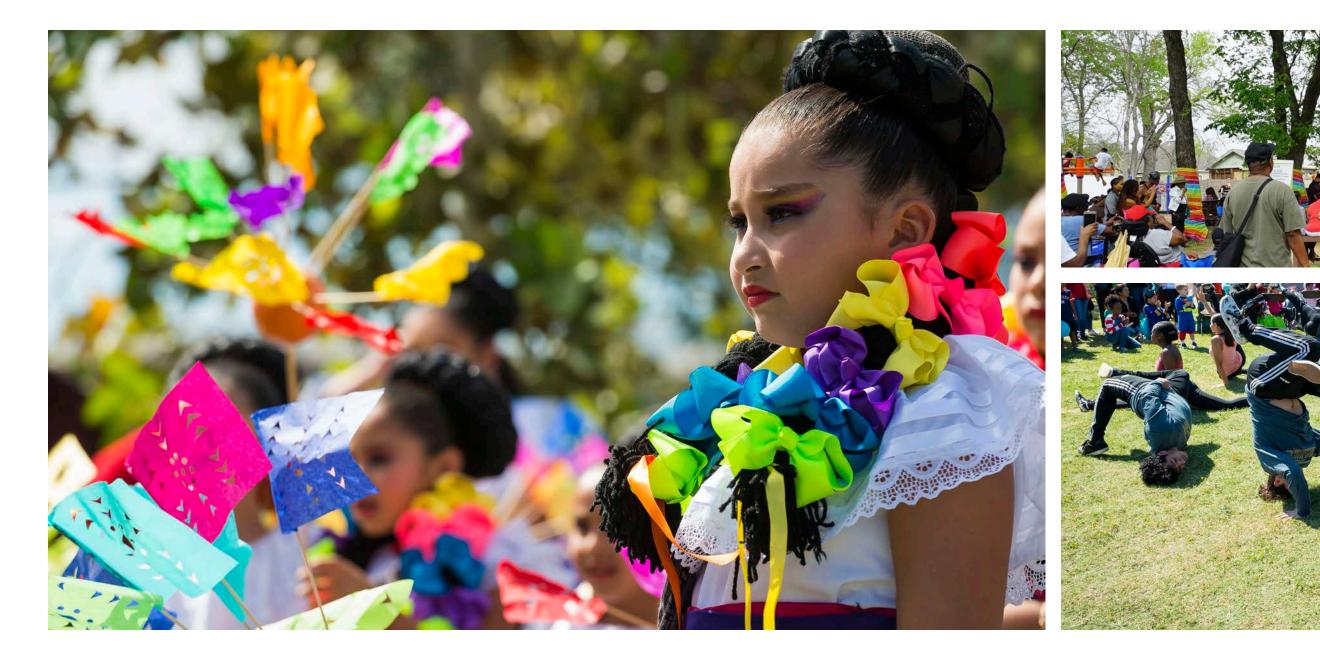
Guadalupe Plaza Park

Tony Marron Park

Port of Houston

**Turning Basin** 









## A Cultural Vibrancy

With many African-American and Mexican-American families who settled in neighborhoods along the Bayou residing there to this day, generation-spanning legacies lend a strong sense of history and identity to Buffalo Bayou East. Murals, music, dance, rich culinary traditions, and other creative expressions continue to reinforce the East Sector's unmistakable character. And with a relatively high percentage of historic structures intact, neighborhoods in Buffalo Bayou East stand in sharp contrast to other parts of Houston. Though economically disadvantaged for many years, communities in the area have been able to thrive culturally. With major corridors such as Lyons Avenue and portions of Navigation Boulevard seeing new life and activity, economic strength is beginning to mirror the area's cultural richness.







## An Industrial Landscape

While industrial activity has slowly migrated towards the Ship Channel and beyond in recent decades, active nodes still serve as important East Sector employment hubs and link the area to Houston's history as a port city. The Master Plan respects how this legacy has shaped the area and allows residents to better connect with its past. Abandoned industrial relics contribute to a fascinating interaction of natural beauty and grit, creating opportunities for inventive reuse.







## **A Natural Wonder**

Even with the concentration of residential and industrial development, Buffalo Bayou East's natural beauty is one of its greatest assets. With a wider channel and higher banks than Buffalo Bayou's western stretches, the waterway more closely resembles a true river than a lazy, meandering stream. Many of its steep banks have surprisingly dense habitats and thriving wildlife, though the proliferation of invasive species poses a challenge. These serene landscapes sit in stark contrast to Houston's often chaotic urban environment. Though much of Buffalo Bayou East lies within a stone's throw of Downtown's gleaming towers, the area's natural environment makes it feel far removed from the center of America's fourth largest city.

BBP's Buffalo Bayou East Master Plan offers a long-term vision for the area between northeastern Downtown and the Port of Houston Turning Basin. The plan envisions a network of new waterfront destinations closely integrated with existing upland neighborhoods. .....

Clinton Dr

and and and and a

Du

Harrisburg Blvd





Four core principles guided the master planning process and serve as a roadmap for the Plan's implementation. Building upon the area's rich history and character, the principles inspired designs that reflect local residents' priorities, ensure established neighborhoods remain intact, bring people to the water, and reanimate the eastern stretch of Houston's most important waterway.





#### Authentic

Built on a principle of authenticity, the East Sector Master Plan embraces the area's rich heritage, existing industrial relics, the Bayou's natural aesthetic, and art, culture, and food from the Greater East End and Fifth Ward. A diversity of places, experiences, and activities provides something for everyone, ranging from revitalized neighborhood parks to one-of-a-kind, must-see destinations.

## Connected

Buffalo Bayou East reunites neighborhoods long disconnected from their waterfront—and one another—creating a common meeting ground for all to gather, recreate, and rediscover the Bayou's beauty. New activities and green spaces break down barriers between parks and neighborhoods. Investments in critical linkages—trails, bridges, and on-street pedestrian and bike paths—connect communities to the Bayou.



## Inclusive

Recognizing parks' tremendous potential to create value, the Master Plan includes a multitude of benefits that reinforces Buffalo Bayou East's vitality. The Plan focuses on ensuring new open spaces and destinations are welcoming to longtime and newly arrived residents as well as people from across Houston and beyond. In addition to building mere park space, the Plan envisions a new economically inclusive neighborhood to provide much-needed workforce housing. The Plan also provides opportunities for economic development by engaging local businesses and community organizations as partners.

## Resilient

Buffalo Bayou East reinforces the East Sector's ability to withstand future challenges. Revitaized parks and open spaces integrate resilient design features that protect areas along the Bayou and allow them to quickly recover after future storm events. The Master Plan outlines strategies that manage stormwater, mitigate flooding, and stabilize the Bayou's banks, reducing risk for local residents and landowners. It also supports programs and resources that allow communities to thrive in the face of uncertain social, economic, health, and environmental challenges.







NEW & IMPROVED PARKS



## NEW & IMPROVED TRAILS & BIKEWAYS

**7 New** PEDESTRIAN BRIDGES

4 Miles OF ACCESSIBLE WATERFRONT

**7 New** water access points

**341 Acres** OF EXPANDED & ENHANCED TREE CANOPY

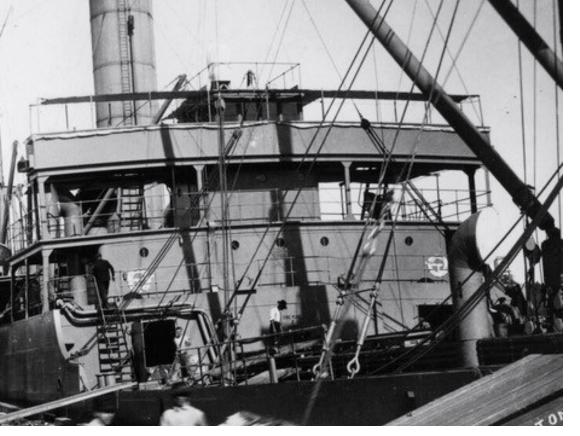


# YESTERDAY AND TODAY

Houston's rich history has been shaped by Buffalo Bayou, and the waterway east of Downtown has played a particularly important role in the city's evolution.



## HISTORY EAST : 26





## **BUFFALO BAYOU EAST'S HISTORY**

While Allen's Landing in Downtown Houston is the site most often associated with the city's founding in 1836, in fact, it was the town of Harrisburg, located at the confluence of Brays and Buffalo bayous, where Houston's founders, Augustus and John Kirby Allen, preferred to locate. Situated just below the Turning Basin, Harrisburg served as a port of entry and became known as the commercial and shipping center of the southwest. For a brief period, the city served as the Republic of Texas capital.

But the Allen Brothers settled eight miles upstream at the foot of what is now Main Street. It was here that the entrepreneurs from New York laid out Houston in a grid pattern, not oriented to the compass but to the Bayou.

Like Buffalo Bayou, railroads played a dominant role in Houston's early development. By the turn of the century, Houston was connected to a growing national network, and the city had taken as its motto: "Houston: Where 17 Railroads Meet the Sea." Continually competing with Galveston for transportation supremacy, Houston business leaders saw the need to straighten and widen the Bayou. After years of dredging and other improvements, an agreement was reached with the federal government, and on November 10, 1914, the Houston Ship Channel opened with President Woodrow Wilson pressing a button in Washington, D.C. remotely firing a canon located at the Turning Basin.

Galveston's 1900 hurricane and discovery of oil at Spindletop near Beaumont ensured Houston's future as a major trading and transportation center. With the demand for petroleum products after World War II came the development of synthetic rubber and the beginnings of Houston's vast petrochemical industry. Over the next 75 years, new technologies such as containerized shipping were pioneered, and today, the Port of Houston is one of the largest and busiest ports in the world. Along with their strong work ethic and devotion to family, early residents brought rich cultural traditions and customs that remain in the East Sector to this day.



## EAST SECTOR NEIGHBORHOODS

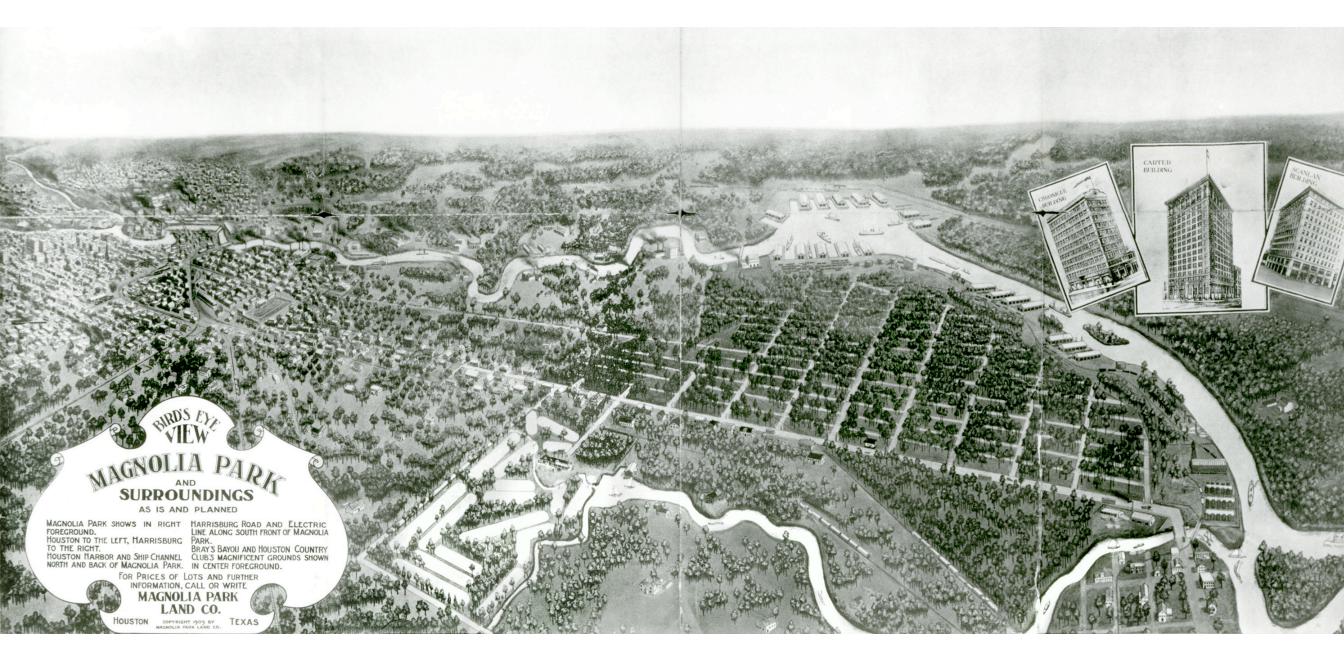
As Buffalo Bayou transitioned from a lazy stream to the transportation powerhouse it is today, so too have the neighborhoods that line its banks. Early years saw large concentrations of working class Germans, Italians, and Irish, then an influx of African-Americans and Mexican-Americans. As the railroads and the Port of Houston grew, so too did employment opportunities for these hardworking and industrious people. Eventually, thriving commercial districts sprouted up along Navigation Boulevard and Canal Street in the Greater East End and Lyons Avenue in the Fifth Ward.

Along with their strong work ethic and devotion to family, early residents brought rich cultural traditions and customs that remain in the East Sector to this day. Whether through unique food cultures, well-recognized musical talent, or expressive visual arts, the two neighborhoods are among the most culturally vibrant communities in the city. As people moved to the area, parks sprouted up along Buffalo Bayou's eastern stretch. Besides their beauty, what made the green spaces so special was the fact that they were developed by businessmen guided by a sense of civic duty and belief that natural surroundings were essential for good health. Many of these parks are long gone but are the seeds of today's green spaces.

Perhaps, above all, what makes the East Sector neighborhoods so unique are their people. Many families have roots going back generations. Residents who have long since moved away routinely return to churches and annual festivals they attended in their youth. And whether it has been Congresswoman Barbara Jordan or boxer George Foreman from the Fifth Ward or restaurateur Ninfa Lorenzo from the Second Ward, East Sector residents have always been proud of their roots.

Transition has been a constant for the East Sector. And today, change is underway once again as the area experiences rapid gentrification. With millennial newcomers moving to the working class neighborhoods, taco stands now sit next to trendy coffee shops and modest wooden bungalows next to townhomes. The story of the East Sector is truly the story of an evolving Houston.





## **A RICH HISTORICAL FOUNDATION**

As some of the oldest and most established neighborhoods in the city, a wide variety of people, places, and events have shaped the cultures and identities of Greater East End and Fifth Ward communities. The Buffalo Bayou East Master Plan draws from and builds upon the rich and colorful histories of an area that has defined Houston's relationship with Buffalo Bayou.





MAGNOLIA PARK LAND CO.

European	Germans, Italians, Jews and other Europeans lived in the Fifth Ward. 1800s			Mount Vernon     Fifth Ward was     H       United Methodist     added to the City's     C       Church was     ward system.     A       founded.     bb		Union Pacific Railroad's route between Houston and New Orleans was completed, and Creoles—a mixed-race group with European, African-American and Native American blood— began arriving from New Orleans and settled in an area that became known as Frenchtown. <b>1SSOs</b>		• 1SS3 An industrial district on the far western edge of Fifth Ward included Peden Iron and Steel, Erie City Ironworks, and James Bute Paint Company. These buildings still remain today in what is known as the "Warehouse District."	
	1830s-1840s				1860s-188	BOS	1880s		
	Germans began settling in the 15-acre Frosttown on the eastern edge of present day Second Ward and the area became known as Germantown.	• 1839 Second Ward became one of the City's original four wards.	Boulevard was founded.	• 1865 Galveston, Houston and Henderson Railroad was built through Frosttown and the area began to decline.	area between toda Street. Merkel's Gi known as Turvereir to Schuetzen or sh was the site of the	nen developed private parks in the y's Jensen Drive and North York rove was home to gymnastic clubs is while Volksfest Park was home looting clubs. Volksfest Park also first Volksfest Festival in Texas, an of German food and music.	• <b>1866</b> Attorney John Brady purchased 2,000 acres just upstream from Brays Bayou. The site included 3,500 Magnolia trees, a pavilion for concerts, a dock for pleasure boats, and three artesian springs.		• 1891 John Brady died and his company sold off lots. Within six weeks, 3,000 were sold.
		2ª Wed. House							MAGNOLIA PARK SUBDIVISION OF HOUSTON, TEXAS

- Fifth Ward
- Second Ward
- Magnolia Park





Fifth Ward's Southern Pacific Railroad shops were considered the largest in the Southwest, employing 5,000 men.

## **1900s**

#### Early 1900s

Emancipated slaves and Mexican-Americans began settling in Frosttown.

**0**1909

#### Rusk Settlement House, a social and educational center, began offering English and kindergarten classes. Its successor, Ripley House, now known as BakerRipley, provides similar services today.

#### 1910s

**0** 1911 Magnolia Park was ringed with industrial development and residents found steady employment at the Port of Houston.

#### 01912 Settegast Park opened.

0 1912

A fire destroyed a 40-square

block area, leaving hundreds

important community landmarks.

homeless and destroying

Oblate Fathers founded Our Lady of Guadalupe Church, the city's first church to offer services

in Spanish.

## 0 1915

Neighborhood had become Houston's largest barrio and had a thriving commercial district along Navigation Boulevard.

#### **0**1916

Northside Sewage Treatment Facility, one of the first activated sludge plants in the US, opened. In the early 1980s, operations moved east to a site on 69th Street.

**0** 1917 El Campo Laurel, a Mexican-American social group, organized Diez y Seis Parade to mark the anniversary of Mexican independence from Spain.













#### 01925

Pleasant Hill Baptist Church was founded.

#### 0 1928

schools in the US.

0 1927

Hahn and Clay, a 19th century blacksmith and welding shop, moved to Clinton Drive in the Fifth Ward. Today the business manufactures pressure vessels.

Phillis Wheatley High School

largest African-American high

opened and was one of the



Fifth Ward solidly became an African-American community with Lyons Avenue having over 40 African-American-owned businesses.

#### 1930s-1940s 1930s

concrete columns. To this day, the structure is the



Fifth Ward became known

1940s

as the "Barbecue Ward."

#### 01941

The DeLuxe Theater opened on Lyons Avenue, but in 1973, it closed its doors. In 2016, the renovated building began operation as a performing arts venue operated by the Fifth Ward Community Redevelopment Corporation and Texas Southern University.

construction and engineering companies,

moved its headquarters to Clinton Drive in the lower Fifth Ward along Buffalo Bayou. After a series of mergers with Halliburton and M.W. Kellogg, the company became KBR and in 1990 moved to west Houston, leaving behind its 146-acre site.

#### 0 1945

Ninfa Lorenzo opened the Rio Grande Food Products Company on Navigation Boulevard.

**0**1920 Lorenzo DeZavala School was established.

#### **6** 1926 Sisters of Divine Providence opened Our Lady of

Guadalupe School.

#### 01926

Magnolia Park is annexed by the City of Houston.



Houston businesswoman Mellie Esperson developed the Esperson Industrial District near the Bayou's Turkey Bend site along Navigation Boulevard.

## project for African-Americans, opened.

## **0** 1934

0 1939

Finnigan Park, the

park for African-

second Houston public

Americans, opened.

Kelly Court, Houston's

second housing

Residents raised funds to purchase a City landfill and transformed it into present-day Hidalgo Park. They also built a *quiosco*, a gazebo with hand-molded texturized center of community life.





#### 01947

Burt's Meat Market, still in business today, opened. Julia C. Hester House community center was founded. St. Elizabeth Hospital on Lyons Avenue opened.

#### 01949 Brown and Root, one of the world's largest

#### 01964

Civil Rights Act was passed and families began seeking opportunities outside the Fifth Ward.

#### 0 1965-1967

Expansion of I-10 and US Highway 59 cut off Lyons Avenue from Downtown and the area began a decades-long decline.



Doris McClendon operated the

Continental Lounge and Zydeco

Ninfa Lorenzo opened

Ninfa's restaurant on

Navigation Boulevard.

Ballroom on Lyons Avenue.

1960s-1980s

01973

# **IUKE BOY BONNER**

OCK WITH ME BABY E.

#### 01970s Fifth Ward became

impoverished and dangerous. and bluesman Weldon "Juke Boy" Bonner warned in his song, "Stay Off Lyons Avenue." The intersection of Lyons Avenue and Jensen Drive was referred to as "Blood Alley."

Guadalupe Plaza Park opened.

The City park was renovated by

the East End District in 2016.

#### 0 1989

**0**1988

Fifth Ward Community Redevelopment Corporation was founded and began revitalizing the neighborhood with affordable housing.



0 2010 Artists Dean Ruck and Dan Havel created Jam, a public artwork along Lyons Avenue.

0 2013

East End District developed an outdoor plaza for events and a farmers market on the Navigation Boulevard Esplanade.

#### 02017 Mayor Sylvester Turner

to participate in his

signature "Complete

Communities" Program.

selected Second Ward as one of five neighborhoods

#### 02019

Mayor Turner selected Magnolia Park to participate in the expansion of his "Complete Communities" Program.



0 1951

Susan Vaughan Clayton

first public housing. Now

by a private individual.

purchased land for Houston's

known as Clayton Homes, it

was the first complex of its kind

in the US built on land donated

Club Matinee on Lyons Avenue was considered

classic blues and R&B. Nearby was the Crystal

Hotel, one of Houston's finest African-American

1950s

one of the city's most important venues for

1950s

homes on Navigation Boulevard. These

businesses are still operated by their

Entrepreneurs Manuel Crespo and

Felix Morales developed funeral

lodging establishments.

families today.





Talento Bilingue de Houston,

an Hispanic performing arts

center on the banks of Buffalo

0 1995

Bayou, opened.



#### **BUFFALO BAYOU** EAST : 32

0 2016 Houston development company Midway announced plans for East River, a major mixed-use development along Clinton Drive on the banks of Buffalo Bayou.







Fifth Ward Community Redevelopment Corporation began to develop a public art master plan with internationallyrecognized artist Mel Chin, a Fifth Ward native.



# **BUFFALO BAYOU** EAST REIMAGINED

strian Bridge

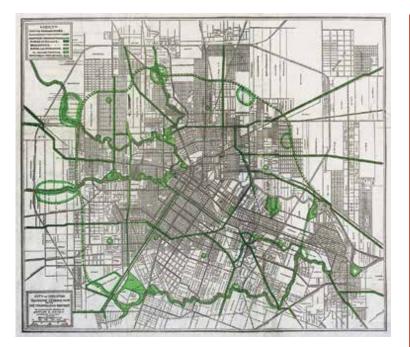
Multi-USE

Trails

- At Launch

## The backbone of a park system for Houston will naturally be its bayou creek valleys, which readily lend themselves to 'parking.'

Arthur Coleman Comey Houston: Tentative Plans for Its Development, 1912



#### A Park Plan Landscape Architect Arthur Coleman Comey's Park Plan, Early 1900s.

#### PARKS AND PLANNING: YESTERDAY AND TODAY

#### **Original Park Plan**

Like other cities such as New York, Boston and Buffalo where Frederick Law Olmstead designed park systems, Houston hired Cambridge, Massachusetts-based landscape architect Arthur Coleman Comey in 1912 to produce a plan that would guide the city's growth. In Comey's plan, Houston: Tentative Plans for Its Development, he asserted: "The backbone of a park system for Houston will naturally be its bayou creek valleys, which readily lend themselves to 'parking.'" In addition to calling for a signature green network along Buffalo Bayou's western stretch, Comey had specific recommendations for the Bayou's East Sector, including a rerouted channel and park space near present-day Turkey Bend east of Lockwood Drive along Navigation Boulevard.

#### Buffalo Bayou Partnership Planning Efforts

In 2002, Buffalo Bayou Partnership produced *Buffalo Bayou and Beyond*, a master plan that builds upon Comey's vision and other past reports prepared by the organization since its founding in 1986. Developed by a consultant team led by the late, renowned urban planner Jane Thompson, the plan envisioned a network of green spaces along Buffalo Bayou from Shepherd Drive to the Port of Houston Turning Basin.

Since that time, BBP has overseen development of an extensive network of trails and green spaces, most notably the restored \$100 million Buffalo Bayou Park completed in 2015. While most of BBP's investment in open space and trails has occurred west of Downtown, for more than a decade the organization has been acquiring property and building a nascent trail system throughout the East Sector.

#### **Buffalo Bayou East Plans**

In 2017, buoyed by the success of the existing park network to the west and progress made in the east, Buffalo Bayou Partnership began developing a community-focused master plan for the four miles of waterway from Downtown's edge to the Port of Houston Turning Basin. A high caliber team, led by Michael Van Valkenburgh Associates (MVVA), an internationally-recognized landscape architecture firm, and HR&A Advisors, industry-leading real estate, economic development, and public policy consultants, worked with BBP on this multidisciplinary planning initiative.

In planning this segment of the waterway, BBP looked to its own past plans as well as Fifth Ward Community Redevelopment Corporation and East End District plans for the area. These plans promote a variety of mobility choices and envision vibrant, mixed-use and multi-cultural neighborhoods. The plans reinforce that Buffalo Bayou is a strong community asset, central to the East Sector's growth and quality of life.

#### **Other Planning Efforts**

The Master Plan team also took into account two major infrastructure projects that will have significant impacts on portions of Buffalo Bayou East—the North Canal and the North Houston Highway Improvement Project (NHHIP).

The City of Houston and Harris County Flood Control District (HCFCD) have identified the North Canal project as one of the key infrastructure proposals for mitigating flooding on both Buffalo and White Oak bayous. By creating a bypass channel at the location where the two bayous converge in Downtown, the North Canal will significantly relieve a point where water flow is constricted, reduce upstream inundation on White Oak Bayou, and help protect major cultural assets in Downtown like the Wortham Theater Center.

With the NHHIP, the Texas Department of Transportation (TxDOT) will embark in the coming years on a major realignment of freeways through the heart of Houston. Interstate 45 will be rerouted along alignments parallel to Interstate 10 and US Highway 59. In order to mitigate the addition of impervious surfaces and address water flow issues, TxDOT will create detention ponds along the waterway and regrade its banks. The project also will include a continuous deck for a future urban park space over the below-grade roadways between Downtown and EaDo just south of Buffalo Bayou.

#### **Buffalo Bayou East Planning Process**

#### Due Diligence

Extensive on-the-ground documentation of physical, environmental, real estate, and community conditions was undertaken.

#### Engagement

BBP hosted major public events, dozens of small-scale community outreach sessions, and numerous meetings with City and County officials.

#### Analysis

Rigorous technical analysis provided a basis for design proposals, including a hydrology study of the Bayou and assessments of real estate conditions impacting neighborhood preservation and new development.

#### Planning and Design

With its international and local expertise, the design team drew inspiration from the East Sector neighborhoods, the area's unique physical context, as well as successful projects across the country and world.

#### **Implementation Planning**

Throughout the process, the team considered strategies and policies to support near-term and long-term funding and implementation for large-scale open space investment.



#### **Other Master Plans**





## Community engagement is an ever-evolving process, and BBP built upon what it had heard in the past.

#### **COMMUNITY ENGAGEMENT**

While the Buffalo Bayou East master planning effort took place from 2017-2019, BBP has been working with the Greater East End and Fifth Ward communities for more than 20 years. During this time, BBP staff has come to know residents, business owners, and civic leaders and learned of their desires, dreams, and concerns. But community engagement is an ever-evolving process, and BBP built upon what it had heard in the past.

BBP staff attended festivals, civic association meetings, and other neighborhood events to get the word out about the Buffalo Bayou East Plan.





#### **Interacting with the Community**

BBP looked for every opportunity to gather community input. It organized events for residents to share ideas such as *Encounter: Meeting Points on Buffalo Bayou*, large, text-based installations placed throughout Buffalo Bayou East presented in collaboration with the University of Houston's Graphic Design and Creative Writing programs and Cynthia Woods Mitchell Center for the Arts. BBP also participated in community engagement activities coordinated by others, such as the planning workshops hosted by the Second Ward and Magnolia Park Complete Communities, a signature neighborhood revitalization program of Mayor Sylvester Turner.





At community meetings, the planning team engaged participants in creative ways, such as with an interactive photo booth, to crowd source input. Elements of the Plan came directly from the feedback received at the meetings.



#### **BUFFALO BAYOU** ENGAGEMENT PROCESS EAST : 40

700 +PEOPLE ATTENDED FIVE MAJOR **GREATER EAST END AND FIFTH** WARD COMMUNITY MEETINGS

#### $\mathbf{30}$ COMMUNITY LEADERS ATTENDED MEETINGS TO LEARN ABOUT THE PLANNING PROCESS

 $\mathbf{20}$ **NEIGHBORHOOD RESIDENTS, BUSINESS OWNERS, AND GOVERNMENTAL REPRESENTATIVES WERE PART OF A STAKEHOLDER COMMITTEE** 









#### **BILINGUAL POSTCARDS**

WERE MAILED TO FIVE TARGETED GREATER EAST END AND FIFTH WARD ZIP CODES





#### Social Media

Social media became a powerful tool to reach a wide audience. Besides brief posts, **BBP** used Facebook Live interviews to promote the planning effort.

## 3,668TOTAL ENGAGEMENTS ON POSTS AND EVENT BOOSTS

CLICKS TO BBP WEBSITE BY SPANISH-SPEAKING RESIDENTS

clicks to BBP WEBSITE BY ENGLISH AND SPANISH-SPEAKING RESIDENTS

13,735 SPANISH-SPEAKING RESIDENTS REACHED

 $\uparrow$  **131,720** 

ENGLISH AND SPANISH-SPEAKING RESIDENTS REACHED



#### WHAT WE LEARNED

Community members provided ideas that coalesced around common projects and initiatives including: gathering spaces, community, connectivity, recreational activities, and water.

#### **Gathering Spaces**

- Provide gathering spaces for events of wide-ranging scales such as family picnics, large festivals, and outdoor movies
- Design areas to support both daytime and nighttime activities
- Create habitats that allow people to connect with nature and disconnect from their hectic lives
- Include places for outdoor farmers markets and community gardens
- Build scenic overlooks where people can view the Bayou and city





#### Community

- Preserve the East Sector's residential and industrial character
- Ensure affordability to allow longtime residents to remain
- Engage local artists
- Use food to celebrate local culture
- Develop locally-owned and operated restaurants, retail, coffee shops, and other commercial establishments
- Ensure communities feel safe and secure

#### Connectivity

- Develop continuous waterfront trails that accommodate both pedestrians and cyclists from Buffalo Bayou Park to the Port of Houston Turning Basin, Heights, and beyond
- Create north-south trails, sidewalks, and bikeways that extend into surrounding neighborhoods and link to public transportation
- Build pedestrian bridges
- Install wayfinding and interpretive signage
- Provide ample parking



#### **Recreational Activities**

- Provide sports facilities including soccer and baseball fields, basketball courts, skate parks, as well as biking and running paths
- Include bike racks, BCycle stations, and bike rental facilities
- Create places for children such as playgrounds and water play areas
- Include workout facilities and fitness stations as well as sites for group exercise classes like yoga, Zumba, and boot camp-style training

#### COMMUNITY GOALS AND ASPIRATIONS **EAST** : 42

#### Water

- Build boat launches to improve water access
- Include rental facilities for kayaks, canoes, and pleasure boats
- Lead boat tours focusing on history and nature
- Provide a circulating water taxi from Allen's Landing to the Port of Houston Turning Basin
- Support pleasure boats similar to ones found in Mexico City's floating water gardens at Xochimilco to reflect the local culture







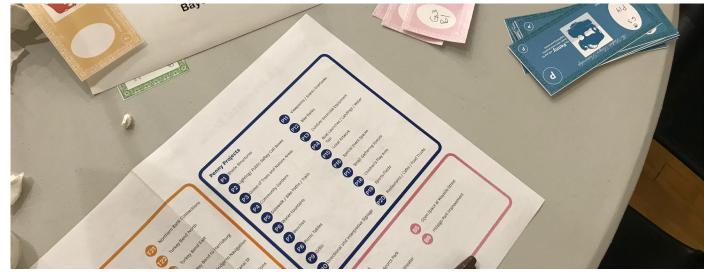
#### **ELEMENTS OF SUCCESS**

As the community determined its goals and aspirations, the Master Plan team used that feedback to develop open space concepts, destinations, and connections throughout the area.

To refine those concepts, the team charged community members with selecting which individual features and amenities would be inviting and exciting places for everyone.

Activities, such as a planning game using "Bayou Bucks," offered creative ways for community meeting participants to individually and collectively provide feedback for the Master Plan. At September 2018 community meetings, attendees spent different denominations of their "money" to prioritize East Sector improvements. The opposite page highlights the elements and features community members said they would most like to see implemented.





#### **Gathering Spaces**

Inviting and inclusive public spaces are essential to healthy communities. In order to ensure destinations support strong interactions, residents singled out essential open space features to draw people from all walks of life.

#### **Recreational Activities**

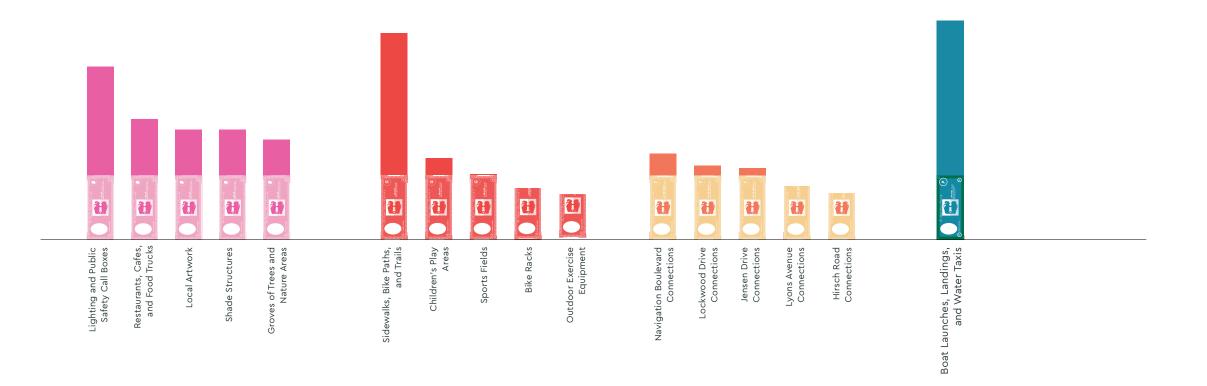
Community members identified key elements to support dynamic and exciting activities that would bring new life to the Bayou.

#### Connectivity

With Buffalo Bayou East isolated from surrounding communities and connections to it few and far between, stakeholders selected essential links to reconnect neighborhoods to the Bayou and to each other.

#### Water

With all of the different amenities that could enhance the East Sector, residents chose access to the water itself as **THE** most crucial element to strengthening Buffalo Bayou East.







### COMMUNITY FEEDBACK EXAMPLES

Rotating (?) seasonal ?? art installations Needs to have Xochimilco-BIRD Boat launch Rest stops like WATCHING park ben ches for style PARK. Older (seasoned) 4/00 Floating gardens - maybe below TBN residents. Bour develk (Activate www. Place for outdoor Maintam Event. Navigation is wide Green spaces/parks parties for Center the industrial enough to have Similar families that are higher up protected like lane to Miller. Outdoor theatre with view of bayou + seating / tables feeling ab On each site at wired and/or danstarn for freeks street - preternable The bayou aren to separate truck BBQ area Gone the Nife Misst two musics Bars the standarts Restance with PLEASE Trail Mix" More NO MORE Trails Playgrou nd Lighting Fruit @+ Nut ( BARS .. CLUBS Trees along NO "NIGHT !! Bike Trails Include Edible Front Production









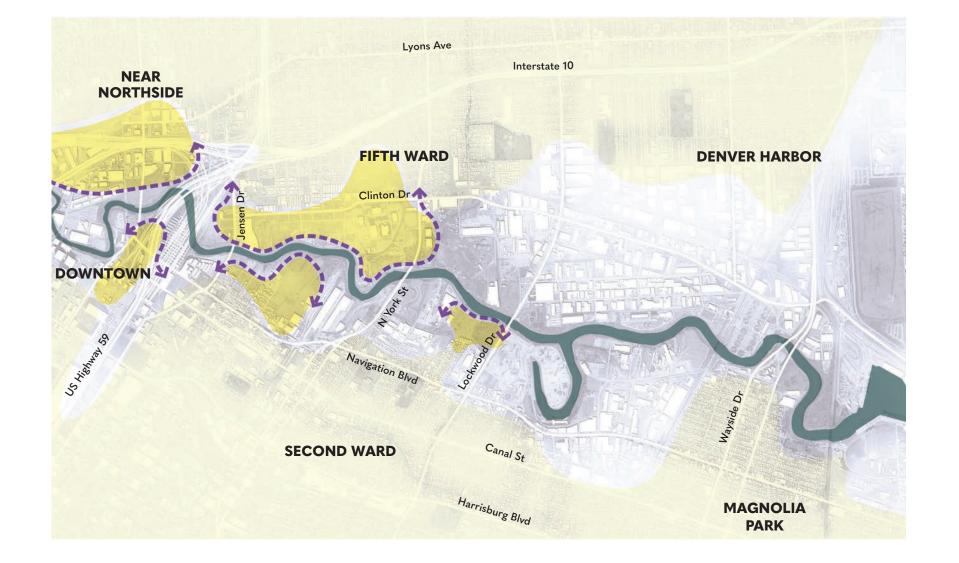
#### MOVING FORWARD: A NEW DIRECTION

Buffalo Bayou East represents a new focus for Buffalo Bayou Partnership. Very different physical and geographic characteristics from green spaces to the west mean that design solutions which activate the Bayou must consider the area's unique conditions. Using the set of guiding values, the Master Plan team worked to address several key objectives and strategies for transforming Buffalo Bayou East.

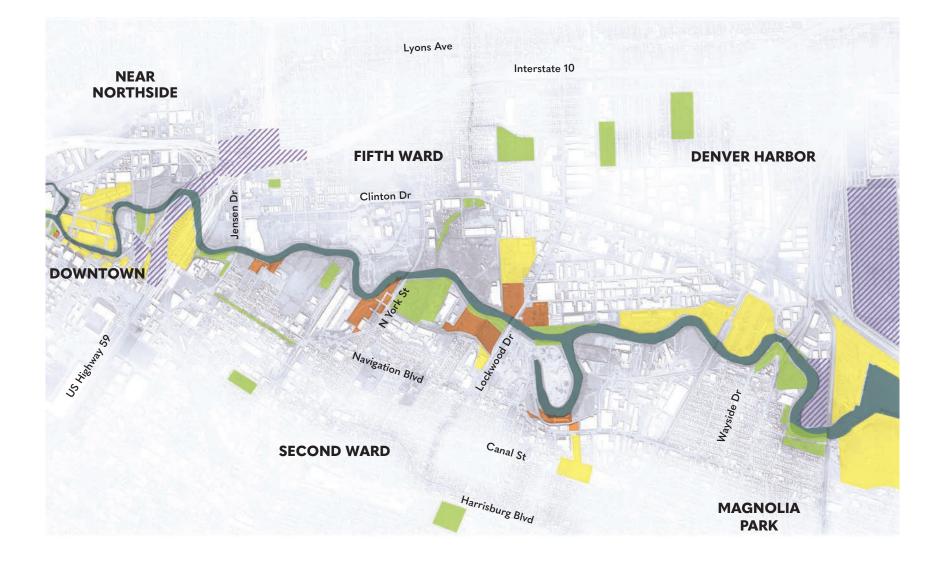


#### **Extend the Neighborhood Fabric**

- Extend new development towards Buffalo Bayou to overcome the physical separation large active and abandoned industrial tracts create between neighborhoods and the waterfront.
- Weave park space and green connections back into surrounding communities to effectively blur the distinction between park and neighborhood.



## KEY OBJECTIVES AND STRATEGIES EAST : 52



#### Leverage BBP-Owned and Publicly-Held Properties

- Take advantage of roughly 150 acres of property along the Bayou controlled by BBP and local governmental entities as core sites from which to redevelop Buffalo Bayou East.
- Look at strategic property and easement acquisitions to further bolster public access to the Bayou.



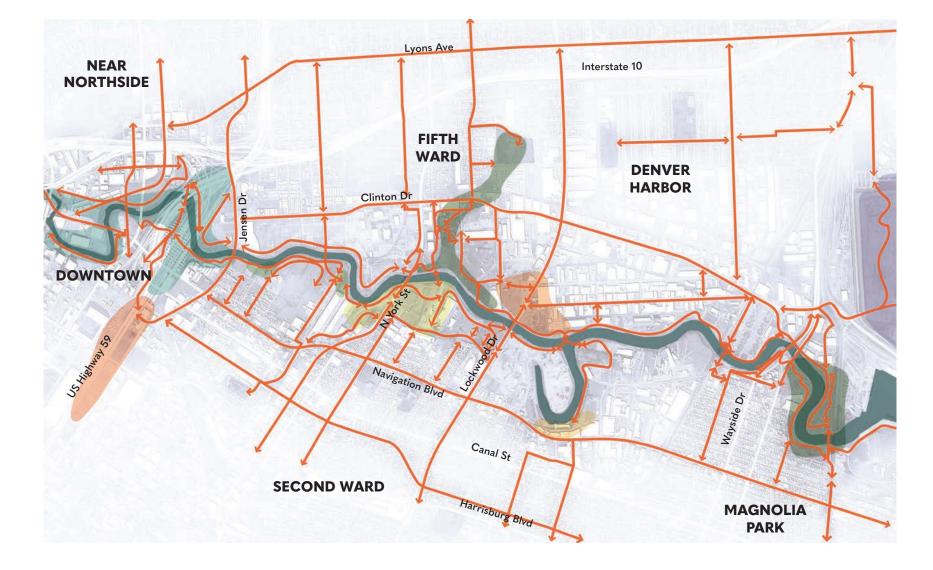


## Create a Diverse Network of Parks and Destinations

- Develop open spaces of different sizes and character throughout Buffalo Bayou East that collectively provide the same features and amenities as a large regional park.
- Focus different sites on a distinctive set of uses to create a wide range of conditions and experiences, so residents feel as though Buffalo Bayou East is part of their neighborhoods, and the area becomes a true destination for all Houstonians and visitors.



### KEY OBJECTIVES AND STRATEGIES **EAST** : 54



#### Expand Connections in Buffalo Bayou East

- Build on- and off-street trail connections to allow residents to reach the Bayou, surrounding neighborhoods, and destinations in other parts of Houston.
- Link on- and off-street pedestrian and bicycle trails to new and existing transit connections to make it possible to walk and cycle for recreation and commuting.
- Develop links parallel to but separated from the waterway where active waterfront sites continue to cut off existing neighborhoods, such as with Denver Harbor and eastern portions of the Second Ward.

Trail/On-Street Bikeway

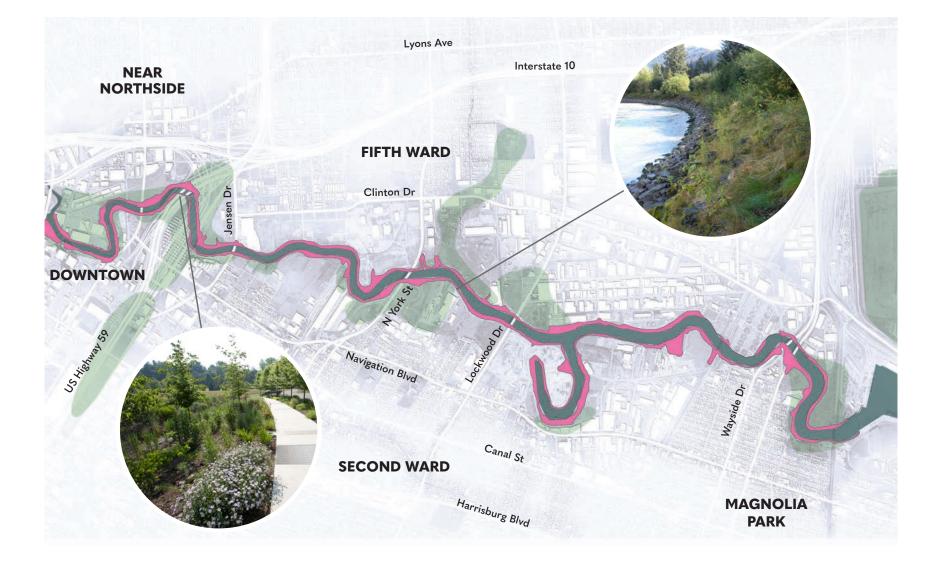


#### Develop a True Model for Economically Inclusive Communities in Houston

- Where Lockwood Drive meets the Bayou, create a waterfront neighborhood that becomes a model for inclusive economic development around parks and open space.
- Include a variety of housing typologies, from single-family homes to mid-rise multifamily apartments, that reflect existing neighborhood character.
- Connect the new development to Buffalo Bayou East through a new street grid and series of "green fingers" that extend from the waterfront into surrounding neighborhoods.
- Ensure housing is available at a range of affordable price points, bringing much-needed workforce housing to the East Sector.



## KEY OBJECTIVES AND STRATEGIES



#### **Create a Safe and Resilient Waterfront**

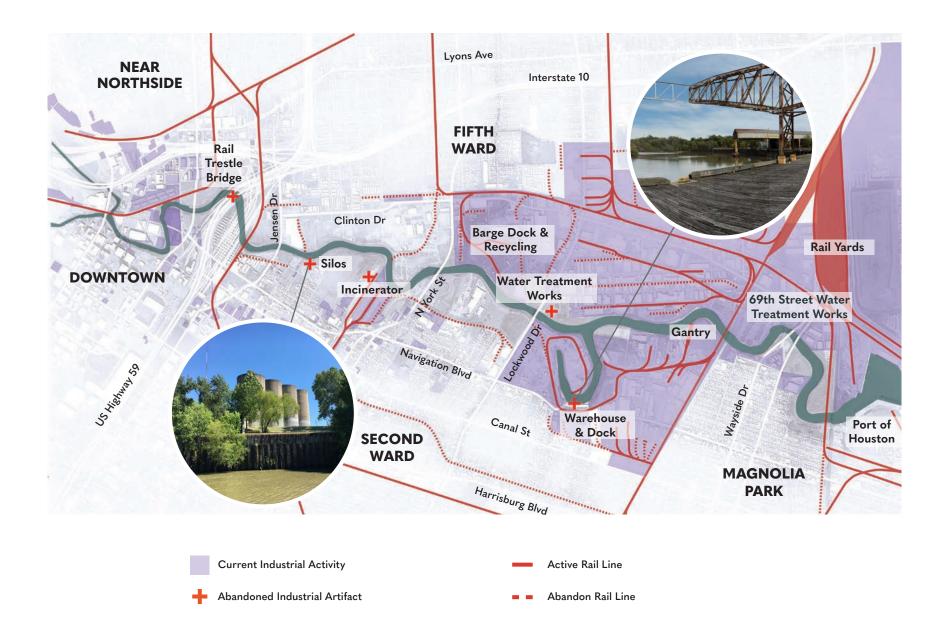
- Modify the Bayou's banks to prevent erosion without compromising biological diversity and waterfront accessibility.
- Develop new green spaces, expand the tree canopy, and replace invasive species with native plants to give residents better access to nature.

Bank Stabilization



## Repurpose the East Sector's Industrial Relics

- Celebrate Houston's legacy as a port city by transforming industrial relics into exciting new destinations. Gas Works Park in Seattle and Germany's Ruhr Valley are models of how to renovate abandoned sites into attractions for locals and visitors alike.
- Engage in programming that helps residents understand the important historical impact industry has had on the area's development.



## KEY OBJECTIVES AND STRATEGIES **EAST** : 58









#### **Preserve the East Sector's Character**

- Draw upon the many physical and intangible characteristics of the East Sector to develop destinations that reflect the area's flavor.
- Establish locations that support local events and longtime neighborhood traditions that showcase the area's dynamic culture.
- Create spaces for local businesses that reflect the community's needs and promote employment opportunities for nearby residents.



# A DAY ALONG BUFFALO BAYOU EAST

#### **Discovering Buffalo Bayou East**

Buffalo Bayou East is envisioned as a network of connected and complementary open spaces, destinations, and trails. The following pages present *A Day Along Buffalo Bayou East* to illustrate the places and experiences residents and visitors encounter as they travel up and down the Bayou.

## A DAY ALONG BUFFALO BAYOU EAST EAST : 62





#### Traveling by Water Taxi from Hidalgo Park

You walk down Hidalgo Park's new sloping lawn to the water taxi dock and embark on a short voyage up the Bayou. People are up early and are already using the new pedestrian and bicycle bridge that connects to the Port of Houston Nature Park on the Bayou's north side.







#### Learning about Nature and Infrastructure at the Water Treatment Works

At the former Lockwood Water Treatment Works, you get off the water taxi and see that the site's basins have been transformed into beautiful gardens, rich with flowers and teeming with wildlife. Visitors are relaxing on the lawns enjoying the morning sun. At an education center converted from one of the 1940s era buildings, students on a field trip learn how the gardens naturally clean stormwater runoff before it gets to the Bayou. Before leaving, you grab a bite to eat at the taco stand.







#### Watching Recreational Activities at the Adventure Park

Just beyond the Lockwood Drive Bridge, the landscape suddenly becomes wilder and less manicured. At training hills, runners of all abilities challenge themselves on grass mounds. In the distance, people scale a climbing wall at another repurposed building, while still others test their skills on a ropes course. You love the way park designers have provided a variety of activities to choose from.







#### **Exploring Japhet Creek's Natural Environment**

Japhet Creek, one of Buffalo Bayou's only remaining tributaries, emerges after a short walk along the Bayou trail. Neighborhood children are out enjoying the new nature pathway, pedestrian bridge, and tree house. You walk down stone steps, sit, and enjoy the flowing water. Heading to the street to get a BCycle, you notice the amazing community garden.

### A DAY ALONG BUFFALO BAYOU EAST EAST : 66





#### Crossing the Bayou at a Major New Park Near Downtown

Passing under the reconstructed US Highway 59, you turn to cross the repurposed railroad trestle bridge into a vast green space. Two teams face off to play soccer on the large new lawn, and you suddenly realize how close the location is to Downtown. Areas surrounding the beautiful detention ponds just to the east provide a quiet refuge from the city's hustle and bustle. Before leaving, you read an interpretive display that describes the important role detention plays during flooding events.







#### Relaxing on the Bayou's Banks at Guadalupe Plaza Park

Further east, people from all walks of life enjoy picnics at the sloped lawn at Guadalupe Plaza Park. A boat tour has just left the floating dock, and you remember how much you enjoyed seeing the Bayou from the water the last time you took the tour. You keep walking and pass the outdoor amphitheater where your favorite Tejano band often plays.

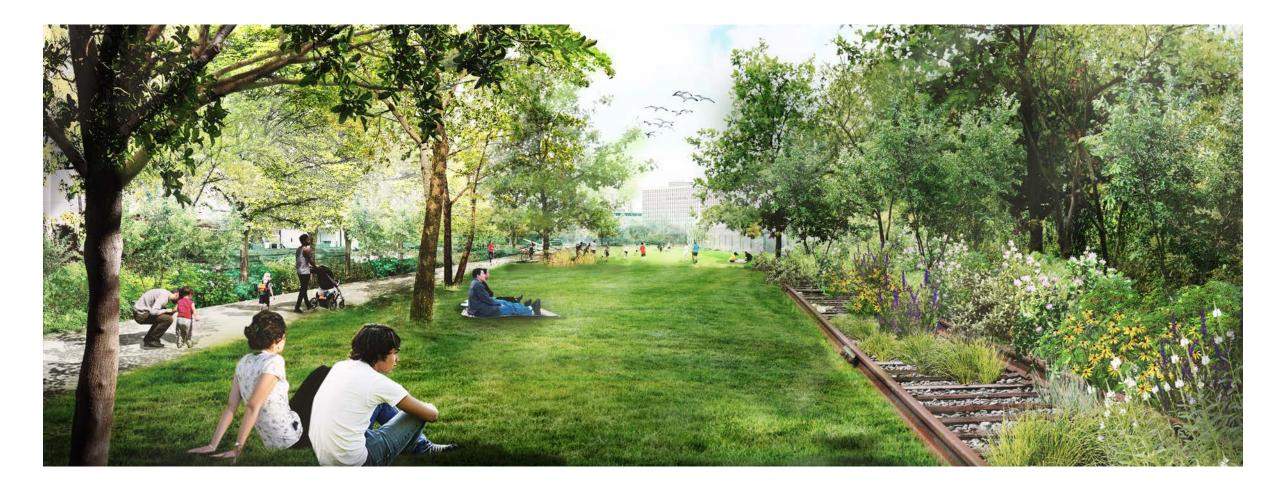






# Stopping for Lunch at the Silos

It's lunchtime. Suddenly, there is an irresistible smell of barbecue from families cooking at a community barbecue pit in a small park. One of the veteran pit masters, a longtime Fifth Ward resident, makes you a brisket sandwich with all the trimmings. He says that a local arts group will be having a multi-media show at the nearby Silos next weekend. Feeling full, you hit the Bayou trail for your next stop.





# Unwinding at the Navigation Green Finger

Walking farther east on the Bayou trail, a long green space connects back to Navigation Boulevard. The lush landscaping and plentiful shade trees on the former rail yard make a post-lunch nap on the lawn seem really tempting. It would be easy to get to all the restaurants along the Navigation Esplanade through here.







# Renting a Kayak at the North York Boating Center

You promised yourself to work out more. Running up the hills at the Lockwood Adventure Park is too challenging for me, but renting a kayak would be a great way to get some exercise. There are dragon boats out on the Bayou and a family paddling in the beautiful weather. Local residents are carrying canoes and kayaks down for an afternoon on the water. You walk up the slope to rent a kayak.







# Spending the Afternoon at Tony Marron Park

You've heard that Tony Marron Park has become one of the most exciting places to go in Buffalo Bayou East. There is a birthday party with huge piñatas and a group of teenagers playing soccer. Joining the small children splashing in the spraying water would be a lot of fun. The group of ballet folklórico dancers practicing for a big evening event is quite remarkable.

# A DAY ALONG BUFFALO BAYOU EAST EAST : 72





# Gardening at the New Lockwood South Neighborhood

You meet your friend at her new Lockwood South neighborhood home. She is outside harvesting vegetables from the communal garden. Although she has only been living here a few months, she has already joined a group of residents who go bird watching early on Saturday mornings. They then cook out later in the evening, making dishes from produce they've grown in the garden.







# Grabbing a Beer as the Sun Sets

As the sun sets over Turkey Bend, east of Lockwood Drive along Navigation Boulevard, a band is tuning up for an evening gig. Young kayakers are arriving in the water. Your friend decides to get a beer from one of the food trucks parked on the wooden dock. The view across the Bayou as it turns from bronze to indigo is mesmerizing.







# Ending the Night at Turkey Bend

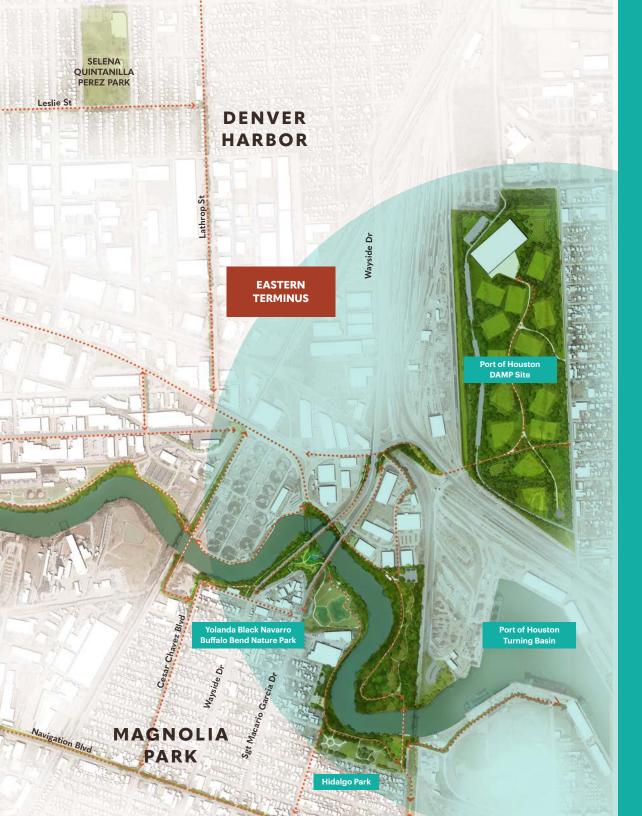
A well-known zydeco band is playing a second encore at the event shed, and dancers are going wild. You wonder if you have any energy left to join after your action-packed day. Exploring Buffalo Bayou East has been interesting and unique. There is truly nothing like it in Houston! You go to bed already planning your next "Day Along Buffalo Bayou East."



# BUFFALO BAYOU EAST TRANSFORMED ------

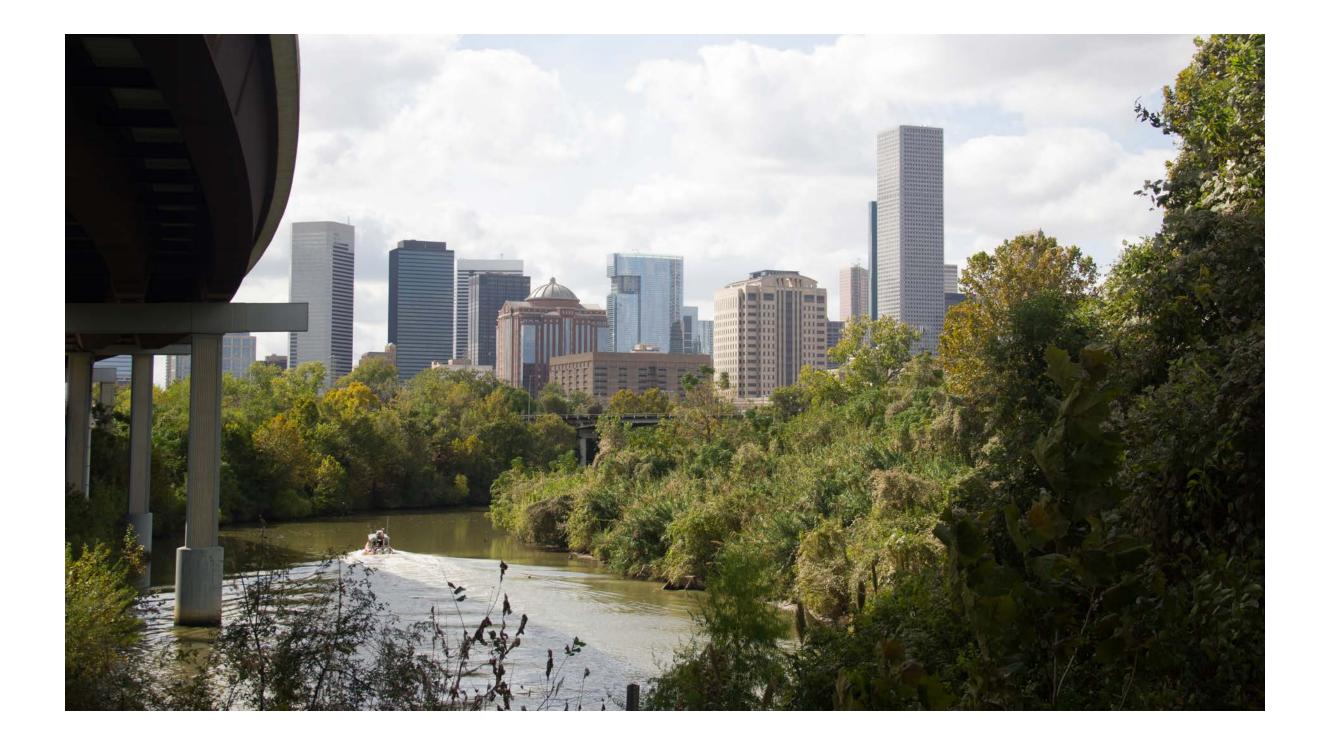




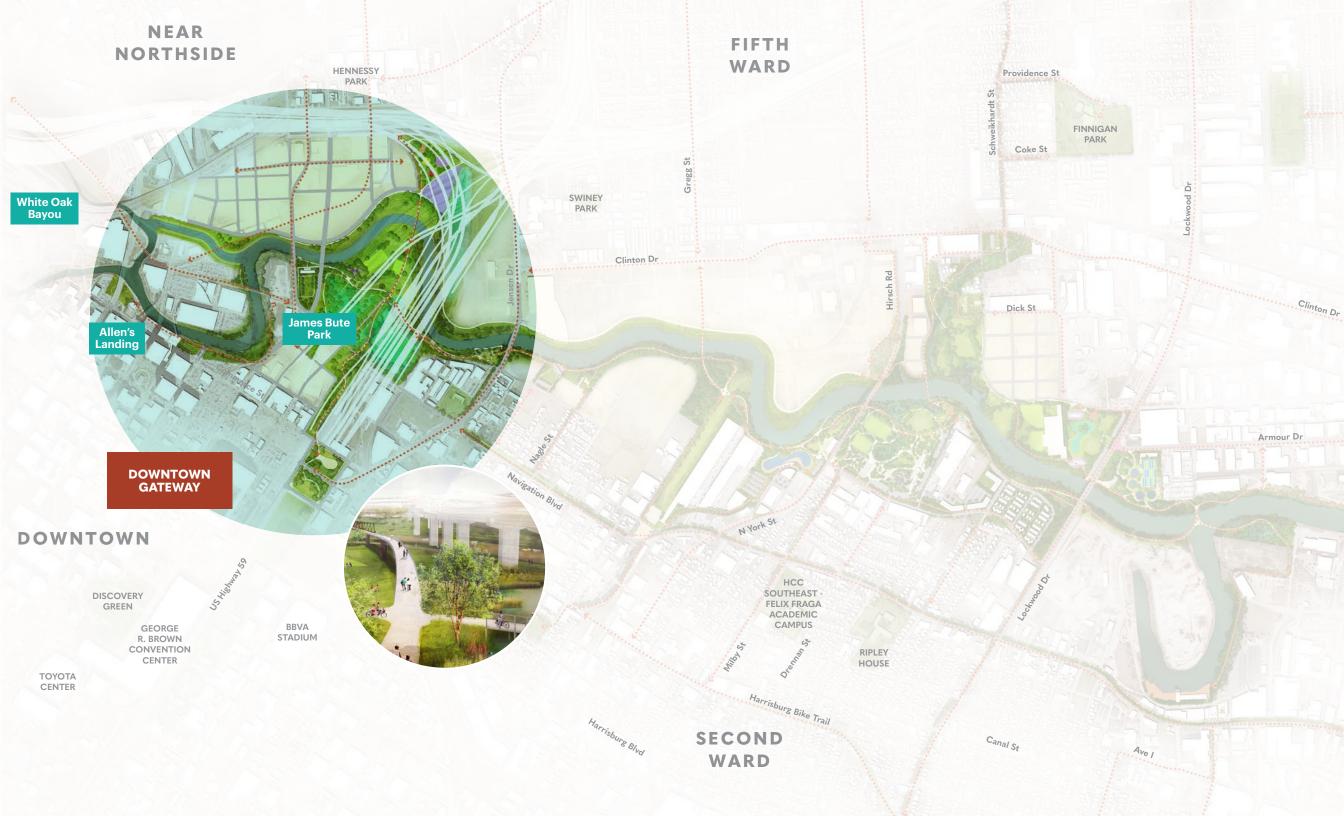


The Master Plan is divided into four key segments, each of which has a distinctive character and set of uses.

- The Downtown Gateway ties Buffalo Bayou East destinations to Downtown Houston and Buffalo Bayou Park.
- The Central Hub becomes the recreational core of the East Sector, improving existing parks, developing a new neighborhood, and creating seamless connections from adjacent communities to the waterfront.
- The Industrial District transforms legacy industrial facilities at the former Lockwood Water Treatment Works and Turkey Bend barge terminal and warehouse into exciting destinations that bring different experiences to Buffalo Bayou.
- **Eastern Terminus** upgrades link what is currently a set of disconnected open spaces into a cohesive destination that anchors the area adjacent to the Port of Houston Turning Basin.



# DOWNTOWN GATEWAY









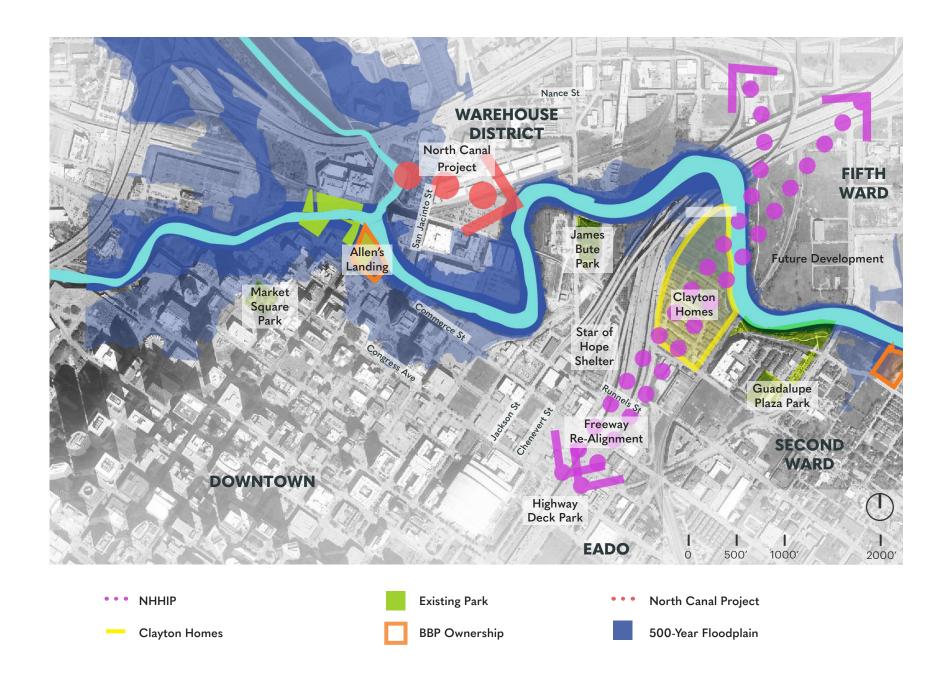
## Bridge between East and West

Major infrastructure projects proposed for Downtown Houston offer a once-in-a-lifetime opportunity to create an exciting gateway to Buffalo Bayou East. New open spaces and connections adjacent to these upgrades in the northeastern corner of Downtown and areas just east of US Highway 59 link the East Sector to destinations farther west such as Buffalo Bayou Park. The planned improvements demonstrate how urban infrastructure projects can go beyond their strictly functional uses to incorporate green space amenities that serve the broader community.



#### Impact of Major Infrastructure Projects

- Allen's Landing currently marks the eastern limit of the existing Downtown trail system.
- TxDOT's North Houston Highway Improvement Project (NHHIP) will significantly reroute major freeways around Downtown and change Buffalo Bayou bank conditions.
- The proposed Downtown deck park over the reconstructed freeway between Downtown and EaDo will alter access routes to the Bayou.
- The North Canal, a planned hydrological connection between White Oak and Buffalo bayous, and other flood and erosion mitigation measures will improve new and existing waterfront areas.
- As the Bayou moves east from Downtown, its banks become steeper, and fewer parcels fall within the 500-year floodplain.
- Bank erosion is extensive throughout the area with some stretches of the embankments shifting almost 100 feet during Hurricane Harvey.



# EXISTING CONDITIONS AND FUTURE INFRASTRUCTURE IMPROVEMENTS

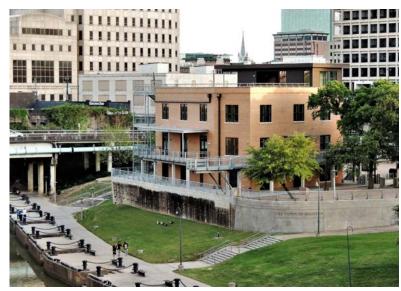


Building Through Which Future Downtown Trail Will Pass

Freeway Ramps Near Star of Hope Shelter

Extensive Bank Erosion





Sunset Coffee Building at Allen's Landing

James Bute Park

# Create a Front Door to Buffalo Bayou from Downtown

This stretch of Buffalo Bayou becomes the primary gateway to Buffalo Bayou East from Downtown's convention and entertainment district. Improvements in this area require close collaboration between BBP and a variety of public entities. Key plan components include:

- The North Canal (1) is required for flood mitigation and increases the bayou-frontage of the Warehouse District (12) opposite the renewed James Bute Park (4,5).
- TxDOT's planned freeway reconstruction provides the opportunity for detention that creates valuable habitat **(7)**.
- Widening the main Bayou channel to mitigate flooding and erosion allows generous bayou lawns to be built, creating an open space gateway to Sesquicentennial Park, Sabine Promenade, and Buffalo Bayou Park upstream and Buffalo Bayou East downstream **(8,9)**.
- Connecting the new highway deck park

   (11) to the Bayou through a greenway and extended urban grid (6,10) allows people to walk or cycle on a grade-separated trail from Downtown. The existing rail bridge (13), repurposed for pedestrians and bicycles, improves connectivity across to the Near Northside and Fifth Ward.



Downtown Gateway

# DOWNTOWN 2 US Highway 59 12 FIFTH WARD WAREHOUSE DISTRICT



# SITE PERSPECTIVE AND CONCEPT PLANE BAYOU : S6 PLAN COMPONENTS 1 North Canal 2 Allen's Landing 3 Trail Connection & Enhanced Habitat 4 Sports Field 5 James Bute Park

- 6 Downtown Development
- 7 Detention Basin
- 8 Recreation Lawn
- 9 Sloped Bayou Lawn
- 10 Greenway Connection
- 11 Deck Park View Point
- 12 Warehouse District Development
- 13 Pedestrian Bridge



# **CENTRAL HUB**





# SELENA QUINTANILLA PEREZ PARK Leslie St DENVER HARBOR Navigation Blvd MAGNO PARK

## Expand and Improve Neighborhood Parks into an Open Space Core

Develop Tony Marron Park and Japhet Creek into the heart of Buffalo Bayou East and bring neighborhoods closer to the waterway.

Key plan components include:

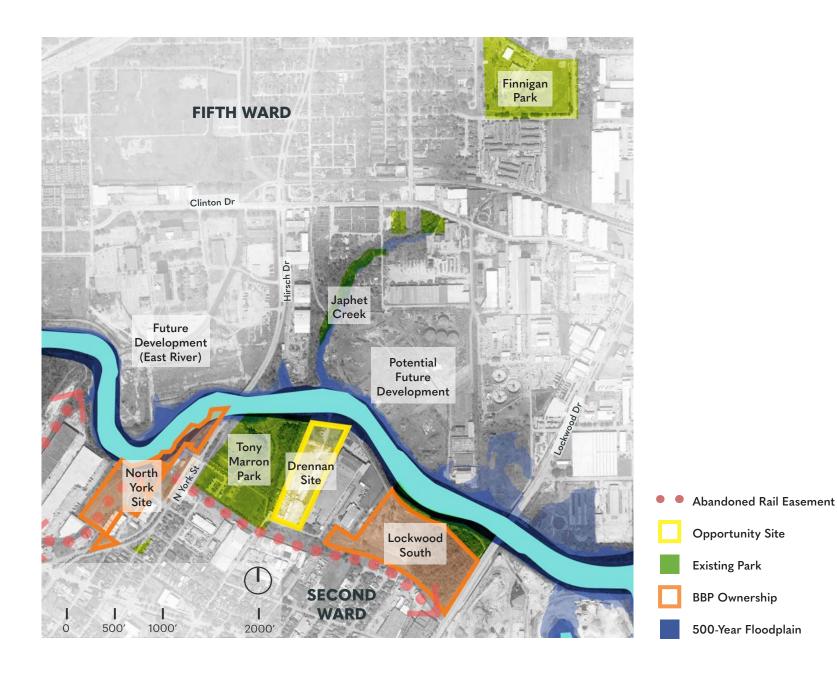
- An expanded and improved Tony Marron Park directly linked to trails and nature play elements of Japhet Creek functions as THE open space anchor for residents of the Greater East End and Fifth Ward.
- Extending the neighborhood fabric to the water's edge at the proposed Lockwood South development and enhancing trail connections along and across Buffalo Bayou increases accessibility for East Sector residents.
- Converting the abandoned rail easement between North York Street and Lockwood Drive into a pedestrian, bike, and vehicular corridor significantly increases accessibility of major destinations in Buffalo Bayou East.



# Buffalo Bayou Separated From Surrounding Neighborhoods

Tony Marron Park is centrally located for both the Greater East End and Fifth Ward but is physically disconnected from these residential areas. Its facilities, though fairly well utilized, are quite limited.

- Properties like the BBP-owned North York Street site and the City-owned Drennan Street site next to Tony Marron Park remain undeveloped.
- Continued industrial activity limits connections into surrounding neighborhoods.
- Japhet Creek, one of Buffalo Bayou's few remaining natural tributaries, between Clinton Drive and the Bayou, is almost entirely hidden from public view and is largely inaccessible.
- BBP's property along the south bank at Lockwood Drive is completely undeveloped and has direct access to both the waterfront and adjacent neighborhood.
- A rail easement between North York Street and Lockwood Drive sits abandoned.
- Steep banks in the area contain the 500-year floodplain close to the Bayou.







North York Site

Japhet Creek



Tony Marron Park's Sports Fields

# Create One of Houston's Best Neighborhood Parks

An expanded and improved Tony Marron Park becomes a gathering place for Greater East End and Fifth Ward residents and serves as the primary green space destination for all of Buffalo Bayou East.

- At the North York Street site, a swimming hole

   (1)\* and beach (2)\* become one of the most unique destinations on the Bayou.
- An event plaza and picnic lawn (3) on the North York Street property allow residents to congregate while a boat launch (4) provides access to water activities.
- Upgrades to the existing Tony Marron Park include new entry gardens connecting to North York Street (5), enhanced playing fields (6), improved habitat areas (7), a new playground (8), and water play area (9).
- Existing buildings on the City-owned Drennan Street site, refurbished as picnic pavilions (10) for a food truck court, support community events and activities in the Fiesta Plaza (11).
- Shade structures distributed throughout the park encourage families to come for birthdays, picnics, and other celebrations. A pedestrian bridge connects the park to Japhet Creek (12).

\*Note: These projects will be funded, developed, and operated by Friends of the Swimming Hole.



Tony Marron Park Recreation Area



Tony Marron Park Green Space







# TONY MARRON PARK | PLAN OVERVIEW EAS



# PLAN COMPONENTS



#### Build a Swimming Hole for the City

A swimming hole gives local residents a refreshing break from the summer heat and allows people from nearby neighborhoods and across the region to congregate in a new civic commons that embraces Houston's climate.

- Three acres of water can accommodate large numbers of people and groups varying in size.
- Ample beaches and lawns surrounding the man-made swimming hole let people relax.
- Food and beverage concessions allow visitors to spend all day enjoying activities in and near the water.
- Movies, concerts, and performances are hosted at the facility.
- A pool house provides convenient changing facilities, showers, and lockers.

Note: This project will be funded, developed, and operated by Friends of the Swimming Hole.



Swimming Hole



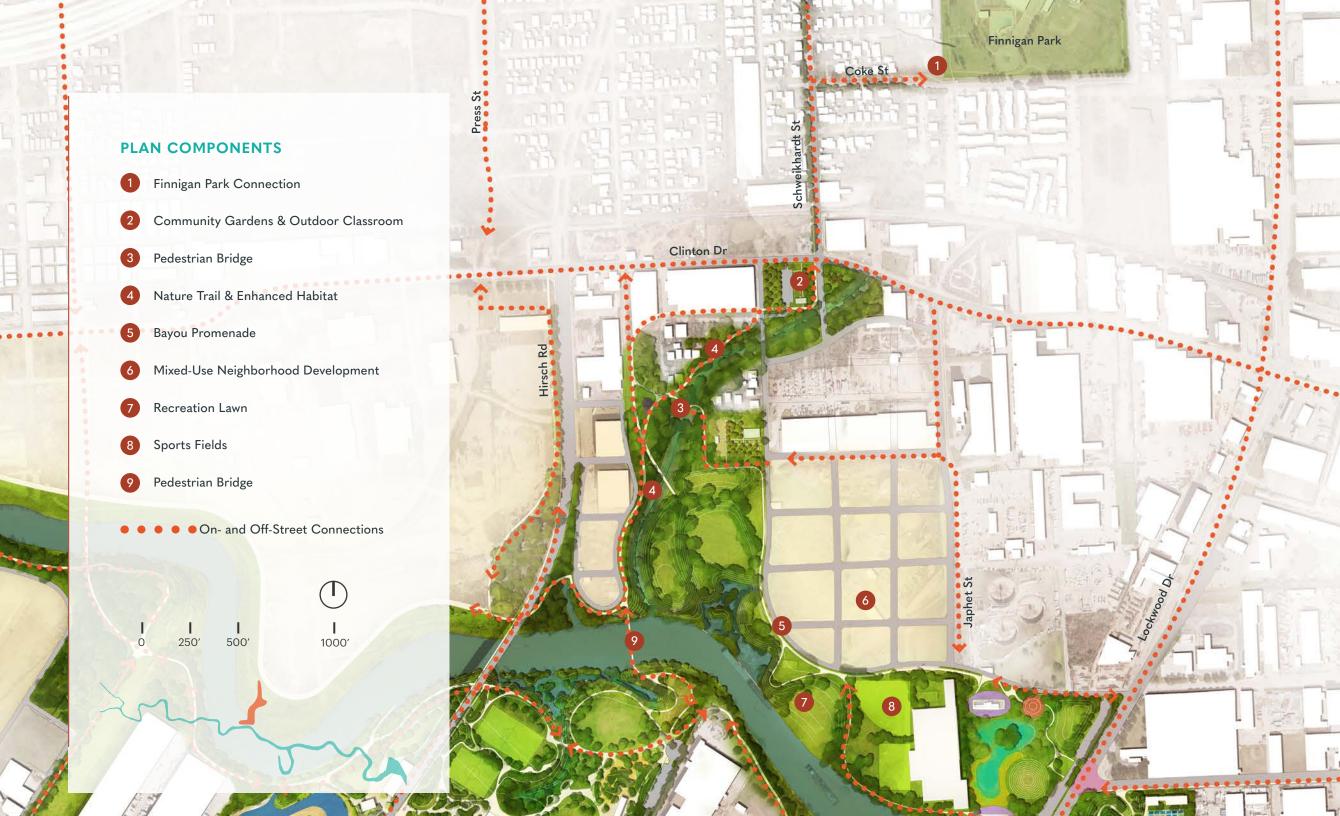
# Reestablish a Natural Connection from Fifth Ward to the Bayou

Before the development of this part of the city, Japhet Creek was a Bayou tributary, stretching north, deep into the Fifth Ward. The creek is now only visible south of Clinton Drive. By restoring it and providing residents better access, Japhet Creek can serve as a key connection to Buffalo Bayou.

- New pedestrian and bike trails (1) along Schweikhardt and Coke streets connect to Finnigan Park and Lyons Avenue and arrive at a Bayou trailhead with parking, community gardens, and an outdoor classroom (2).
- Nature trails lead along the creek and cross at a new pedestrian bridge (3), linking a series of nature play and interpretive elements (4) that extend to the Bayou. These upgrades integrate with the urban farm St. Catherine's Montessori School is developing in the area.
- In the long-term, redevelopment of the adjacent industrial site (6) includes a publicly accessible Bayou promenade (5), and open space designed to attract neighbors from the Fifth Ward. Amenities could include recreation lawns and sports fields (7,8).
- A pedestrian bridge across the Bayou (9) links Japhet Creek seamlessly to Tony Marron Park.



Nature Trails Along Japhet Creek



Finnigan

Park

Cleme Manor Housing Development

Clinton Dr

lirsch Rd

C

Pedestrian Bridge

F

E

0.0.

Tony Marron Park

#### JAPHET CREEK | ACTIVITIES AND AMENITIES





B



B Nature Play



C Tree House





A Community Garden







**F** Sports Fields

# Develop an Economically Inclusive Neighborhood at Lockwood South

A new residential development along the south bank of Buffalo Bayou near Lockwood Drive is among Houston's first inclusive, mixed-income neighborhoods.

- New single and multifamily residences (6,7), including affordable and workforce housing, generate activity and density to build a critical mass of Bayou users.
- The neighborhood plan thoroughly integrates new dwellings with surrounding green spaces (1-5) and adjacent existing housing to stitch historically disconnected communities to the waterfront.
- Lockwood South incorporates Low Impact Design (LID) features, such as permeable pavement and over four acres of stormwater detention capacity.
- Strong design guidelines promote welcoming housing and public realm environments.
- Creative financing measures can provide revenue for park capital investment and operations.



"Green Finger" Through Lockwood South



### **Development Overview**

Over half of all dwellings at Lockwood South are to be designated workforce housing with price points consistent with surrounding neighborhoods. Lockwood Dr

Four acres of open space, including public waterfront parkland and "green fingers" link upland communities to the Bayou.

### LOCKWOOD SOUTH NEIGHBORHOOD | ACTIVITIES AND AMENITIES **BUFFALO BAYOU** : 106



A Single-family Housing



B Bayou Promenade

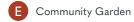


**C** "Green Finger"

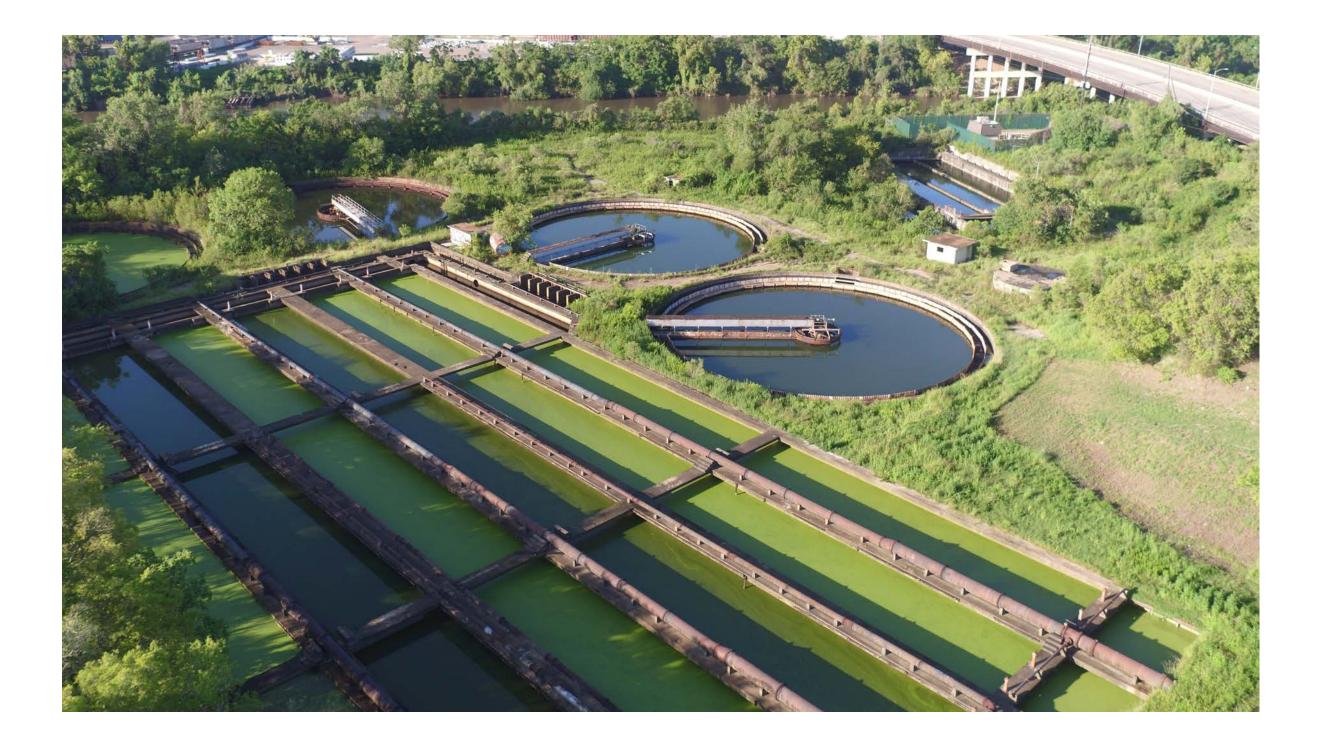








**F** Enhanced Habitat



# INDUSTRIAL DISTRICT







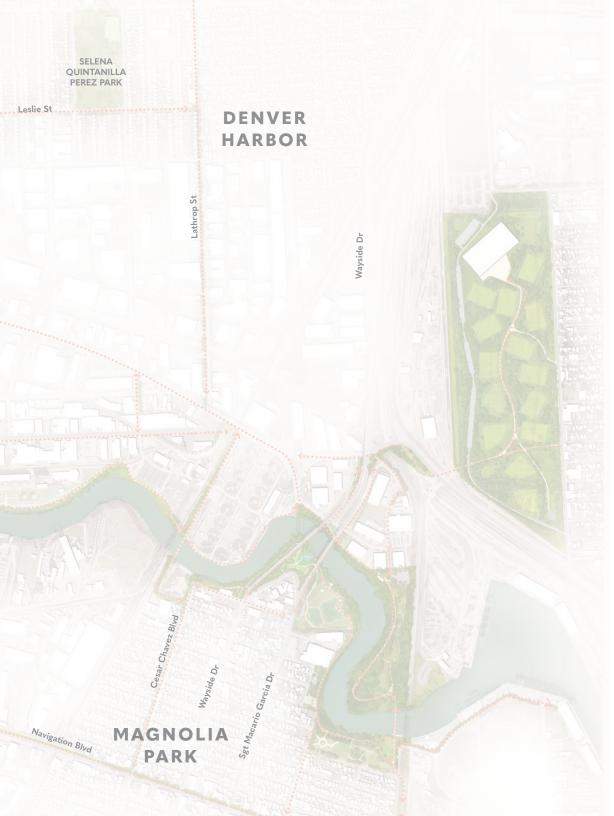
#### **Transform Industrial Assets into Regional Attractions**

Legacy industrial structures, repurposed with exciting new uses, become key destinations for the Houston region.

Key plan components include:

- The former Lockwood Drive Water Treatment Works, owned by BBP, include water gardens and an adventure park.
- The complex of warehouses, gantries, and large wooden wharf on BBP's Turkey Bend property becomes an arts and events venue and neighborhood gathering space.
- Connections along the Bayou and into existing communities create a strong armature around which neighborhood development can grow.

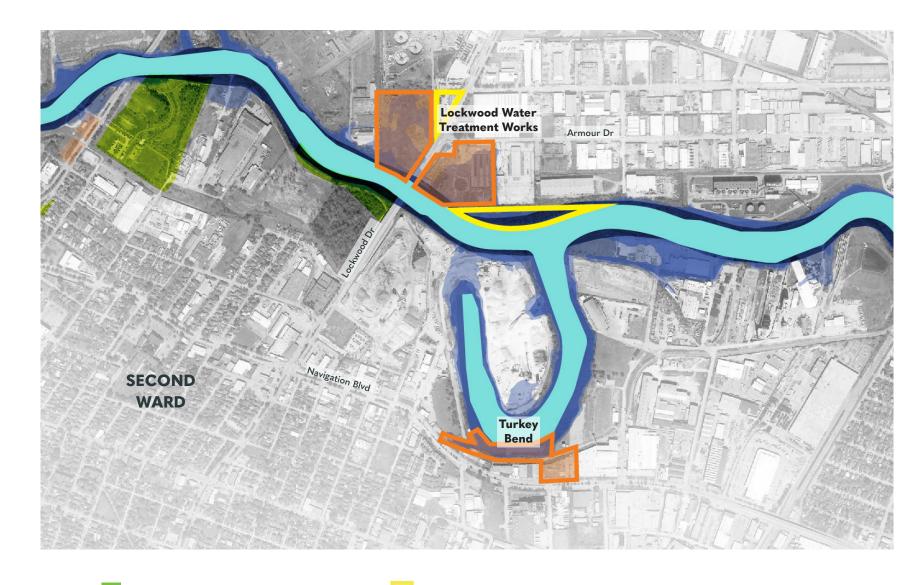




## Abandoned Industrial Sites Along the Waterfront

Many properties along this stretch of the Bayou include facilities and structures that are visually dramatic.

- Large water processing basins and abandoned buildings on BBP's Lockwood Water Treatment Works site present unique opportunities for rehabilitation.
- A Navigation Boulevard warehouse and the wharf, gantries, and large waterfront shed at BBP's Turkey Bend site offer spaces adaptable to a variety of uses.
- Key access points to the Turkey Bend wharf provide strategic links between the waterfront and established neighborhoods.
- Large industrial parcels—some of which are still active—limit access and the ability to create connections to and along the Bayou.
- Though the limits of the 500-year floodplain remain close to the Bayou, flooding does impact areas such as the wharf and waterfront structures at BBP's Turkey Bend site and portions of the Lockwood Water Treatment Works.





Opportunity Site

**BBP** Ownership

500-Year Floodplain







Water Treatment Works East of Lockwood Drive

Water Treatment Works West of Lockwood Drive

Active Industry





Navigation Boulevard Warehouse

Turkey Bend Wharf

### Introduce Nature into an Industrial Relic

Transform the former Lockwood Water Treatment Works into water gardens.

- On the east side of Lockwood Drive, repurposed industrial artifacts of the Water Treatment Works host botanical displays, water gardens, and experimental stormwater cleansing basins (1-3).
- Main buildings along Armour Drive house a small visitor center, event space, and café **(5)**.
- A boat dock for water access links these sites to others on the Bayou (6) as well as to a new transit stop on Lockwood Drive and connects destinations and trails to the Second and Fifth Ward neighborhoods.



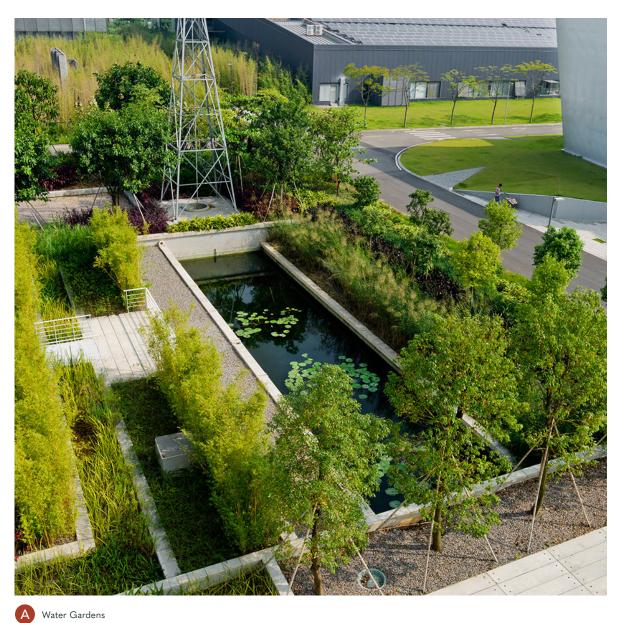
Lockwood Water Treatment Gardens













B Botanical Display





#### **Provide Facilities for Adventure Sports**

Convert former industrial site owned by BBP into an adventure and extreme sports park including activities that attract users of all ages and abilities from nearby neighborhoods and from throughout the region.

- The park includes a series of training hills (2), obstacle and ropes courses (6), and facilities and equipment for people with limited mobility.
- Though most of the industrial structures are gone, two remaining concrete buildings become a ticket office and picnic pavilion (1,7).



Lockwood Adventure Park





### PLAN COMPONENTS





### Develop a Community Arts and Events Center at Turkey Bend

A Navigation Boulevard renovated warehouse owned by BBP hosts activities that foster creativity and community, while the wharf and waterfront structures allow residents and visitors to congregate for events and gatherings.

- A warehouse accommodates community art and event facilities, possible incubator space for nurturing neighborhood businesses, and spaces for food service (1).
- The timber wharf and industrial shed (3) along the water serve as event and gathering spaces as well as a boating center for the Rice Crew team, Texas Dragon Boat Association, and the general public (4).
- A three-way "tripod" bridge at the mouth of Turkey Bend connects the property to nearby trails on the north and south banks and provides spectacular views over the Bayou to Downtown (5).
- Links between the north and south bank trails connect the Turkey Bend event and community center to other Buffalo Bayou East destinations (6).
- The protected oxbow off of Buffalo Bayou's main channel allows boaters to explore the water in a safe environment (7).
- Transformation of Navigation Boulevard into a linear greenway (8) improves pedestrian and bicycle connections and allows for outdoor events and activities in the plaza in front of the warehouse building (2).



Outdoor Gathering Space Along the Wharf



Activated Boat Launch and Community Gathering Space





#### TURKEY BEND EVENT AND COMMUNITY CENTER | ACTIVITIES AND AMENITIES





B Event Space







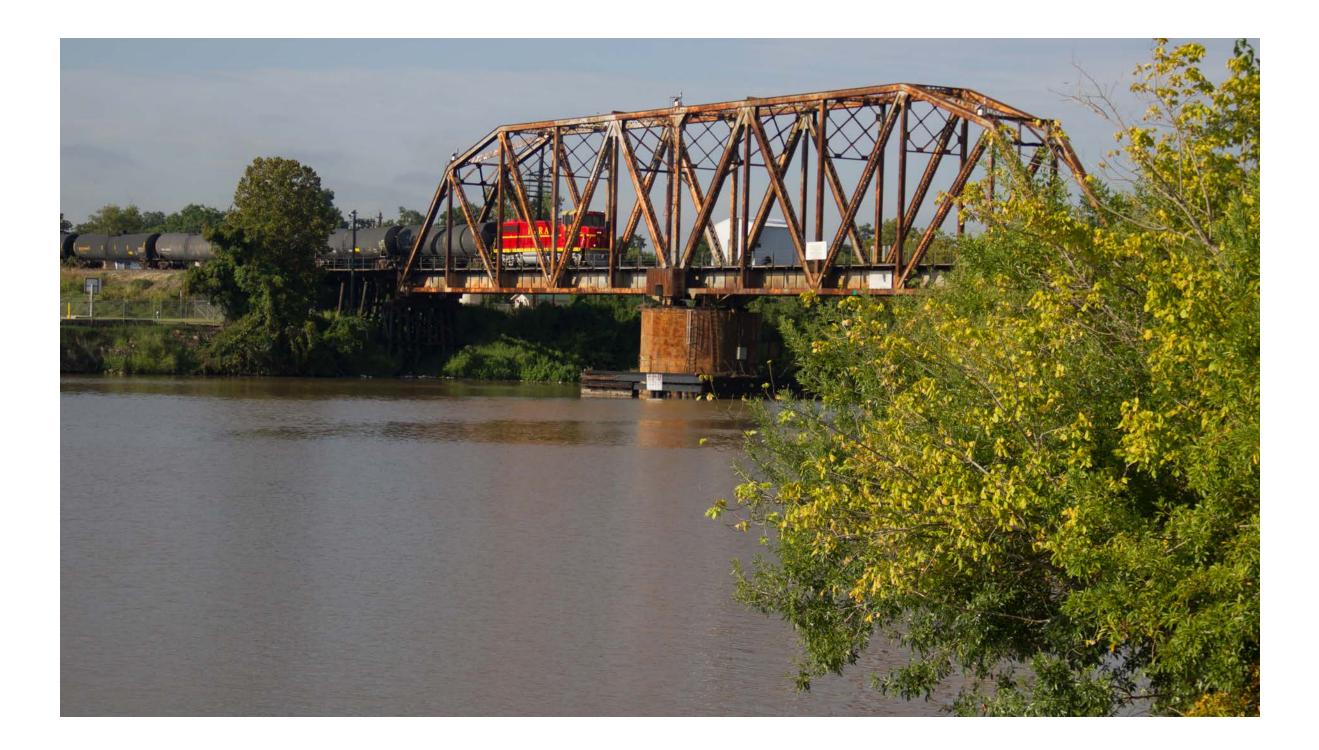




A Small Neighborhood Business

F Vendor Space

C On-Street Bikeway



# EASTERN TERMINUS





### **Connect Open Spaces to Neighborhoods and Each Other**

New links tie disconnected open spaces adjacent to the Port of Houston Turning Basin into a larger neighborhood destination and link the Port of Houston Dredged Material Placement Area (DAMP) site east of Denver Harbor to the Bayou with trails.

- Connections between an expanded Yolanda Black Navarro Buffalo Bend Nature Park, an enhanced Hidalgo Park, and a newly developed Port of Houston nature park create an open space anchor at the far eastern edge of Buffalo Bayou East.
- A link to the Port of Houston DAMP site ties the neighborhoods of Magnolia Park and Denver Harbor together should the site be fully decommissioned in the future.

**AREA OVERVIEW** 

**BUFFALO BAYOU** 

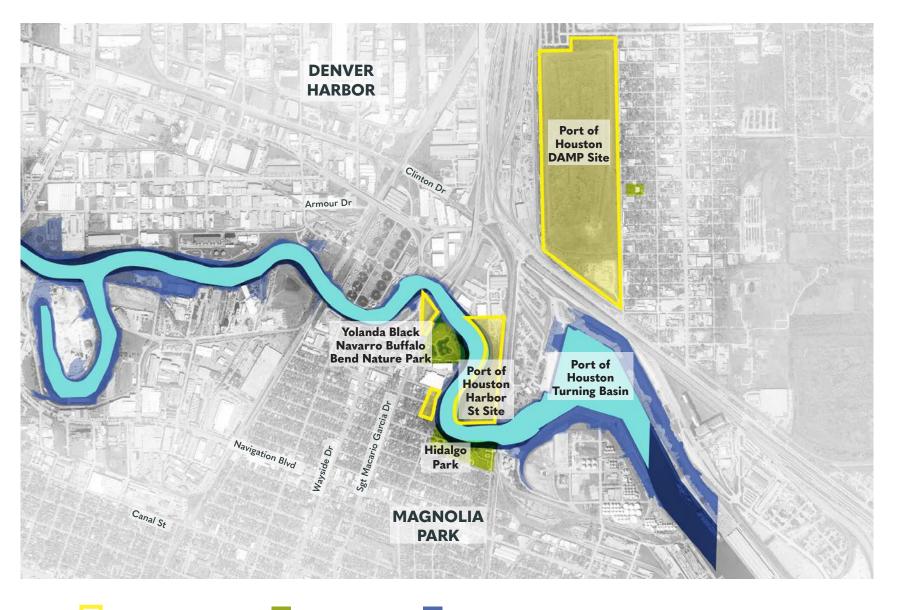
EAST : 126

 Trails connect Buffalo Bayou to surrounding neighborhoods and other trail networks such as the Sunset Rail Trail and the Brays Bayou Greenway.



### Open Spaces Disconnected from Each Other

- Yolanda Black Navarro Buffalo Bend Nature Park is cut off from the surrounding neighborhood and Hidalgo Park.
- The undeveloped Port of Houston Harbor Street site sits in a largely natural state. Its location on the northern Bayou bank next to an active rail line makes it difficult to access.
- The inactive Dredged Material Placement Area (DAMP) site, which has been used by Port Houston to store dredge material, occupies a strategic location with possible connections to the neighborhoods farther east.
- The 500-year floodplain remains close to the Bayou throughout the area.







Yolanda Black Navarro Buffalo Bend Nature Park

Wayside Drive Bridge

Hidalgo Park





Port of Houston DAMP Site

Port of Houston Harbor Street Site

#### Link Disconnected Green Spaces

Enhanced and expanded destinations adjacent to the Turning Basin act as an eastern terminus, while trails continue east to provide connections along the waterfront and between these spaces.

- A trailhead with parking, enhanced habitat, and a picnic grove beneath Wayside Drive Bridge (1) provides a new waterfront open space in the Magnolia Park neighborhood.
- An enhanced trail connection between Yolanda Black Navarro Buffalo Bend Nature Park and Hidalgo Park (2) creates a much larger green space destination that links directly to surrounding neighborhoods.
- A new sloped lawn at Hidalgo Park opens up views to the Bayou and supports an accessible path down to a new boat dock (3).
- A new pedestrian bridge (4) adjacent to the existing rail trestle bridge further expands the green space to a new nature park with its own trailhead and nature pavilion (5-7) on the Port of Houston Harbor Street site as well as to the Sam Houston boat tour embarkation point (8).
- Trails up to Wayside Drive and towards the Port of Houston DAMP site improve pedestrian and bicycle connectivity in an industrial area that is currently challenging for non-vehicular movement.

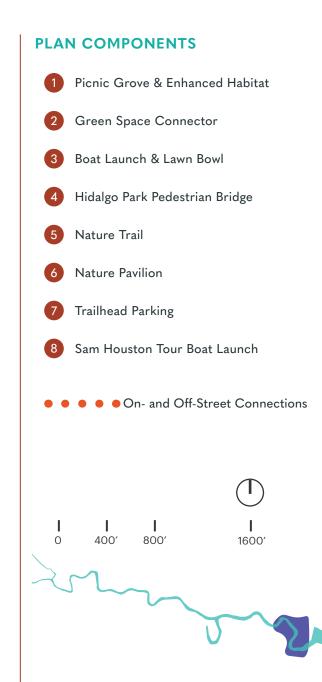


Hidalgo Park and Pedestrian Bridge to Port of Houston Nature Park

### BUFFALO BEND TO HIDALGO | SITE PLAN AND CONCEPT







### Establish a Regional Sports Park

Transform the DAMP site into a regional destination for sports.

- A landform and pedestrian bridge connects across streets and freight rail lines (1) to the Port of Houston DAMP site.
- The elevated site's ample size and level top host a regional- and national-scale sports park.
- Parking and convenient connections to Interstate 10 to the north make the site easily accessible to athletes across the region.
- An emphasis on soccer, softball, and baseball offers a valuable attraction to the surrounding neighborhoods (2).
- An elevated view point at the southeast corner
   (3) affords panoramic views to the Port of Houston Turning Basin.





Baseball Fields



Sports Fields

## PORT OF HOUSTON DAMP SITE | SITE PLAN AND CONCEPT

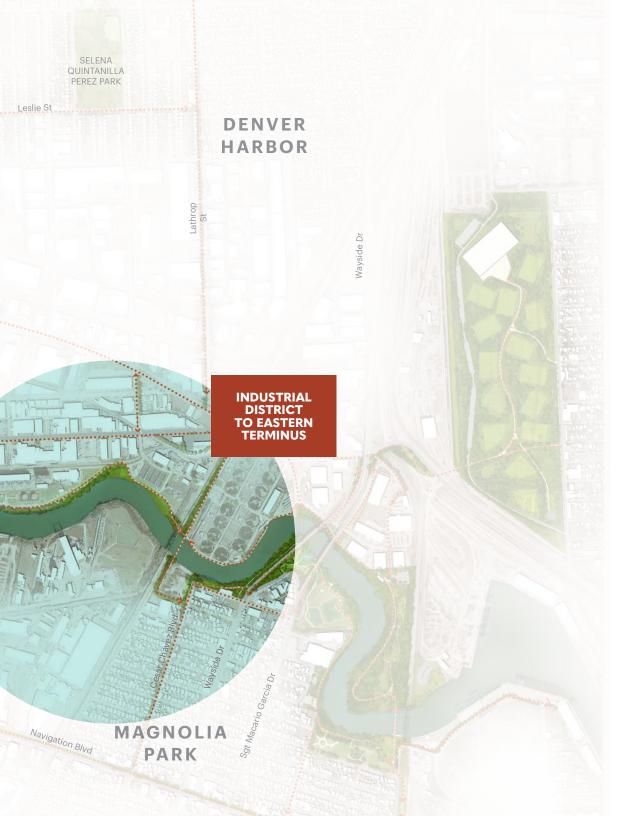








### NEIGHBORHOOD LINKAGES EAST : 136



#### **Activate Areas Between Destinations**

The Master Plan identifies open spaces, new trails, and upgrades to existing trails to link major destinations.

- Enhancements, including lighting, furniture, shade structures, and landscape upgrades, make existing trails more attractive, secure, and comfortable.
- New linkages allow residents to travel easily between larger destinations, neighborhood-scale open spaces, and surrounding communities.

### Link Destinations with Small Neighborhood Parks

Improvements build Bayou connections and establish an armature for future development integrated with surrounding neighborhoods.

- A lawn amphitheater and boat landing connect Guadalupe Plaza Park to the Bayou west of Jensen Drive **(1,2)**.
- A traditional barbecue pit and shed at the Silos as well as arts events held on the site bring visitors to the Bayou's edge **(3,4)**.
- A new pedestrian bridge connects the area around the City of Houston former incinerator site to the East River development and neighborhoods north of Buffalo Bayou (5).
- A bayou lawn creates an attractive open space at the end of a "green finger" along Velasco Street **(6-8)**.
- A new plaza at the corner of Navigation Boulevard and Velasco Street brings the Bayou's presence into the neighborhood (9).



Waterfront at Guadalupe Plaza Park



Barbecue Pit and Shed at the Silos

## GUADALUPE PLAZA TO VELASCO | SITE PERSPECTIVE AND CONCEPT



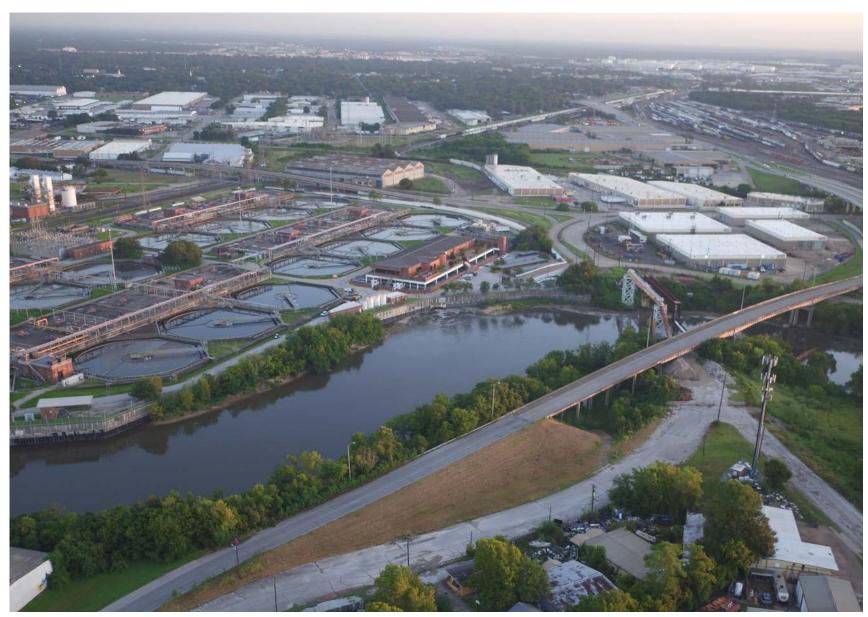


### Maneuver Connections Through Active Industry

To link the Eastern Terminus with the rest of Buffalo Bayou East, the Master Plan identifies trails and connections that avoid active industrial sites.

Creating safe connections to the waterfront requires careful planning as most active industry is concentrated between the Industrial District and the Eastern Terminus.

- Trails (1) for this section primarily follow the northern banks, as most sites along this stretch are not using the waterfront.
- Once the trail passes under the rail bridge at the 69th Street Wastewater Treatment Plant, it crosses the Bayou on a pedestrian bridge
   (2) to the south bank.
- Trail connections (1) follow surface streets in Magnolia Park until they reach the new green space under the Wayside Drive Bridge (3) and Yolanda Black Navarro Buffalo Bend Nature Park (4).



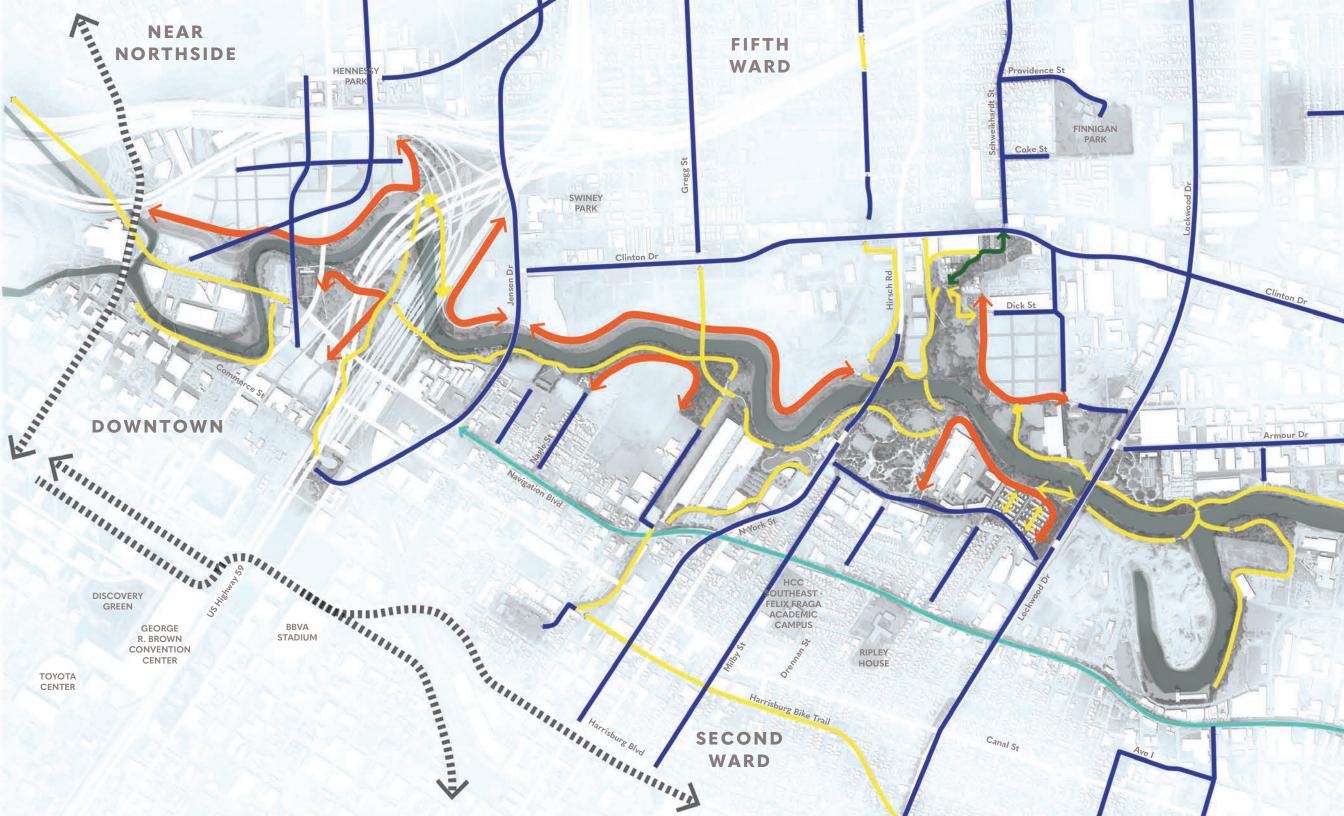
Industrial Sites Along Buffalo Bayou East

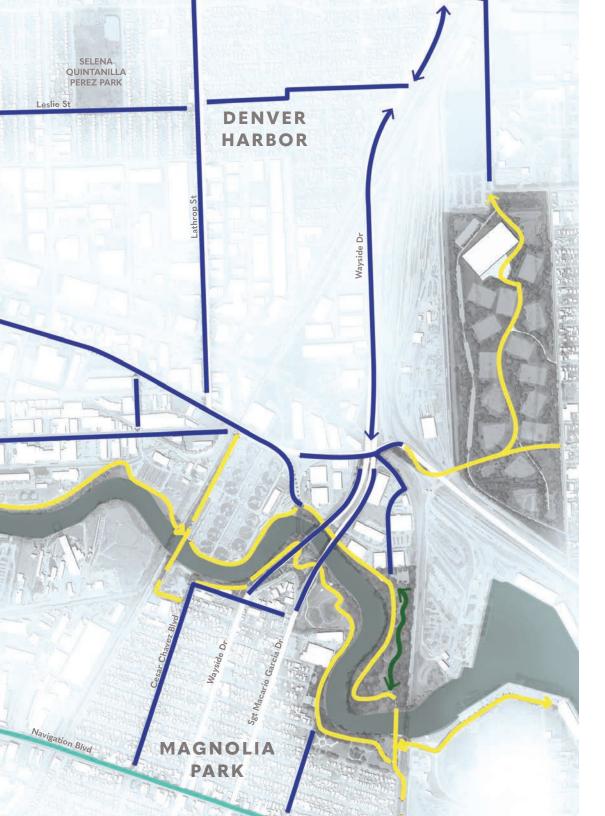
# INDUSTRIAL DISTRICT TO EASTERN TERMINUS | SITE PERSPECTIVE AND CONCEPT











# AREA-WIDE CONNECTIVITY PLAN

#### **A Network of Connections**

The Master Plan identifies a network of trails, on-street bikeways, "green fingers," and promenades to connect open space destinations throughout Buffalo Bayou East to each other and to surrounding communities.

• The network allows residents to travel along the length of the Bayou, deep into the Greater East End and Fifth Ward as well as into Denver Harbor where possible and to destinations across Houston.

#### **Trail Types**

Bayou Promenade



**On-Street Trail** 



**Off-Street Trail** 



- Connections take a variety of forms to adapt to the area's unique conditions. Trails pass through BBP-controlled sites as well as through private properties, such as the planned mixed-use East River development along Clinton Drive.
- The Navigation Greenway acts as both a major bike and pedestrian connection for the Greater East End and a linear green space.



Navigation Greenway



METRORail





## Waterfront Trails

A continuous, multi-use trail follows the north and south banks of Buffalo Bayou where possible. Benches at regular intervals along the trail provide places to rest, while lighting increases the sense of security. Wayfinding and interpretive signage mark key points along the Bayou.





#### **Navigation Green Finger**

A generous green space links the Bayou to commercial establishments along the Navigation Esplanade and to Second Ward neighborhoods. Remnants of the site's former rail yard remind users of Buffalo Bayou East's industrial legacy. Shade trees and lush lawns provide an inviting refuge for local residents to relax and enjoy a break from hectic city life.







#### Trailheads

Trailheads identify gateways to the Bayou from surrounding neighborhoods. At Clinton Drive and Schweikhardt Street, Fifth Ward residents enter Buffalo Bayou East's open space network half a mile from the waterway. An on-street bikeway, with well-marked crosswalks, turns into a multi-use path. A nearby bus stop is part of the gateway that includes maps and wayfinding signage.





### Vehicular Bridge Connections

Outside traffic lanes on the over-scaled Lockwood Drive Bridge transform into a multiuse promenade. The promenade offers a safe place to walk and bike between the Greater East End and Fifth Ward, but also a place to linger, observe the Bayou, and see Downtown in the distance.







### **Neighborhood Connections**

Connections created by the City and County extend trail networks across entire neighborhoods. A path along St. Elmo Street in the Fifth Ward brings residents to nearby establishments and transit.





## **Navigation Greenway**

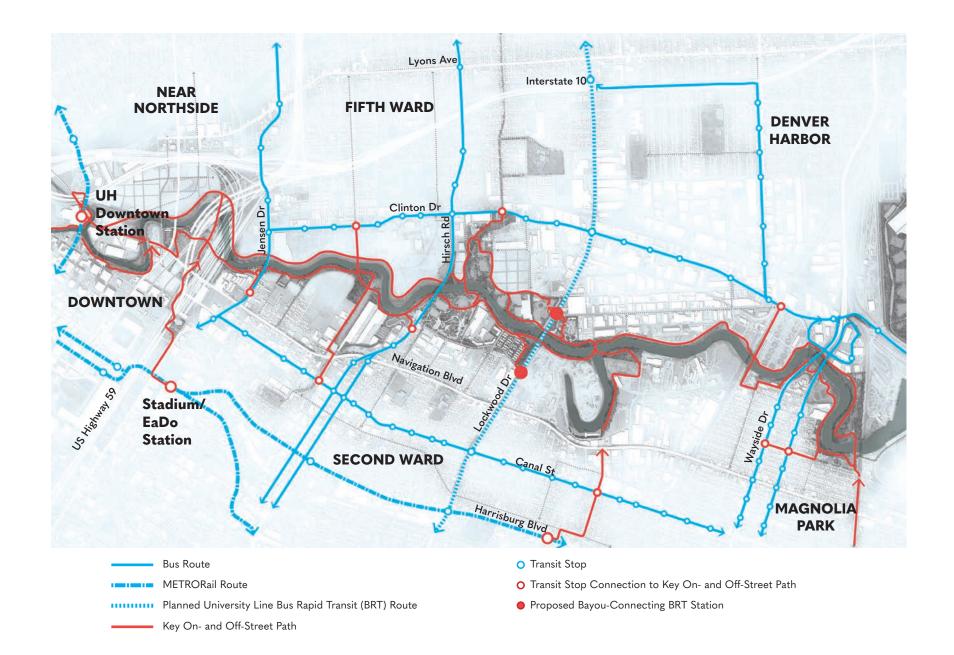
Along Navigation Boulevard, the former westbound lanes become an on-street greenway, wide enough to be a transportation corridor and a linear park. At the Navigation Warehouse site, a plaza space can be used for neighborhood festivals and events. The former eastbound lanes now handle traffic in both directions.

#### **Increase Mobility in Buffalo Bayou East**

With a goal of connecting Buffalo Bayou East not only to surrounding neighborhoods but to the larger city as well, the Master Plan takes into account public transit access and alternative means of transportation in developing the onand off-street network.

Existing bus and light rail routes offer key connection points for planned trails, sidewalks, and bikeways. The METRONext Moving Forward Plan includes new transportation options that will significantly increase access to Buffalo Bayou East from surrounding neighborhoods and across the city.

The Master Plan also anticipates accommodating alternative means of transportation, whether by expanding existing bikeshare networks or preparing for increased adoption of emerging transportation technologies and services.





#### Linking Buffalo Bayou East to the City

In the METRONext network, three rail lines and three BRT lines stop within walking distance of Buffalo Bayou. These routes link thousands of Houstonians—including underserved residents of Kashmere Gardens, Fifth Ward, Acres Homes, Northline, Third Ward, OST/South Union, and Glenbrook Valley— and visitors arriving at Houston's airports to open space destinations throughout Buffalo Bayou East.



#### **Gateway Stations**

The existing UH Downtown station and many of the Green Line METRORail stops in the Greater East End are gateways to the East Sector, linked to the Bayou through on- and off-street paths. Buffalo Bayou wayfinding begins at the station platforms.



#### University Line

As it plans its METRONext University Line BRT across Buffalo Bayou on Lockwood Drive, BBP can help METRO locate stations on either side of the Lockwood Drive Bridge to connect area trails and destinations to the new transit line.



#### **BCycle Stations**

By coordinating with Houston BCycle to locate future docking stations in key destinations and nearby neighborhoods, BBP can provide local residents better access to Buffalo Bayou East.



#### **Alternative Transport Modes**

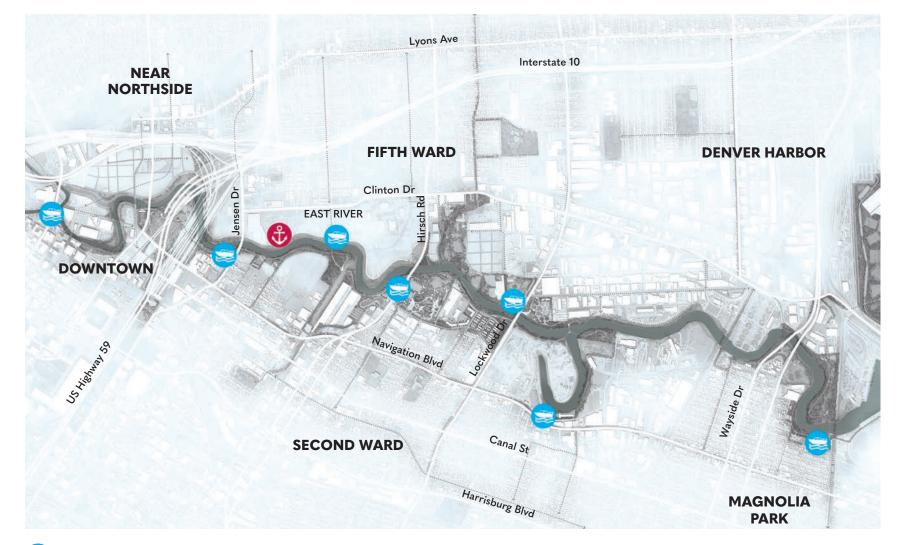
As more people adopt emerging transportation technologies and services, such as electric vehicles and dockless scooters, BBP can work with the City of Houston, METRO, other public agencies, and private entities to ensure Buffalo Bayou East destinations and connections can adapt to a changing transportation landscape.

# Establish Connections Along the Water

In its early days, Buffalo Bayou was not only used for shipping and transportation but for recreation as well. Sailing and power boating became popular pastimes and steamboats were taking passengers from Buffalo Bayou docks to the shores of Galveston Bay.

In recent years, under BBP's leadership, boating has grown in popularity. Whether it's canoe/kayak rental operations, pontoon boat tours or the annual 15-mile Regatta, BBP has made boating a central part of the waterway's revitalization.

Unlike its shallower and narrower portion upstream, Buffalo Bayou's East Sector, with its wide navigable channel, is destined to become Buffalo Bayou's boating hub.





Houston Maritime Museum (Proposed Location)





#### Public Canoe/Kayak Launches

Improvements at seven Bayou landing sites allow canoeists and kayakers to launch their watercraft on their own. The multiple sites within a four-mile area allow leisurely boating opportunities for novices and families.



#### **Boating Concessions**

Canoe/kayak concessions, like the one currently operating from Buffalo Bayou Park and slated to operate from Allen's Landing, are headquartered at BBP's North York and Turkey Bend properties.



#### Water Taxis

As development increases along the waterway east of Downtown, water taxis should be considered as a way to allow residents and visitors to travel between Downtown and the East Sector.



#### **Houston Maritime Museum**

With an extensive collection of maritime artifacts and ship models as well as exhibits, the Houston Maritime Museum in the planned East River project showcases the origins of the Houston Ship Channel and the Bayou's importance in our city's development. The organization's planned facility will allow residents to further understand how Houston's activities on and along Buffalo Bayou shaped their lives and communities.



#### **Boating Hub**

Turkey Bend offers a safe location for mooring BBP's pontoon boat as well as storage facilities for the Rice Crew team and the Texas Dragon Boat Association, as it is out of the Bayou's main channel and is not subject to fast-moving floodwaters.



#### **Boat Tours**

Whether through history tours, trips to the Waugh Drive Bat Colony, or private parties, BBP's pontoon boat, *Spirit of the Bayou*, offers a way to see Houston from a unique perspective. At Buffalo Bayou East community meetings, participants suggested that BBP add to its tour offerings by developing a boating operation similar to Xochimilco, the popular tourist destination in Mexico City. Fiesta-filled canals feature brightly colored non-motorized boats outfitted with flowers, mariachis, and tables and chairs for eating and drinking.

# Reinforce Networks of Social Connections

Besides the many ways in which Buffalo Bayou East trails and parks can be physically linked to nearby areas, there are equally important social connections that can be made as well. As two of the most historic neighborhoods in Houston, the Greater East End and Fifth Ward share distinctive heritages and enduring cultural traditions. Food, music, dance, and storytelling may be different from one community to the other, but they are powerful tools for making connections. With Buffalo Bayou East being a place of transition and change, the Bayou becomes a new civic commons.



Buffalo Bayou East's parks, trails, and destinations become sites for regular programming, events, and recreational and educational experiences. Such activities span in scale from individual groups presenting a specific art form with a targeted group of neighbors to larger scale multicultural festivals that draw visitors from across Houston and beyond.

Whether it is site specific pieces, temporary installations, or programming, Buffalo Bayou East holds enormous opportunity for public art collaborations between artists and neighborhood residents. Heritage tours, signage, and kiosks displaying historical information also inform residents and visitors of the rich story of Buffalo Bayou East.









# A RESILIENT BAYOU





## PREPARING FOR THE FUTURE: A RESILIENT BAYOU

Whether through physical strains, as with extensive erosion during Hurricane Harvey, or less tangible pressures, like evolving socioeconomic conditions, Buffalo Bayou East must be able to withstand the various chronic stresses and acute shocks that the area may face in the coming years. Therefore, the Master Plan team carefully considered a variety of solutions to physical and socioeconomic disruptions as it designed open spaces, trails, structures, and other amenities across a range of scales and identified activities and programs that support surrounding communities' long-term resilience.

#### Strengthen the Bayou's Banks

Unlike other stretches of the waterway, high banks in Buffalo Bayou East help prevent flooding in surrounding neighborhoods. However, the Bayou's banks in this area have suffered significant erosion for years, especially during Hurricane Harvey. Therefore, the Master Plan identifies solutions for protecting banks and stabilization strategies based on a specially-commissioned hydrology study. These strategies allow BBP to minimize the threat of erosion to Buffalo Bayou East destinations and open spaces and guide private landowners' investments towards solutions for their own properties. There are a number of bulkheads along this stretch of the Bayou that owners should examine for structural integrity. Assessments allow property owners to determine whether the bulkheads can be retained, repaired, reinforced, or replaced.

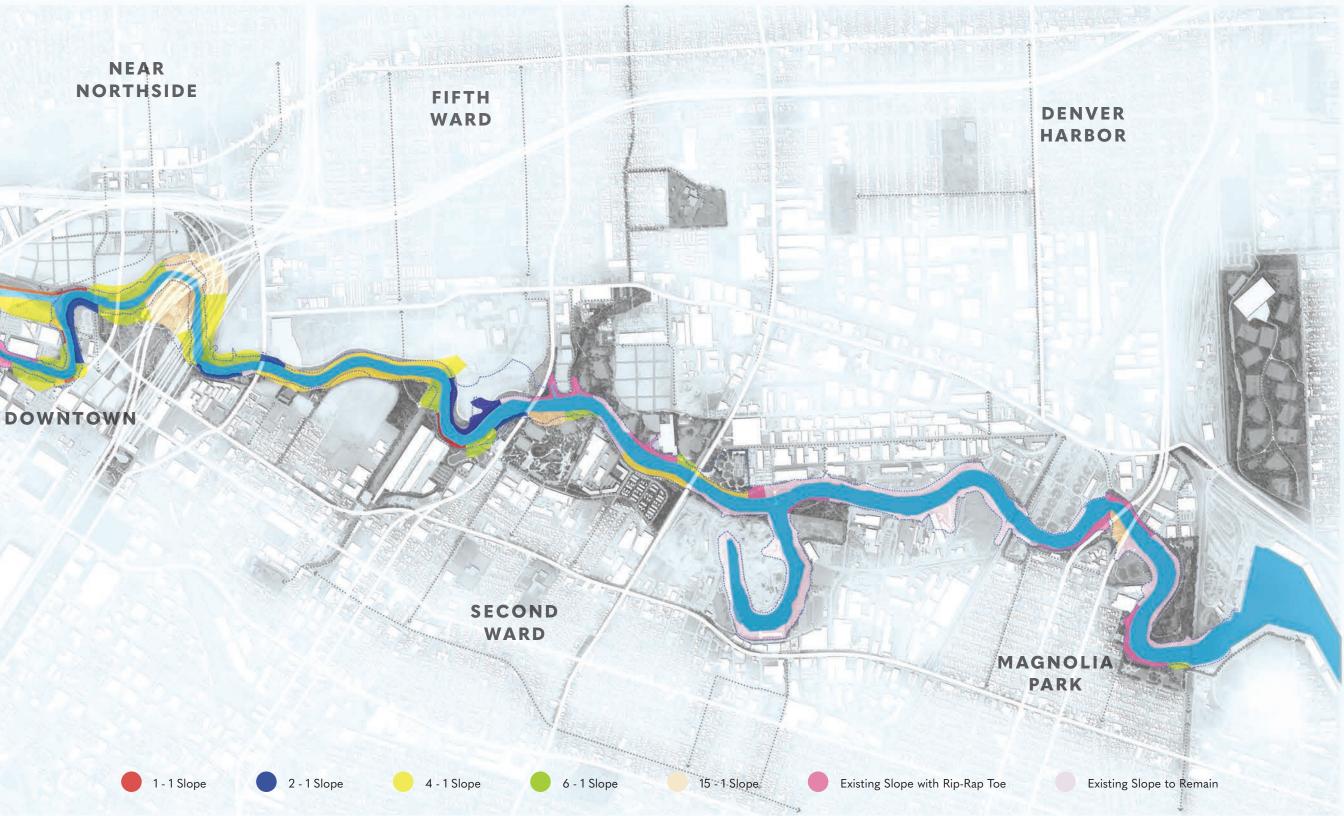
- In general, erosion risk is higher closer to Downtown and diminishes downstream towards the Port of Houston.
- Early action includes stabilization of the channel in key locations.
- Bank stabilization strategies retain habitat value and extend the natural character of the waterway as far upland as possible.
- A variety of channel conditions and landbased restrictions such as roads, rail lines, buildings and infrastructure prescribe a range of stabilization treatments.











#### Follow Best Practices for Stormwater Management

Nearly 500 square miles of watershed drain to Galveston Bay through Buffalo Bayou. Recurring floods are a natural feature of this landscape. Buffalo Bayou East offers an opportunity to demonstrate a model for resilient open spaces and neighborhoods.

Open space recommendations incorporated into the guidelines developed for the Master Plan include Low Impact Design (LID) features that help minimize localized flooding from less intense storms. Many LID strategies also help filter pollutants from non-point sources like lawn chemicals and fuels spilled onto roads to improve stormwater quality.

- Vegetated swales (1) in parking lots and other areas detain, convey, and filter stormwater runoff.
- Rain gardens (2) filter pollutants from stormwater, provide detention capacity, and prevent long-term stormwater surface ponding.
- Permeable pavement (3) on parking and other hardscape areas detains stormwater onsite rather than allowing it to flow into overtaxed storm sewer systems.
- Rainwater harvesting from roof structures
   (4) reduces runoff volumes and serves irrigation purposes.

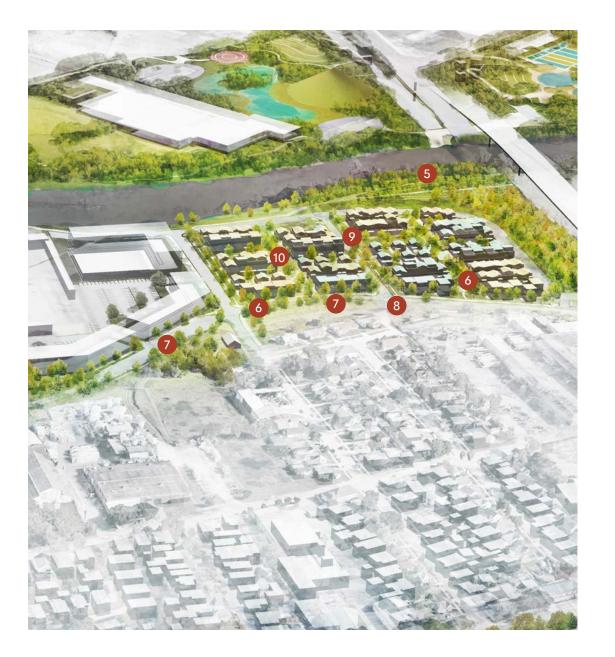








## STORMWATER MANAGEMENT AND FLOODING



Strategies implemented at a neighborhood scale, such as the Lockwood South development which sits on natural high ground, work to mitigate risks across a larger area.

- Open space land preserves the natural functions of the waterway **(5)**.
- Single-family homes are built on pier-andbeam foundations to limit impermeable ground cover (6).
- Even though buildings are outside the mapped floodplain, ground floors of townhouses and multifamily structures are elevated above the surrounding landscape, ensuring that localized flooding does not impact homes (7).
- Where new development borders neighborhoods, building sites are intentionally sloped away from existing homes. This grading not only ensures that new construction does

not exacerbate Bayou flooding but may actually reduce localized flooding **(8)**.

- Within this development, a network of green spaces acts as distributed detention, slowing down and holding water as it runs off the site. This condition mimics natural ponding action (9).
- Water drains to the Bayou down the "green fingers." These open spaces contain wetlands that naturally filter water to improve water quality **(10)**.

## 163 : EAST

A RESILIENT BAYOU

## **ENVIRONMENTAL QUALITY**

Environmental quality in Buffalo Bayou East is a key concern given its proximity to active and former industrial sites. A number of factors may contribute to localized environmental conditions. East Sector destinations, spaces, and structures incorporate various strategies to increase the area's environmental resilience.



#### Water Quality

Federal and state regulations work to address water quality issues related to discharges from specific sources such as individual industrial facilities. Yet a good deal of contamination that enters Buffalo Bayou comes from sources that are much more dispersed.

The most recent Houston-Galveston Area Council Basin Summary Report, performed in 2016 as part of the Clean Rivers Program, identified elevated nutrient levels in Buffalo Bayou that likely come from fertilizer runoff on urban landscaped areas and agricultural fields. Though BBP has no jurisdiction to address runoff issues for sites it does not control, it can integrate solutions into its own properties. In addition to implementing the individual LID strategies to prevent contaminants from reaching Buffalo Bayou identified on previous pages, larger projects, such as the botanical displays at the Lockwood Water Treatment Gardens, can be engineered to cleanse stormwater and runoff before it enters the waterway.

#### ENVIRONMENTAL RESILIENCE

## **EAST** : 164

#### **Air Quality**

Because of the high concentration of industry in eastern parts of the Houston region, air quality is of great concern within Buffalo Bayou East. While air quality regulations fall far beyond BBP's ability to control, it can engage in activities that provide better information to government officials and the public at-large about the area's air quality. BBP can increase the amount of data local professionals use by including air monitoring stations at a variety of projects proposed in the Master Plan. BBP also can support other organizations developing communication tools that allow residents to become more cognizant of health risks as local air quality changes. By contributing to better awareness about issues related to air quality, BBP can help build a healthier, more resilient community. And by working with both neighborhoods and advocacy organizations, BBP can help ensure its initiatives strike the right balance between environmental justice and other equity issues such as providing access to green space and affordable housing.



#### **Brownfield Sites**

Given its industrial past, site contamination potentially poses a challenge to Buffalo Bayou East and surrounding neighborhoods. Though BBP has confronted few contamination issues with East Sector properties it has acquired, obstacles related to site pollution are a possibility in the future. By continuing its longstanding partnership with the City of Houston's Brownfields Redevelopment Program, BBP can ensure that open spaces, destinations, and connections within Buffalo Bayou East are safe and healthy.





LANDSCAPES AND HABITATS

In addition to the recreational and community benefits residents and visitors get from Buffalo Bayou East open spaces, East Sector destinations also can support healthy landscapes and habitats

that are more resilient in the face of changing climate patterns. By developing projects that are

best suited for the area's specific environment, BBP can ensure that green spaces endure for

generations to come.



Chinese Tallow

Prickly Sow Thistle

#### **Invasive Species**

While a primary goal of the Buffalo Bayou East Master Plan is to bring more people to the waterfront, an equally important goal is to preserve and expand green spaces, landscapes, and habitats. As industry has retreated from major stretches of the Bayou's banks, dense vegetation has often reestablished itself. Though it appears that natural conditions have been restored, areas throughout Buffalo Bayou East often are overrun by invasive species.

These invaders frequently compromise the health of local environments as they compete with native plants for moisture, sunlight, and nutrients, diminish plant diversity, degrade habitats, and pose a threat to endangered and vulnerable species. In order to combat the harm these invasive species cause, a key component of all Buffalo Bayou East projects is to remove as many invasive species as possible to restore ecosystems that allow native flora and fauna to thrive.

#### **Native and Adapted Species**

In contrast to invasive species, native and adapted species increase the overall health of ecosystems. Rather than compromise natural areas, they help restore them by maintaining robust levels of nutrients in soils and provide a variety of food sources for birds, animals, insects, and other wildlife. These species also improve water quality and prevent soil erosion to help increase stabilization of the Bayou's banks. Unlike invasive species that often exist as a monoculture that thrive during specific seasons, native and adapted species allow for a diversity of plant varieties that can flourish throughout the year. Selecting species that are better able to handle increases in extreme weather ensures Buffalo Bayou East landscapes remain healthy.







Mexican Free-Tailed Bats

Great White Egret

Red-Eared Slider Turtle









Green spaces that follow waterways like Buffalo Bayou play an important role in local ecosystems. These riparian corridors work to trap sediments, intercept excess nutrients, keep the waterway's food web and algae growth in balance, and help stabilize banks. Vegetation along the shoreline also provides healthy habitats for a wide variety of creatures both in and out of the water. Fish, turtles, birds, and other wildlife can find protected areas to forage and hunt for food, rest, reproduce, and raise their young. Continuous riparian corridors along the Bayou's banks also allow different species to travel up and down the waterway in a route that is separated from the oftentimes hostile surrounding urban environment. By restoring and reconnecting these riparian corridors, the Master Plan envisions creating a diverse and active network of habitats that extends throughout Buffalo Bayou East.

Wedelia

American Beautyberry

Bur Oak

Bald Cypress

## 167 : EAST

A RESILIENT BAYOU

## RESILIENCE IN THE COMMUNITY

If resilience represents the ability of the systems we depend on to recover from a disruption, developing solutions that address a wide variety of potential threats reinforces the strength of East Sector communities.

Buffalo Bayou East must adapt to disruptions that occur over a variety of timescales, whether relatively short, as with Hurricane Harvey, or gradually over time, as with gentrification. Therefore, the Master Plan includes a number of inclusive growth strategies that work to strengthen adjacent communities and help them become more resilient in the face of continually changing circumstances.



#### Housing

Many residents face economic uncertainty with increasing housing costs. Demographic and economic forces continue to drive up rents and home prices in the East Sector. BBP's efforts to develop new housing at Lockwood South help mitigate these risks by providing new homes that are affordable to Buffalo Bayou East residents who might otherwise get displaced. And by supporting and promoting housing programs coordinated by other organizations, BBP helps lessen impacts of rising real estate costs for an even broader set of community members.

#### Affordable, Mixed-Income Development

Lockwood South provides an economically inclusive mix of housing options with a variety of unit sizes and configurations.

- **Development partnerships.** Partner with leading private and non-profit housing developers to deliver high-quality, economically inclusive, and accessible housing at Lockwood South.
- Public funding. Leverage Community Development Block Grant Disaster Recovery (CDBG-DR) funding associated with Hurricane Harvey and federal tools such as Low Income Housing Tax Credits.

#### COMMUNITY RESILIENCE





#### **Housing Preservation**

Support organizations that help neighborhood residents to ensure that benefits of the Buffalo Bayou East projects flow to local communities.

• Community land trusts. Support efforts by the City of Houston and non-profit partners implementing Community Land Trusts (CLT), shared-equity housing models that combat gentrification. In a CLT, a non-profit owns the land underneath a single-family home, or a long-term interest in a multifamily or mixed-use property. Through a ground lease arrangement or a development agreement, a CLT non-profit is able to ensure long-term affordability of the properties in which they have an interest. CLTs also provide "stewardship" services to residents of the properties that they hold an interest in, including financial counseling, homeowner education, foreclosure prevention, and other benefits. Local organizations, such as Covenant Community Capital, Fifth Ward Community Redevelopment Corporation, and New Hope Housing provide such counseling services.

• Home repair and rehabilitation. Coordinate with groups, such as Rebuilding Together Houston, an organization that help longtime residents safely remain in their communities by enlisting volunteers and licensed contractors to repair and rehabilitate homes.

#### **Transportation**

Many people face challenges, whether on a short- or long-term basis, that prevent them from depending on driving as their primary mode of transportation. Yet many East Sector streets effectively exclude people who travel by any means other than a car. The extensive network of trails, paths, and sidewalks connected to public transportation proposed for Buffalo Bayou East underpins a resilient transportation system by giving residents an array of cost-effective mobility choices.



# 169 : EAST A RESILIENT BAYOU





#### **Economic Development**

Providing opportunities for economic advancement in the East Sector, whether through job creation, new business opportunities, or fostering entrepreneurs, gives local residents the ability to support themselves and be better equipped to face financial hardships. BBP's efforts in Buffalo Bayou East can promote activities that allow more community members to achieve self-sufficiency.

- Park operations. To promote local economic development, integrate hiring of local Buffalo Bayou East businesses and residents in the operation and maintenance of projects and new amenities.
- Small business opportunities. As park programming and facility operations in Buffalo Bayou East ramp up over time, identify potential partnerships with local small businesses.
   For example, food and beverage kiosks can incorporate local restaurants and vendors.
- Incubator space and entrepreneurship. In collaboration with local incubators, businesses, and the City of Houston, BBP intends to identify opportunities to cultivate entrepreneurship and job training, within new facilities such as Turkey Bend.





#### COMMUNITY RESILIENCE

# EAST : 170

#### Health and Wellness

Physical and mental health is essential to community resilience, as healthy individuals are more capable of dealing with personal challenges. With high rates of obesity, asthma, and other illnesses prevalent in Buffalo Bayou East, the trails and open spaces included in the Master Plan support individual exercise regimens, such as walking, running, biking, and paddling or organized activities, such as team sports or group fitness classes. BBP has already begun leading wellness walks with the Fifth Ward chapter of GirlTrek, an organization promoting walking within the African-American community. Open spaces also can address challenges related to food deserts persisting across much of Buffalo Bayou East.

With a wide variety of outdoor destinations identified in the Master Plan, BBP facilitates initiatives that support health and wellness.

- **Training loops.** Trail maps on directional signage lay out training loops and running courses of varying lengths throughout Buffalo Bayou East.
- Wellness programming. In partnership with local organizations, BBP promotes outdoor group exercise classes, such as guided walks, Zumba and yoga classes, boot camp-style training, and other wellness programs.
- **Community Gardens.** In addition to providing better access to nutritious foods, community gardens help residents better understand links between healthy foods and wellness.





#### Arts and Culture

With strong cultural identities being some of the most valuable assets of Buffalo Bayou East neighborhoods, visual arts, performing arts, music, food, and community events reinforce the distinctive character of the area.

Pressure for the East Sector's character to change increases as people move into Buffalo Bayou East. BBP's continuing support for activities and events that strengthen deep-rooted cultural identities while simultaneously welcoming newcomers helps ensure the resilience of Buffalo Bayou East communities.

- Arts and cultural events. In partnership with local organizations, develop a calendar of cultural events and programs related to art, food, and music to bring the East Sector communities together.
- Educational programming. Partner with schools, youth programs, and local artists to use public spaces and natural habitats to educate audiences on ecology, hydrology, and other natural sciences right in their own neighborhoods. Programs such as the BBP-hosted BioArt Bayou-torium project, an initiative developed by artist Henry Sanchez that focuses on making art by investigating nature, create engaging experiences for residents of all ages.













PHASING EAST : 174

Buffalo Bayou East is an investment that will take many years to develop. Fragmented land ownership, a unique mosaic of active and abandoned waterfront industrial sites, and the overall project scale require implementation of destinations and connections to unfold over time.

Rather than being developed as one large undertaking, the transformation of Buffalo Bayou East will proceed as a series of individual projects. To guide its investments and activities, a core set of strategies informs BBP's long-term approach.



#### **ACTIVATE AND ENHANCE**

Invest in small improvements and engaging activities that reactivate individual sites.



#### COMPLETE KEY TRAIL CONNECTIONS

Complete high priority gaps and upgrade connections that grow over time into a complete street and trail network.



#### MAKE A SPLASH

Focus efforts to develop key destinations that will have the largest impact throughout communities across Buffalo Bayou East.

#### **BE NIMBLE**

Grow the network strategically and opportunistically through transformative infrastructure, land acquisition, and strategic partnerships. Take advantage of opportunities as they arise that allow projects to be developed earlier than planned.



#### Today & Ongoing

Throughout the development period, activities undertaken by BBP work to opportunistically support achieving the Master Plan's vision. Building Bayou trails and on-street bikeways continually expands networks of connections. Creating smallscale green spaces between major destinations ties Buffalo Bayou East's open space system together. Key land acquisitions allow additional destinations to become a reality. And by organizing events, programs, and public art installations, BBP brings Greater East End and Fifth Ward residents to the waterway on an ongoing basis.















# Today to Year 5

Early Buffalo Bayou East projects are spread across numerous neighborhoods north and south of the Bayou, serving the entire area. New connections close additional gaps in existing trail networks.

Key projects include:

- Upgrades to the North York and Drennan street sites to expand Tony Marron Park (1)
- Preliminary upgrades to Japhet Creek along Clinton Drive **(2)**
- Upgrades to the wharf at Turkey Bend including boat access (3)
- Lockwood South neighborhood (4)

Key connections include:

- Green link between Yolanda Black Navarro Buffalo Bend Nature Park and Hidalgo Park (A)
- Closing gaps in existing Bayou trails (B)
- Vital on-street connections into the Greater East End and Fifth Ward such as on Gregg (C) and Nagle streets (D)



# Year 5 to Year 10

Building upon the momentum generated by early Buffalo Bayou East projects, BBP continues developing key destinations. New connections create additional links deep into surrounding neighborhoods.

Key projects include:

- Upgrades to the existing Tony Marron Park **(1)**
- Connection to the waterfront at Japhet Creek (2)
- Nature park on Port Houston's Harbor Street site with a pedestrian connection to Hidalgo Park (3)
- Downtown Gateway projects (4) (Note: The schedule for these improvements is dependent on TxDOT's North Houston Highway Improvement Project.)

Key connections include:

- Further expansion of bikeways such as on Schweikhardt (A) and Norwood (B) streets and Lockwood Drive (C)
- Boat Landing (D)





# Year 10 and Beyond

As it finishes core projects, BBP's focus shifts to more complex projects that require private sector investment. New trails complete the network of connections.

Key projects include:

- Lockwood Water Treatment Gardens (1)
- Lockwood Adventure Park (2)
- Renovation of the warehouse structure on Navigation Boulevard at Turkey Bend (3)
- Regional sports park at Port Houston's
   DAMP site (4)

Key connections include:

- Bayou Trail Completion (A)
- Navigation Green Finger (B)
- Navigation Greenway (C)
- Magnolia Park Connections (D)
- Denver Harbor Connections (E)
- Boat Landing (F)



# THE ROLE OF PARTNERSHIPS

Buffalo Bayou Partnership has a well-established and impressive track record of completing projects that require significant coordination with a wide variety of public and private entities. Each stage of project development—from fundraising to creating a concept design to construction to establishing a long-term maintenance plan presents unique circumstances and challenges BBP has learned to successfully navigate.

As BBP focuses its efforts on Buffalo Bayou East, it draws on these previous experiences to expand the Bayou's network of parks, trails, and destinations to underserved communities.



Buffalo Bayou Park Grand Opening, 2015

# **Buffalo Bayou Partnership**

BBP will lead the capital development of Buffalo Bayou East. Through strategic partnerships with the public sector, and private/non-profit entities, BBP can ensure that the implementation of Buffalo Bayou East is consistent with the Master Plan's principles and is financially sustainable in the long-term. And by continually engaging with local communities as it develops each new project, BBP can preserve Buffalo Bayou East's unique character and create spaces and destinations that truly reflect the needs and desires of local residents.

#### **Public Sector Partners**

BBP shall continue to work closely with public sector partners in Buffalo Bayou East, including the City of Houston, Harris County Precincts 1 and 2, Harris County Flood Control District (HCFCD), Port Houston, Fifth Ward Community Redevelopment Corporation, Fifth Ward Tax Increment Reinvestment Zone (TIRZ), Harrisburg TIRZ, and East End District. Successful implementation of Buffalo Bayou East requires alignment with several other adjacent public infrastructure investments, such as the North Canal and the North Houston Highway Improvement Project (NHHIP).







## **Philanthropic Partners**

Support from foundations, corporations, and individual donors is essential to launching Buffalo Bayou East. As the Master Plan identifies many different types of destinations and connections, it is important for BBP to establish, cultivate, and maintain relationships with a diverse set of contributors whose philanthropic goals align with different project types. The Buffalo Bayou East Master Plan's broad scope offers opportunities for funders to support projects beyond just parks, such as arts and culture, health and wellness, small business development, and affordable housing.





# **Private/Non-Profit Partners**

Private partners bring financial and operational resources to complement public capacities. Given the diversity of property ownership in the area, BBP aims to coordinate with landowners and real estate developers to facilitate new development consistent with local neighborhoods' goals and design standards BBP has developed. Houstonians recognize the importance of high-quality public spaces to support strong communities, and the city has become a nationally-recognized leader in park development. From investments such as \$100M for Buffalo Bayou Park, \$100M for Discovery Green, \$220M for Bayou Greenways, and most recently, a plan for \$300M of improvements to Memorial Park, Houston does not shy away from big thinking and big plans for signature open space.

The long-term investment to realize the Buffalo Bayou East Master Plan vision is to be achieved incrementally and collaboratively, fostering equitable park access and waterfront activation from day one.

Given its extremely complex nature and timeline, it is difficult to determine a realistic overall capital budget for the Master Plan. Therefore, BBP and its partners will create budgets for each individual project as it develops them.

# CAPITAL FUNDING STRATEGY

#### **Funding by Project Type**

# New Open Spaces, Park Development, and Habitat Restoration

With new and renovated green spaces forming the backbone of the Master Plan's vision, identifying key funding partners for each open space destination is essential. Some projects, such as an expanded Tony Marron Park and a restored Japhet Creek, may rely more heavily on philanthropic support, while others, such as the Port of Houston Nature Park may depend more on funding from public agencies, such as Port Houston. In case of the Downtown Gateway, agencies such as TxDOT and Harris County Flood Control District may execute substantial portions of open space development.

# New and Improved Trails

Trails cross properties controlled by a variety of landowners. When crossing publicly held properties, BBP may rely on funding for trails from the City of Houston's Parks and Recreation Department (HPARD) as well as Harris County Precincts 1 and 2, in addition to philanthropic support. BBP must negotiate with private landowners for easements and funding when crossing their properties. BBP may also apply for grant funding for key connections from public entities such as TxDOT and local Tax Increment Reinvestment Zones.

## **Street Improvements**

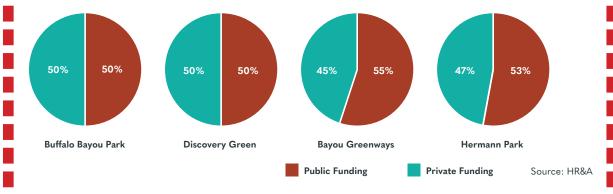
Local government and public entities are primarily responsible for funding and executing street improvements, such as on-street bikeways. In order to ensure the network of connections identified in the Master Plan is realized, BBP must strategically coordinate with both the City of Houston and Harris County to fund key connections.

# **Bridges**

Pedestrian bridges serve as key public infrastructure elements that link Buffalo Bayou's banks as well as surrounding communities. Therefore, BBP must look to the City of Houston, Harris County, and other public entities for funding support in implementing them.

#### **Capital Funding By Source**

Base public funding for large-scale park projects is essential to leveraging private philanthropy and other sources of funding.



# EAST : 182

## **Bank Stabilization and Repair**

Local infrastructure projects such as the NHHIP and North Canal projects include bank stabilization as part of their scope of work. With these public efforts, BBP can work with TxDOT and HCFCD to ensure final bank configurations allow for public access and support open spaces along the Bayou. Additionally, many banks of private parcels along the waterway are threatened by erosion. In order to implement Bayou trails as well as protect private parcels, BBP must rely on private landowners to fund bank stabilization.

#### **Special Destinations**

Unique sites, such as the Lockwood Water Treatment Gardens and the Lockwood Adventure Park, have special access and operational requirements that vary from those of other parks and open spaces. In these instances, BBP may rely on special facility operators and private investors to help fund and develop these spaces. Additionally, projects like the Swimming Hole are to be developed by other entities that will secure their own development funding.

#### **Real Estate Development**

The Lockwood South neighborhood and the rehabilitation of the Navigation Warehouse at Turkey Bend represent real estate development projects that require entirely different funding sources than those of other destinations identified in the Master Plan. BBP must explore tools such as federal housing tax credits to finance these projects to ensure they meet community and economic goals.

## **Funding Sources**

# **Cultivate Philanthropic Support**

With its track record of successfully completing projects to the west, BBP has built trust with key philanthropic partners in the Houston community. It hopes to work closely with these funders to support its efforts in Buffalo Bayou East. Additionally, the East Sector provides a different set of opportunities and challenges that may appeal to new donors. As it looks to develop destinations in the area, BBP should cultivate relationships with additional supporters whose priorities align with the Master Plan's vision.

### **Secure Public Funds**

Federal and state programs, such as transportation grants as well as tax benefits associated with Opportunity Zones, vary in size and provide a source of financial assistance for both smaller as well as larger Master Plan projects. For example, BBP could utilize the Texas Department of Transportation's Safe Routes to Schools-Infrastructure Program for key bicycle and pedestrian connections in Buffalo Bayou East. BBP has also been successful securing grants from the Texas General Land Office and Texas Parks and Wildlife Department for open space development. Federal funds earmarked for stimulus and recovery can finance a variety of different projects in the East Sector.

Public funding from City and County bonds and local capital improvement programs also can support the long-term buildout of the Buffalo Bayou East network.

# Leverage Value Creation Through TIRZs

Tools such as the local Tax Increment Reinvestment Zones (TIRZ) offer the important ability to locally capture new value that is created to support future investment. For example, incremental tax revenue captured by the Downtown Redevelopment Authority has supported various Bayou-facing projects in Downtown and at Buffele Bayou Bark

Downtown and at Buffalo Bayou Park.



# OPERATIONS AND MAINTENANCE (O&M) FUNDING STRATEGY

BBP will extend its expertise in park management to the East Sector. The organization's successful operation of Buffalo Bayou Park and Downtown Buffalo Bayou areas has proven the importance of effective, efficient, and high-quality maintenance.

A sustainable and comprehensive funding strategy is critical to preserving the quality of open space and trail investments. To do so, BBP must rely on a variety of funding sources, including a set of creative tools.

# Today and Near-Term

# Seek Public Sector Funding

Baseline County and City funding needs to provide crucial support for Buffalo Bayou East in the near-term before significant revenue generating opportunities via park programming are possible.

### **Establish an Endowment**

As County and City funding are likely to remain constrained for the foreseeable future, BBP must establish an operations and maintenance endowment to ensure the long-term usage and care of open spaces, destinations, and trails.

# Medium- and Long-Term

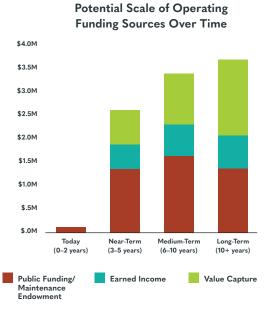
# **Build a Strong Base of Earned Income**

As the park and open space network grows geographically and programmatically, the potential for earned income increases—through rentals of BBP-owned facilities such as Turkey Bend—offering opportunities to supplement base public and endowment funding. Rental fees for large events, long-term leases of BBP-owned facilities such as the Navigation Warehouse, concessions from food and beverage offerings, and revenue from special programming can support operations and maintenance. BBP should aim to generate earned income covering up to 20% of O&M.

# **Explore Potential for Value Capture**

Value capture funding has been essential to sustaining the operation and maintenance of Buffalo Bayou Park, with the Downtown Tax Increment Reinvestment Zone (TIRZ #3) providing approximately \$2.4M per year.

While TIRZ funding is not typically used for supporting operations, advocating for the use of value capture to fund Buffalo Bayou East operations can support the long-term sustainability of the open space network.

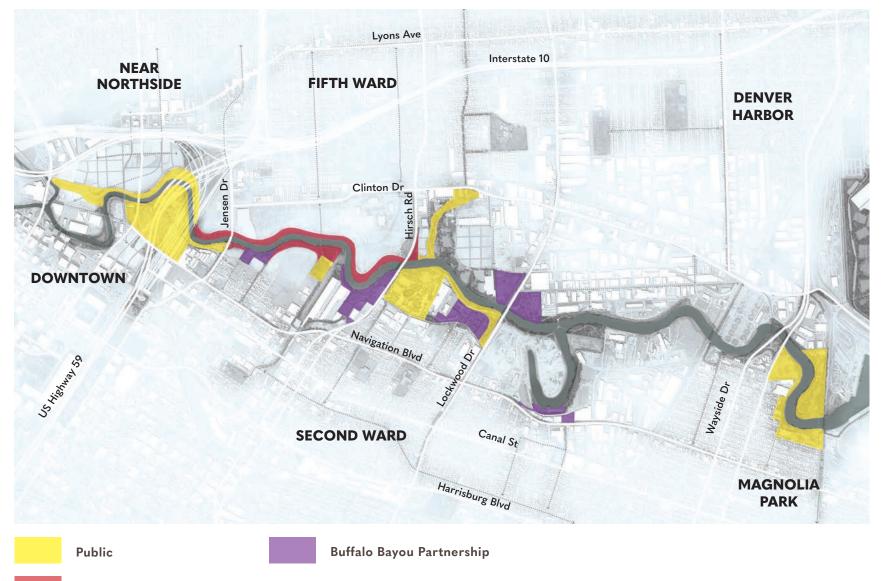


# EAST : 184

# **Operations and Management Coordination**

# Diversity of Management Responsibilities

With its fragmented land ownership, operations and maintenance management activities in Buffalo Bayou East pose a complex challenge. Maintenance is currently handled by property owners including BBP. As parks and trails are developed, a more coordinated program will need to be established.



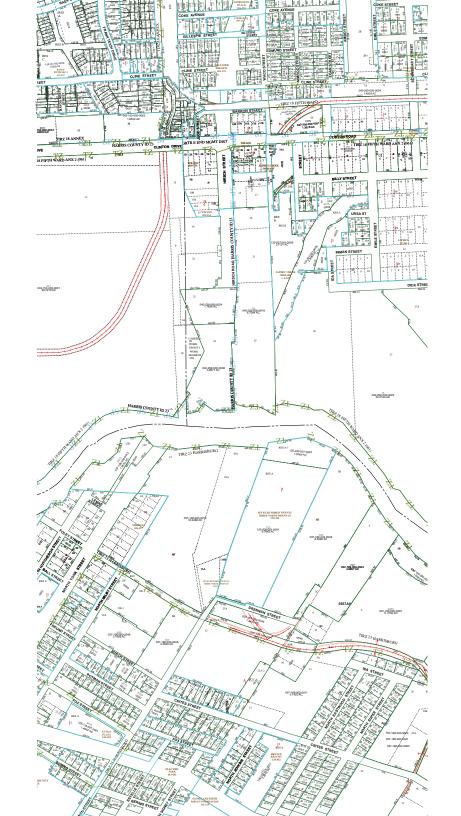
Private



IMPLEMENTATION

# ADDITIONAL IMPLEMENTATION TOOLS

Beyond establishing key partnerships and leveraging public and private funding sources, there are a number of additional tools BBP can use to develop, operate, and maintain the Master Plan projects.





# Property Acquisition and Disposition

A strategy of targeted property acquisition and disposition enhances the potential for delivering compelling open spaces and creates a framework for residential and commercial development. Continued acquisition of Bayou-fronting easements helps achieve perpetual control over the waterfront experience and increases connectivity throughout the area. Portions of properties not essential for open space creation can be disposed of later with deed restrictions that require developers to follow BBP design standards.



# **380 Agreements**

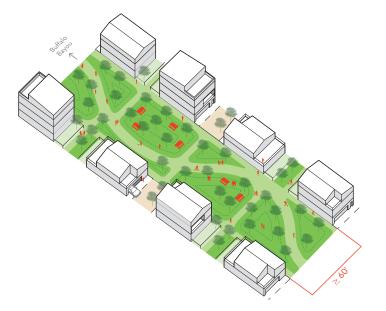
The City of Houston's 380 Program provides financial assistance in the form of loans and/ or performance-based grants to qualified businesses for eligible projects located within the City of Houston limits. Many private property developers enter into such agreements with the City to help pay for critical infrastructure and amenities on their sites. In exchange for offering these incentives, the City can request that projects meet certain requirements—such as incorporating publicly accessible bayou-fronting trails or green spaces.

# Design Standards and Requirements

In developing the Master Plan, BBP devised a set of neighborhood design standards and recommendations to ensure the creation of an inviting public realm. Such standards help define ground-floor uses, facade composition, building orientation and placement, site access, and other key design features. BBP will work with TIRZs to adopt these standards within their district boundaries for developers seeking financial support.

# Brownfields Redevelopment Program

BBP has a long history of working with the City of Houston's Brownfields Redevelopment Program. Support comes through the form of Phase I and II environmental site assessments, remediation planning, regulatory guidance, technical assistance, and financing strategies. BBP should continue to work with the City's Brownfields Redevelopment Program as it looks to create new open spaces and destinations.





#### **ADDITIONAL TOOLS**





# **IMPLEMENTATION MATRIX**

PROJECT TYPE	PROJECTS	ANTICIPATED PARTNERSHIPS	CAPITAL FUNDING	OPERATIONS AND MAINTENANCE FUNDING
	<ul> <li>James Bute Park</li> <li>Silos</li> <li>Tony Marron Park</li> <li>Japhet Creek</li> <li>Yolanda Black Navarro Buffalo Bend Nature Park</li> <li>Hidalgo Park</li> <li>Port of Houston Nature Park</li> </ul>	<ul> <li>Houston Parks and Recreation Department (HPARD)</li> <li>Harris County Precincts 1 and 2</li> <li>Port Houston</li> <li>East End District, Fifth Ward Community Redevelopment Corporation, Harrisburg and Fifth Ward TIRZs</li> <li>Community Programming Partners (local non-profits and cultural organizations supporting park programming)</li> </ul>	<ul> <li>HPARD</li> <li>Harris County Precincts 1 and 2</li> <li>Value Capture (Harrisburg and Fifth Ward TIRZs, Lockwood South)</li> <li>Private Funding</li> <li>Texas Parks and Wildlife Department</li> <li>Texas General Land Office</li> <li>Land Sales</li> </ul>	<ul> <li>HPARD</li> <li>Harris County Precincts 1 and 2</li> <li>Value Capture (Harrisburg and Fifth Ward TIRZs, Lockwood South)*</li> <li>Earned Income (rentals, food and beverage, other concessions)</li> <li>Private Funding</li> <li>Endowment</li> </ul>
<image/>	<ul> <li>Waterfront Trails</li> <li>Nature Trails</li> </ul>	<ul> <li>Private Landowners (easements and financial support)</li> <li>HPARD (support for trails through City parks)</li> <li>Harris County Precincts 1 and 2 (support for trails through County parks)</li> <li>Harrisburg and Fifth Ward TIRZs</li> <li>Texas Department of Transportation (TxDOT)</li> <li>Bike Houston (advocacy and public engagement)</li> </ul>	<ul> <li>HPARD</li> <li>Harris County Precincts 1 and 2</li> <li>Value Capture (Harrisburg and Fifth Ward TIRZs, Lockwood South)</li> <li>Private Funding</li> <li>TxDOT</li> <li>US Department of Transportation</li> <li>Land Sales</li> </ul>	<ul> <li>HPARD</li> <li>Harris County Precincts 1 and 2</li> <li>Value Capture (Harrisburg and Fifth Ward TIRZs, Lockwood South)*</li> <li>Private Funding</li> </ul>

\*Note: Value capture has been used for operations and maintenance funding for other public open spaces, such as Buffalo Bayou Park. However, funding is not guaranteed for future projects.

# PROJECT IMPLEMENTATION MATRIX



PROJECT TYPE	PROJECTS	ANTICIPATED PARTNERSHIPS	CAPITAL FUNDING	OPERATIONS AND MAINTENANCE FUNDING
	<ul> <li>On-Street Trails</li> <li>Bayou Promenade</li> <li>Navigation Greenway</li> </ul>	<ul> <li>City of Houston Public Works and Engineering (PWE)</li> <li>Harris County Precincts 1 and 2</li> <li>East End District, Fifth Ward Community Redevelopment Corporation, Harrisburg and Fifth Ward TIRZs</li> <li>TxDOT</li> <li>Bike Houston (advocacy and public engagement)</li> </ul>	<ul> <li>PWE</li> <li>Harris County Precincts 1 and 2</li> <li>Value Capture (Harrisburg and Fifth Ward TIRZs)</li> <li>TxDOT</li> <li>U.S. Department of Transportation</li> </ul>	<ul> <li>PWE</li> <li>Harris County Precincts 1 and 2</li> </ul>
Bridges	<ul> <li>Gregg Street Bridge</li> <li>Tony Marron Park Bridge</li> <li>Turkey Bend Tripod Bridge</li> <li>69th Street Wastewater Treatment Plant Bridge</li> <li>Hidalgo Park Bridge</li> </ul>	<ul> <li>PWE</li> <li>Harris County Precincts 1 and 2</li> <li>Port Houston</li> <li>Private Landowners</li> <li>TxDOT</li> </ul>	<ul> <li>PWE</li> <li>Harris County Precincts 1 and 2</li> <li>Port Houston</li> <li>Private Funding</li> <li>TxDOT</li> </ul>	<ul> <li>PWE</li> <li>Harris County Precincts 1 and 2</li> <li>Port Houston</li> </ul>



PROJECT TYPE	PROJECTS	ANTICIPATED PARTNERSHIPS	CAPITAL FUNDING	OPERATIONS AND MAINTENANCE FUNDING
	<ul> <li>Various Projects (See map on pages 160)</li> <li>Downtown Gateway, North Canal, and NHHIP</li> </ul>	<ul> <li>Private Landowners (investment in bank stabilization)</li> <li>U.S. Army Corps of Engineers (regulatory oversight and support)</li> <li>Harris County Flood Control District (HCFCD) (regulatory oversight and support)</li> </ul>	<ul> <li>Private Landowners</li> <li>TxDOT</li> <li>HCFCD</li> </ul>	• Private Property Owners
	<ul> <li>Lockwood Water Treatment Gardens</li> <li>Lockwood Adventure Park</li> <li>Swimming Hole</li> <li>Port of Houston DAMP Site</li> </ul>	<ul> <li>Special Facility Investors and Operators</li> <li>Port Houston</li> </ul>	<ul> <li>Value Capture (Harrisburg and Fifth Ward TIRZs)*</li> <li>Private Funding</li> <li>Land Sales</li> </ul>	<ul> <li>Earned Income</li> <li>Private Funding</li> </ul>

\*Note: Value capture has been used for operations and maintenance funding for other public open spaces, such as Buffalo Bayou Park. However, funding is not guaranteed for future projects.

# PROJECT IMPLEMENTATION MATRIX



PROJECT TYPE	PROJECTS	ANTICIPATED PARTNERSHIPS	CAPITAL FUNDING	OPERATIONS AND MAINTENANCE FUNDING
	<ul> <li>Lockwood South Neighborhood</li> <li>Navigation Warehouse Re-Use</li> </ul>	<ul> <li>Private and Non-Profit Real Estate Developers</li> <li>Special Facility Investors and Operators</li> <li>Harrisburg and Fifth Ward TIRZs</li> </ul>	<ul> <li>Value Capture (Harrisburg and Fifth Ward TIRZs)</li> <li>Low-Income Housing Tax Credits</li> <li>Hurricane Harvey Disaster Recovery Funds</li> <li>Private Capital</li> </ul>	<ul> <li>Harrisburg TIRZ*</li> <li>Real Estate Proceeds</li> </ul>



## **Partners for Ongoing Activation**

Beyond building physical improvements that activate the waterway, there are a variety of programs and initiatives BBP must support and execute to ensure open spaces and destinations truly serve local residents' needs.



# PROGRAM IMPLEMENTATION MATRIX







## Buffalo Bayou Partnership the following donors for their commitment to the Buffalo Bayou East master planning effort.

BBP also thanks board members, residents, and community stakeholders who guided the Buffalo Bayou East master planning process.

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Tim Love Adam Himes Randy Crandon As part of the Buffalo Bayou East Master Planning process, Greater East End and Fifth Ward residents, bayou property owners, governmental officials and other stakeholders attended numerous community engagement meetings. In addition, BBP gathered input at festivals and civic association and Super Neighborhood activities. We sincerely thank everyone who shared their ideas and visions for the transformation of Buffalo Bayou East.

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City of Houston Council Member At-Large Position #4

City of Houston Department of Neighborhoods (East End)

City of Houston Department of Neighborhoods (Fifth Ward)

City of Houston Health Department

City of Houston Housing and Community Development Department

City of Houston Mayor's Office – Cultural Affairs

City of Houston Mayor's Office – Economic Development

City of Houston Office of Business Opportunity

CleverBuild

City of Houston Planning and Development Department

Clinton Health Access Initiative

Covenant Community Capital

The Cullen Foundation

East Bayou District Civic Association East End Bike Group

East End Chamber of Commerce

East End District

Eastwood Civic Association

El Centro de Corazón

Entertainment Cruises

Fifth Ward Chamber of Commerce

Fifth Ward Community Redevelopment Corporation **Fifth Ward Enrichment Program** Fifth Ward Super Neighborhood Fifth Ward Tax Increment Reinvestment Zone #18 Finca Tres Robles Frost Bank Gensler GirlTrek **GO** Strategic Greater Fifth Ward Civic Club Grit Grocery Gutier Harris County Engineering Department Harris County Flood Control District Harris County Judge's Office Harris County Precinct 1 Harris County Precinct 2 Harrisburg Tax Increment Reinvestment Zone #23 Hawes Hill and Associates Headquarters Hermann Park Conservancy Houston Advanced Research Center **Houston Arts Alliance** Houston Audubon Houston Downtown **Management District** Houston Endowment Inc. Houston Housing Authority

EAST : 196

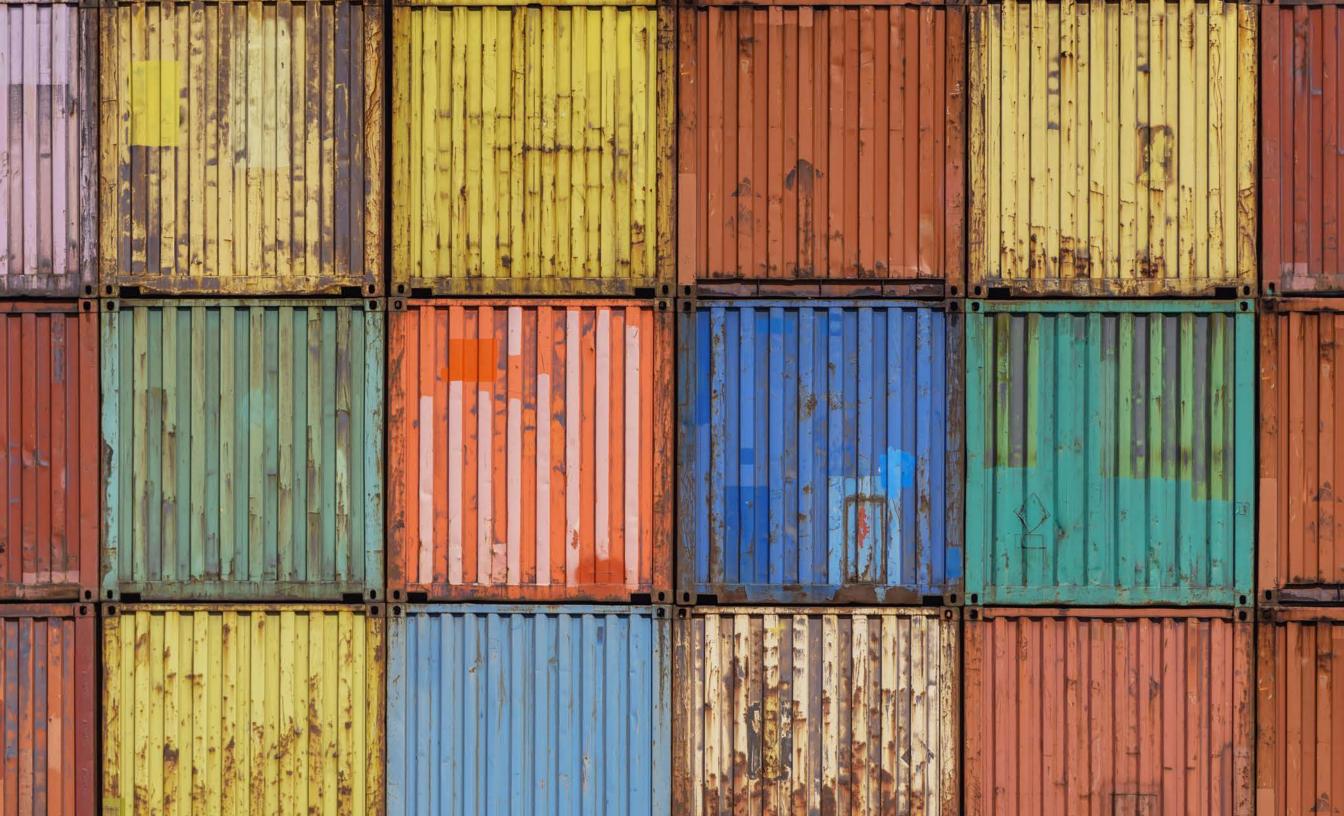
Houston Maritime Museum Houston Needs a Swimming Hole **Houston Parks and Recreation** Department Houston Parks Board Idylwood Garden Club Impact Hub Houston Independent Bank Infill Development The Interfield Group Interpretive Insights Japhet Creek Association **Kinder Foundation** Kinder Institute for Urban Research La Luz del Mundo Last Organic Outpost Law Office Center for Citizenship and Art Legacy Community Health Local Initiative Support Corporation Lone Star Legal Aid Lovett Homes Magnolia Park/Pineview Terrace Super Neighborhood **Marquette Companies** Memorial Park Conservancy Metalab Midway The Mission Continues-Houston The Moody Center for the Arts at Rice University

**Moonflower Farms Morales Funeral Homes** Mother Dog Studios Near Northside Management District New Hope Housing Nickel Sandwich Shop **Ortega Office Care Our Lady of Guadalupe Church** Padua Realty **Pinto Realty Development** Pleasant Hill Baptist Church Port Houston The Powell Foundation **Progressive Fifth Ward Community** Association Read King **Rebuilding Together Houston** Refuge Development **Renaissance Neighborhood Development Corporation** Rice Crew Team **Rice University School of Architecture Seafarers International Union** of North America Second Ward Super Neighborhood SERJobs Sims Metal Small Steps Nurturing Center St. Catherine's Montessori School St. Mark's Missionary **Baptist Church** 

Talento Bilingue de Houston **Texas Department of Transportation Texas Dragon Boat Association Texas Environmental Justice Advocacy** Services (t.e.j.a.s.) Texas Iron and Metal **Texas House District #142 Texas House District #143 Texas House District #145** Texas Senate District #6 The Trust for Public Land **Traffic Engineers Incorporated TXRX** Labs University of Houston Center for Art and Social Engagement University of Houston Cynthia Woods Mitchell Center for the Arts University of Houston **Creative Writing Program** University of Houston **Graphic Design Program Urban Harvest Urban Paths US Congressional District 29** Villa Arcos WATCO Companies Weingarten Art Group The Wortham Foundation, Inc. YES Prep YMCA of Greater Houston

#### **PHOTO CREDITS**

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# THE ROLE OF PARTNERSHIPS

Buffalo Bayou Partnership has a solid and impressive track record developing publicprivate partnerships. Local, state, and federal agencies have been longstanding partners providing collaboration, expertise, and investments to deliver exceptional Bayou projects.

Leveraging similar partnerships and following a strategic approach to phasing and funding give BBP the capability to create a network of parks, trails, and neighborhoods. In addition, partnerships are critical to ensure that these assets are maintained over time.



Buffalo Bayou Park Grand Opening, 2015

# **Buffalo Bayou Partnership**

BBP will lead the capital development of Buffalo Bayou East. Through strategic partnerships with the public sector, and private/non-profit entities, BBP can ensure that the implementation of Buffalo Bayou East is consistent with the Master Plan's principles and is financially sustainable in the long-term. And by continually engaging with local communities as it develops each new project, BBP can preserve Buffalo Bayou East's unique character and create spaces and destinations that truly reflect the needs and desires of local residents.

#### **Public Sector Partners**

BBP shall continue to work closely with public sector partners in Buffalo Bayou East, including the City of Houston, Harris County Precincts 1 and 2, Harris County Flood Control District (HCFCD), Port Houston, Fifth Ward Community Redevelopment Corporation, Harrisburg Tax Increment Reinvestment Zone, Fifth Ward Tax Increment Reinvestment Zone, and East End District. Successful implementation of Buffalo Bayou East requires alignment with several other adjacent public infrastructure investments, such as the North Canal, a post-Hurricane Harvey flood mitigation project, and the North Houston Highway Improvement Project (NHHIP).







# **Private/Non-Profit Partners**

Private partners bring financial and operational resources to complement public capacities. Given the diversity of property ownership in the area, BBP aims to coordinate with landowners and real estate developers to facilitate new development consistent with local neighborhoods' goals and BBP's design standards. For special projects requiring unique expertise, such as with the Lockwood Adventure Park and Water Treatment Gardens, BBP intends to identify development partners.





# **Philanthropic Partners**

Support from foundations, corporations, and individual donors is essential to launching Buffalo Bayou East. As the Master Plan identifies many different types of destinations and connections, it is important for BBP to establish, cultivate, and maintain relationships with a diverse set of contributors whose philanthropic goals align with different project types. The Buffalo Bayou East Master Plan's broad scope offers opportunities for funders to support projects beyond just parks, such as arts and culture, health and wellness, small business development, and affordable housing.