Program Summary:

A parks master plan for a small city of 13,000, including public engagement, parks system visioning, and the development of pilot projects.

Program Statement:

Across from New Orleans on the North Shore of Lake Pontchartrain, this historic city has long been a bucolic waterfront retreat from urban life where the natural landscape is woven into everyday experience. In response to recent growth and development pressure and building on the City's recent investments in a Resilience Plan and Pedestrian & Bicycle Plan, this parks master plan seeks to strengthen the city's identity as a place of natural beauty by prioritizing a nature-based approach to park design and maintenance, increasing multimodal connectivity between parks to improve safety and equitable access, and reconnecting the city's natural bayous to the lakefront.

The plan recommends growing the park system with three new signature parks: a former city landfill that will connect underserved neighborhoods to an existing regional bike trail, a lakefront park that will pilot a living shoreline protected by off-shore breakwaters, and a neighborhood stormwater park with an outdoor classroom that will reconnect the flow of a historic bayou and mitigate localized flooding.

MP170.01

Planning Area: (sq mi) 7.3 sq mi

Cost per Square Foot: N/A

Construction Cost N/A

Date of Completion: February 2024



A Parks Master Plan

A historic waterfront town across Lake Pontchartrain from New Orleans, this North Shore city has always had a close relationship to water. The small city's urban form is shaped by a series of bayous meandering towards Lake Pontchartrain. Though the city has expanded beyond its historic footprint, its identity is still defined by the lakefront's connection to upland wooded areas by way of historic bayous and creeks.

This Parks Master Plan seeks to enhance existing parks and connections between them, identify new opportunity sites for future parks (shown here with black labels), and deepen resilient connections to water across the entire parks network.



Visualizing Risk: Storm Surge, Sea Level Rise, and Coastal Hooding



Historic Bayous at North Shore of Lake Pontchartrain

Existing Hydrology: Historic Bayous Constrained & Buried

Building Resilience Into Parks

As a lakefront city (and therefore an oceanfront city, as Lake Pontchartrain is technically an estuary connected to the Gulf of Mexico) with no perimeter protection from storm surge, "resilience" is more than a buzzword on the North Shore. To foreground issues of flood risk and set critical design datums for new projects, the design team began by visualizing the city's past, present, and future relationship to water.

Old maps tell the future: the historic bayous that lace through the core of the city align with existing flooding hotspots. Reconnecting the city to these historic waterways emerged as a key goal of the parks master plan, both to bolster flood resilience and to leverage waterways as the backbone of the parks system.



Networks, Systems, & Development

- Existing Park System
- Roads
- Bicycle Paths
- Pedestrian Paths
- Land Use
- Buildings

Land & Ecology

- Topography
- Soils
- Plant Communities:
 - Mesic Longleaf Pine Flatwoods
 - Bald Cypress-Tupelo Floodplain Forest
 - Coastal High Salt Marsh

Water

- Historic Bayous
- Lakefront
- Natural Drainage Patterns
- Rainfall
- Groundwater

MP170.04

Layered Planning Approach

The master plan begins with fundamentals of water, land, and ecology. The essential underlying layers of this place can be easily be forgotten, but they tend to be rediscovered: for example, historic waterways make their presence known during flood events.

Working with, rather than against, these essential natural systems is key to the City's identity as a place of natural beauty.

Practically, a shared understanding of the native plant communities of this area will help to guide plant selection and programming of new parks and open spaces.

Public Workshop 1 Public Workshop 2 Public Workshop 3 Inventory Analysis **Key Projects**



Today

Most common activities in the City's parks today:

Walking (71%) Biking (57%) Community Events (52%) Playgrounds (40%) Hiking, Running (28%) Bird watching (25%) Kayaking (19%)

Tomorrow

Residents would like to see more of the following:

Safe Bike & Pedestrian Connectivity Native Plants Nature Area Access **Educational Opportunities Restrooms & Water Fountains** Shaded Play Spaces



 Public health Identity as a family-oriented community Cultural events



Passive Parks Public health · Identity as a place of natural beauty Urban heat mitigation



Conservation Areas Biodiversity Habitat Identity as a place of natural beauty



MP170.05

Community Consensus & Park Typologies

Three public workshops were hosted during the master planning process to gather input and identify constraints and opportunities for new parks.

To supplement in-person workshops, a four-month online survey gathered public input on current uses, desired improvements, and future aspirations for the park system. Respondents provided detailed feedback based on their deep familiarity with the parks, helping the design team identify the biggest gaps in existing programming.

Seven park & green space typologies were identified through field visits and conversations with the public; these provided a framework for identifying maintenance needs and best practices.



Collective Vision: The Future Parks System

The public design workshops directly informed the design team's work by adding critical local information not available in maps and GIS data sets. By synthesizing community input with the physical geography of the city, the vision for the parks master plan was born.





Landscape Management

The plan includes a plant selection and sustainable landscaping toolkit to help City leaders and residents confidently make ecologically sound and economical landscaping decisions for property development.

This toolkit looks to existing ecology as a guide for future development: native landscape types were mapped and drawn in long transects to help define planting approaches to existing and new parks.





Located along Mandeville's bayous, the floodplain forests slow and filter water, providing flood protection to upland development.

MP170.08

Longleaf Pine Flatwoods

Each of the four landscape types were studied for ecological constraints and opportunities to guide the design of new <u>parks</u>.

Shown here, the Southern Coastal Plain Mesic Longleaf Pine Flatwoods group is dominated by Longleaf and Loblolly Pine tree species that range from an open savanna canopy condition to a denser woodland canopy. This landscape type helped to define a landscape design approach for the upland areas of new parks.



From Plan to Project

During the planning process, three City-owned vacant parcels were selected as high-impact new parks and developed further to demonstrate the goals and values of the master plan.

These parcels had sat vacant for years and were brought to life through their connections to the broader park system illustrated in the master plan.





Informal connection between the landfill site and the Tammany Trace

View of landfill elevation from America Street

Former Landfill Site Conceptual Design

A former city dump, this site is adjacent to the Tammany Trace, a popular rails-to-trail cycling path with excellent regional connections but few access points from the neighborhoods in this area. Thus a primary goal of this park is to create safe access to the Trace, carrying the added benefit of connecting residents to a nearby underpass that allows for safe crossing underneath the busy and dangerous Florida Street.

The park design features a natural playground, plenty of shade, space for playing fields, a restroom building, and perimeter stormwater storage that captures water on site. In so doing, this new investment will connect the City to a global trend in converting former landfills to nextgeneration urban parks.





Ravine aux Coquilles channelized underneath Carroll Street



1926 map showing Ravine aux Coquilles as surface water

MP170.11

Carroll Street Site

Located just upstream of where Ravine aux Coquilles disappears into an underground culvert, the Carroll Street property is a site of frequent flooding. Re-naturalizing this relatively small property is a big idea: restoring the natural flow of the historic bayous is a key initiative of this master plan.

This site's proximity to a school, position within a walkable neighborhood, and location at the approximate halfway point between the lakefront and the relative high ground of Florida Street make this a prime opportunity for a communityoriented stormwater park.

Strategic cut and fill of this site will add both stormwater storage capacity and space for water from Ravine aux Coquilles during storm events. Developing this site into a neighborhood-scale park leverages previous City investments in two nearby parcels adjacent to the Ravine. Though these nearby parcels are smaller, they are well positioned for additional storage capacity of stormwater.

Future parcels were identified in the planning process to create a trail along the bayou all the way from the Carroll Street Stormwater Park to the historic lakefront.





West Toll Plaza Site

Newly acquired by the City, this parcel sits in the shadow of the toll plaza of the Lake Pontchartrain Causeway. With a secretly beautiful beach offering sunset views filtered by cypress trees, this hidden gem will add a naturalized lakefront experience to the waterfront.

Building on this park design, future connections across nearby privatelyowned parcels were identified to grow public space along the lake.

Views of the site shoreline from the causeway toll plaza



West Toll Plaza Site: Conceptual Design

This signature park will feature a permeable "parking forest," restrooms, a nature-based playground, and a trail that brings visitors from the upland neighborhood side through a cypress forest to a lakefront marsh overlooking segmented breakwaters and a living shoreline. A kayak launch offers a spot to connect by water to the City's existing lakefront park.

The park is designed to serve as a pilot project for future living shorelines along the lakefront to mitigate storm surge and provide critical plant and animal wetland habitat.



Project Name: Mandeville Parks & Recreation Master Plan

Project Location: Mandeville, LA

Owner/Client: City of Mandeville

Architect(s) of Record: (names and addresses) Waggonner & Ball 2200 Prytania St New Orleans, LA, 70130

Project Team: John Kleinschmidt Delaney McGuinness Zoe Swartz Sophie Riedel Cassie Nichols Lex Agnew

Landscape Architect: Waggonner & Ball

Consultants: N/A

General Contractor: N/A

Photographer(s): (please list which specific slides get credited to each photographer(s) listed). All photos by Waggonner & Ball

MP170.14

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