# Mirabeau Water Garden

Fact Sheet | March 2018



Mirabeau Water Garden, view from above during a 2-year storm event

#### Site Overview

Located off Mirabeau Avenue between Bayou St. John and the London Avenue Canal in Gentilly, the Mirabeau Water Garden is a public works project that will transform a 25-acre open site into a recreational and educational amenity that reduces flood risk.

The land was donated to the City of New Orleans by the Congregation of St. Joseph on the condition that it be used to enhance and protect the neighborhood.

## Vision

The Mirabeau Water Garden is a showcase project of *Resilient New Orleans*, the city's resilience strategy which outlines three key visions for the city's future: adapt to thrive, connect to opportunity, and transform city systems. The water garden vision is based on innovative site design and stormwater management features developed in the Greater New Orleans Urban Water Plan. This vision was embraced by the Sisters of St. Joseph as one that, in their own words, "would manifest the holiness and the beauty of this land... and evoke a huge systemic shift in the way humans relate with water and land."

### Issues to be Addressed

**FLOODING** – excess water the drainage system cannot handle

New Orleans receives 60 inches of rainfall per year on average. Flooding occurs during greater rates of rainfall. Our drainage system can handle one inch of rain for the first hour, and one-half inch with each following hour.

**SUBSIDENCE** - sinking of the land caused by dry organic soils

Low-lying areas of New Orleans, such as Gentilly, are former marshlands with organic (highly porous) soils that need water to remain stable. Pumping drains the soils of water, causing them to shrink like a sponge and swell again when it rains. This shrink-swell effect causes differential movement, which damages streets and building foundations.



#### **Design Objectives**

**DIVERT and temporarily store up to 10 million gallons of water** from street drainage pipes into a site detention pond to mitigate flooding

**INFILTRATE** water into the site's sand layer to allow organic soils to stabilize and limit subsidence

**CLEAN** water of pollutants through a series of constructed filtration wetlands to improve water quality and allow visitor interaction

**EDUCATE** by demonstrating how natural processes can be utilized for more sustainable water management and local ecology

## **Timeline & Funding**

The City has secured \$12.5 million dollars in federal funding from FEMA through the Hazard Mitigation Grant Program (HMGP). The project will also receive additional federal funding through the City's award from the US Department of Housing and Urban Development (HUD)'s National Disaster Resilience Competition (NDRC).

FEMA HMGP funds are to be used solely for hazard mitigation. This project will use FEMA funds to reduce flood risk from intense rainfall events by relieving pressure on the current drainage system in the neighborhood.

The HUD funds to be invested in this project will be used to enhance landscape design and support programmatic features such as educational or recreational amenities that will be developed through further discussions between the City and the community.

Design plans are currently in progress. FEMAfunded Phase 1 of the project is estimated to begin construction in 2018. Planning for HUDfunded Phase 2 begins in 2018 with the project opening estimated in 2021.

## Contact

Charles Allen III Resilience Outreach Manager ceallen@nola.gov 504-658-2215

www.nola.gov/resilience

#### **Benefits**

The Mirabeau Water Garden will be a public asset, destination, and environmental classroom. Visitors will be able to see and learn, through interactive features, how the site functions and is part of an integrated water management system that benefits the surrounding neighborhood by taking flood waters away from streets and homes and storing them in the landscape.

Once completed, the project should benefit nearby residents by not only reducing flood risk but by increasing property values, providing a recreational amenity, a community gathering space, and reducing the risk of soil subsidence in the area.

#### Gentilly Resilience District

The Mirabeau Water Garden is a key component of the city's Gentilly Resilience District. The Gentilly Resilience District is a combination of efforts across Gentilly to reduce flood risk and slow land subsidence. The city's first Resilience District uses various approaches to water and land management that have been successfully piloted throughout New Orleans. When implemented together, these approaches are intended to beautify neighborhoods, improve health, and provide opportunities for recreation.



Gentilly Resilience District project locations