



# **Wetland Park & Nature Trail**

## **Community-Led Resilience in the Lower Ninth Ward**



# About Sankofa CDC



**Building healthier communities for generations to come.**

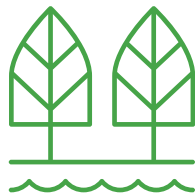
A 501(c)3 non-profit organization founded in 2008 by Lower Ninth Ward residents committed to revitalization of the area

Works with residents and other community stakeholders to identify locally-felt social challenges to address them in thoughtful, culturally-competent ways

Addresses the social determinants of health to create a local environment that promotes positive health outcomes and builds healthier communities for generations to come

# The Sankofa Wetland Park and Nature Trail

A 40 acre green infrastructure project along Florida Avenue in the Lower Ninth Ward of New Orleans



Part of an effort to address long standing resiliency and community revitalization challenges in the Lower Ninth Ward



A community-driven effort to eliminate blight and blend sustainable community development with environmental resiliency



# Sankofa Wetland Park and Nature Trail

## Master Plan Concept

EXPANSION POTENTIAL:  
EXTEND MULTI-USE TRAIL WEST TOWARD CORPS  
OF ENGINEERS PARCEL AND GO SOUTH ALONG  
THE INDUSTRIAL CANAL TO CONNECT SANKOFA  
WETLAND PARK TO MORE OF THE NEIGHBORHOOD





# Project Timeline





# Funding

## Awarded

- 2016**   \$100,000   S&WB Green Infrastructure Program
- 2019**   \$275,000   Coastal Protection Restoration Authority
- \$30,000   EPA Environmental Justice Program
- 2020**   \$19,000   USDA Natural Resource Conservation Service
- \$100,000   Entergy New Orleans Environmental Initiative

## Applied, Not Yet Awarded

- 2021**   State of Louisiana Capital Outlay Funds  
              Economic Development Administration
- 2022**   Watershed Funding  
              FEMA Hazard Mitigation Program



# Benefits

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## from the Sankofa Wetland Park and Nature Trail



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1. Flood Resilience
  2. Ecology
  3. Civic Engagement
  4. Health
  5. Economy
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A photograph of a flooded residential area. In the foreground, several trees with green leaves are partially submerged in murky floodwater. The water reflects the sky and the surrounding environment. In the background, a grassy lawn and a paved road are visible, with houses and utility poles in the distance under a cloudy sky.

# Flood Resilience



# Stormwater Management

- The Wetland Park acts as a “sponge” that soaks up and cleans the water and keeps the Lower Ninth Ward dry
- Currently, 800,000 gallons of water flow into the wetland area
- The bioretention ponds at the Wetland Park could retain up to 8 million gallons of water and reduce flooding
- Wetlands help to remove pollutants from stormwater runoff because plants in and around the wetlands filter out the toxins and chemicals in the water







# A Flood Protection Strategy

- Wetland restoration and preservation is an important component of a comprehensive flood protection strategy; often more effective and costs less than a system of traditional dikes and levees.<sup>1</sup>
- Freshwater wetlands, like the Sankofa Wetland, typically have more coverage than saltwater wetlands, providing a wider buffer zone against storm surges.<sup>2</sup>



# Wetlands and Hurricane Damage

- The degradation of the wetlands in the Bayou Bienvenue culminated in the complete inundation of the Lower Ninth Ward by Hurricane Katrina.
- The Wetland Park is designed to restore the once vibrant marsh and increase hurricane protection and floodwater mitigation in the Lower Ninth Ward.



Image by Diana Robinson, Flickr<sup>3</sup>

# The Wetland Park and its Impact



- Reduction in property damage during rain events
- Reduction of temporary road closures during rain events
- Increased feelings of safety and security among residents for self and property
- Reduction in flood insurance premiums
- Increased property value



# Resilience Outcomes at the Wetland Park

## The Wetland Park project would:

- Store **8 million** gallons of water
  - » Change a 5.37-inch rain event into a 1.58-inch rain event over 2 years of construction
- Remove over **3,000** invasive plant species
- Plant **40** acres of native vegetation with 10,000 cypress and tupelo trees







# Ecology



sankofa

# Wetland Park & Nature Trail

Fun Facts



10

bat species identified  
within the park



152

different species of birds  
observed at the park (and  
counting)

400

irises planted (with  
more on the way)



500

native trees  
planted



2,000

feet of trails created



2,200

invasive tallow trees  
removed





# Wetland Ecologies

- Wetlands are among the most productive ecosystems in the world, comparable to rain forests and coral reefs.
- Wetlands create a habitat and provide shelter for thousands of species of plants and animals.
- Trees, plants and other wetland park features (detention basins, bioswales, rain gardens) slow and clean stormwater runoff.
- Plants in the wetland park can clean groundwater, which can reduce the effects of land subsidence.







# Native Plants

- Provide shelter and food for wildlife
- Help reduce air pollution
- Require less water than lawns and help prevent erosion
- Do not require fertilizers and require fewer pesticides than lawns
- Promote biodiversity
- Increase scenic values and beautification
- Trees protect neighborhoods during hurricanes and heavy rain events



# Conservation Outcomes at the Wetland Park

## The Wetland Park project would:

- In the Short-Term: Restore 32 acres of the Wetland Park in 2 years
  - » Increase bird, fish, and wildlife species within the wetland park by 25% within 4 years of completion
- In the Long-Term:
  - » Increase the bird population using the park by 85%
  - » Will serve as a stopover location for migratory birds







# Civic Engagement





**"For decades, this section of Florida Avenue was an eyesore in the Lower Ninth Ward. It was [an] area of blight and illegal dumping. Through Sankofa's leadership, the area is being developed into [a] wetland park and nature trail. As a resident of the Lower Ninth Ward, I am thankful for the work Sankofa has completed in the transformation of [an] area of neglect into an area of beauty. I am excited about the future of the Wetland Park and the positive impact it will have on our community."**

**Dawn Davis, Lower Ninth Ward resident**



# Community Engagement and Leadership



- Regular input sessions will give community members the opportunity to provide feedback on park development
- Field trips for children and people of all ages involve activities related to water quality monitoring, species identification, green infrastructure, and the importance of wetlands



# Workforce Development

- Will provide job training for 200 community members over two years
- Groundskeepers, horticulture workers, gardeners, plant and lawn specialists
- Will aim to place 160 trainees into green infrastructure jobs





# Activities at the Park

- **Saturday Sankofa Green Team**
  - » Meets monthly to maintain trails, pull weeds, remove invasive plants, install native plants
  - » All ages
- Community clean-ups
- Bird watching
- Native species identification
- K-12 lessons







# Kids Corner

An online hub for students, teachers, and others interested in growing their knowledge about wildlife, native plants, and the Sankofa Wetland Park.

- Students can submit any related question to the Sankofa team via email.
- Lesson plans adaptable for K-12 students are available to help train students as young scientists and promote stewardship through awareness that local environments function as part of larger, connected ecosystems.
- A native plant guide to learn more about the native plant species of the NOLA area as well as how to identify them.



# Civic Outcomes at the Wetland Park

## The Wetland Park project would:

- Provide opportunities for volunteering and leadership development
- Provide job training for 200 individuals within 2 years
- Provide educational opportunities and exposure to nature for youth







# Health Benefits





**"The Sankofa Nature Trail and Wetland Park will provide an opportunity for youth to enjoy and learn their natural environment. It gives me joy to know there will be a nature park in the Lower Ninth Ward. The residents of the Lower Ninth Ward need a walking trail and a safe place to exercise. This park will provide beauty in a place that was once abandoned."**

**Gaynell Brady, Founder of Our Mammy's and a resident of the Lower Ninth Ward**



# Green Spaces and Health



## Access to green spaces:

- Increases physical activity
- Reduces risk of chronic diseases, such as heart disease, diabetes, and cancer
- Builds bone density and increases Vitamin D exposure, which also supports bone health
- Improves sleep quality and ability to fall asleep
- Supports mental health and community and social cohesion



# Health Outcomes at the Wetland Park

## The Wetland Park project would:

- Provide recreational space for walking, jogging, kayaking and canoeing, and other physical activities







# Economic Benefits



# Economic Benefits

- Economic benefits that the park will create, according to an analysis by Earth Economics, include:
  - » Flood Damage Reduction
  - » Water Quality Improvement
  - » Reduced Strain on Pumping System
  - » Habitat Value
  - » Educational Value
  - » Recreational Value
  - » Public Health Value
  - » Carbon Sequestration
  - » Subsidence Risk Reduction
  - » Aesthetic Benefits



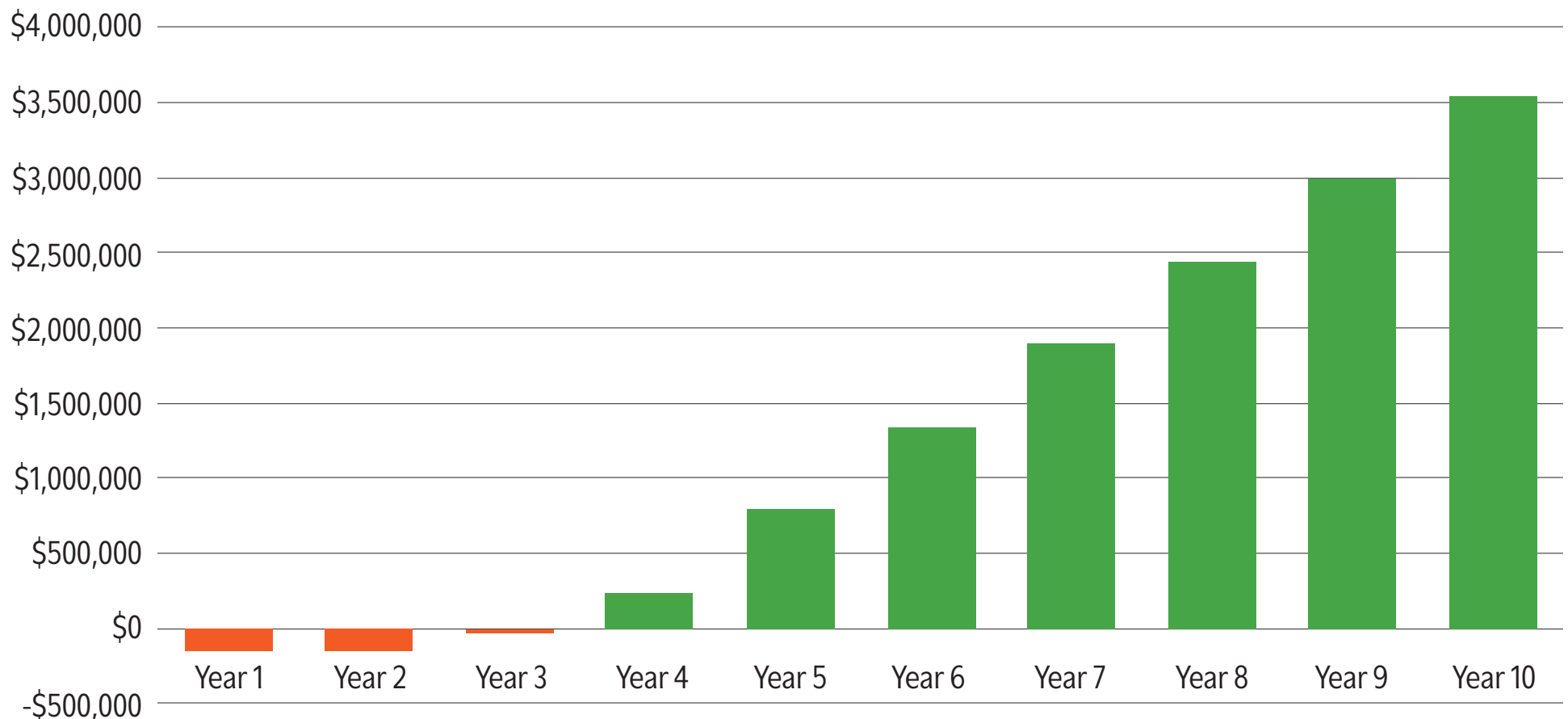


# Cost Benefit Analysis

A cost-benefit analysis of a 4-acre expansion of the wetland park indicated \$393,634 in net present value (including all costs and benefits) for the 4-acre area.<sup>4</sup>

**This means that every dollar invested in the expansion area is estimated to return \$3.45 in public benefits over a 30 year period.**

Net Return on Investment

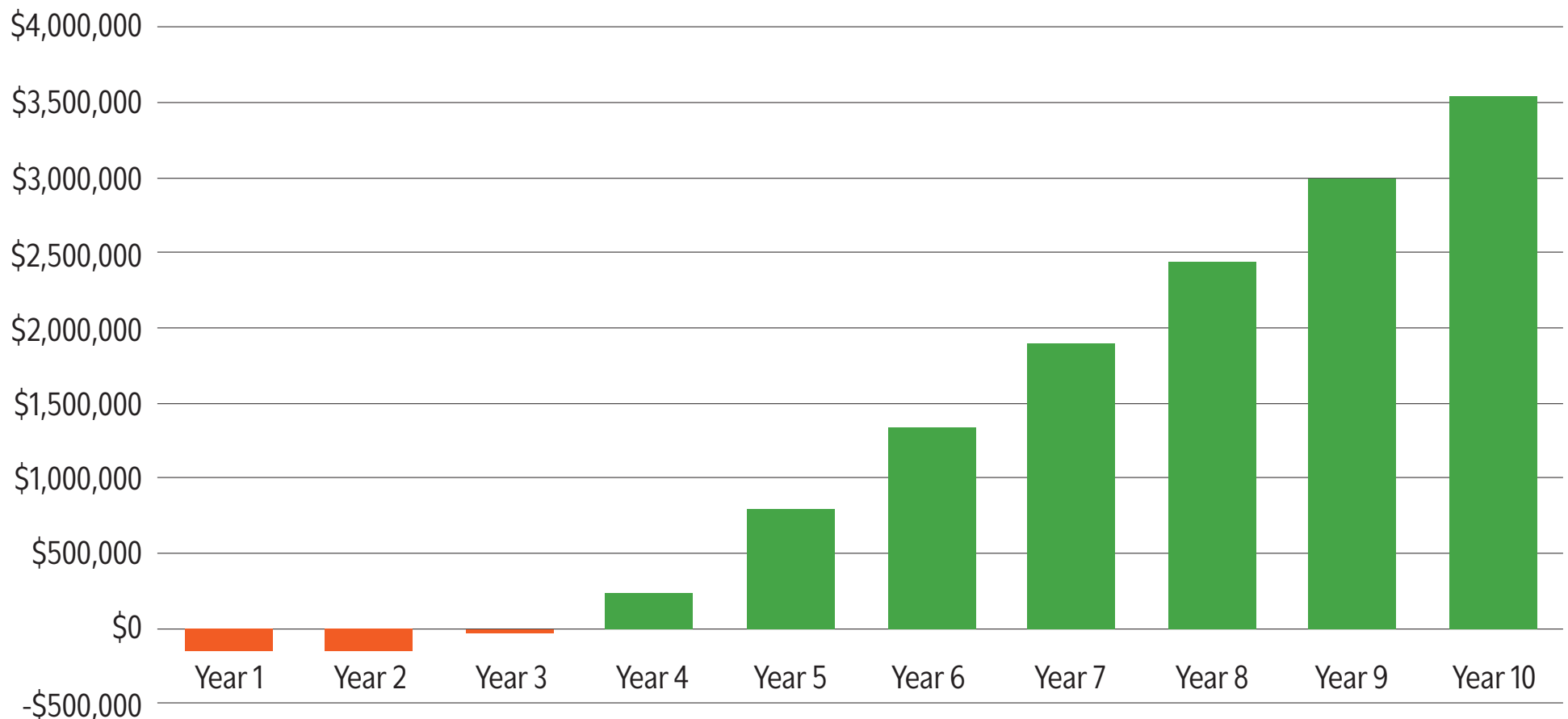




# Cost Benefit Analysis

An analysis estimates a total cost of \$1.2 million for constructing the entire 38-acre expansion for the wetland park.<sup>5</sup> Using the estimated figure of \$3.45 in benefits per \$1 expenditure, **the 32-acre expansion would have a Net Present Value of \$4.14 million, generating a net benefit of nearly \$3 million for the Lower Ninth Ward community.**

Net Return on Investment





# Spillover Effects





# Spillover Effects

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- The economic net benefit of \$3 million only covers economic activities within the park
    - » It does not account for spillover economic effects in the area and the Lower Ninth Ward as a whole
  - Additional economic benefits include:
    - » Increased economic activity due to visitors coming to the Wetland Park
    - » Increased property values and increased development activity due to the development of the Wetland Park
    - » Increased tax revenues
    - » Increased tourism revenue
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An aerial photograph showing a coastal landscape. A railway line with overhead power lines runs diagonally from the bottom right towards the top center. To the left of the railway is a river or canal, and further left is a residential area with houses and trees. In the background, a city skyline is visible across a body of water. The text "Current Status" is overlaid in the center in a large, white, sans-serif font.

# Current Status



# Current Status

- Sankofa has completed a 2-acre pilot that demonstrates the project's viability
- Planted 400 native irises and 1,000 bald cypress trees
- Developed a retention pond on 8 acres of restored wetland
- Can currently retain 1.8 million gallons of water and increased wildlife species diversity within the park
- It is seen as a model for community-driven resiliency planning
- We are looking to expand along the site's remaining 38 acres







# Thank You!

**sankofa**  
COMMUNITY DEVELOPMENT CORPORATION

**Rashida Ferdinand**  
**Founder & Executive Director**

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# Endnotes

- 1 US Environmental Protection Agency, "Wetland Functions and Values," last modified February 2016, <https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>.
- 2 Sun, Fanglin, and Richard T. Carson. "Coastal wetlands reduce property damage during tropical cyclones." *Proceedings of the National Academy of Sciences* 117.11 (2020): 5719-5725.
- 3 Diana Robinson, "Lower Ninth Ward, New Orleans," Jan 4, 2011, <https://bit.ly/3mkvTmV>
- 4 Earth Economics, "Benefit-Cost Analysis of Sankofa Wetland Park."
- 5 The Caulfield Consulting Group, "Financing Options for a Wetland Park and Nature Trail Project," January 2019.