



# HABITAT RESTORATION AND COMMUNITY CONNECTIONS



**U.S. Fish & Wildlife Service**

*John Heinz National Wildlife Refuge at Tinicum  
America's First Urban Refuge*



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## John Heinz

### National Wildlife Refuge at Tincum Trail Map



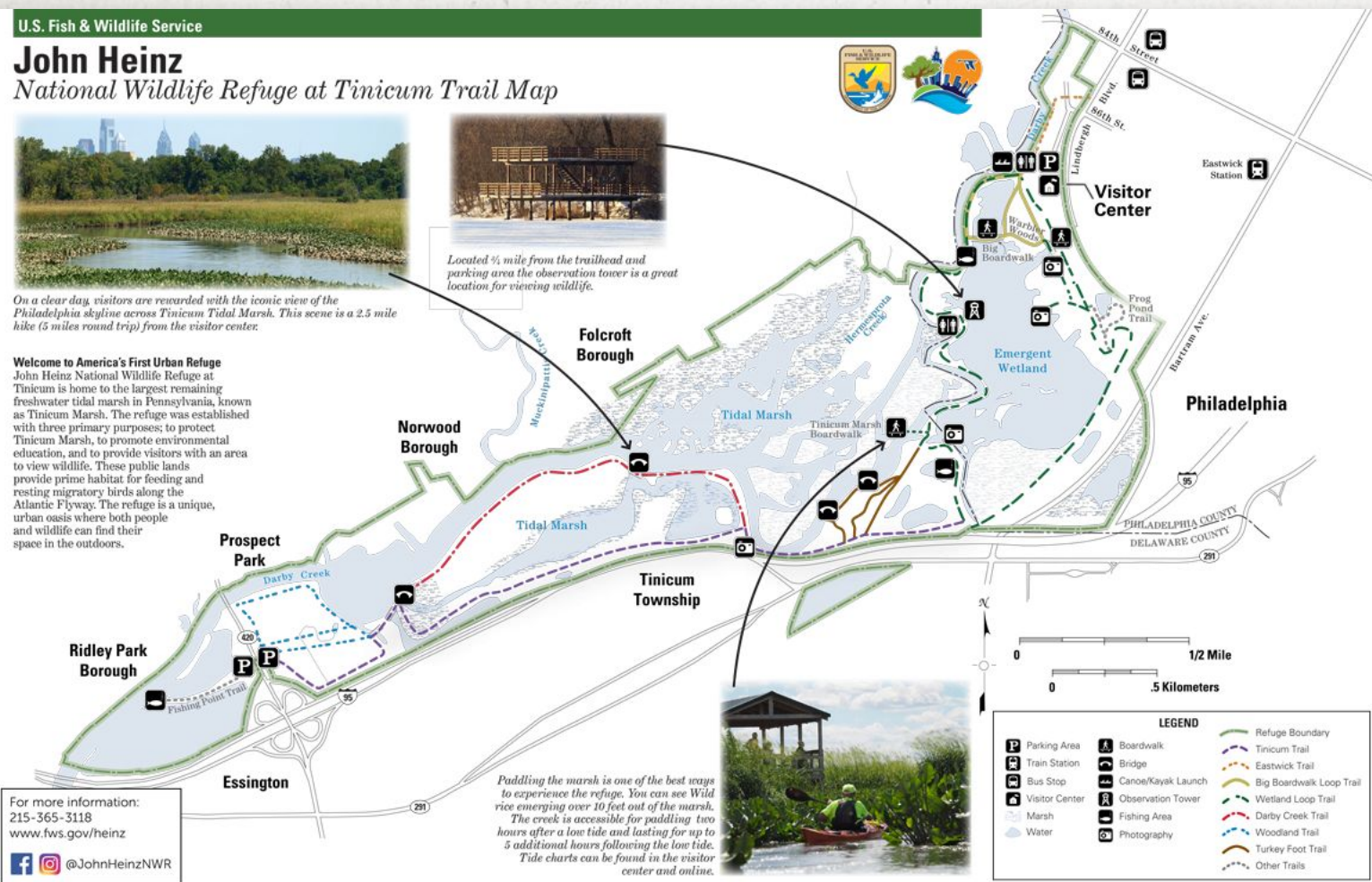
On a clear day, visitors are rewarded with the iconic view of the Philadelphia skyline across Tincum Tidal Marsh. This scene is a 2.5 mile hike (5 miles round trip) from the visitor center.



Located 1/4 mile from the trailhead and parking area the observation tower is a great location for viewing wildlife.

#### Welcome to America's First Urban Refuge

John Heinz National Wildlife Refuge at Tincum is home to the largest remaining freshwater tidal marsh in Pennsylvania, known as Tincum Marsh. The refuge was established with three primary purposes; to protect Tincum Marsh, to promote environmental education, and to provide visitors with an area to view wildlife. These public lands provide prime habitat for feeding and resting migratory birds along the Atlantic Flyway. The refuge is a unique, urban oasis where both people and wildlife can find their space in the outdoors.



# JOHN HEINZ NWR OVERVIEW

- Established in 1972
- 1. Protect the largest remaining freshwater tidal marsh in PA 350 acres (~1000 acres)
- 2. Provide wildlife dependent recreation opportunities Provide environmental education.
- 3. Provide environmental education.

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# URBAN PROGRAM – EDUCATE, ENGAGE, CONNECT



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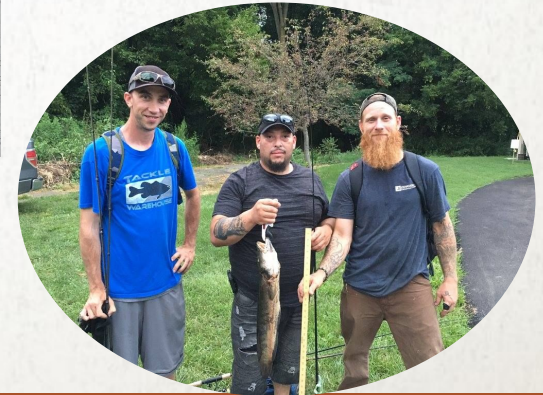
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# ACCESSIBLE WATERWAYS

## FISHING, KAYAKING...



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# ACCESSIBLE WATERWAYS

## MARSH EDUCATION AND MARSH CLEAN UPS



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# HIGHLIGHTED REFUGE SPECIES

- USFWS At-Risk Species
  - Tidewater Mucket
  - Green Floater
  - Brook Floater
  - Yellow Lampmussel
- State Listed Species
  - Southern Leopard Frog
  - Northern Red Bellied Cooter







## FLOODING AND HABITAT CHALLENGES



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# MANAGEMENT CHALLENGES

TRASH, INVASIVE SPECIES, FLOODING, SEA LEVEL RISE, & CLIMATE CHANGE





# HABITAT MANAGEMENT GOALS

## MORE RESILIENT HABITAT FOR WILDLIFE AND PEOPLE



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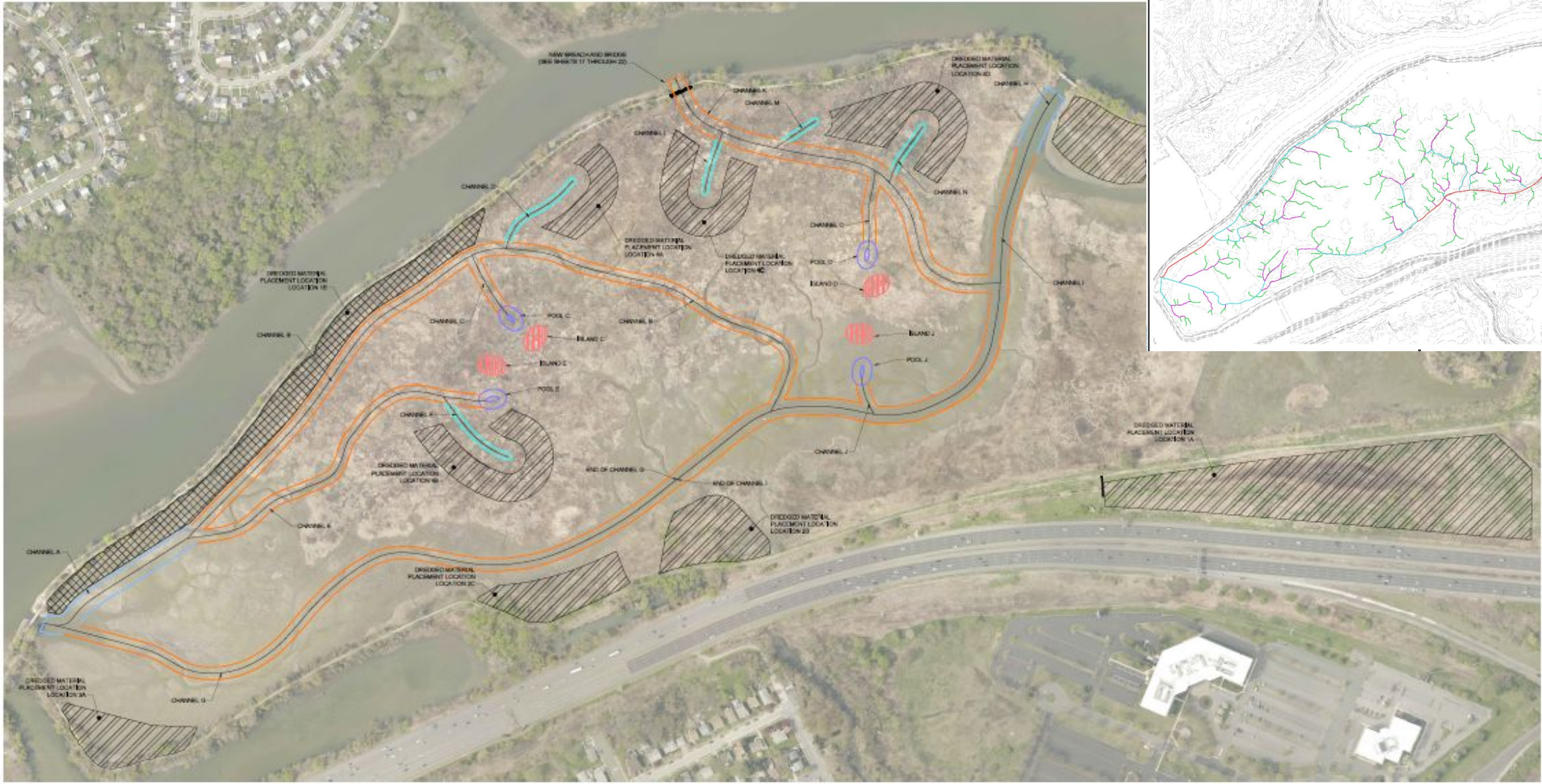
## ATHOS

- Increase tidal inundation
- Dredge, spoil island
- 55 acres
- Completion likely 2022/2023

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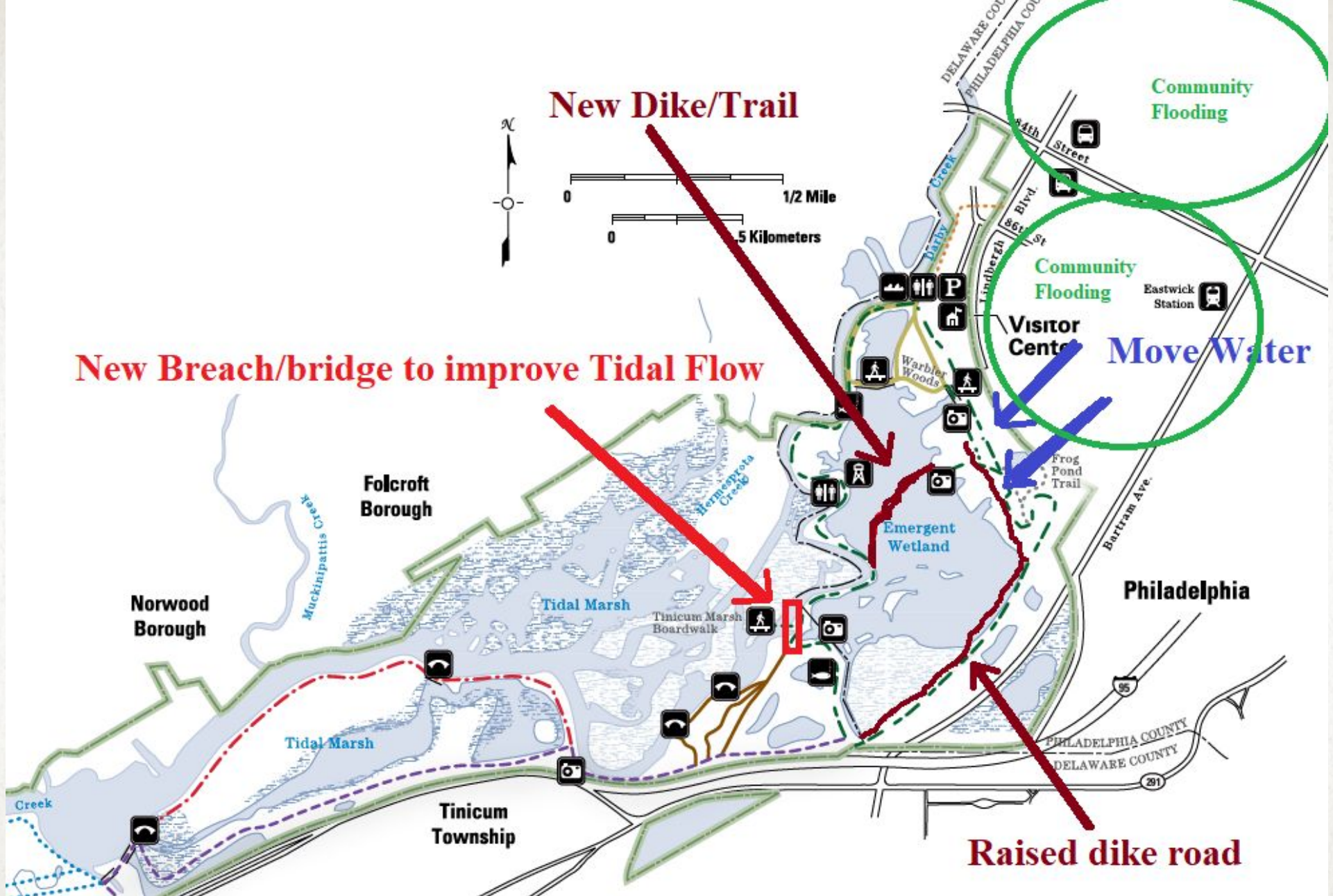
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## **IMPOUNDMENT RESTORATION**

- Pump Project with Ducks Unlimited
- Restore part of 145-acre impoundment to tidal marsh
- Increase flood resiliency
- Restores natural hydrology











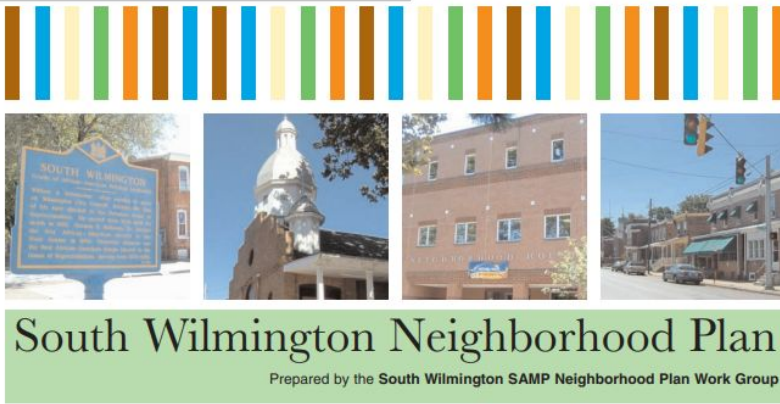
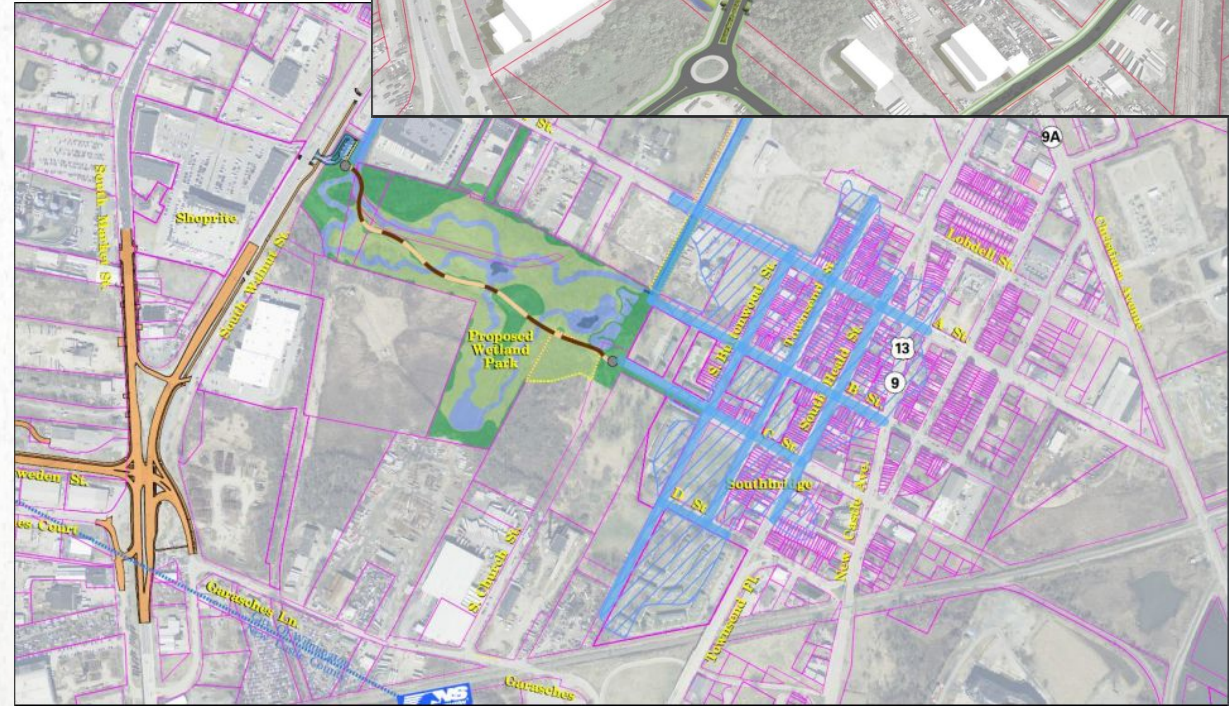
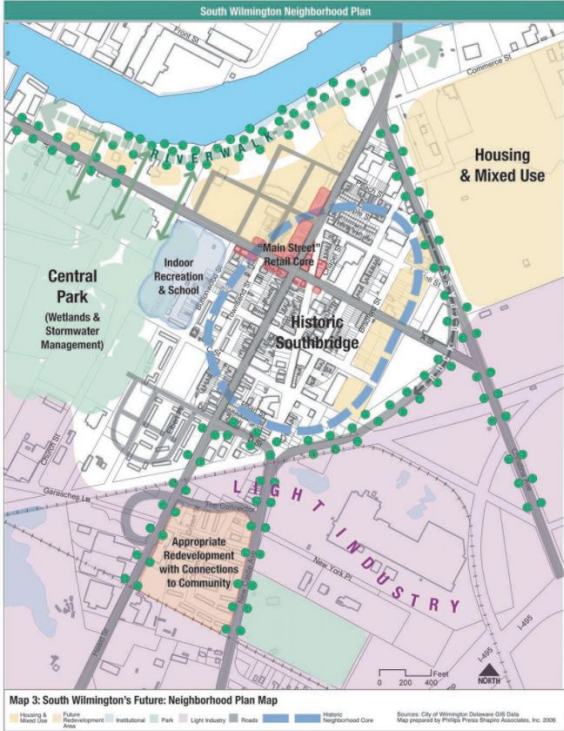
# ELEVATION MODEL

Source: 2015 City of Philadelphia Classified LiDAR LAS and Derivative Products. Interface Studio





# SOUTH WILMINGTON WETLAND PROJECT



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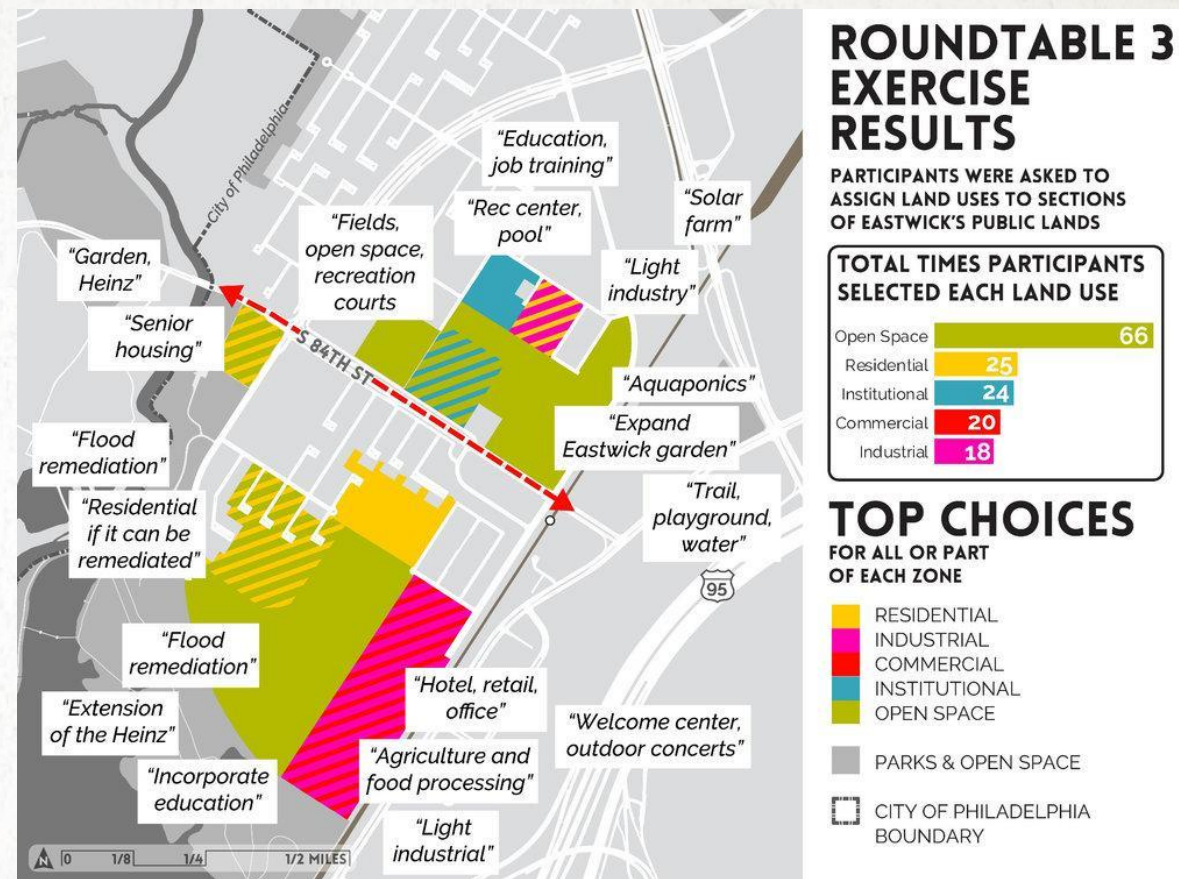




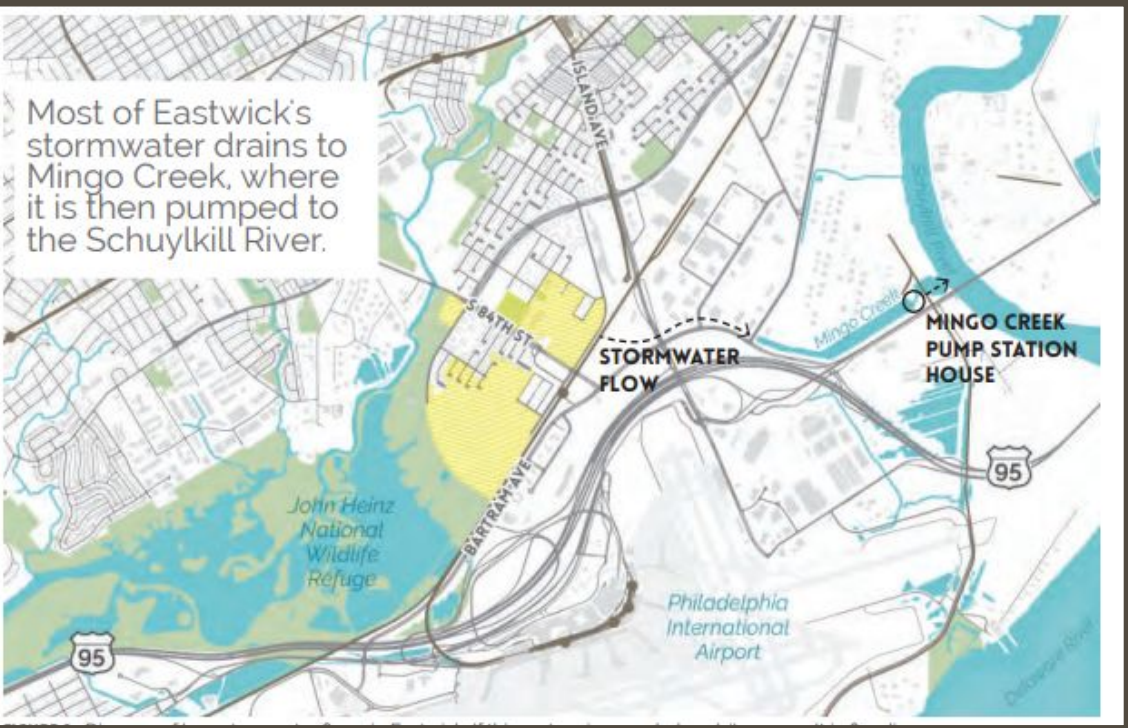
Planning for an inclusive and resilient future in Eastwick

The community's goals for Eastwick are that future development should:

- > Honor Eastwick's rich and complex history
- > Involve the community and respect its neighbors
- > Cultivate a safe, stable, and healthy neighborhood
- > Work to heal the environment (and not make any of the issues worse)
- > Celebrate Eastwick's natural setting
- > Provide sustainable access to opportunity and nurture our youth
- > Build community ties and foster diversity





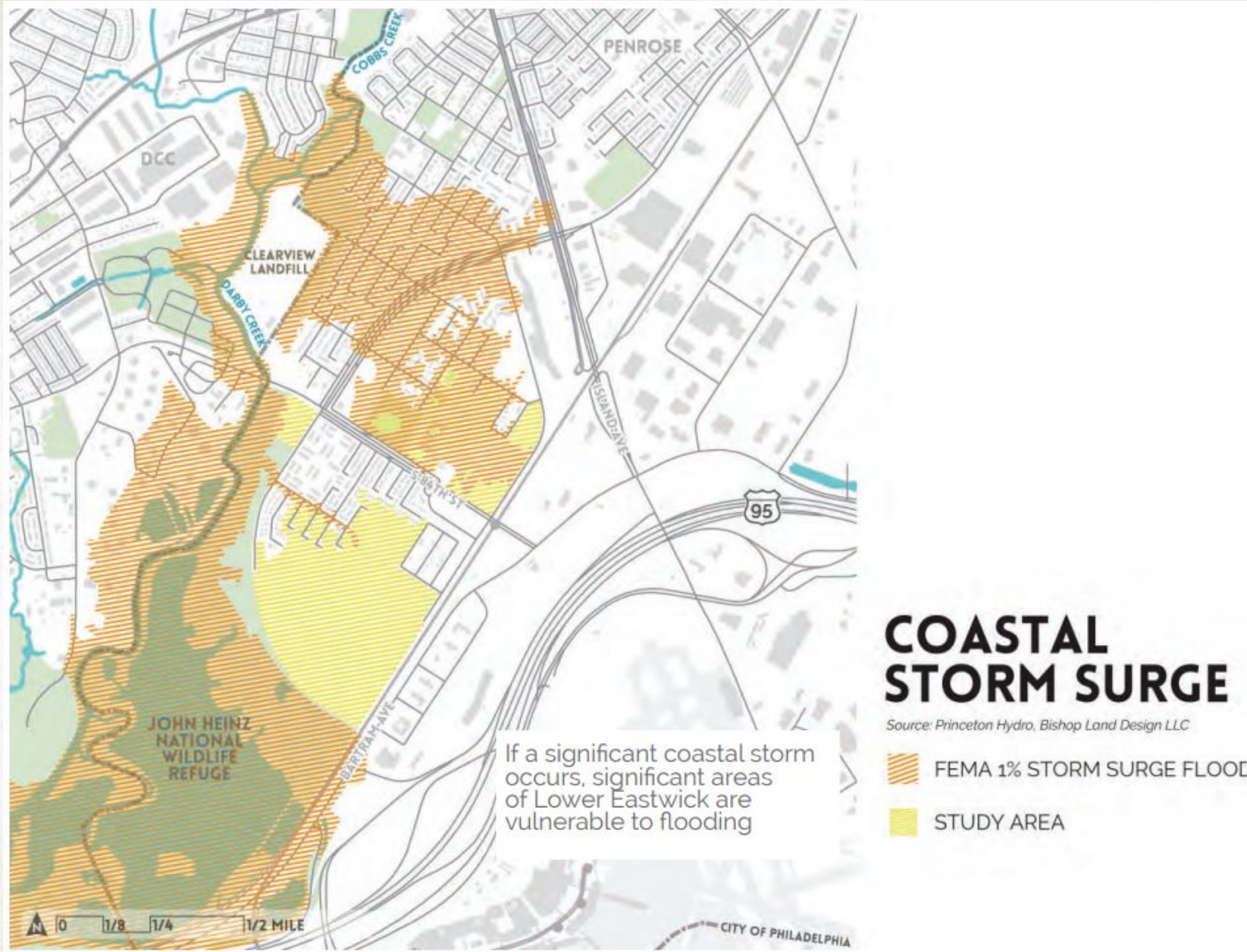


# STORMWATER INLETS

Source: City of Philadelphia, Bishop Land Design LLC

- STORMWATER INLET
- STORMWATER OUTFALL
- WATER MAINS
- STUDY AREA







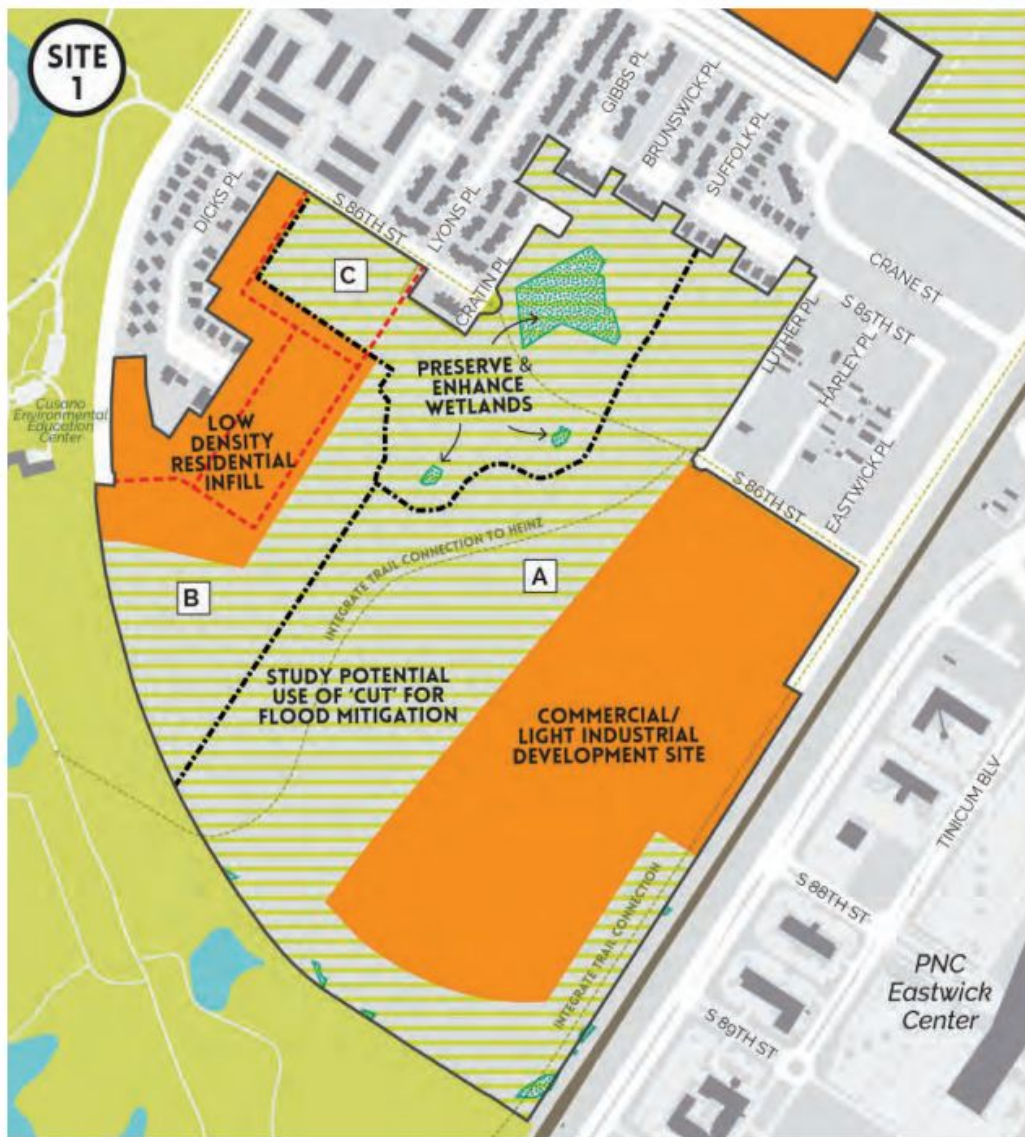


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## SITE 1 APPROACH

- PARCELS
- DEVELOPMENT POTENTIAL
- GREEN INFRASTRUCTURE
- EXISTING WETLANDS
- RECONNECTED STREET NETWORK
- PROPOSED TRAIL NETWORK



Aerial survey of Lower Eastwick in 1930, the historic drainage open channel that drained to Mingo Creek outlined in red.

Source: Map Collection, Free Library of Philadelphia

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# QUESTIONS?



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