

Proposed Claymont

Riverfront Park

Claymont Steel
Redevelopment Project

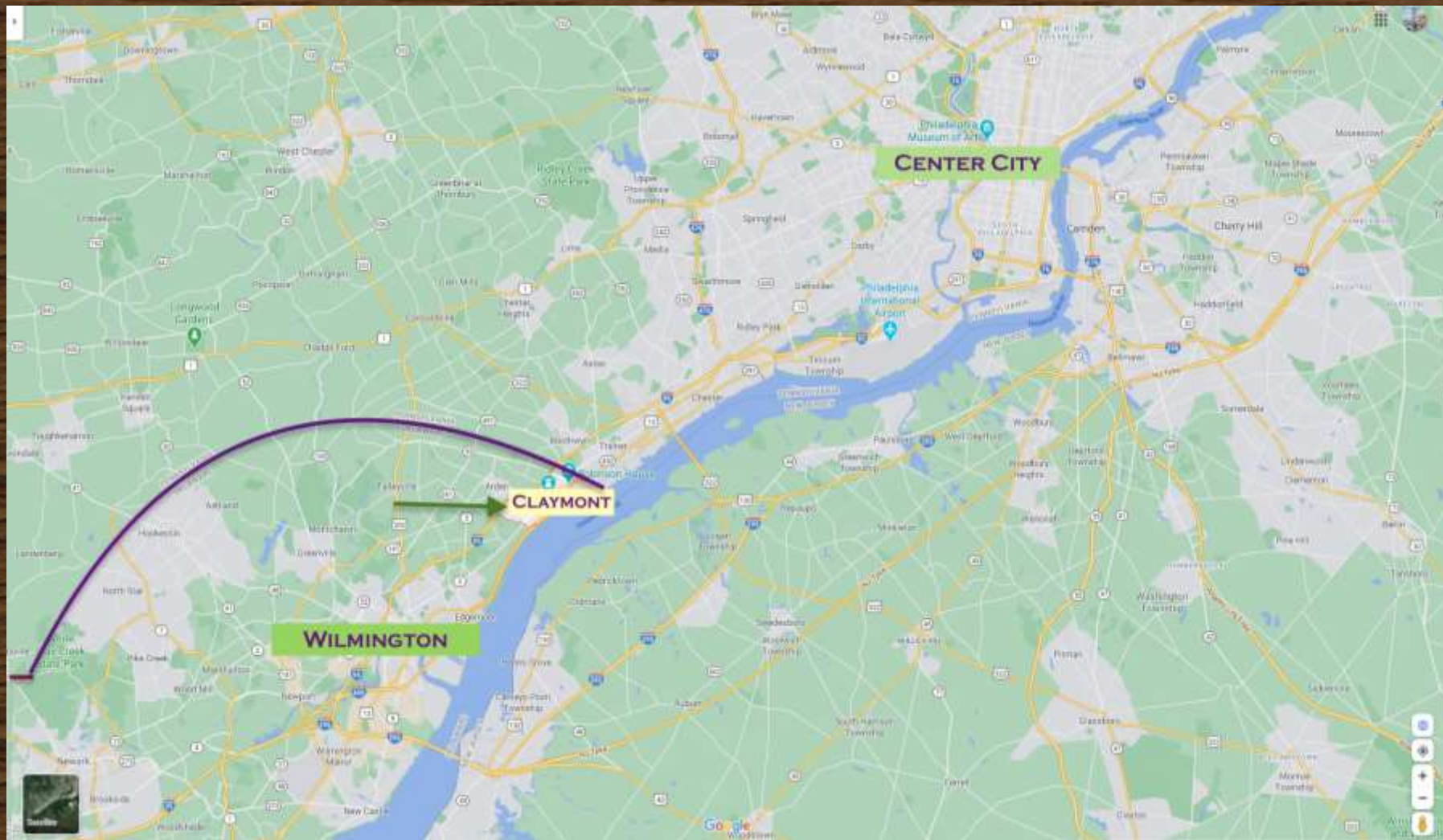
CRDC

Claymont
Renaissance
Development
Corporation

Urban Waters Webinar Series

January 18, 2022

Delawhere?



Local Area



FIRST STATE CROSSING: Concept Plan

Brandywine Hundred, New Castle County, Delaware

SCALE : 1"=120'

DATE: 12/03/19

North of Amtrak



**VANDEMARK
& LYNCH, INC.**

ENGINEERS • PLANNERS • ARCHITECTS
2000 MARKET STREET, SUITE 200
WILMINGTON, DE 19806-1000
WWW.VANDEMARKLYNCH.COM

Heuser DESIGN

ARCHITECTS
1000 MARKET STREET, SUITE 200
WILMINGTON, DE 19806-1000



East of Amtrak

**VANDEMARK
& LYNCH, INC.**
ENGINEERS - PLANNERS - SURVEYORS
4305 WALKER BL.
WASHINGTON, DC 20007-2002 202-741-7400
WWW.VANDEMARKLYNCH.COM

Claymont Steel (c.1927)



Getting Our River Back!



Origin of Riverfront Park idea

- Our historic use of the river
- Early “what if’s”
- 2013 closing of Claymont Steel
- 2015 purchase by CDC
- North Claymont Area Master Plan
- 125 acre land donation by CDC

Making of the concept plan

- Need of a visual
- UD Coastal Design Resiliency Studio
- Community input & support
- Delaware & East Coast Greenways
- Governor Carney & NCC CE Meyer



The Concept Plan





Riverfront Park Conceptual Plan

CLAYMONT, DELAWARE

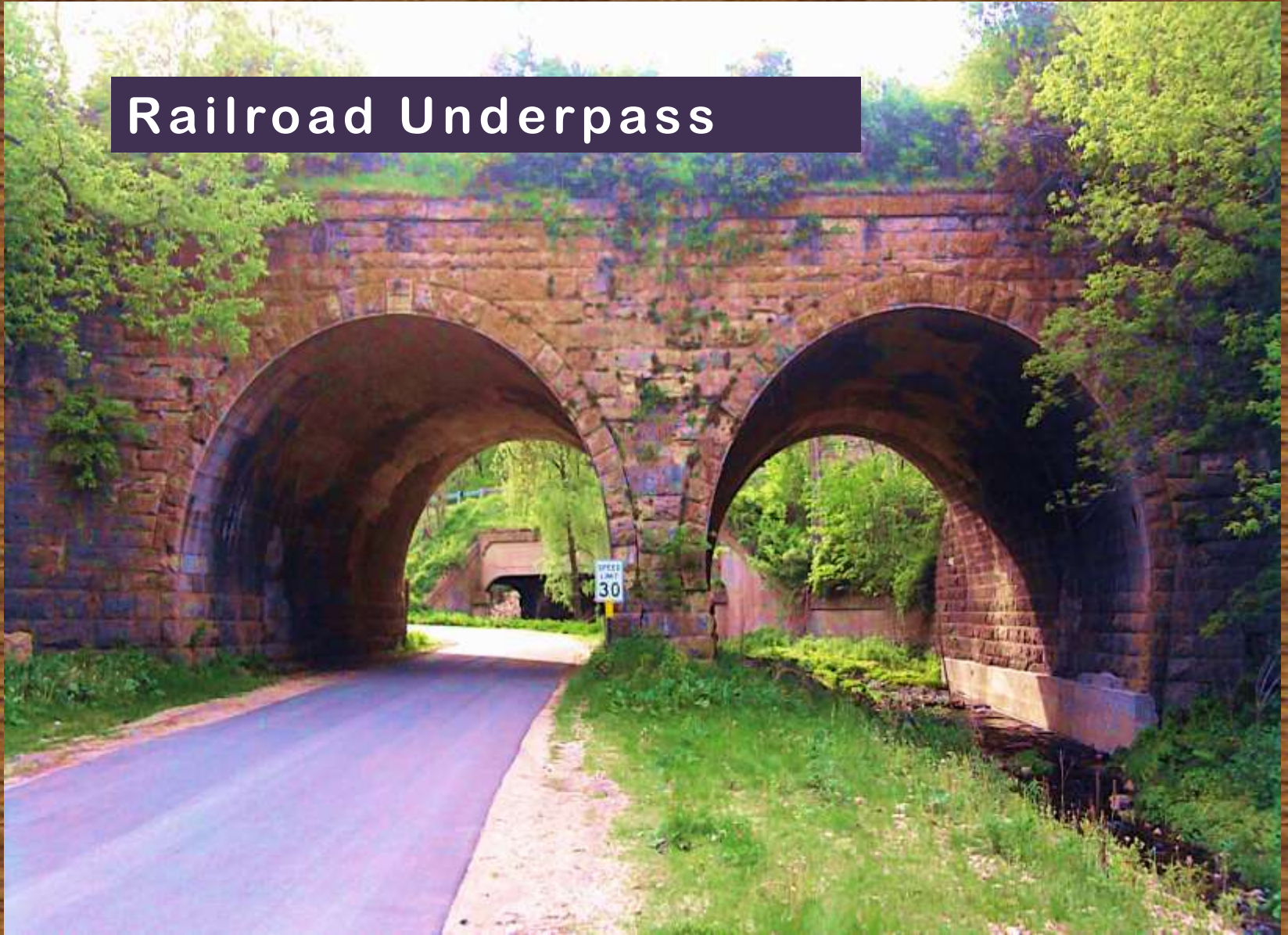
Getting to the Park

- Walking/Biking
- Automobile
- DART First State Bus
- SEPTA train
- Boat

New Claymont Transportation Center



Railroad Underpass



Riverfront Park Amenities

- Abundant nature
- 4.4 miles of trails
- 2/5 mile fitness path
- Educational / Historical “Interpretive Signage”
- Bark park
- Amphitheater
- Sports fields / Disc Golf
- Over water “Breakwater Bridge”
- Boat launch / Marina
- Riverside food establishments / retail
- Many other possibilities

Phoenix Amphitheatre



Pavilions for family use





N A M A A N
TRAIL

CLAYMONT, DELAWARE



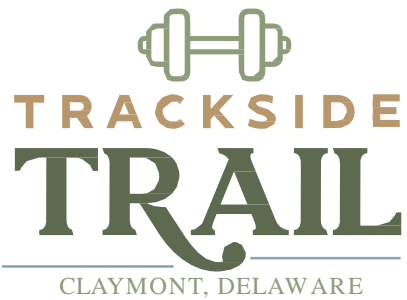


ARC FURNACE
TRAIL

CLAYMONT, DELAWARE



Outdoor Fitness Trail



TRACKSIDE
TRAIL
CLAYMONT, DELAWARE





ARC BARK

ELECTRIC ARC PARK





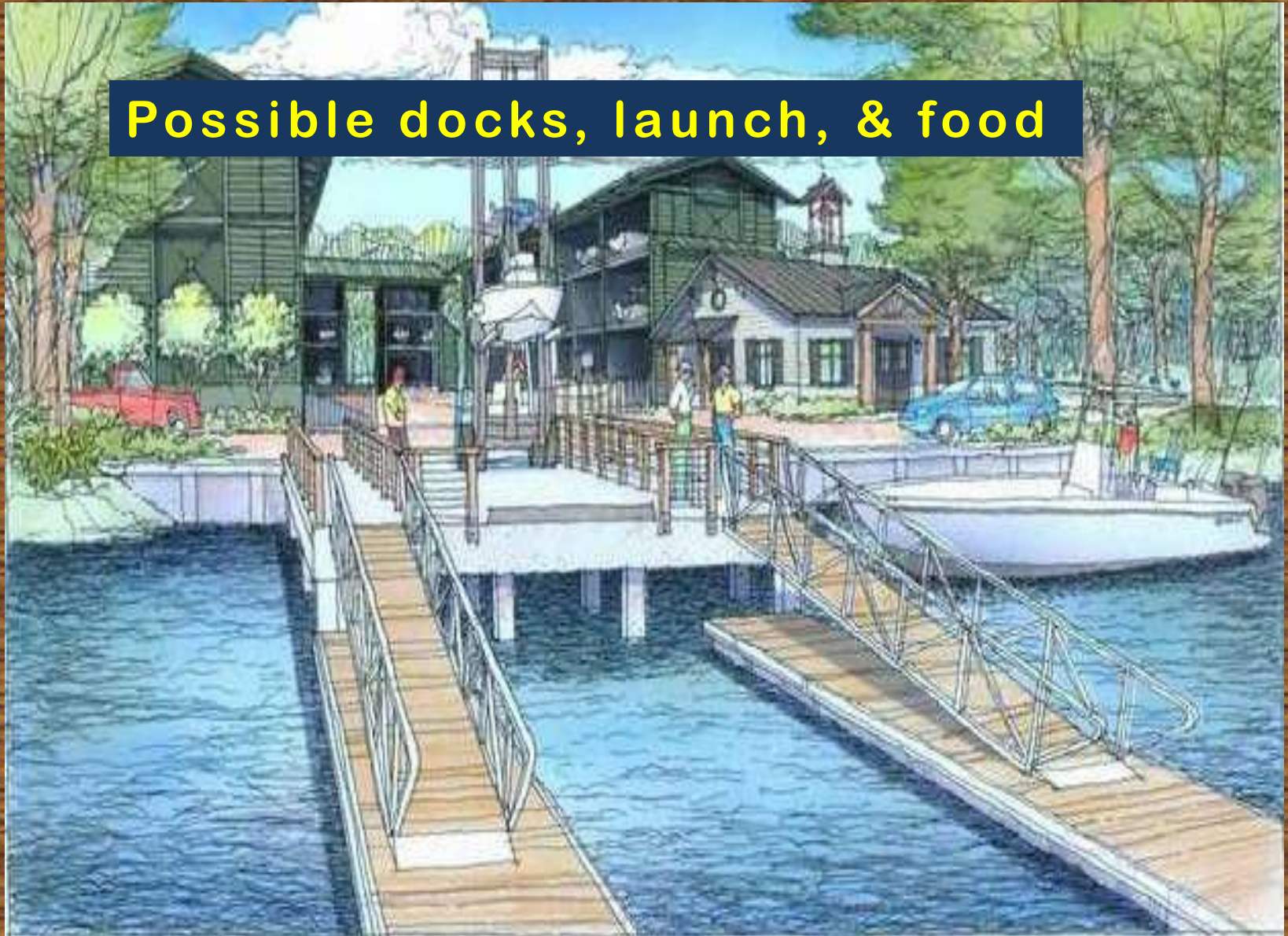
CLAYMONT
MARINA

ELECTRIC ARC PARK

Current Barge Berth



Possible docks, launch, & food

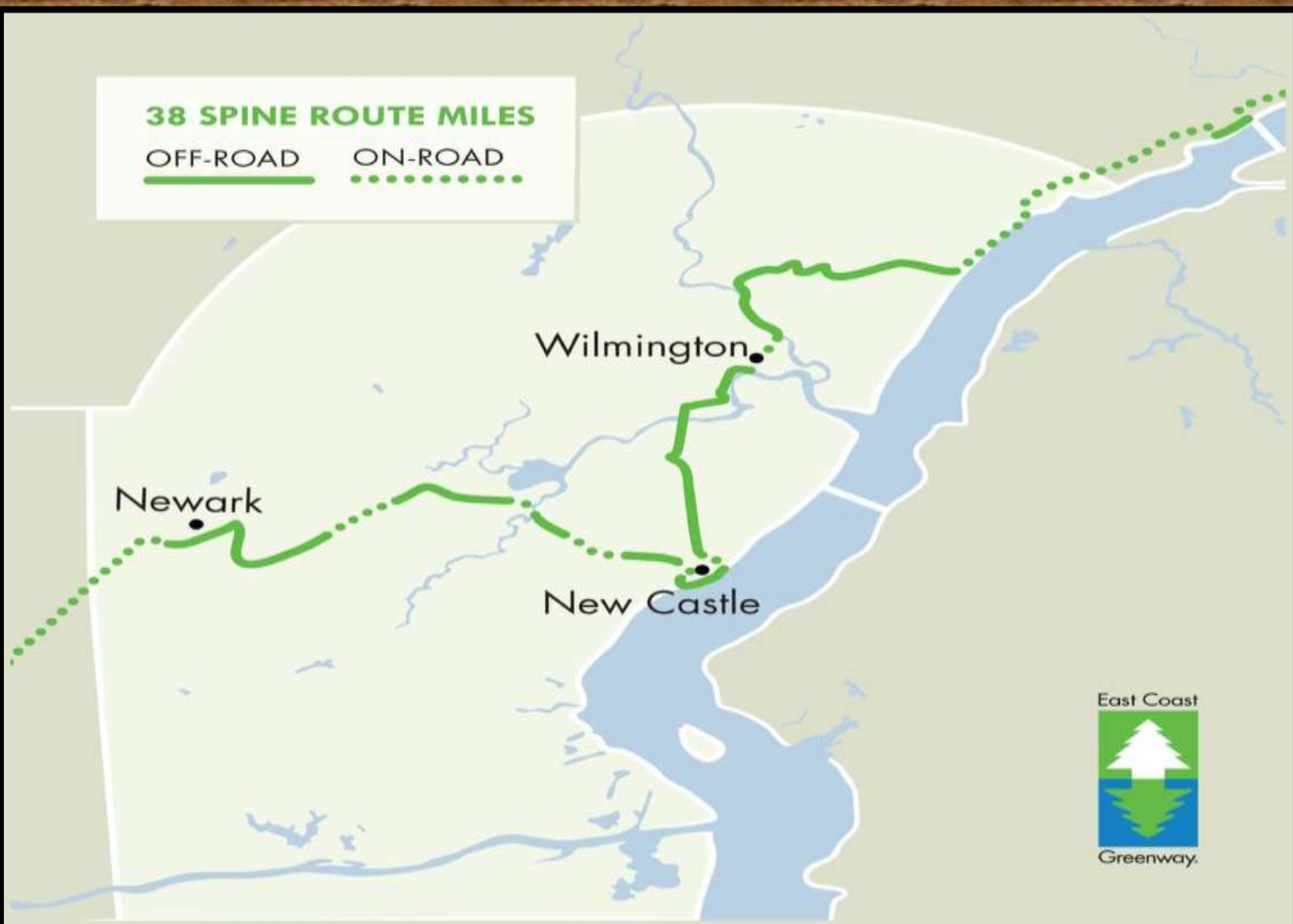


38 SPINE ROUTE MILES

OFF-ROAD



ON-ROAD



Questions ?

CRDC

Claymont
Renaissance
Development
Corporation

Thank you



Urban Waters Federal Partnership: Housing Webinar

Tuesday January 18, 2022

“Building Community Resiliency Through Partnerships & Collaboration in Camden, NJ”

Frank McLaughlin, NJ Dept Environmental Protection – Office of Brownfield and Community

Manager, Community Collaborative Initiative

frank.mclaughlin@dep.nj.gov





Building Community Resiliency thru Partnerships & Collaboration

Camden's Environmental Challenges: Flooding & Deteriorated Infrastructure

Camden, NJ: Combined Sewer System *(built 1880's)*

Distressed City owns sewer system

Regional utility serves 37 towns in 3 counties...

...all waste goes to Camden for treatment...

28 outfalls discharge into Delaware River & tributaries

**Cramer Hill residents ranked flooding as the #1 quality of life problem...*

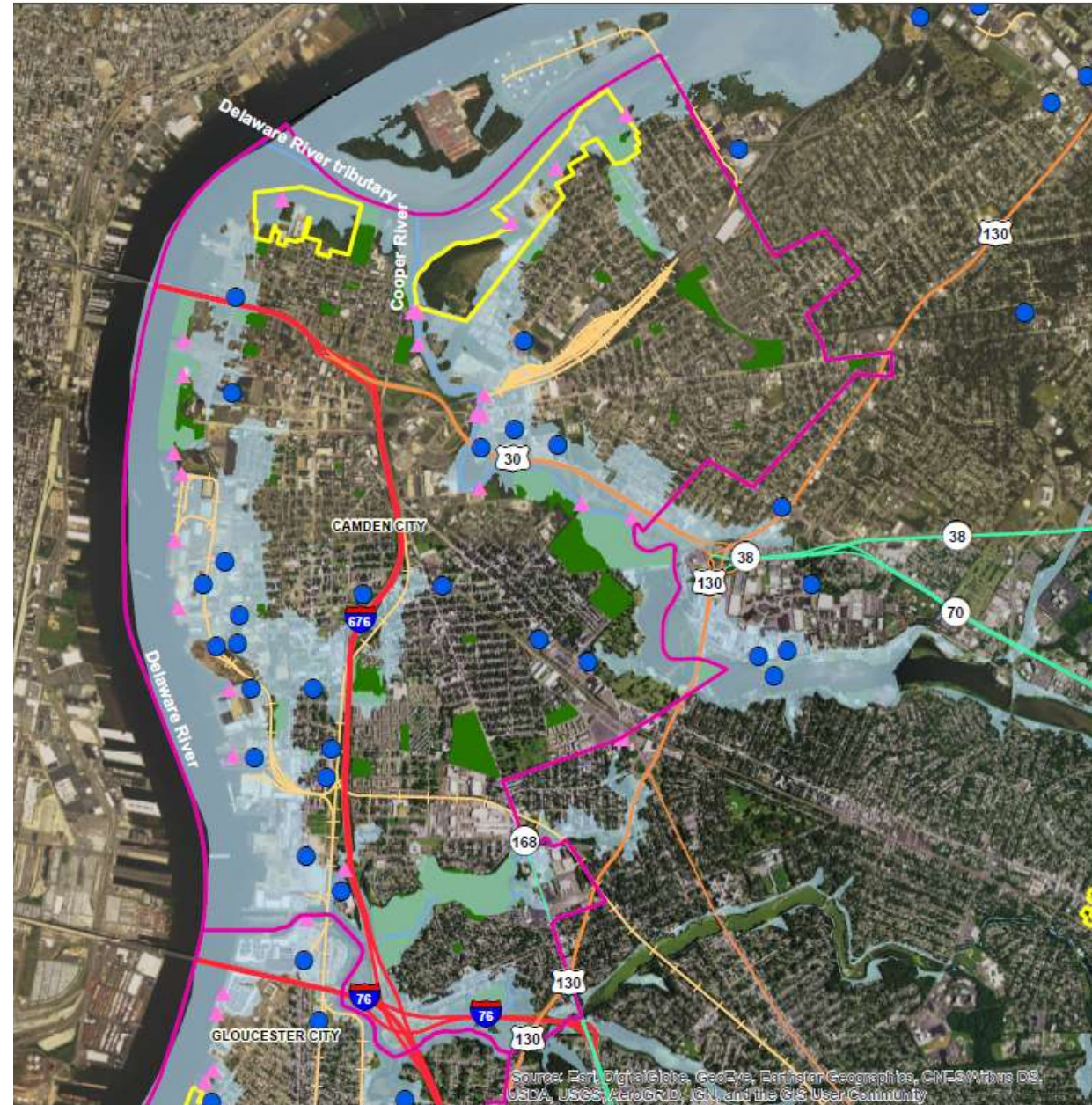


Combined sewage flooding in the Cramer Hill neighborhood of Camden, NJ *(photos courtesy of Camden Community Partnership).*



Building Community Resiliency thru Partnerships & Collaboration

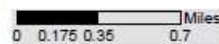
Camden's Economic, Social & Environmental Challenges: Fluvial & Tidal Flooding



CAMDEN CITY
CAMDEN COUNTY



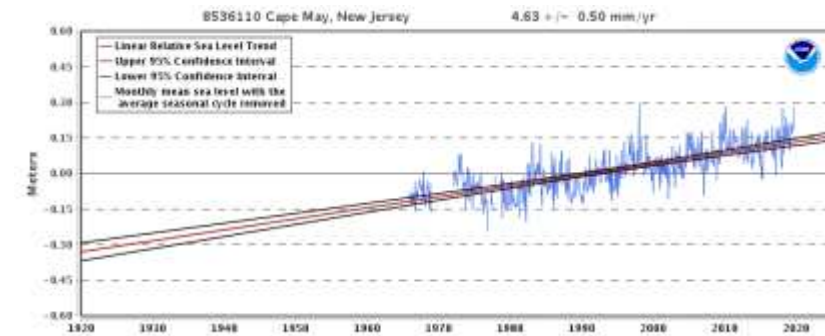
Date: 5/31/2017



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Camden, NJ:

- Waterfront-dependent industries & transportation network
- Loss of manufacturing 1950's-1970's drives economic & population declines
- Current Demographics:
 - Poverty Rate: 36.4% (2021)**
 - Population: 73,236 (2021)**
 - (124,555 in 1950)*

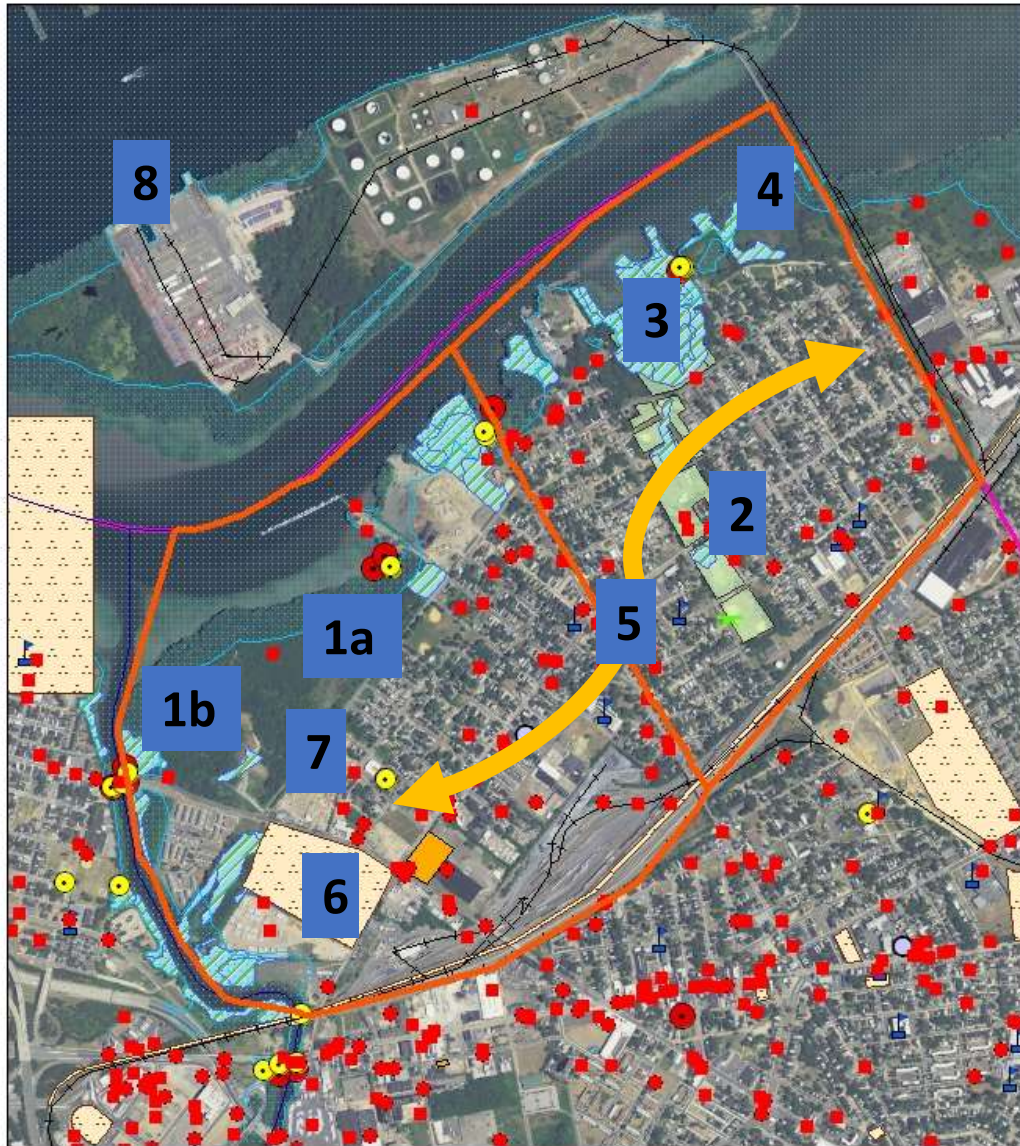


NOAA sea level measurements at Cape May, NJ



Building Community Resiliency thru Partnerships & Collaboration

Environmental, Social, Economic & Housing Investments in Cramer Hill, Camden



- Legend
- Cramer Hill
 - NJEMS Sites
 - Railroads
 - NJPDES Surface Water
 - park
 - schools
 - house of worship
 - Stream Network
 - Historical Sites
 - Known Contaminated Sites
 - UST Sites
 - CSO Draft
 - CEA
 - Bald Eagle Foraging
 - Wetlands (2002)
 - Open Space (County-owned)
 - Camden
 - 2010 Imagery

- 1a** Kroc Community Center on former Harrison Ave Landfill (2014)
- 1b** Cramer Hill Waterfront Park on former Harrison Ave Landfill (2021)
- 2** Von Neida Park Rehabilitation & Stormwater Improvements (2015)
- 3** Baldwins Runs 'Daylighting' Project & Sewer Separation (2016)
- 4** Cramer Hill Nature Preserve (2017)
- 5** Green & Gray Infrastructure Investments (2011-present)
- 6** Ablett Village Rehabilitation (\$35M awarded 2021)
- 7** Harrison Ave Green Street Plan (under development)
- 8** Petty's Island Nature Preserve (coming soon!)



Building Community Equity through essential services, enrichment & jobs Harrison Ave Landfill: Transformation into Kroc Community Center



Aerial view toward southwest of Harrison Ave Landfill after remediation and construction into the Kroc Center, showing stormwater management features (2014).



Building Resilient Shorelines to Protect from Sea Level Rise

Harrison Ave Landfill: Transformation into Cramer Hill Waterfront Park



Aerial View toward north during remediation for Cramer Hill Waterfront Park (October, 2019), showing many of the resilient elements & community assets. Kroc Community Center is in the far upper right of aerial photo (courtesy of NJDEP Office of Natural Resource Restoration).



Building Resilient Shorelines to Protect from Sea Level Rise

Harrison Ave Landfill: Transformation into Cramer Hill Waterfront Park

Delaware River shoreline stabilization



View south along Harrison Ave Landfill shoreline, showing solid waste at water's edge (right, 2018) and the stabilized shoreline (left, 2020), after solid waste relocation, with riprap and plantings (courtesy of NJDEP Office of Natural Resource Restoration).



Building Resilient Shorelines to Protect from Sea Level Rise Harrison Ave Landfill: Transformation into Cramer Hill Waterfront Park

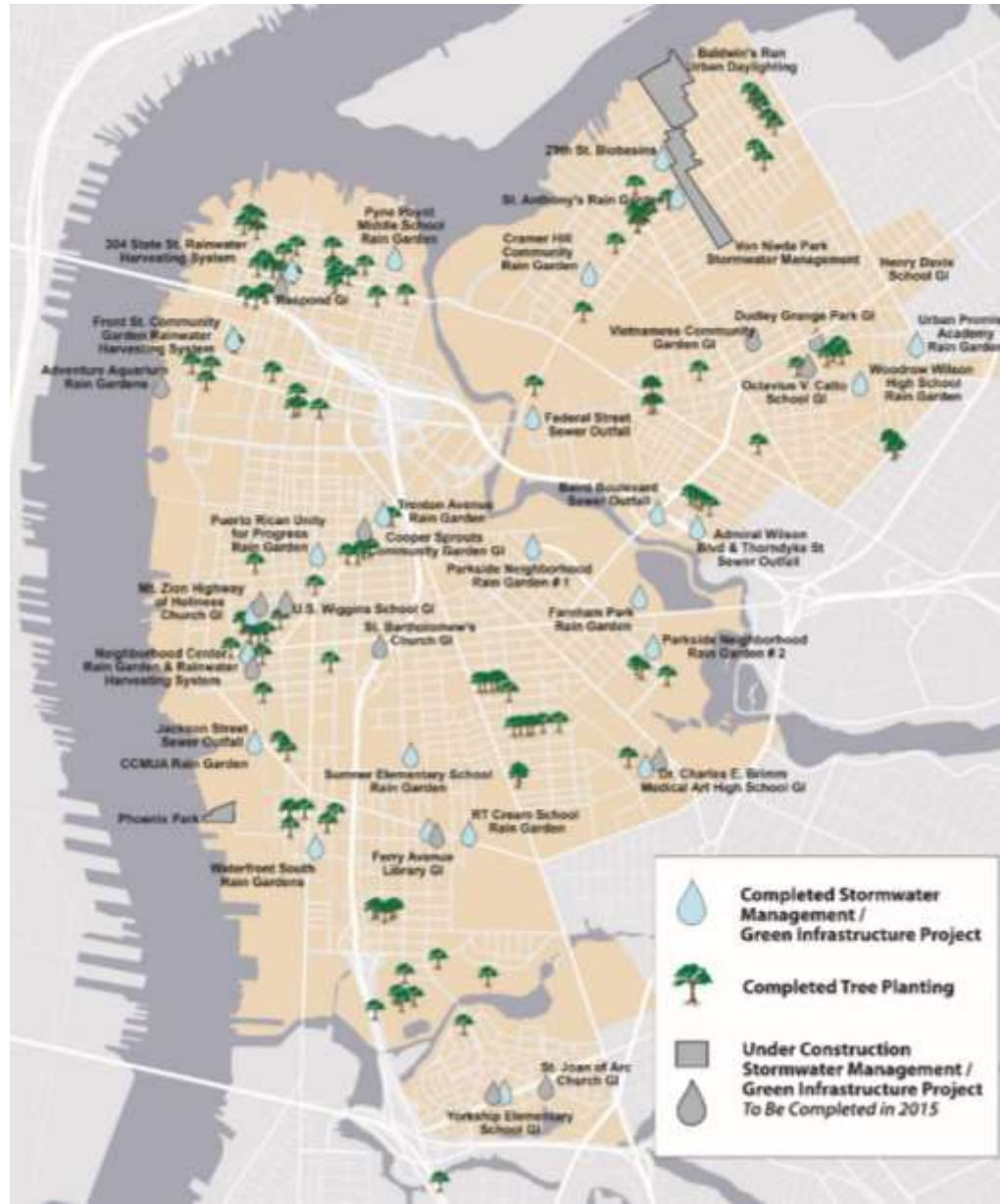


New Jersey Governor Phil Murphy speaking at the Cramer Hill Waterfront Park entry plaza at the grand opening on November 30, 2021. Kites and dog walkers enjoying the summit vista, with access to and views of the Delaware River (to right), Cooper River (to left), with the Ben Franklin Bridge & city of Philadelphia in the background.



Building Community Resiliency thru Partnerships & Collaboration

Camden SMART Initiative (2011): Community-Based Green & Gray Infrastructure



>60
Green Infrastructure
Projects



>2,000
Trees Planted



>100 Million
Gallons of Stormwater
Captured

****US Water Alliance (2019):
Nation's Best public-private
water initiative***

****NJ Future (2015): NJ's Best
community-based green
infrastructure***



Building Community Resiliency thru Partnerships & Collaboration

Camden Collaborative Initiative (2013): Place-Based Collaborative Partnership

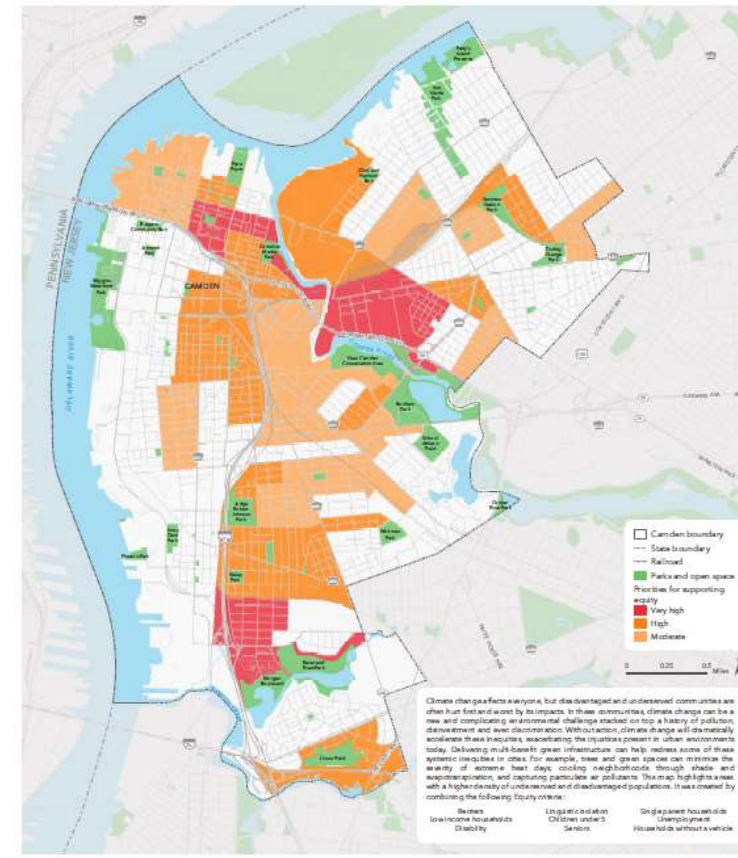
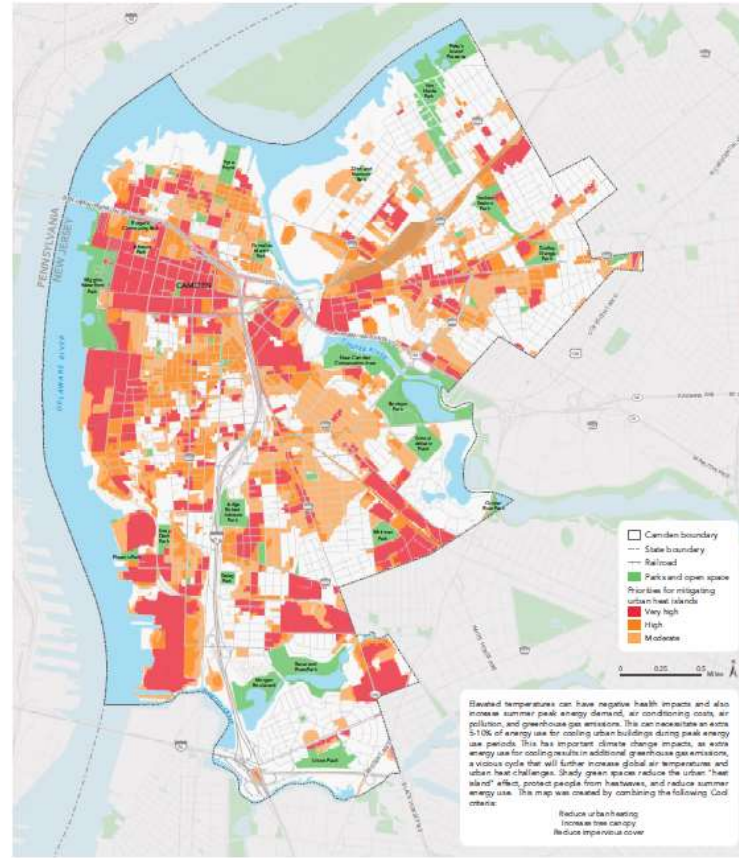
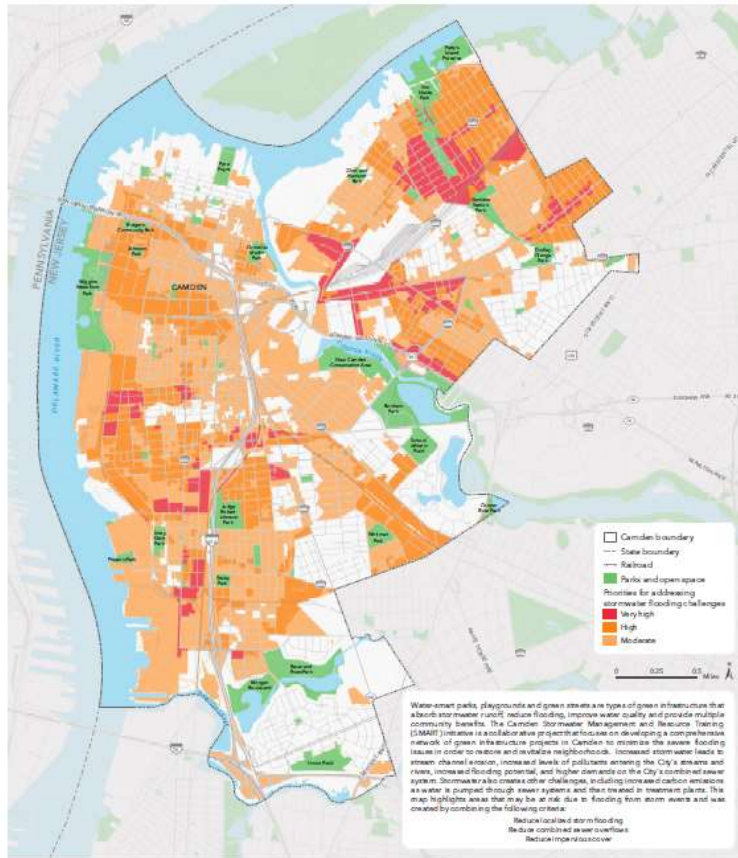


The **Camden Collaborative Initiative (CCI)** is a solutions-oriented partnership between governmental, non-profit, private, and community-based agencies formed to plan and implement innovative strategies to improve the environment and the quality of life for Camden's residents.

Camden Collaborative Initiative received EPA's Environmental Champion Award (2016) for more innovative & effective public-private partnership.



Building Community Resiliency thru partnerships & collaboration Camden Green & Healthy Tool & Climate-Smart Cities



Green + Healthy Camden is a multi-partner initiative to support climate preparedness, equity, health, and park and open space planning throughout Camden, New Jersey. The Trust for Public Land led this collaborative effort, along with its Climate-Smart Cities Camden information is helping Camden plan for climate adaptation & community resiliency.

https://web.tplgis.org/camden_csc/



Building Resilient Shorelines to Protect from Sea Level Rise Camden County Municipal Utilities Authority Plant, Waterfront South Camden

Camden County Municipal Utilities Authority (CCMUA)

- 185 million gallons/day wastewater treatment plant serving 37 municipalities (3rd largest in NJ) – waste treated in Camden...

CCMUA Institutional leader in Waterfront South, poorest neighborhood in Camden.

Camden Collaborative Initiative partnership to address environmental issues and community resiliency thru engagement.

- Solar panels (10% of total plant energy)
- Biogas recovery (50% of total) with combined heat & power (90% of total incl. natural gas) [*\$35M NJ Water Bank*]
- Phoenix Park – first meaningful waterfront access since 1880's [*\$2.7M NJ Water Bank*]
- **Living shoreline (awaiting construction)**



View of Camden County Municipal Utilities Authority (CCMUA) Plant and former American Minerals Site (now Phoenix Park) from west toward Waterfront South neighborhood, Camden (concept of Living Resilient Shoreline Plan superimposed).



Building Resilient Shorelines to Protect from Sea Level Rise

Camden County Municipal Utilities Authority Plant, Waterfront South Camden

CCMUA Living Shoreline Plan:

- Core partners: CCMUA, NJDEP, Partnership for Delaware Estuary, Stantec

...properly designed Living Shorelines adapt to sea-level rise

- Vegetated marshland improves water quality, enhances habitat, and reduces wave energy and storm surge
- Freshwater mussels: foundation species in freshwater tidal systems
 - provide food, shelter & resiliency
 - mussels treat 10 gallons/day ($X = 92.6 \text{ tons ha}^{-1} \text{ y}^{-1}$ Removal of Suspended Matter)

CURRENT CONDITIONS



PROPOSED CONDITIONS





“Building Community Resiliency Through Partnerships & Collaboration in Camden, NJ”

CLOSING THOUGHTS & CONCLUSIONS:

Public-private partnerships are necessary to address complex environmental, social & economic challenges in distressed communities - Camden is a national leader in collaborative partnerships (e.g., Camden SMART, Camden Collaborative Initiative)

Investments in the environment support Social, Economic, Health & Housing initiatives

Following environmental investments, Camden is ready for housing & economic development

Resiliency investments are underway in Camden & climate adaptation will be necessary



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Frank McLaughlin, NJ Dept Environmental Protection – Office of Brownfield and Community

Manager, Community Collaborative Initiative

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Thank you!



HABITAT RESTORATION AND COMMUNITY CONNECTIONS



U.S. Fish & Wildlife Service

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

U.S. Fish & Wildlife Service

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.



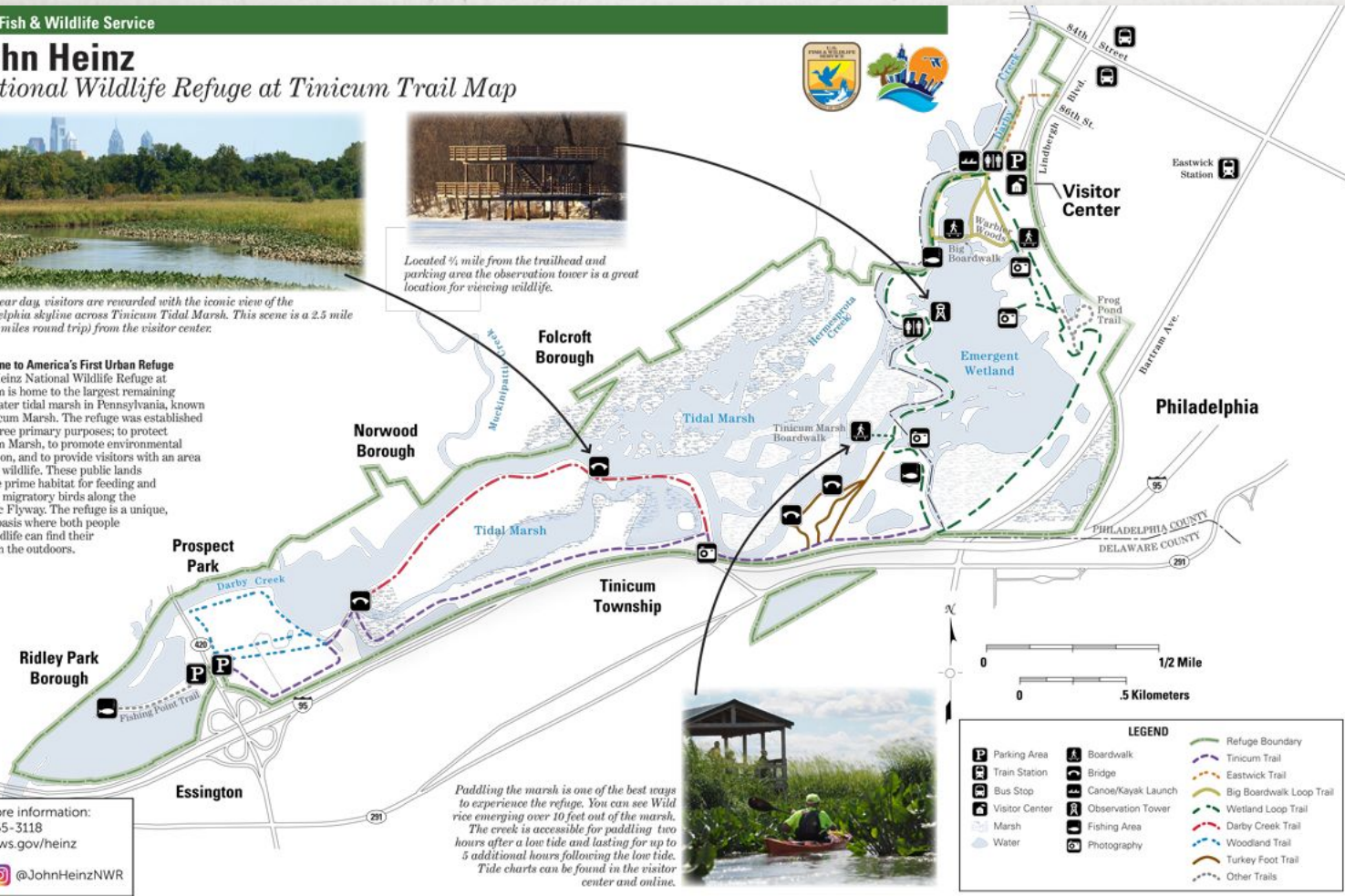
Located 1/4 mile from the trailhead and parking area the observation tower is a great location for viewing wildlife.

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.

For more information:
215-365-3118
www.fws.gov/heinz

@JohnHeinzNWR

Paddling the marsh is one of the best ways to experience the refuge. You can see Wild rice emerging over 10 feet out of the marsh. The creek is accessible for paddling two hours after a low tide and lasting for up to 5 additional hours following the low tide. Tide charts can be found in the visitor center and online.



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.

U.S. Fish & Wildlife Service



URBAN PROGRAM – EDUCATE, ENGAGE, CONNECT



ACCESSIBLE WATERWAYS

FISHING, KAYAKING...



ACCESSIBLE WATERWAYS

MARSH EDUCATION AND MARSH CLEAN UPS



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



U.S. Fish & Wildlife Service



MANAGEMENT CHALLENGES

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



HABITAT MANAGEMENT GOALS

MORE RESILIENT HABITAT FOR WILDLIFE AND PEOPLE





U.S. Fish & Wildlife Service

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



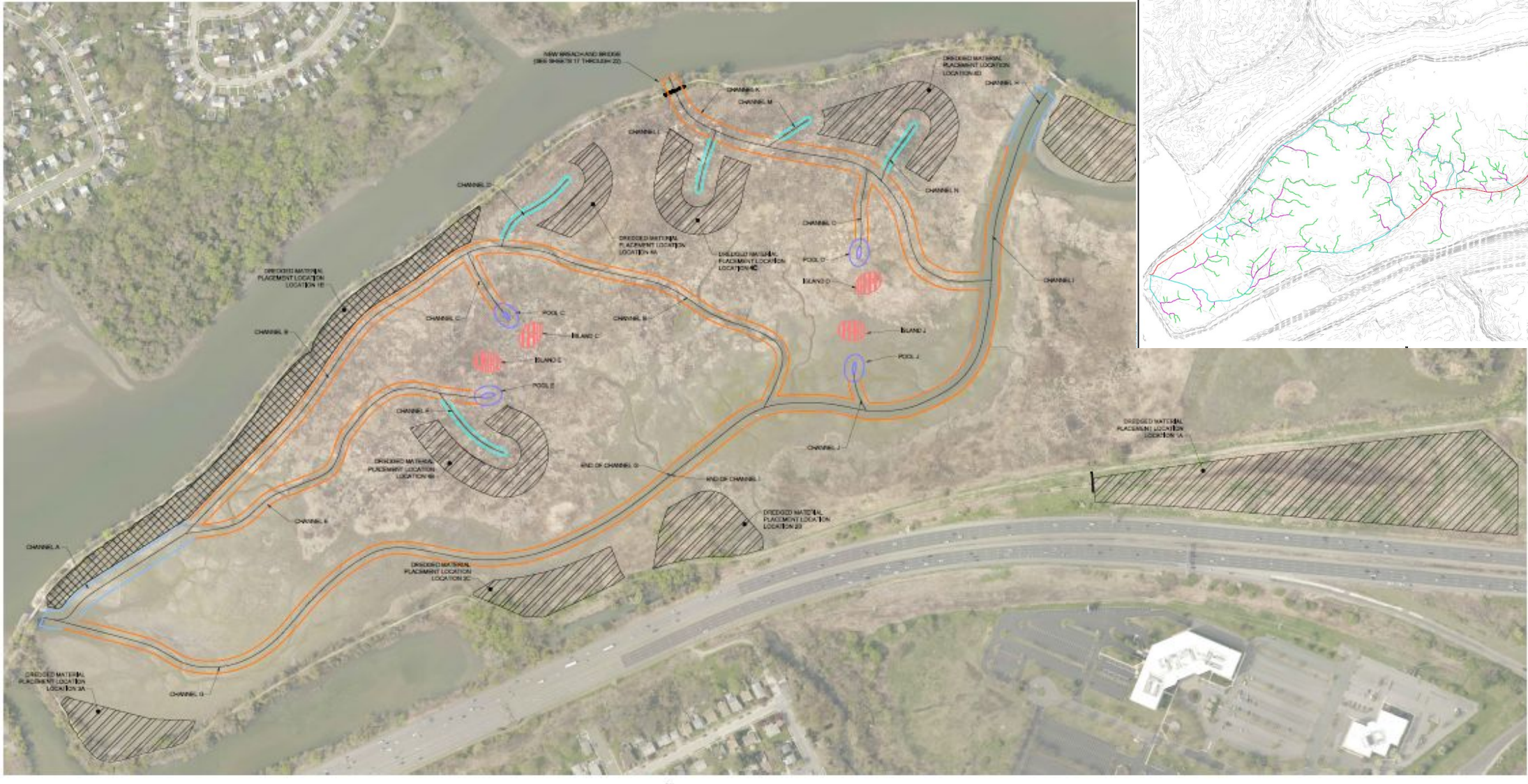


ATHOS

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

U.S. Fish & Wildlife Service





U.S. Fish & Wildlife Service

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



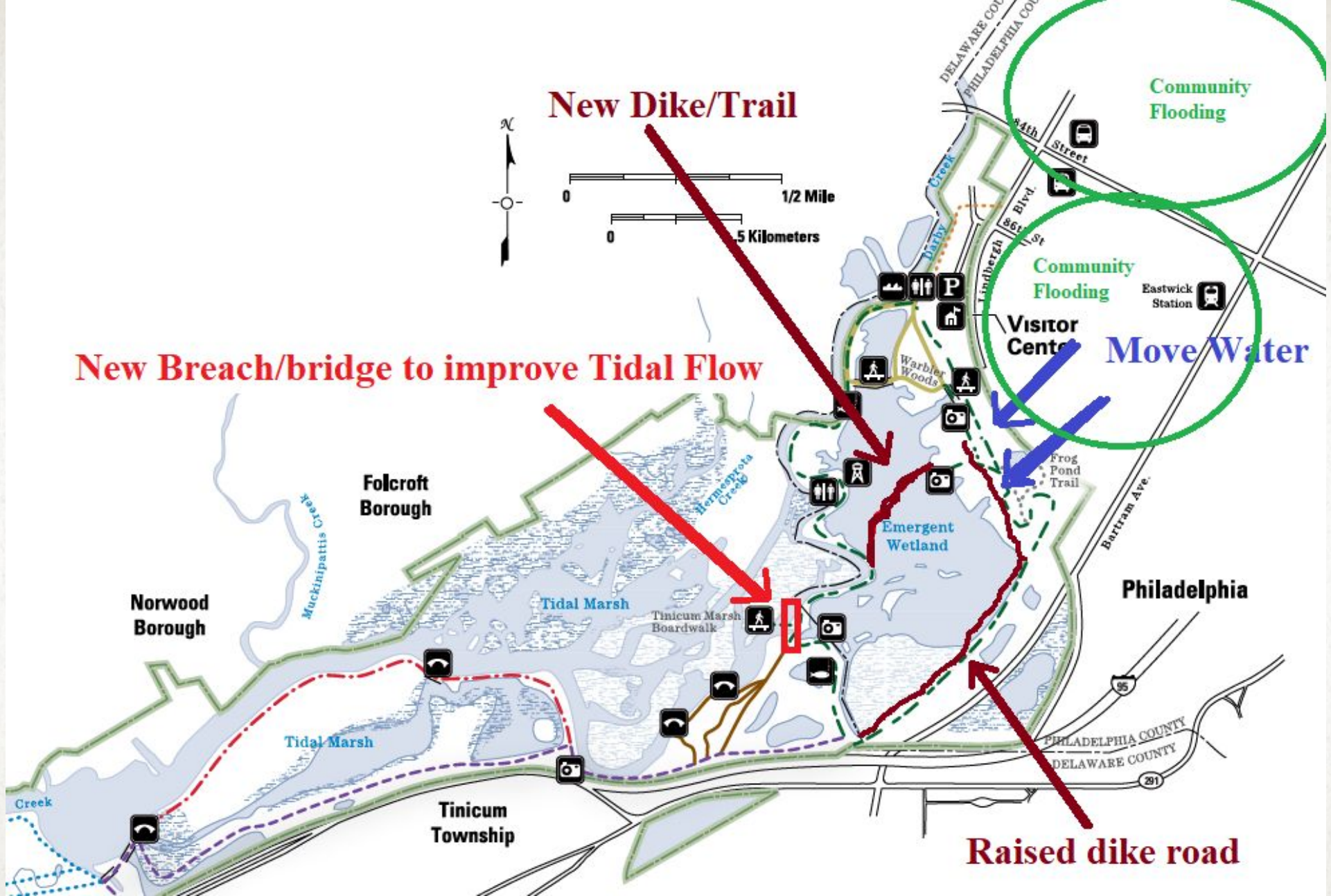


U.S. Fish & Wildlife Service

IMPOUNDMENT RESTORATION

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





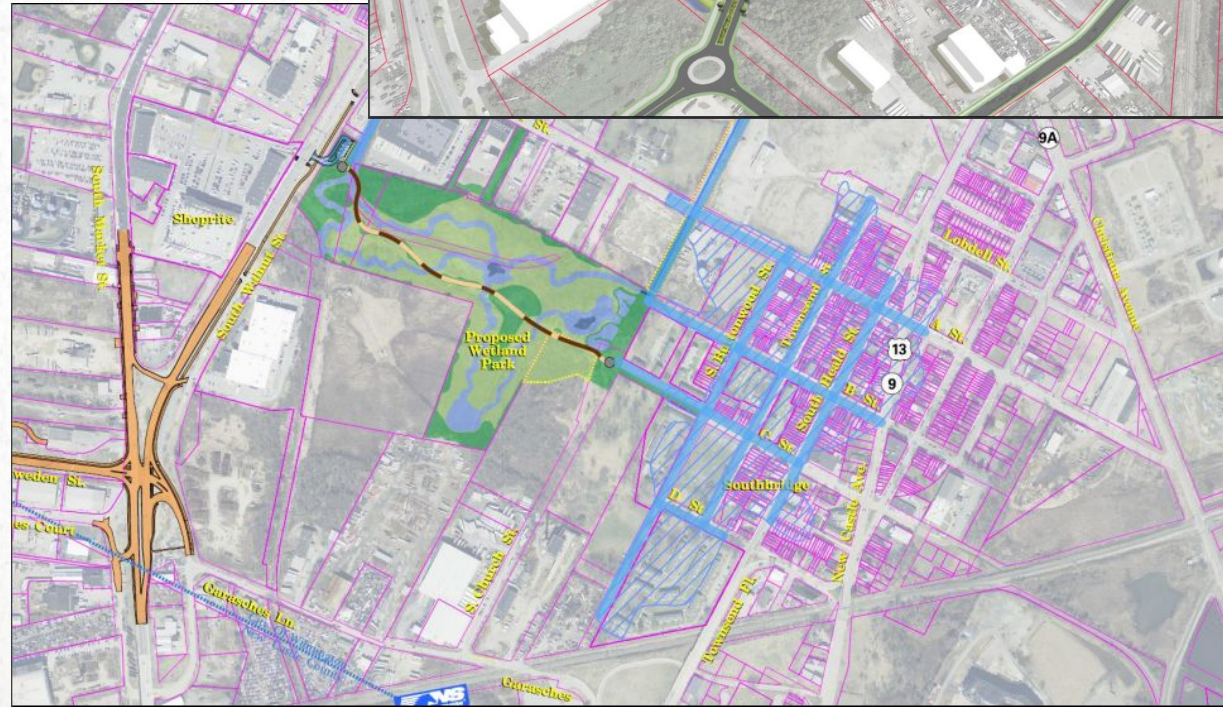
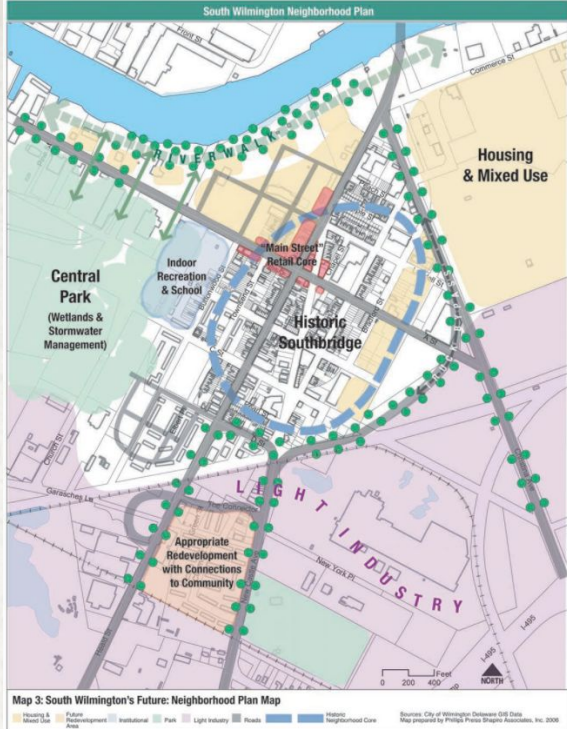


ELEVATION MODEL

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



SOUTH WILMINGTON WETLAND PROJECT



South Wilmington Neighborhood Plan
Prepared by the South Wilmington SAMP Neighborhood Plan Work Group

U.S. Fish & Wildlife Service

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





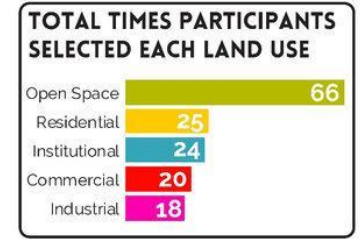
Planning for an inclusive and resilient future in Eastwick

- 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



ROUNDTABLE 3 EXERCISE RESULTS

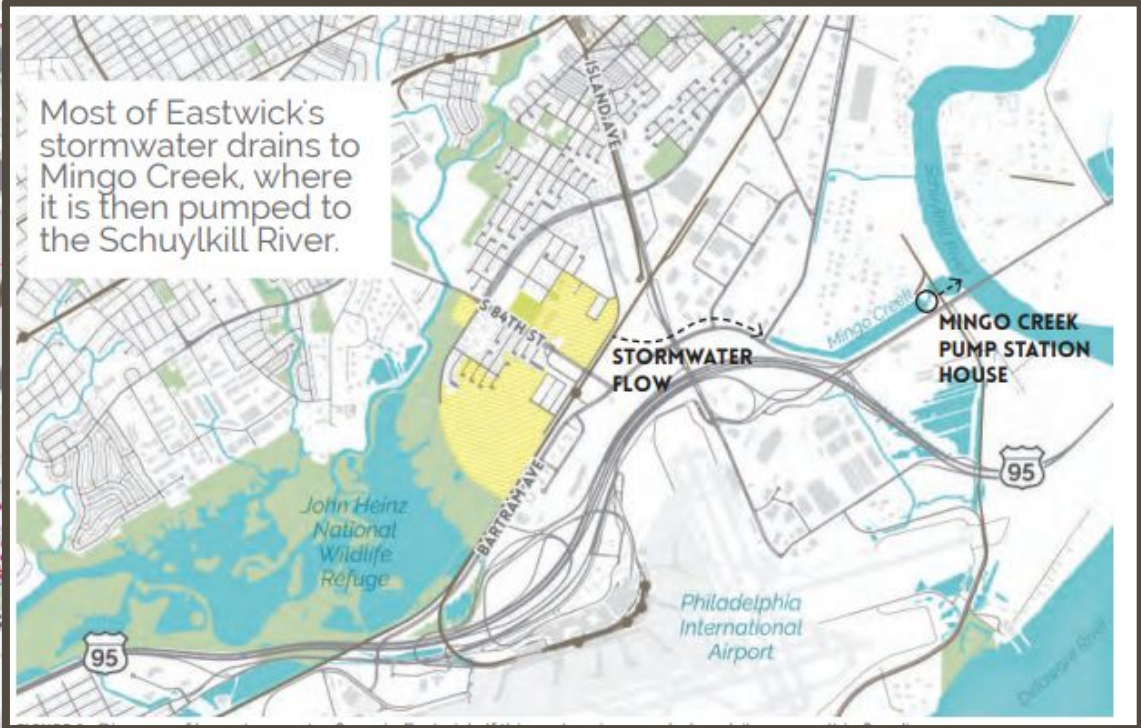
PARTICIPANTS WERE ASKED TO ASSIGN LAND USES TO SECTIONS OF EASTWICK'S PUBLIC LANDS



TOP CHOICES

- FOR ALL OR PART OF EACH ZONE
- RESIDENTIAL
 - INDUSTRIAL
 - COMMERCIAL
 - INSTITUTIONAL
 - OPEN SPACE
 - PARKS & OPEN SPACE
 - CITY OF PHILADELPHIA BOUNDARY





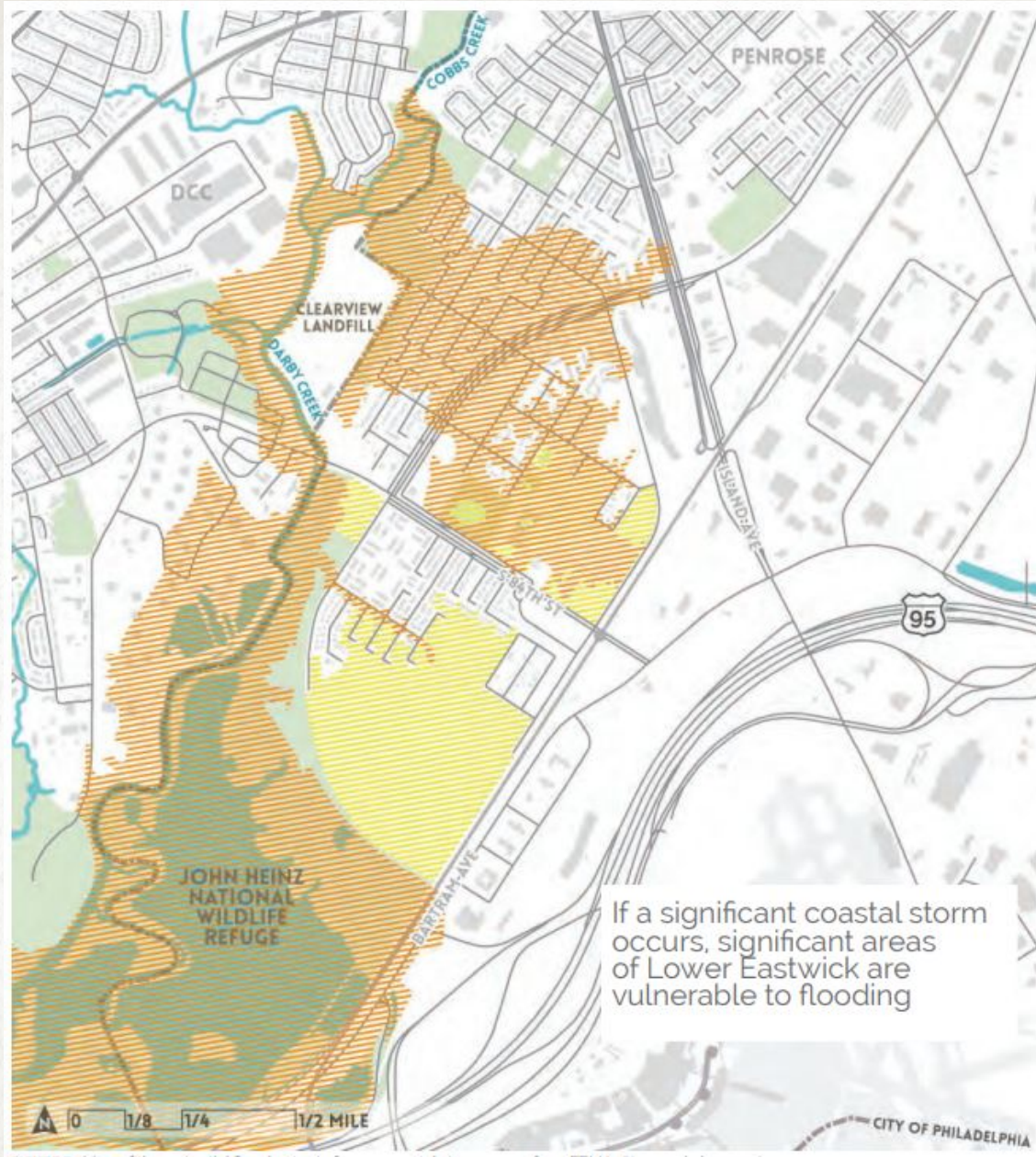
Most of Eastwick's stormwater drains to Mingo Creek, where it is then pumped to the Schuylkill River.

STORMWATER INLETS

Source: City of Philadelphia, Bishop Land Design LLC



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





COASTAL STORM SURGE

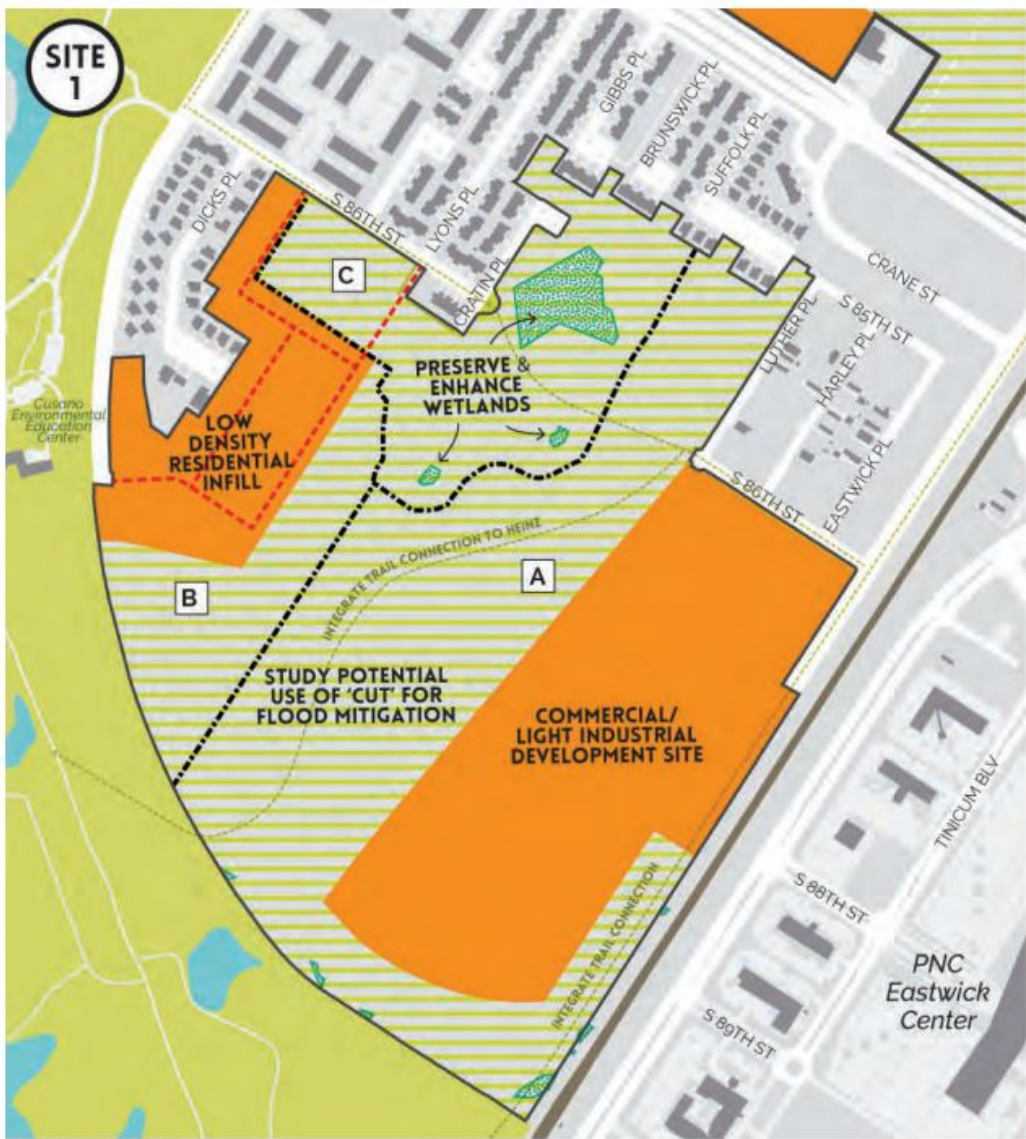
Source: Princeton Hydro, Bishop Land Design LLC

-  FEMA 1% STORM SURGE FLOOD
-  STUDY AREA

If a significant coastal storm occurs, significant areas of Lower Eastwick are vulnerable to flooding







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



QUESTIONS?

