



The Bellwether District Community Meeting

November 14, 2023



The Bellwether
District

AN HRP PROJECT

AGENDA

- Welcome & Introductions
- Development Update
 - Flood Study
 - Stormwater Management Overview
- Community Update
- Q&A

PUBLIC BENEFITS

ECONOMIC BENEFITS



\$4 Billion Total Investment

\$100 Million Philadelphia
Projected Annual Tax
Revenue

\$120 Million Pennsylvania
Annual Tax Revenue



COMMUNITY INVESTMENT



Internships, Pre-
Apprenticeships Programs
for Local Students

\$250,000 Scholarship
Commitment
to S/SW Philly Students

\$75,000 in Environmental
Grants in 2023

Regular CAP Meetings



WORKFORCE DEVELOPMENT



Apprenticeships/ Annual
Jobs Fair

+/-19,000 + Direct
Permanent Jobs

+/-28,000 + Direct
Construction Jobs

\$850k in Workforce
Development Investment



PUBLIC BENEFITS

TRANSPORTATION & CONNECTIVITY



Reconnecting Historically Closed Off Area of the City

New Internal Streets and Infrastructure Improvements

New Bicycle and Pedestrian Connections



SUSTAINABILITY & RESILIENCY



LEED Certified Buildings

Bioswales to Absorb CO2

Electric Vehicle and Solar Ready Facilities

Microgrid Infrastructure

Raising Low-Lying Areas Out of 100 and 500-Year Floodplain



ENVIRONMENTAL REMEDIATION



Reduced Emissions in Philadelphia by 16%

880 Miles of Pipe Removed

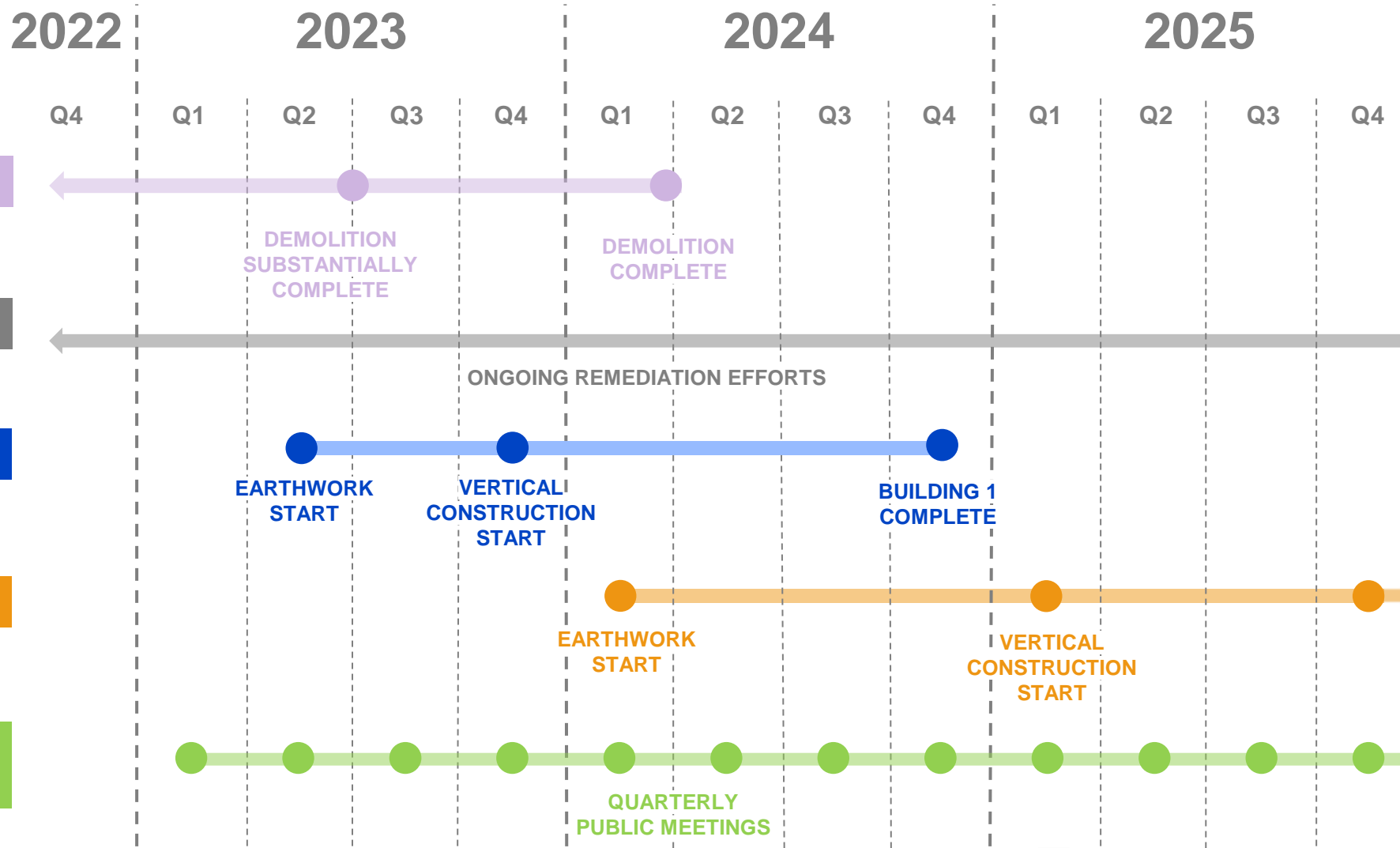
18.5 Million Gallons of Petroleum Product Removed



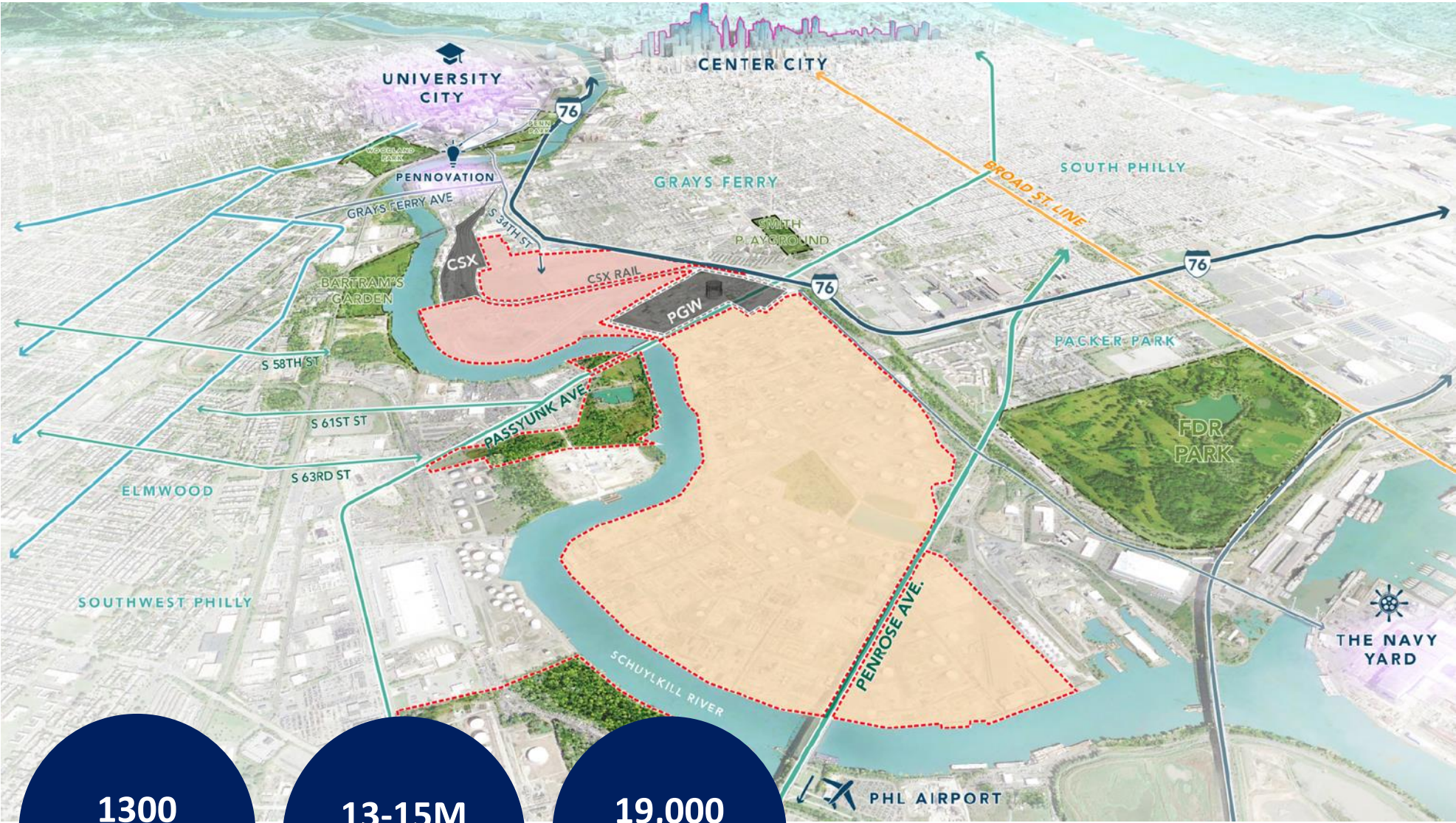
MASTERPLAN FRAMEWORK



PHASE 1 SCHEDULE



SITE OVERVIEW

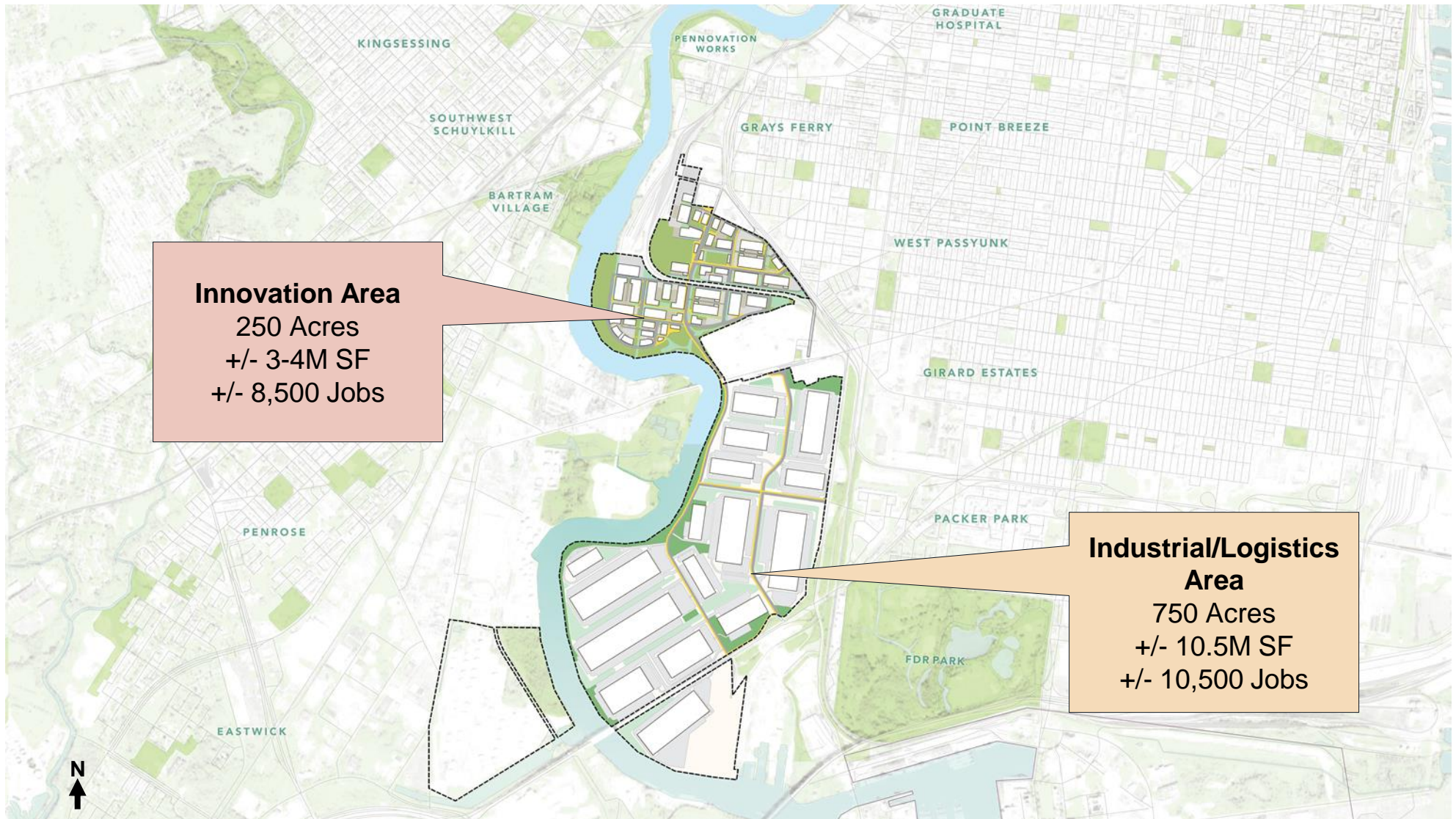


**1300
Acres**

**13-15M
SF**

**19,000
Jobs**

MASTER PLAN



PROJECT GOALS

1 RE-INTEGRATE THE SITE



2 CREATE GREEN PATHWAYS



3 CREATE A SUSTAINABLE DISTRICT



PROJECT GOALS

1 RE-INTEGRATE THE SITE

- New Internal Streets
- Offsite Street and Intersection Upgrades
- New Bicycle and Pedestrian Pathways
- Upgraded Transit Connectivity and Access To and From Site



PROJECT GOALS

2 CREATE GREEN PATHWAYS

- Thousands of New Plantings and Trees Across Site
- Enhanced Tree Canopy
- Stormwater Retention Onsite
- Protected Two-Way Bicycle Lanes and Buffered Sidewalks



PROJECT GOALS

3 CREATE A SUSTAINABLE DISTRICT

- Reduced Emissions in Philadelphia by 16%
- Fossil Fuel Reduction
- New Solar and Electric Vehicle Infrastructure
- Raising the Site Out of 100 and 500-Year Flood Plain
- LEED Certified Buildings



FLOOD STUDY & STORMWATER MANAGEMENT



FLOOD MAPPING

What is a Flood Map (FIRM)?

A Flood Insurance Rate Map (FIRM) shows a community's flood zone, floodplain boundaries, and base flood elevation.

They are prepared by the Federal Emergency Management Agency (FEMA) based on a multitude of factors.

Mapping is used to determine mandatory purchase requirements, building code requirements, and floodplain management requirements.

What flood zone am I in?

Everywhere is prone to some flood risk the FIRM maps are used to identify high-, moderate-, and low-risk flooding areas.

Moderate to Low Risk areas are designated as B, C, and X on the Map.

High Risk areas are designated as beginning with A or V on the Map.



The Schuylkill River Facts

Drainage Area

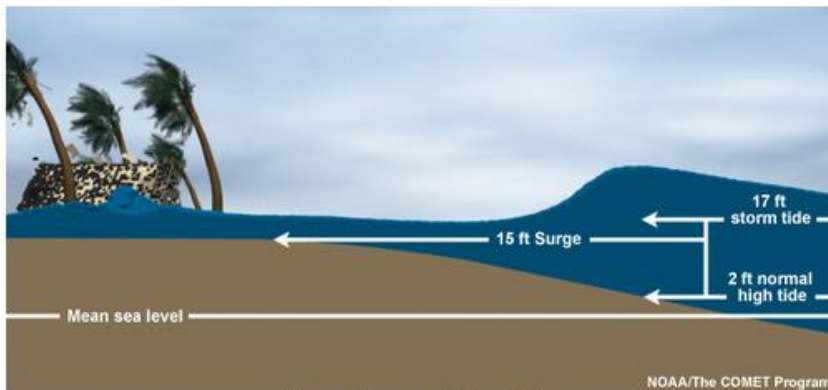
- 1,893 square miles
- 13x bigger than the City of Philadelphia
- 4.1% of the State of Pennsylvania (46,055 square miles)

Flow Rate

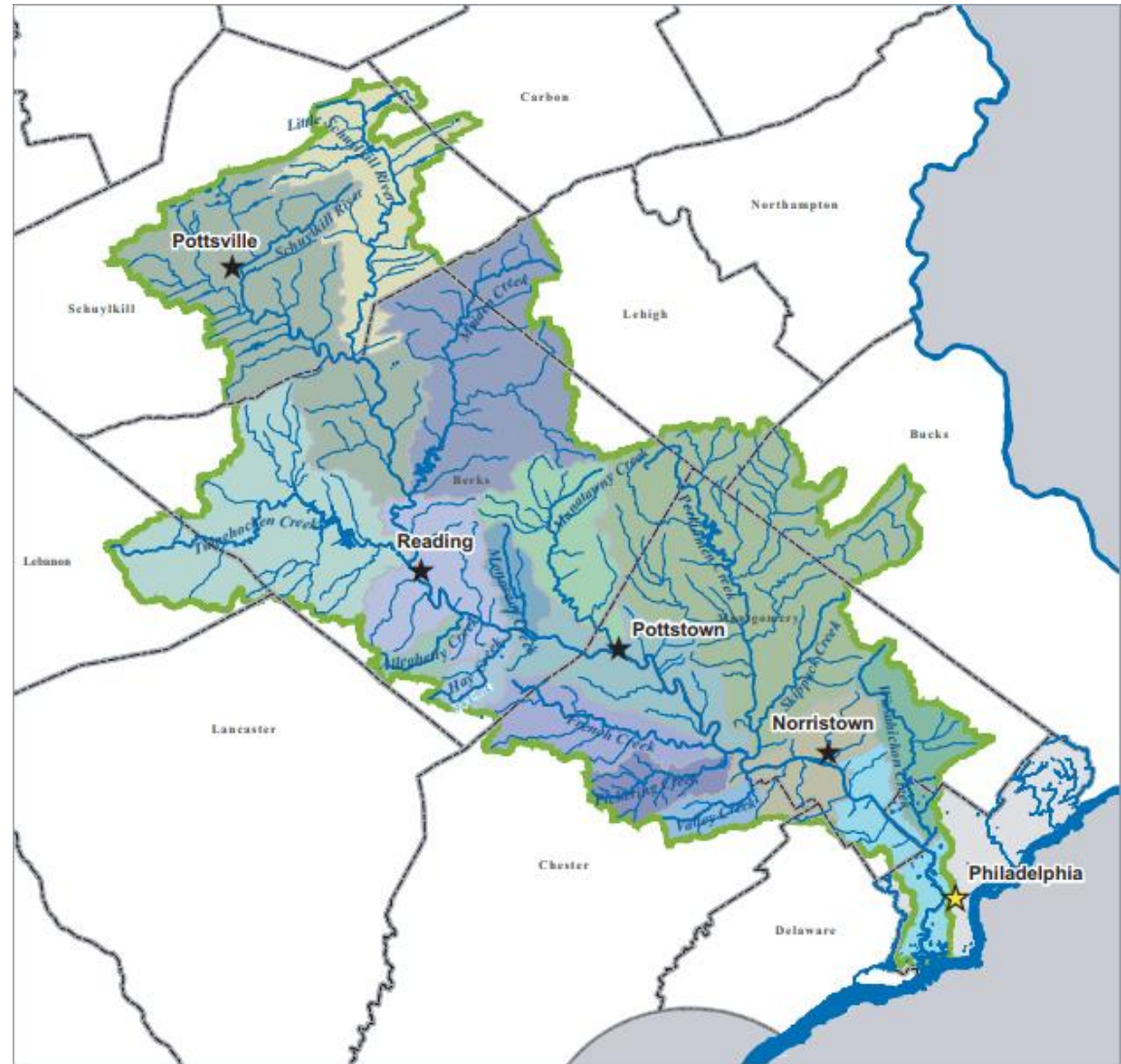
- 100-Year Storm = 128,000 CFS
- Fills an Olympic size swimming pool in 0.7 seconds

Tidal vs. Fluvial

- 100-Year Storm Surge Elevation = 8.93' (NAVD88)
- Tidal Flood Elevation Controls at the site



Storm Surge vs. Storm Tide



Source: PWD Schuylkill River Watershed Source Water Protection Plan

The CLOMR Process

The Conditional Letter of Map Revision (CLOMR) is a process for FEMA to review proposed changes in the floodplain which could affect the hydrology or hydraulics of a flooding source.

What does that mean?

- An application is submitted to FEMA which includes:
 - Proposed project improvements
 - Revised Hydrology & Hydraulic Calculations
 - Annotated FIRM panels showing the proposed changes

Initial Engagement

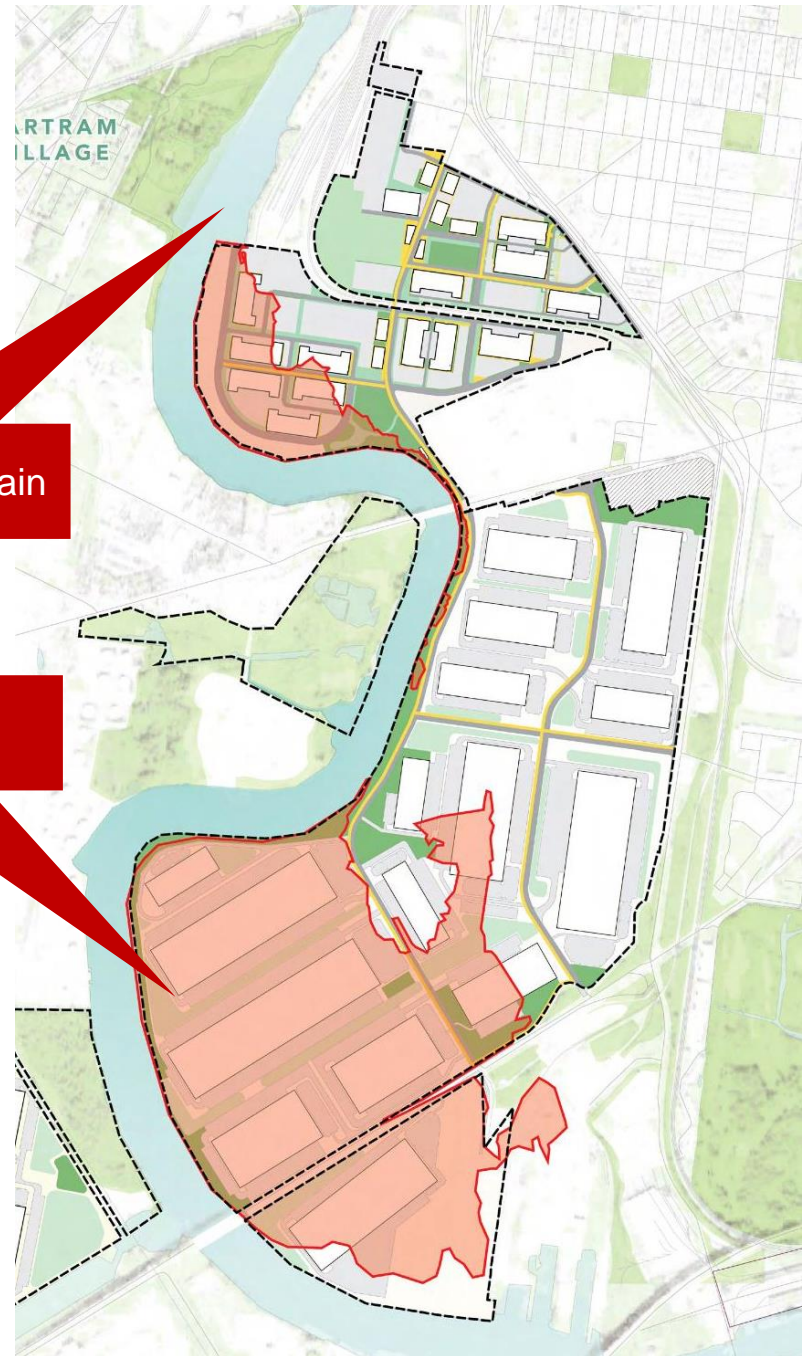
- City of Philadelphia Floodplain Manager
- Delaware Valley Regional Planning Commission (DVRPC) Urban Waterfront Action Group (UWAG)

What does FEMA do?

- The application is reviewed for technical accuracy.
- The review team works closely with the applicant to refine modeling and ensure an accurate model of the floodplain.
- FEMA issues a conditional letter recognizing the new floodplain.
- Upon completion of the project, as-builts are required to be submitted to update the impacted FIRMs.

Limit of Tidal Floodplain

Existing 100-year Floodplain



Hydrology & Hydraulic Calculations

Date of FEMA Effective Study:

November, 1993

Downstream Limit: Delaware River

Upstream Limit: Penn Central Railroad Bridge

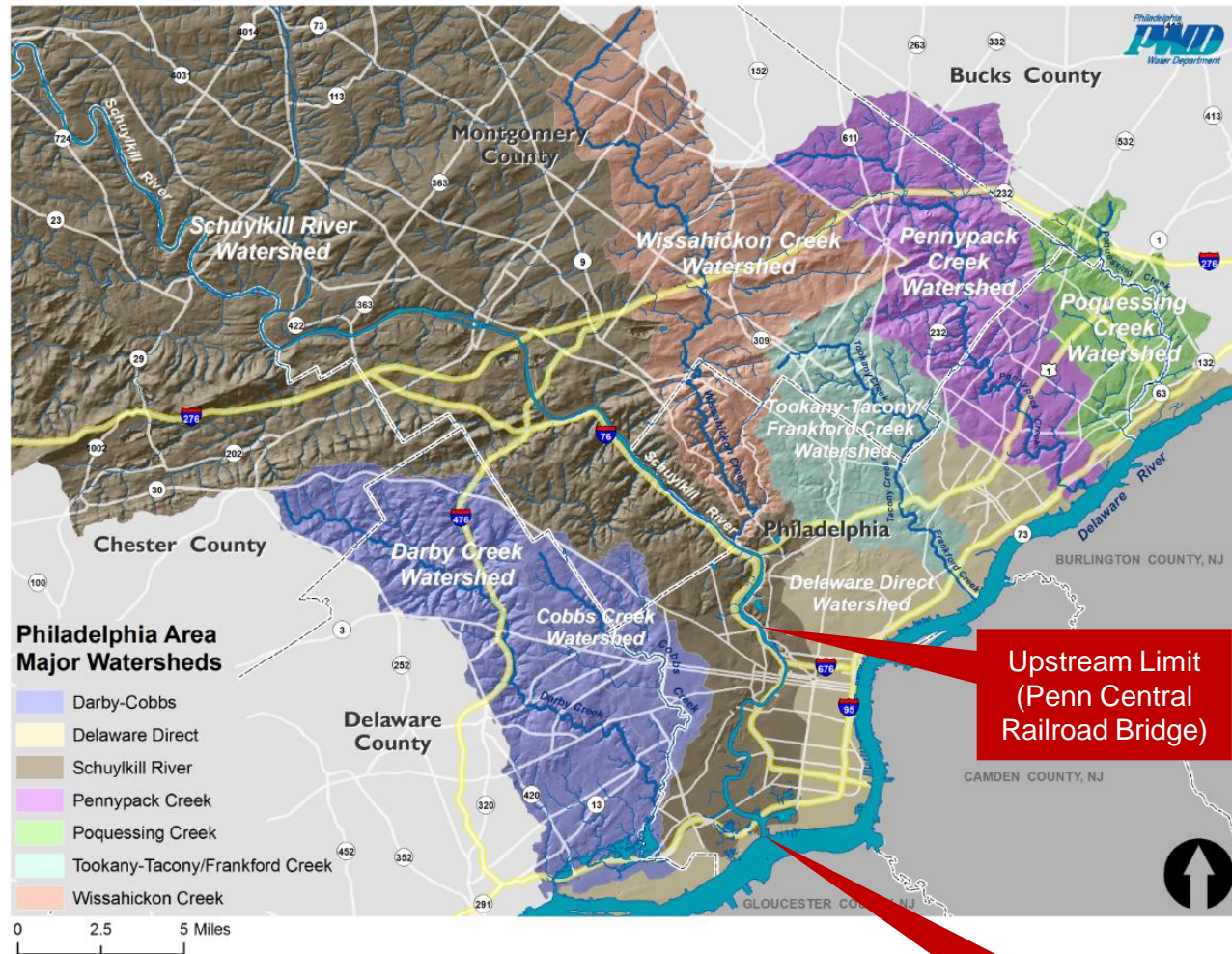
Length of Study: 49,323 Feet (9.5 Miles)

Surface Modeling:

- Over 17.5 square miles
- Compilation of 4 supplemental data sets
- 17 bridges modeled
- 135 cross sections established

Schuylkill River Flows:

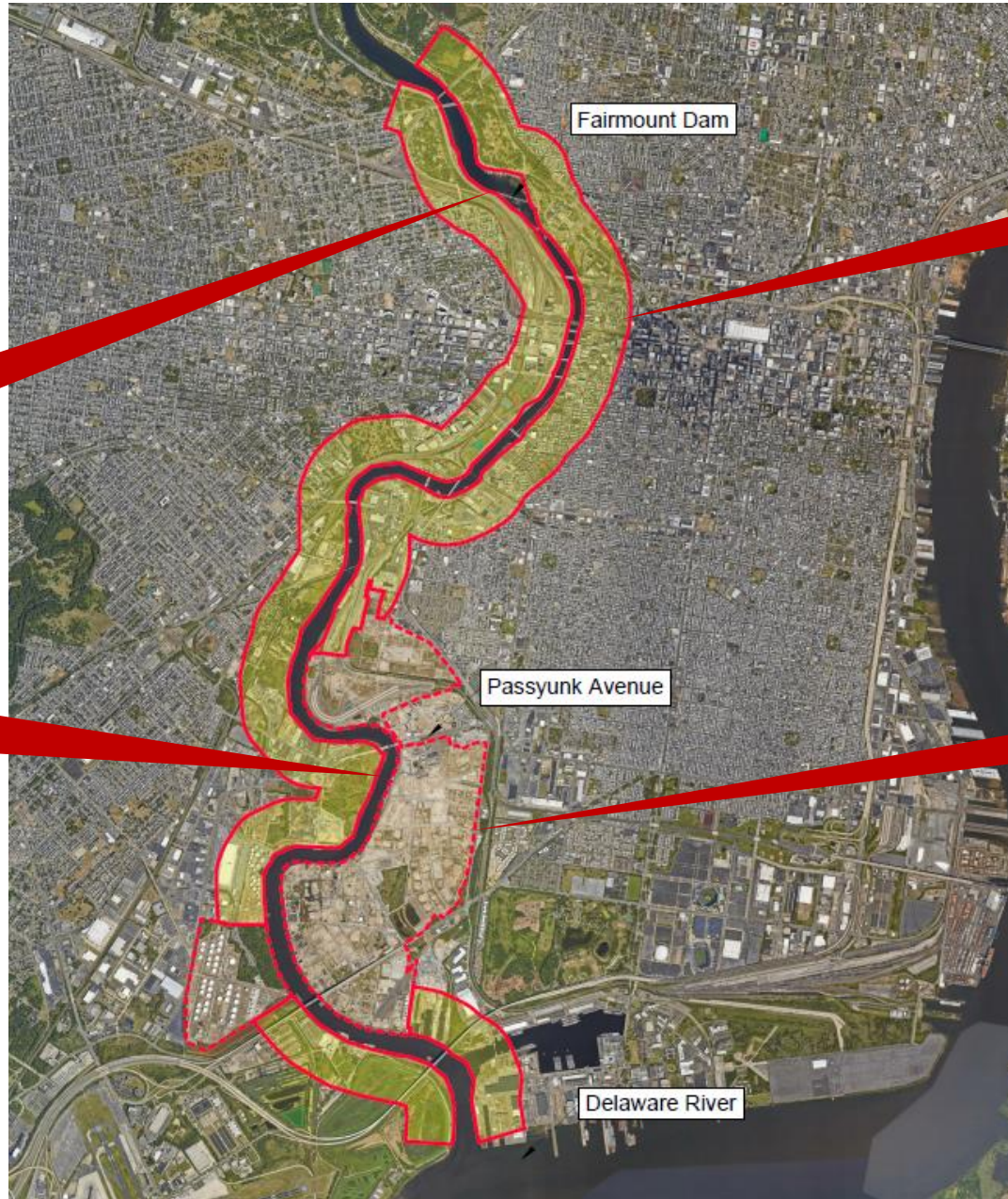
- 10-year storm = 74,000 CFS
- 50-year storm = 110,000 CFS
- 100-year storm = 128,000 CFS
- 500-year storm = 171,000 CFS



Upstream Limit
(Penn Central
Railroad Bridge)

Downstream Limit
(Confluence w/
Delaware River)

Hydraulic Calculations – Topographic Data



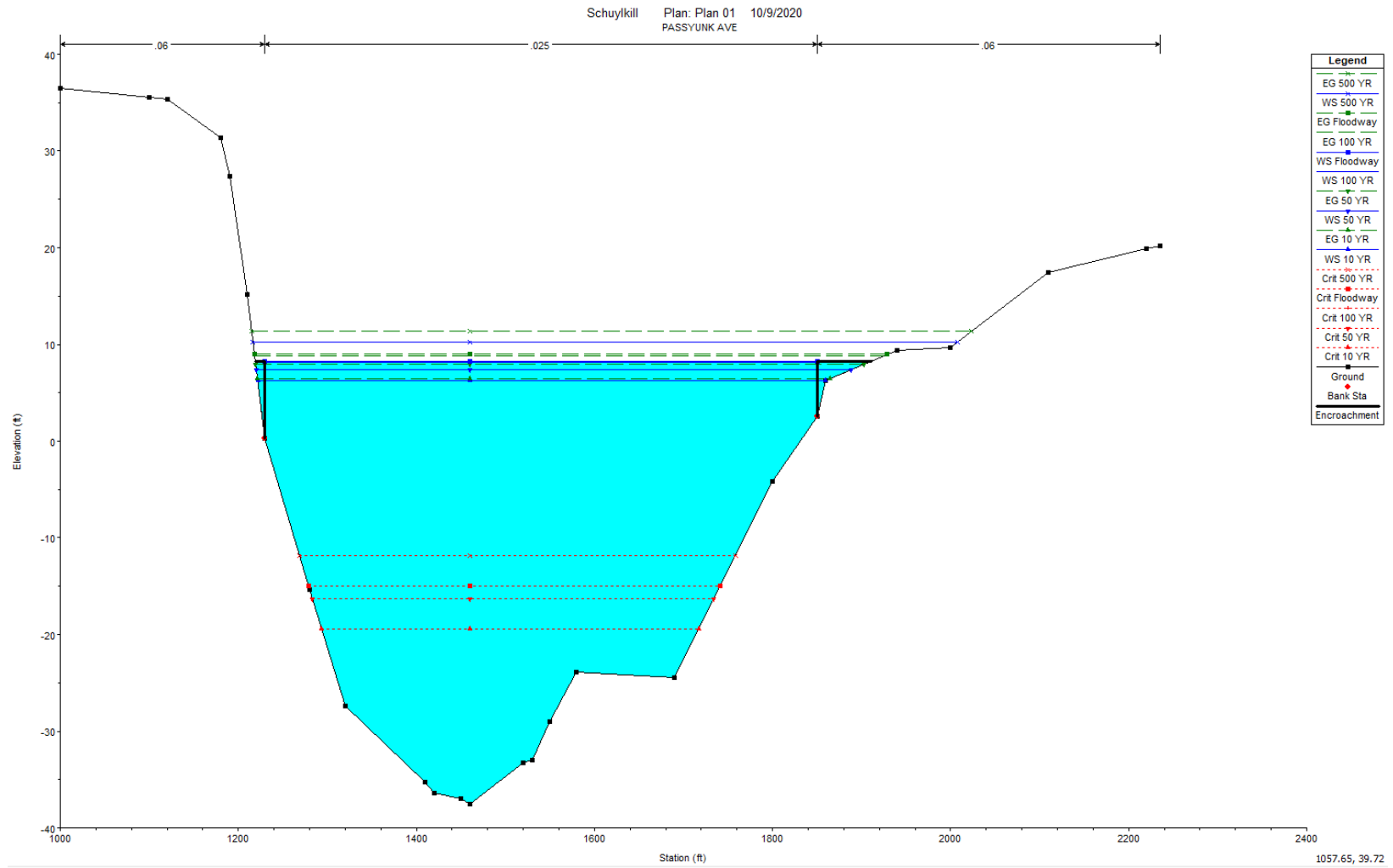
Channel Area
Army Corp of Engineers
(ACOE)
Model Data

Overbank Area
NOAA Topographic
Data

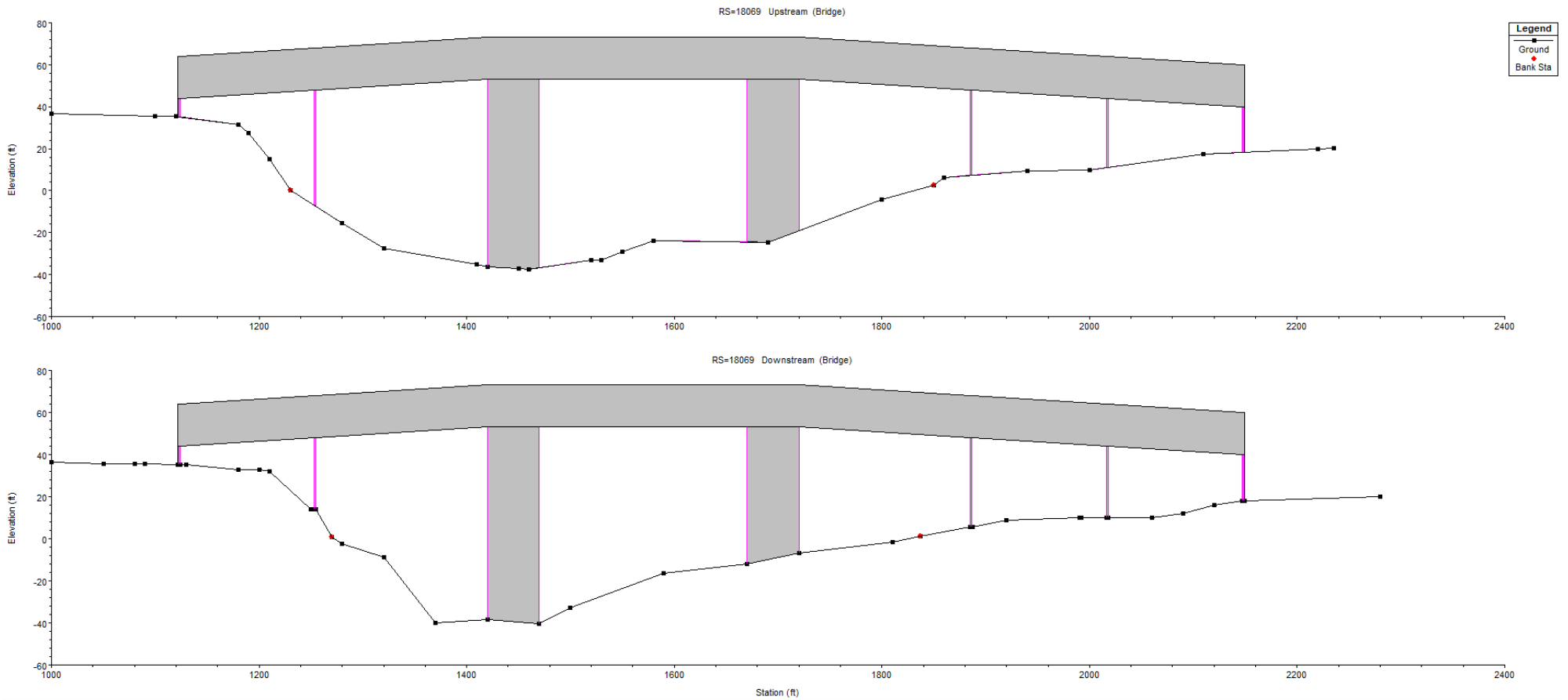
Channel Area
Army Corp of Engineers
(ACOE)
Hydrographic Survey

Overbank Area
Site Survey &
Proposed Conditions

Hydraulic Calculations – Typical Cross Section



Hydraulic Calculations – Typical Bridge Section



Climate Change & Sea Level Rise

Delaware Valley Regional Planning Commission (DVRPC) – PA Coastal Resiliency Flooding Scenarios		
	Current Conditions (NAVD88)	MHHW + Projected Conditions (NAVD88)*
Sea Level + MHHW	3.94 ft	7.01 ft
10-Year Storm (10%) + MHHW	6.99 ft	10.06 ft
100-Year Storm (1%) + MHHW	8.07 ft	11.14 ft

*Based on 2100 High-Emissions Scenario

FEMA Flood Elevations	Elevations (ft) (NAVD88)
100-Year Storm (1% Annual Chance) Tidal Flood Elevation	8.93
500-Year Storm (0.2% Annual Chance) Tidal Flood Elevation	11.53

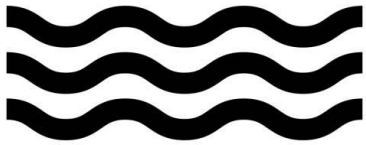
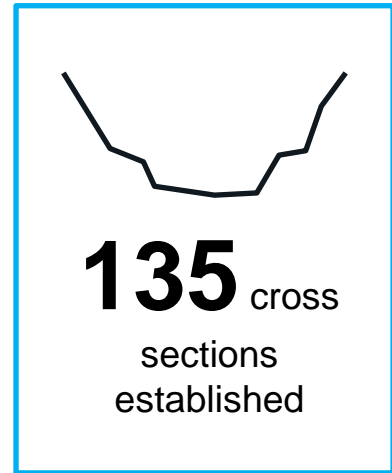
Proposed Improvements	Elevations (ft) (NAVD88)
City of Philadelphia Regulatory Flood Elevation (100-Year Effective Elevation + 18")	10.43
Minimum Proposed Finished Floor for Building (100-Year Effective Elevation + 4')	12.93

RESULTS

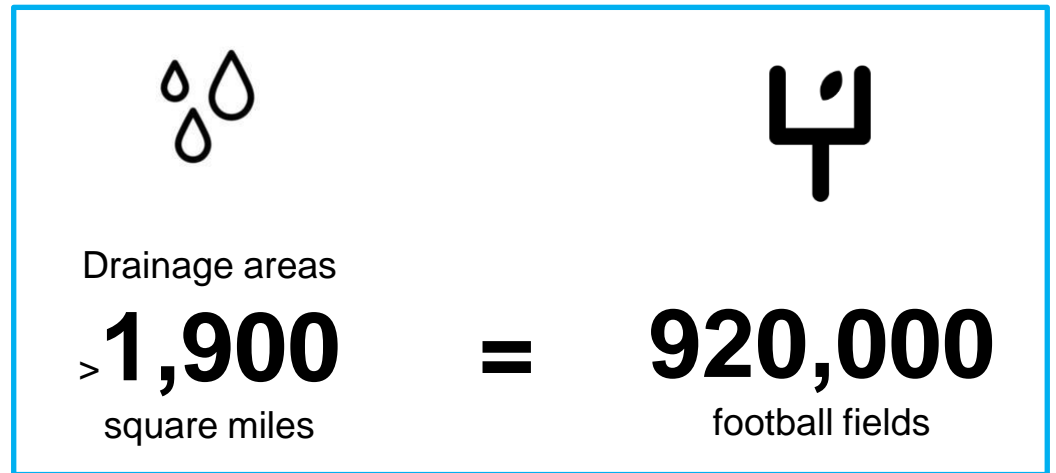
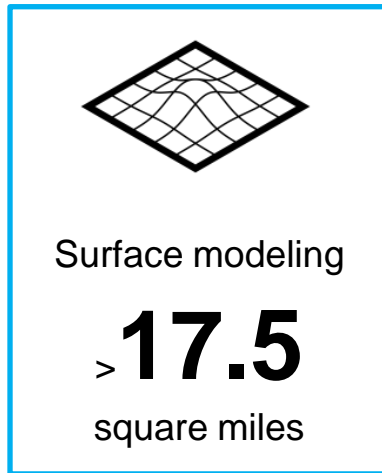
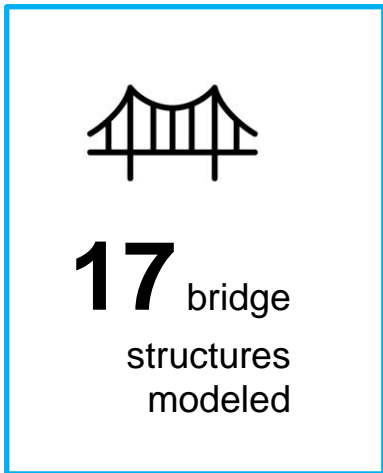
Process



- Approval process with FEMA and the City of Philadelphia
- Studied over **9.5 miles** of the Schuylkill River from the confluence with the Delaware River to the Penn Central Railroad Bridge
- Worked with FEMA reviewers for over **2 years** to refine and establish a new floodplain model
- FEMA provided final determination to the City of Philadelphia based on HRP's mapping revision plan in November 2022
- Study **accepted** by the City of Philadelphia Floodplain Manager



Results of the study demonstrate that the post-construction site improvements and elevations do **NOT** impact the floodplain elevation



STORMWATER MANAGEMENT

What is a Post Construction Stormwater Management (PCSM)?

Management and Control of Stormwater Discharge

Analysis existing and proposed stormwater runoff

Compliance with regulations enforced by:

- Philadelphia Water Department (PWD)
- Pennsylvania Department of Environmental Protection (PA DEP)

Where are we in the process?

Phased approach due to the immense nature of the improvements.

Mass Grading

Infrastructure Construction

Pad Specific Development

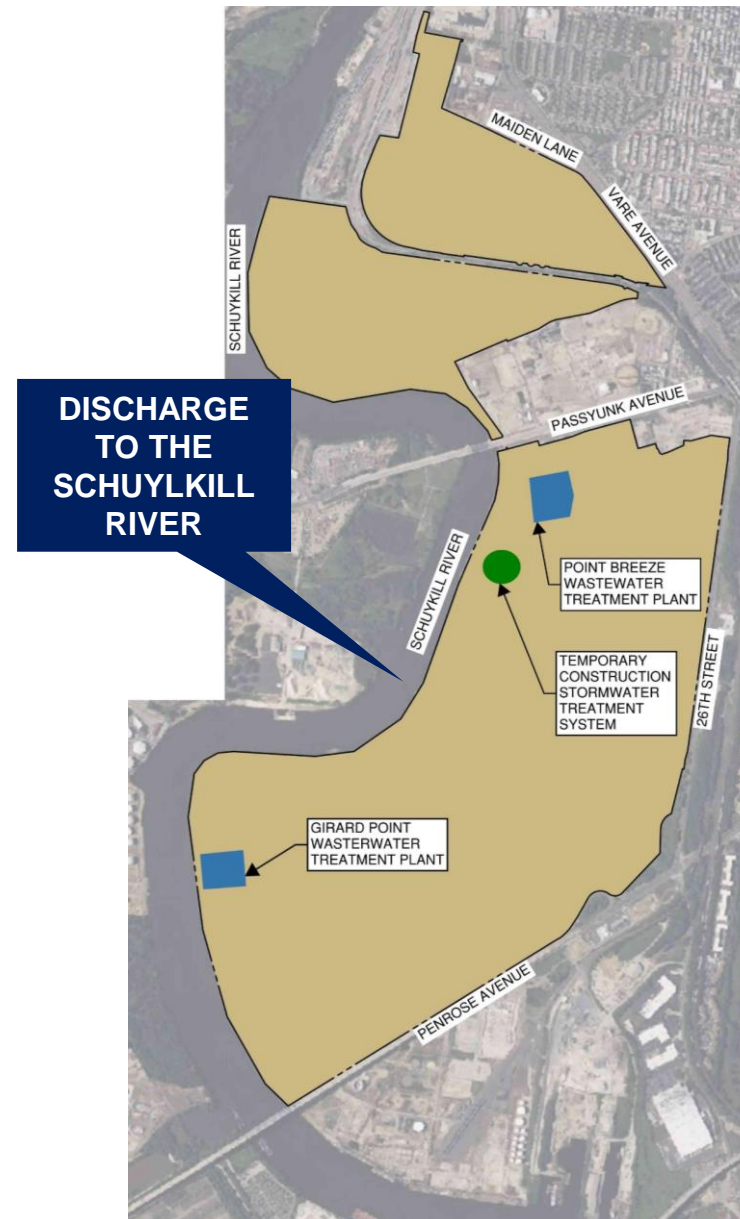


EXISTING DRAINAGE CONDITIONS

Analysis of stormwater runoff begins with identifying the Discharge Point of the runoff in the existing conditions

Onsite Runoff:

- Drains through existing private infrastructure
- Mechanical means of conveyance necessary due to existing topography
- Processed in existing wastewater treatment plants (to be decommissioned)
- Construction runoff processed by a temporary treatment system
- Discharged through existing outfalls to the Schuylkill River



PROPOSED DRAINAGE CONDITIONS

Analysis of stormwater runoff in the proposed development is compared to the existing conditions at the Discharge Point

Onsite Runoff:

- Drains through proposed public/private infrastructure
- Conveyed by gravity based on the proposed topography
- Managed in lined surface and subsurface stormwater basins
- Discharged through existing and proposed outfalls to the Schuylkill River



STORMWATER MANAGEMENT PERMITTING

PWD

Existing Resources and Site Analysis (ERSA)
Approval

Determination of Applicable Regulations

Determine Appropriate Review Path



PWD

Post Construction Stormwater Management
(PCSM) Approval

Determination of Compliance with Regulations:
Erosion and Sediment (E&S) Control
Flood Control
Channel Protection
Water Quality

PA DEP

Individual National Pollution Discharge
Elimination System (NPDES) Permit

Implement and maintain Best Management
Practices (BMPs)

Minimize Potential for Accelerated
Erosion

Manage Post Construction Stormwater

STORMWATER MANAGEMENT COMPLIANCE

Meet or exceed regulatory stormwater management requirements

Typical BMPs Approved by PWD and proposed onsite



Example from PWD Stormwater Guidance Manual

Channel



Example from PWD Stormwater Guidance Manual

Basin

SITE PROGRESS



EARTHWORK PROGRESS

- Lot 15 Surcharge complete with removal ongoing
- Lot 16 Surcharge placement and site preparation ongoing
- Future Frances Harper Drive subgrade preparation ongoing



COMMUNITY UPDATE



Bellwether District Community Resource Fair

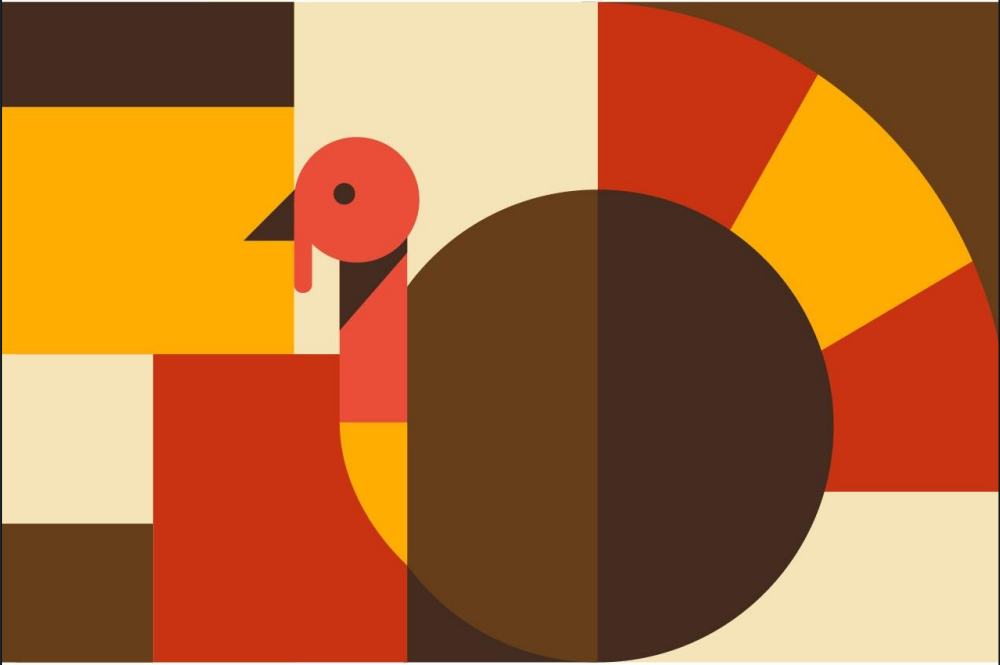


2023 Bellwether District Turkey Drive


JOIN US


Turkey Giveaway & Dinner


Join Hilco Redevelopment Partners, The Salvation Army, and Resident Action Committee II for a Thanksgiving-style dinner! Attendees will also receive a **FREE** turkey. Residents from **19143, 19145, 1946, 19147 and 19148** zip codes are encouraged to attend!



LOCATION: The Salvation Army Central Corps Community Center, 3225 Reed St. Philadelphia **DATE & TIME:** November 16th 2023, 3:00pm-5:00pm
REGISTRATION IS REQUIRED. To RSVP, call The Salvation Army at 215.460.0300

 The Bellwether District
AN HRP PROJECT

 THE SALVATION ARMY

 RaC2

Community Benefits Agreement Update

CBA TIMELINE

- Process began in May 2023.
- Mix of in-person and virtual meetings.
- Aiming to have completed CBA by early-mid 2024.

CBA PARTICIPANTS

- Utilizing HRP's Community Advisory Panel for CBA process.
- Community Advisory Panel made up of 25 Registered Community Organizations (RCOs) and other key stakeholders that serve South and Southwest Philadelphia.
- Continue to collect feedback from the broader community.

Thank You



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