



Delaware River Main Channel Deepening Project

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District Engineer,
Philadelphia District*

January 20, 2005



Delaware River Main Channel Deepening Project



The Vision

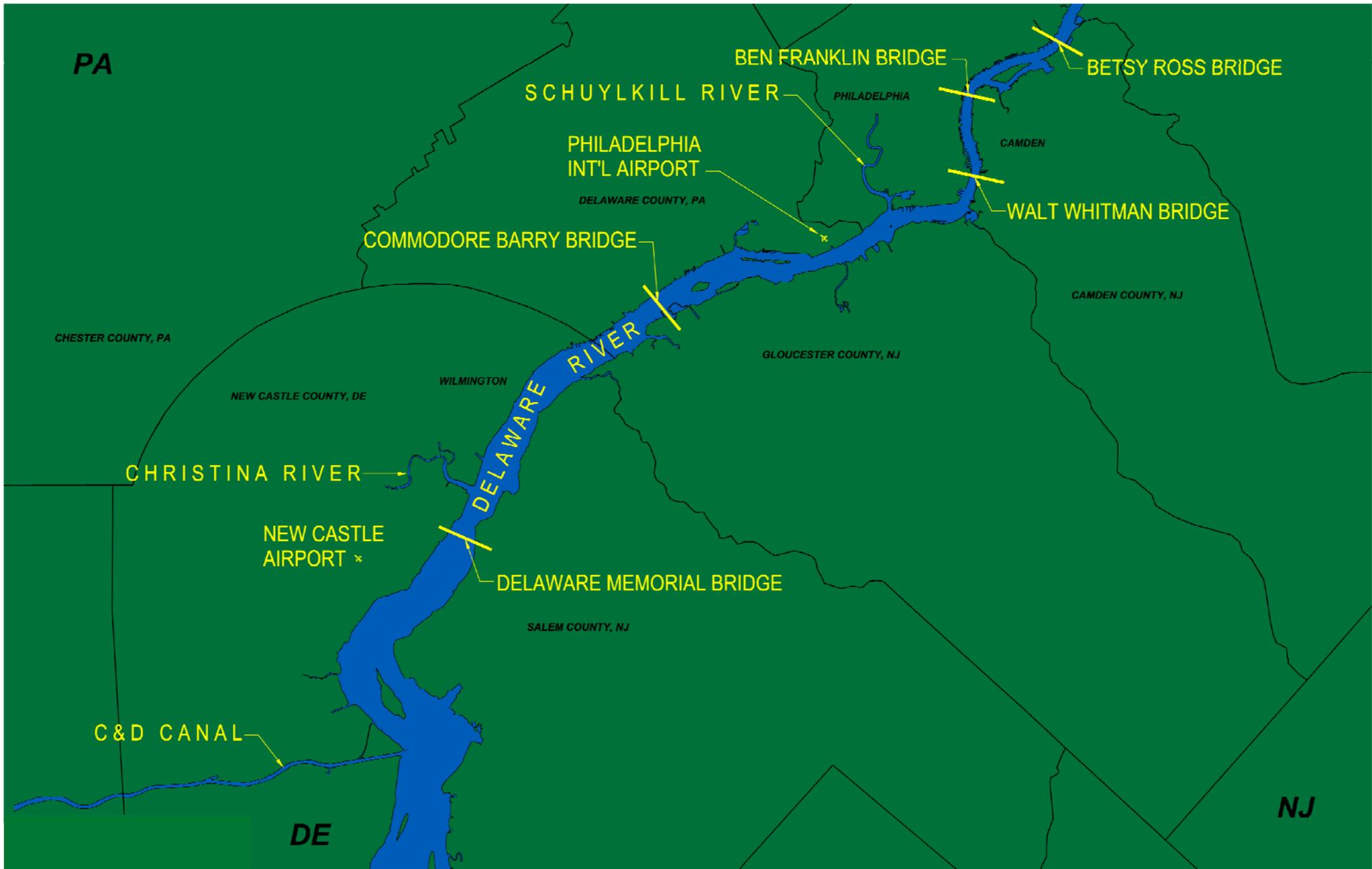


Making way for our ports ... Taking care of our watershed

- Deeper and safer channel accommodates more efficient shipping
- More efficient shipping means more competitive ports
- More competitive ports benefit the entire Tri-State economy
- Port of Philadelphia is one of the nation's 14 Strategic Ports



Delaware River: C & D Canal to Betsy Ross Bridge



Delaware River: The Main Channel

CHANNEL FACTS:

- 102 miles to Philadelphia Harbor
- 65 miles to Wilmington Harbor
- 40 ft depth
- 6 ft tidal range
- 400 ft wide - Philadelphia Harbor
- 800 ft wide to Delaware Bay
- 1000 ft wide in Delaware Bay



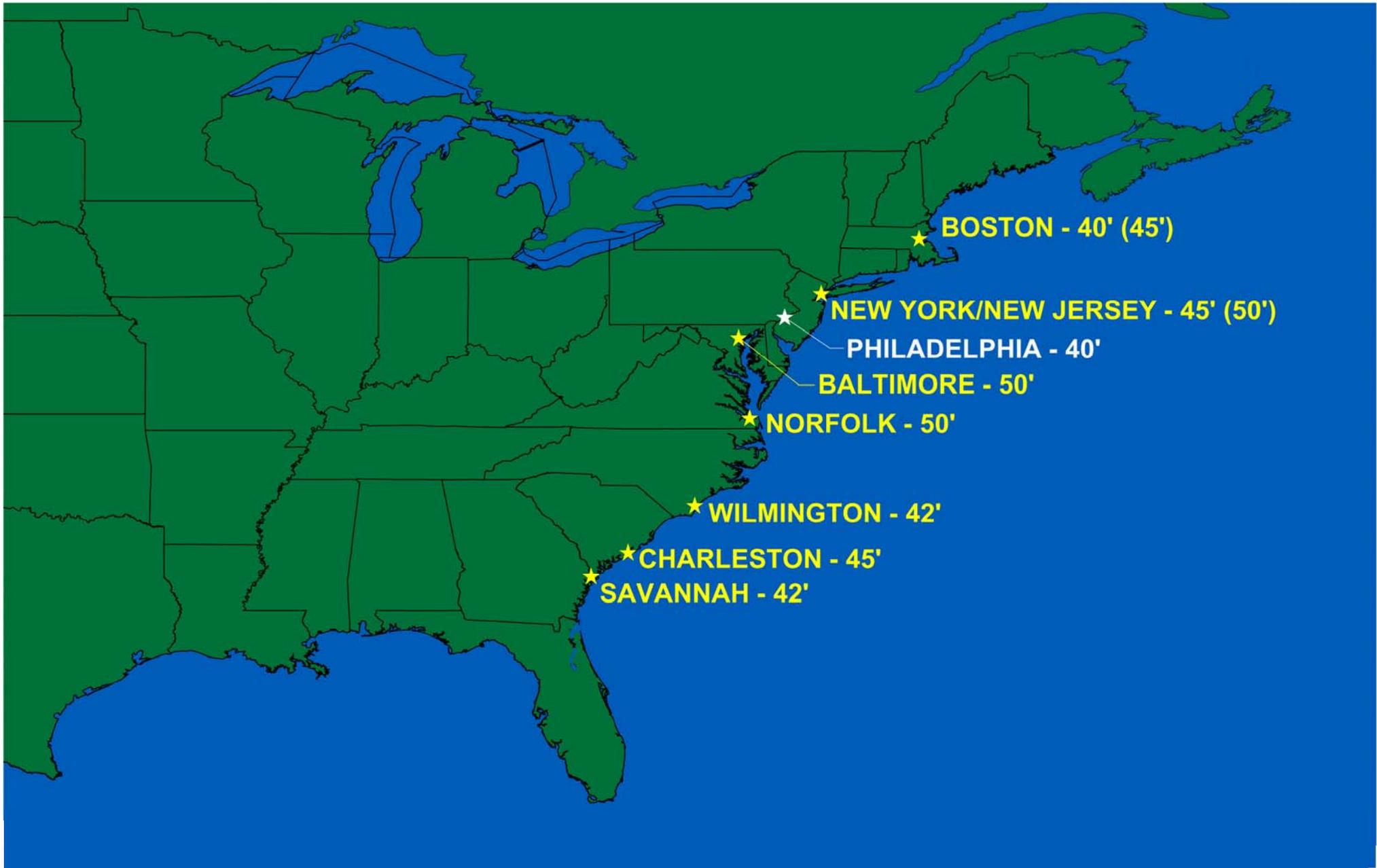
Existing General Cargo Port Facilities



Existing Liquid Bulk Facilities



East Coast Ports Channel Depths



Deepening the Main Channel to 45': The Project

FACTS:

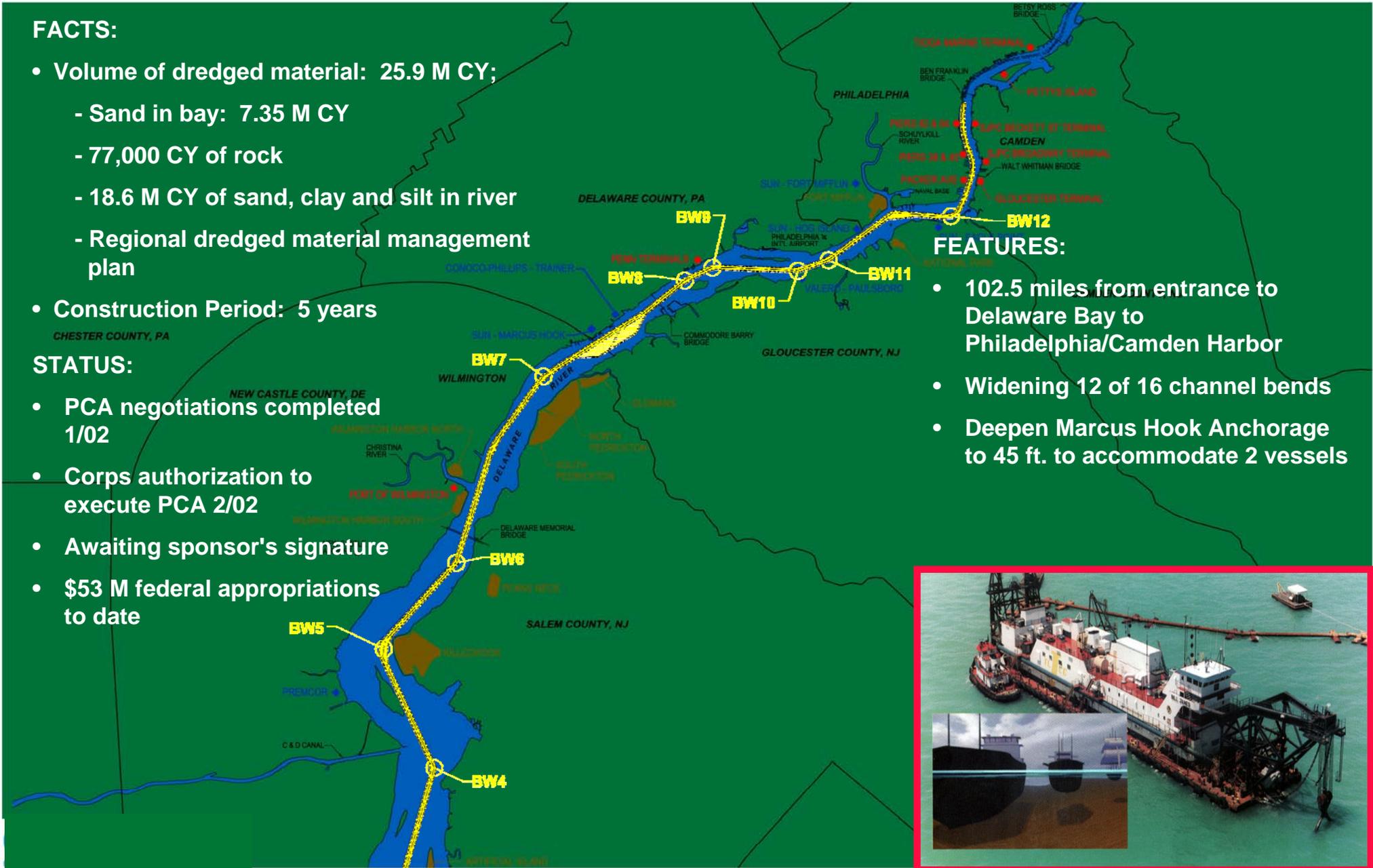
- Volume of dredged material: 25.9 M CY;
 - Sand in bay: 7.35 M CY
 - 77,000 CY of rock
 - 18.6 M CY of sand, clay and silt in river
- Regional dredged material management plan
- Construction Period: 5 years

STATUS:

- PCA negotiations completed 1/02
- Corps authorization to execute PCA 2/02
- Awaiting sponsor's signature
- \$53 M federal appropriations to date

FEATURES:

- 102.5 miles from entrance to Delaware Bay to Philadelphia/Camden Harbor
- Widening 12 of 16 channel bends
- Deepen Marcus Hook Anchorage to 45 ft. to accommodate 2 vessels



Beneficial Uses of Dredged Material

BENEFICIAL USES DEMONSTRATION PROJECTS:

- Tamaqua Mine Reclamation 54,000 CY
- Bark Camp Mine Reclamation 50,000 CY
- Philadelphia Naval Business Center 37,000 CY



TAMAQUA, PA



PHILADELPHIA NAVAL BUSINESS CENTER, PA

BARK CAMP, PA



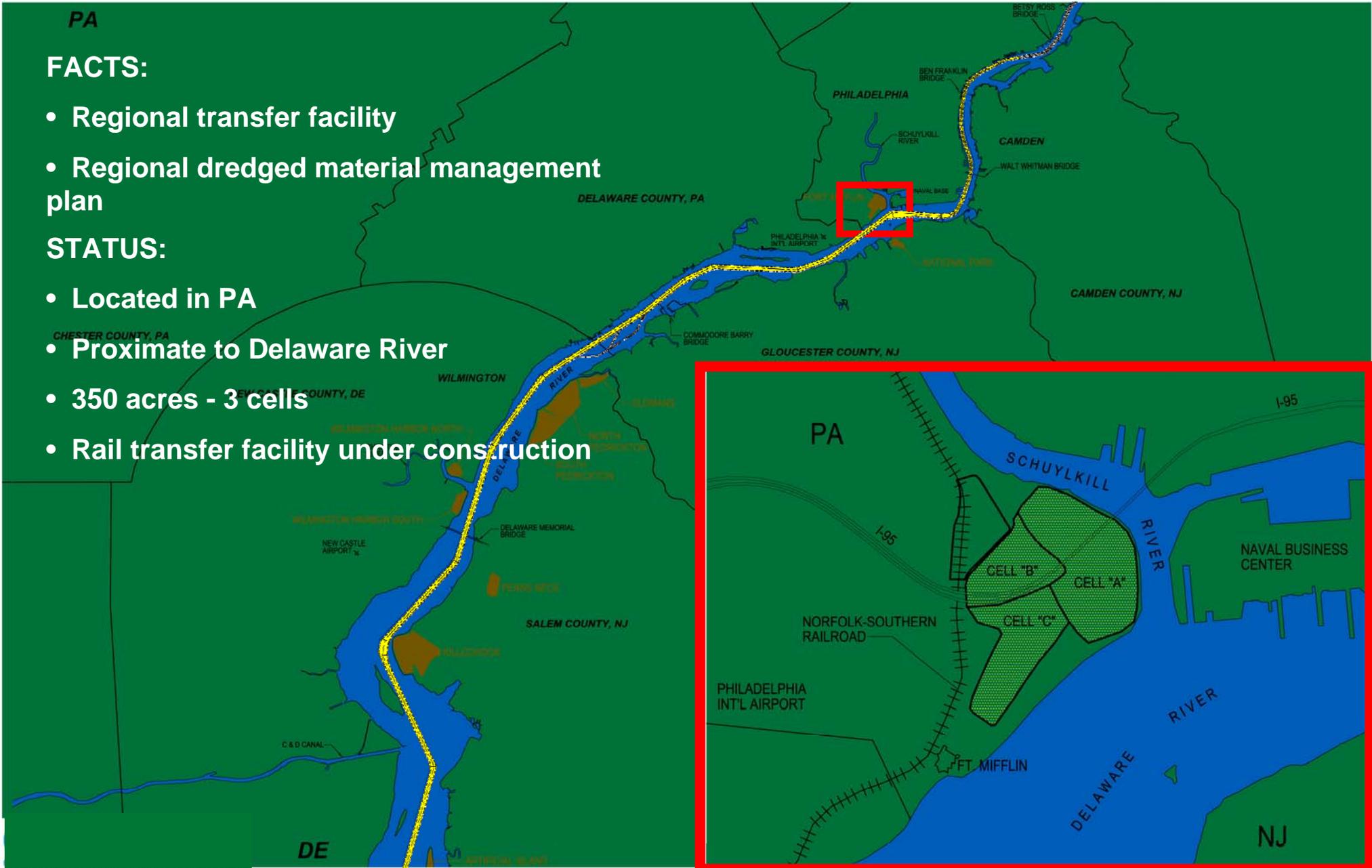
Fort Mifflin Disposal Area

FACTS:

- Regional transfer facility
- Regional dredged material management plan

STATUS:

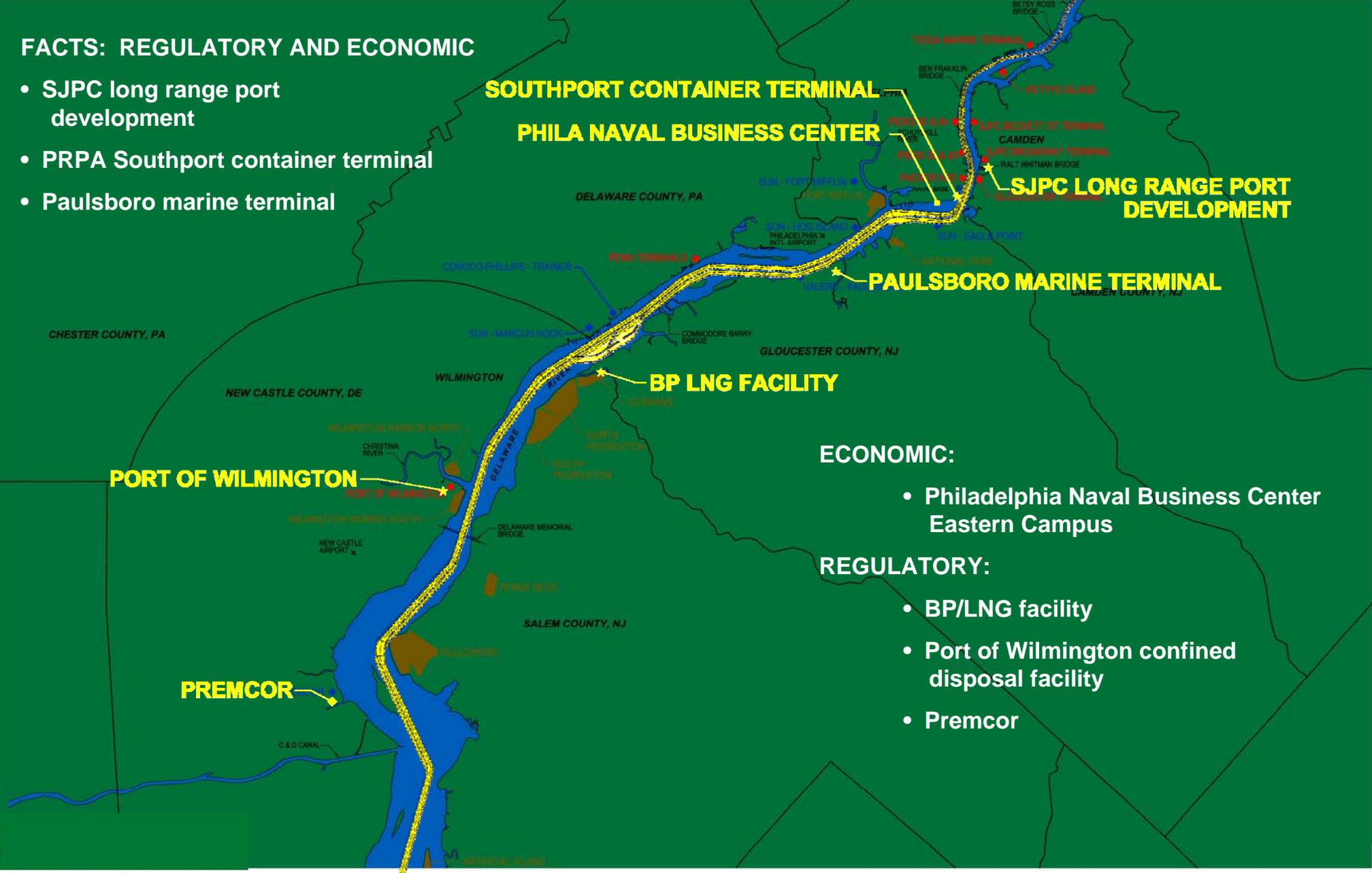
- Located in PA
- Proximate to Delaware River
- 350 acres - 3 cells
- Rail transfer facility under construction



Future Projects and Issues Affected by Channel Deepening

FACTS: REGULATORY AND ECONOMIC

- SJPC long range port development
- PRPA Southport container terminal
- Paulsboro marine terminal



ECONOMIC:

- Philadelphia Naval Business Center Eastern Campus

REGULATORY:

- BP/LNG facility
- Port of Wilmington confined disposal facility
- Premcor

South Jersey Port Corporation Long Range Port Development

Camden, New Jersey



South Jersey Port Corporation Long Range Port Development

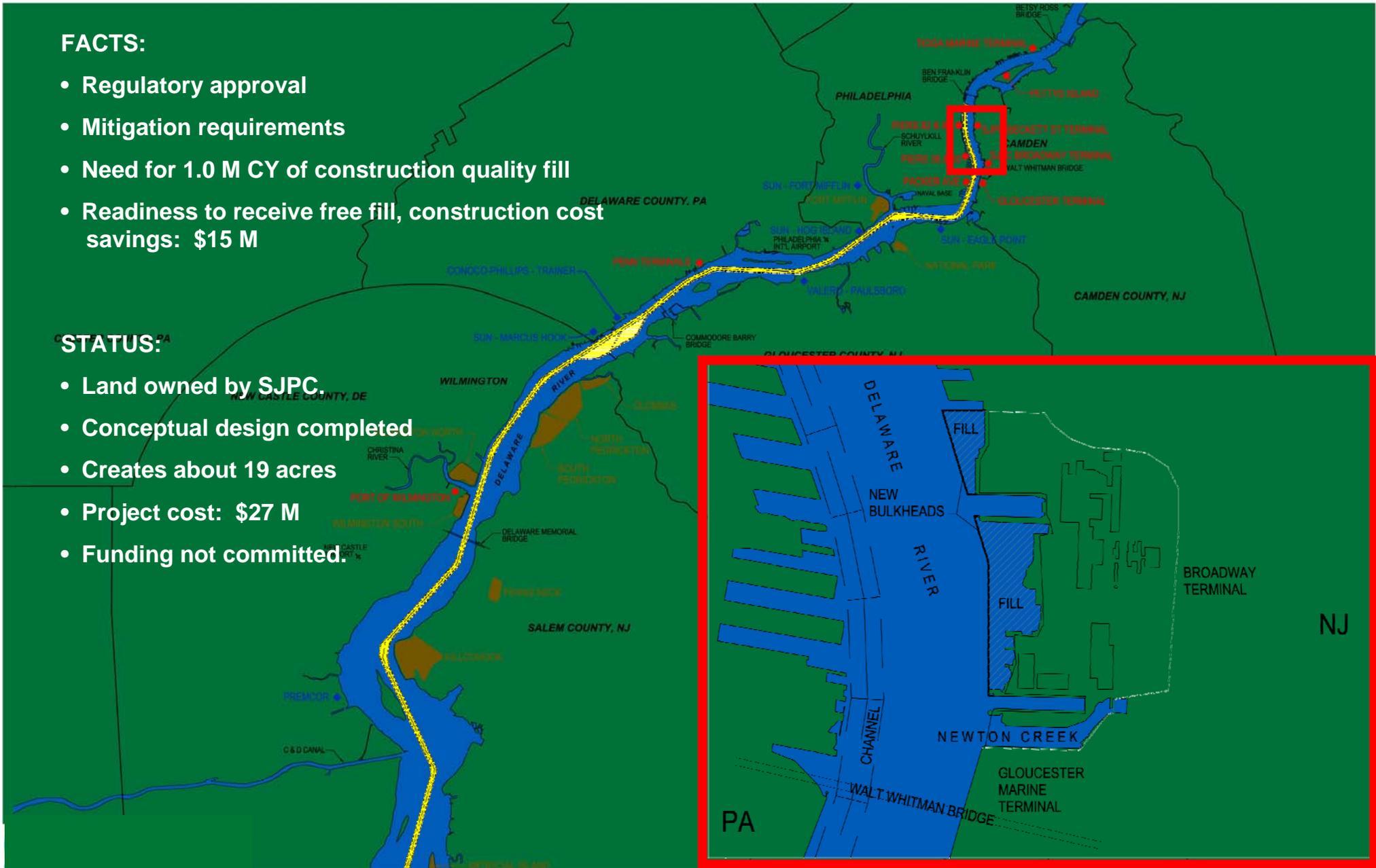
Camden, New Jersey

FACTS:

- Regulatory approval
- Mitigation requirements
- Need for 1.0 M CY of construction quality fill
- Readiness to receive free fill, construction cost savings: \$15 M

STATUS:

- Land owned by SJPC
- Conceptual design completed
- Creates about 19 acres
- Project cost: \$27 M
- Funding not committed.



Philadelphia Regional Port Authority Southport Container Terminal

Philadelphia, Pennsylvania



Philadelphia Regional Port Authority Southport Container Terminal

Philadelphia, Pennsylvania

FACTS:

- Regulatory approvals
- Mitigation: extent and cost
- Need for 1.5 M CY of construction quality fill
- Readiness to receive free fill, construction cost savings: \$22 M

STATUS:

- Conceptual design completed.
- Environmental studies initiated.
- Acquiring land sites.
- 140 acre site
- Project cost: \$239 M, construction period: 5 years
- Funding not committed.



Paulsboro Marine Terminal and Logistics/Distribution Center

Paulsboro, New Jersey



Paulsboro Marine Terminal and Logistics/Distribution Center

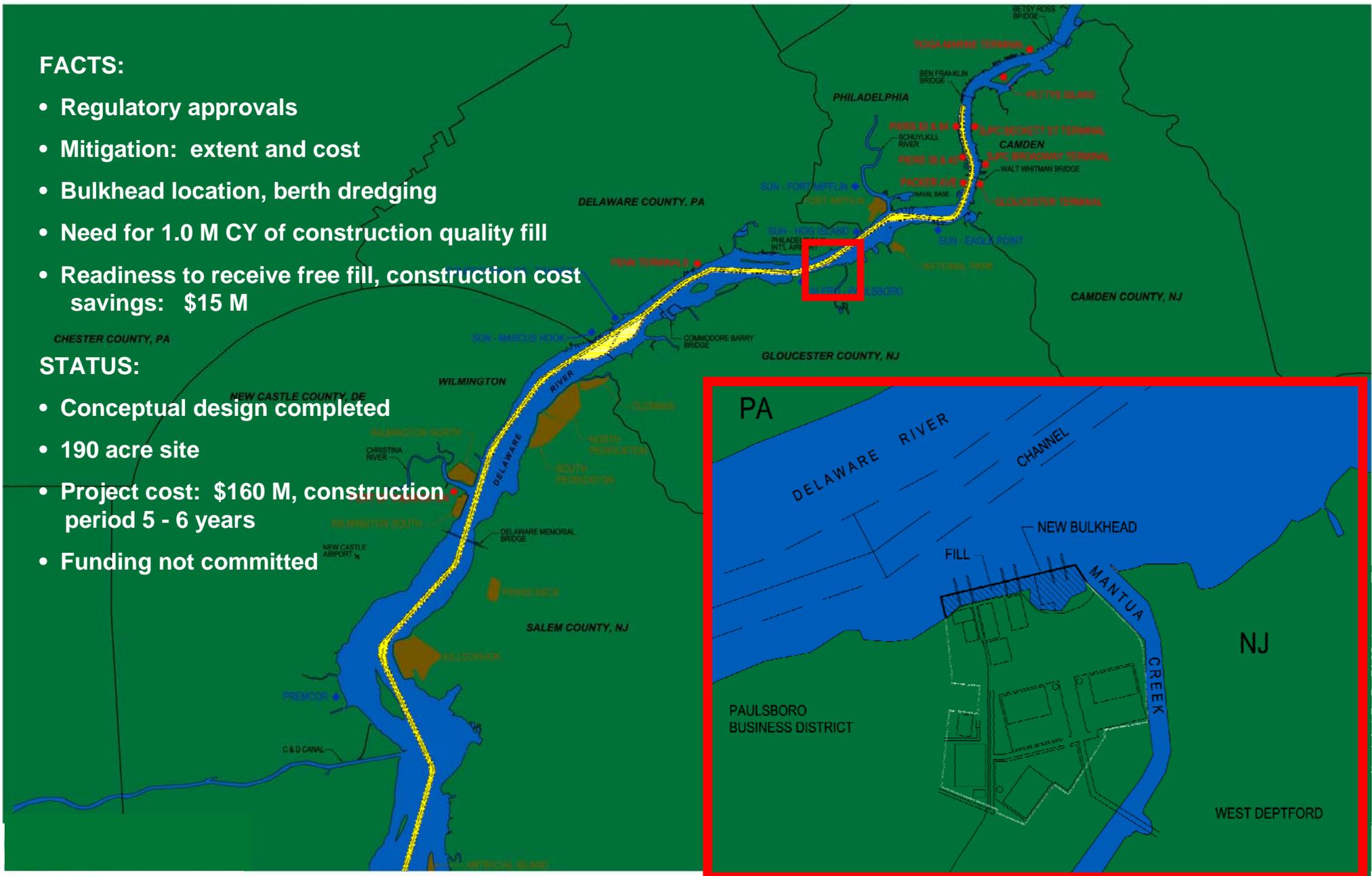
Paulsboro, New Jersey

FACTS:

- Regulatory approvals
- Mitigation: extent and cost
- Bulkhead location, berth dredging
- Need for 1.0 M CY of construction quality fill
- Readiness to receive free fill, construction cost savings: \$15 M

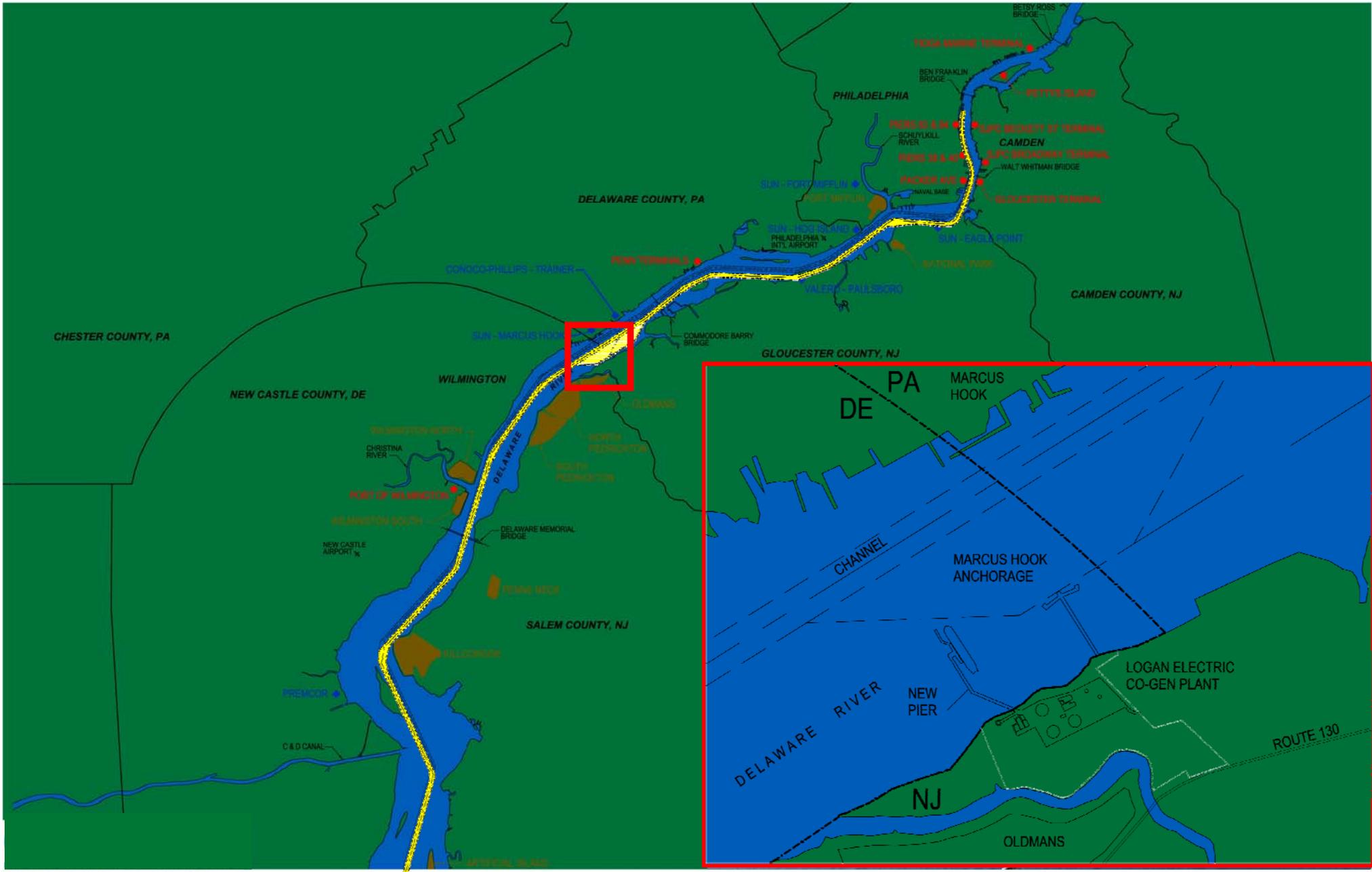
STATUS:

- Conceptual design completed
- 190 acre site
- Project cost: \$160 M, construction period 5 - 6 years
- Funding not committed



BP Crown Landing LNG Terminal

Logan Township, New Jersey



BP Crown Landing LNG Terminal

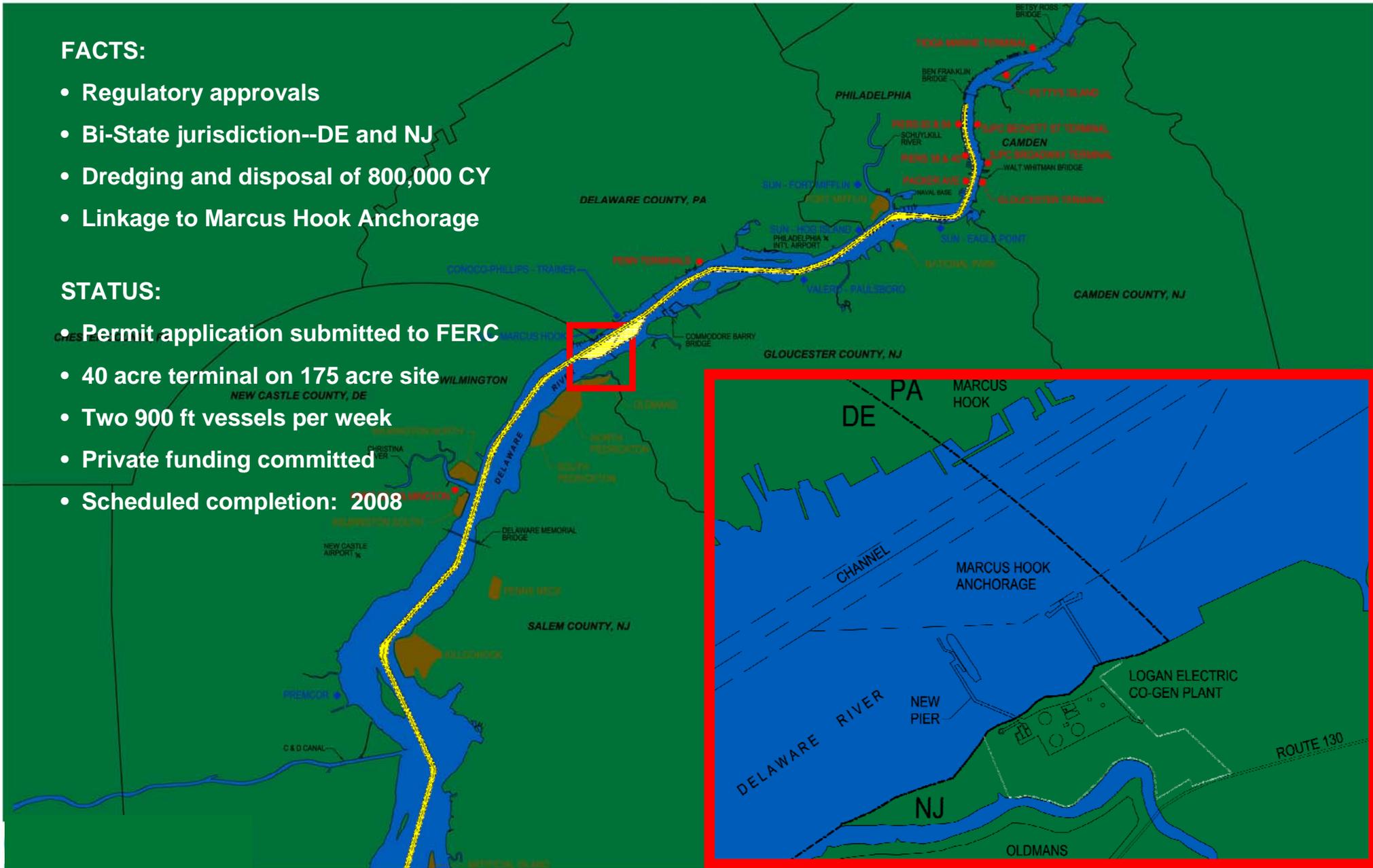
Logan Township, New Jersey

FACTS:

- Regulatory approvals
- Bi-State jurisdiction--DE and NJ
- Dredging and disposal of 800,000 CY
- Linkage to Marcus Hook Anchorage

STATUS:

- Permit application submitted to FERC
- 40 acre terminal on 175 acre site
- Two 900 ft vessels per week
- Private funding committed
- Scheduled completion: 2008



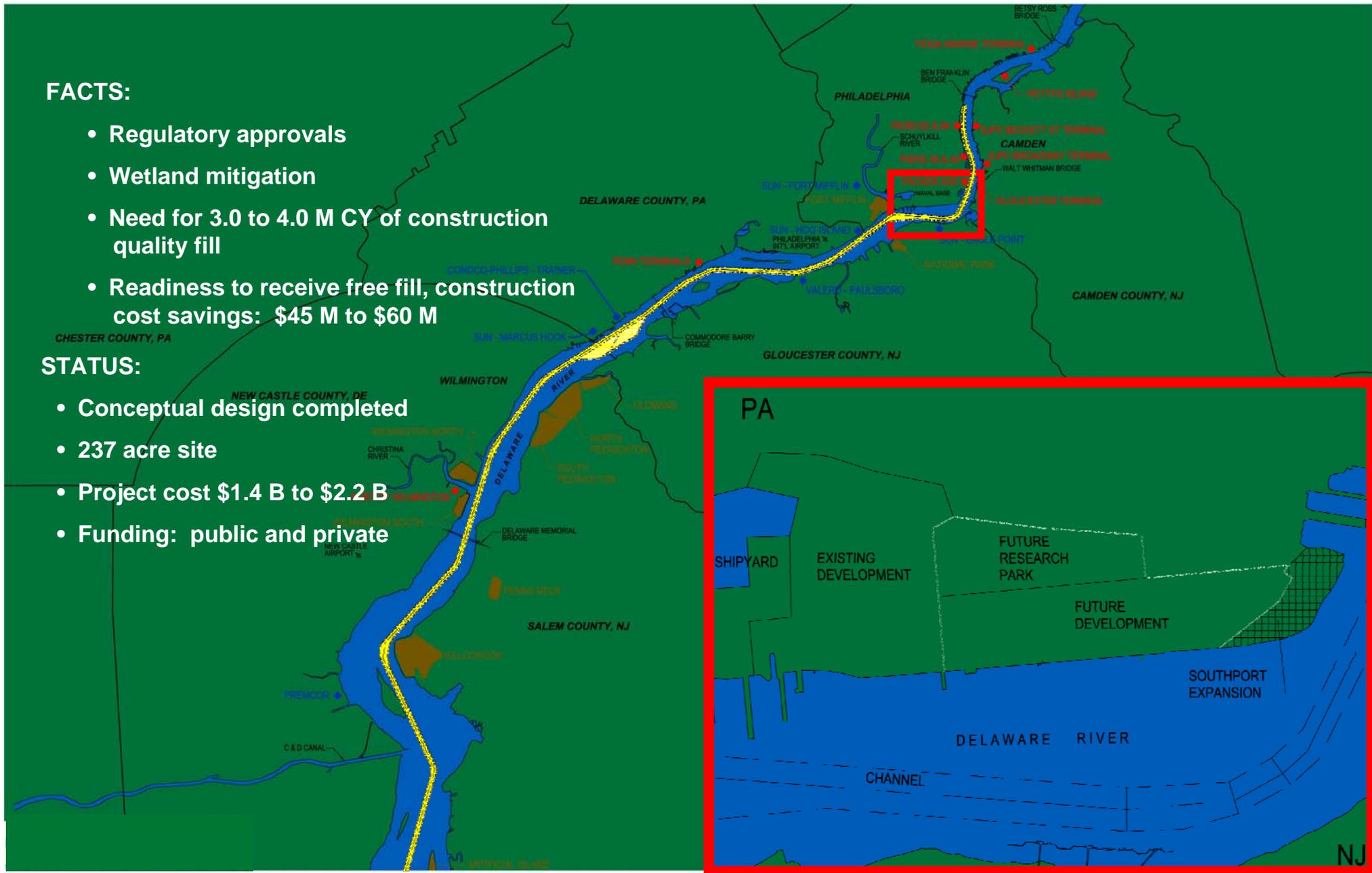
Navy Yard (Philadelphia Naval Business Center): Research Park, Marina and Eastern End Districts

FACTS:

- Regulatory approvals
- Wetland mitigation
- Need for 3.0 to 4.0 M CY of construction quality fill
- Readiness to receive free fill, construction cost savings: \$45 M to \$60 M

STATUS:

- Conceptual design completed
- 237 acre site
- Project cost \$1.4 B to \$2.2 B
- Funding: public and private



Port of Wilmington

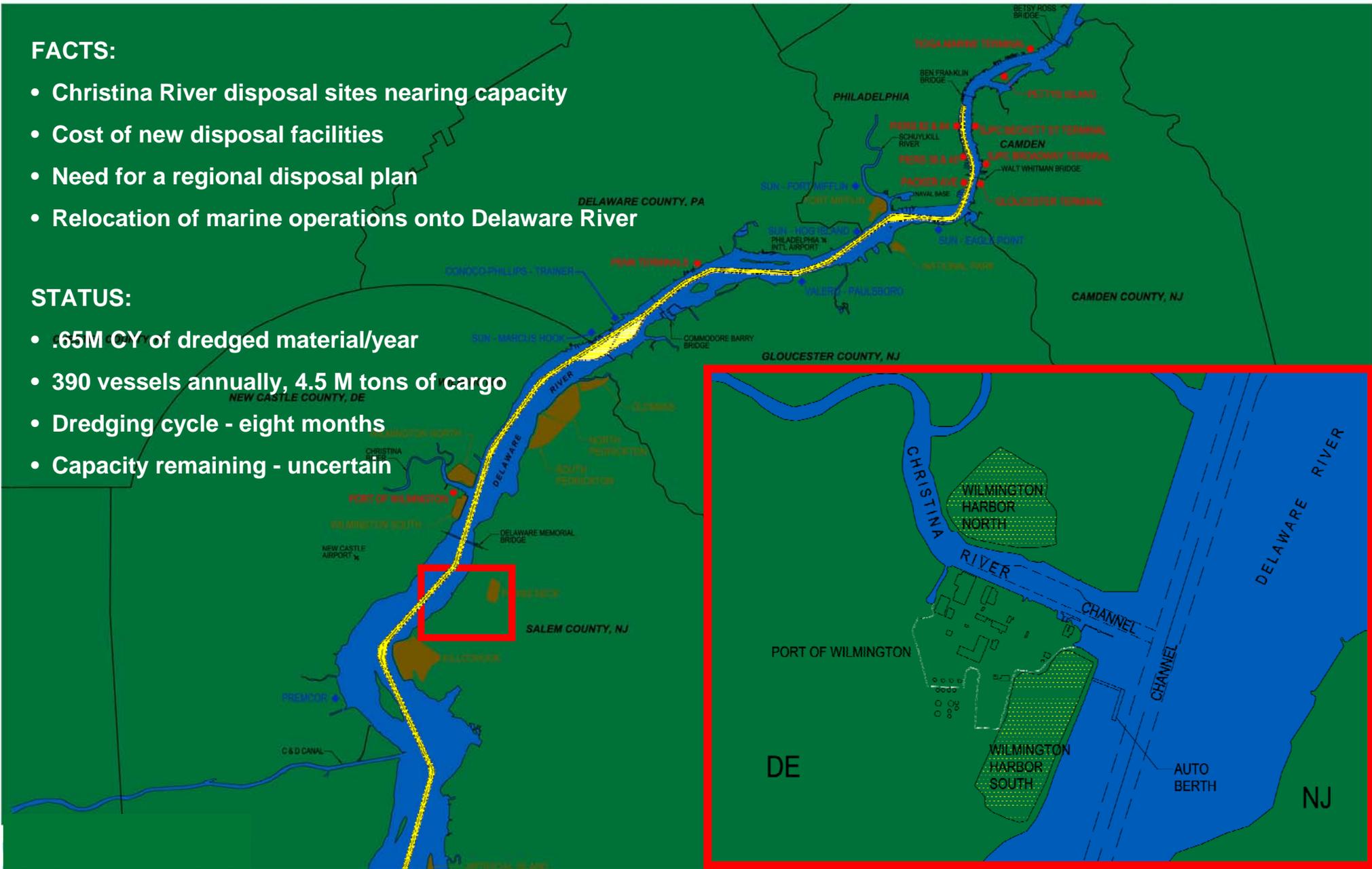
Wilmington, Delaware

FACTS:

- Christina River disposal sites nearing capacity
- Cost of new disposal facilities
- Need for a regional disposal plan
- Relocation of marine operations onto Delaware River

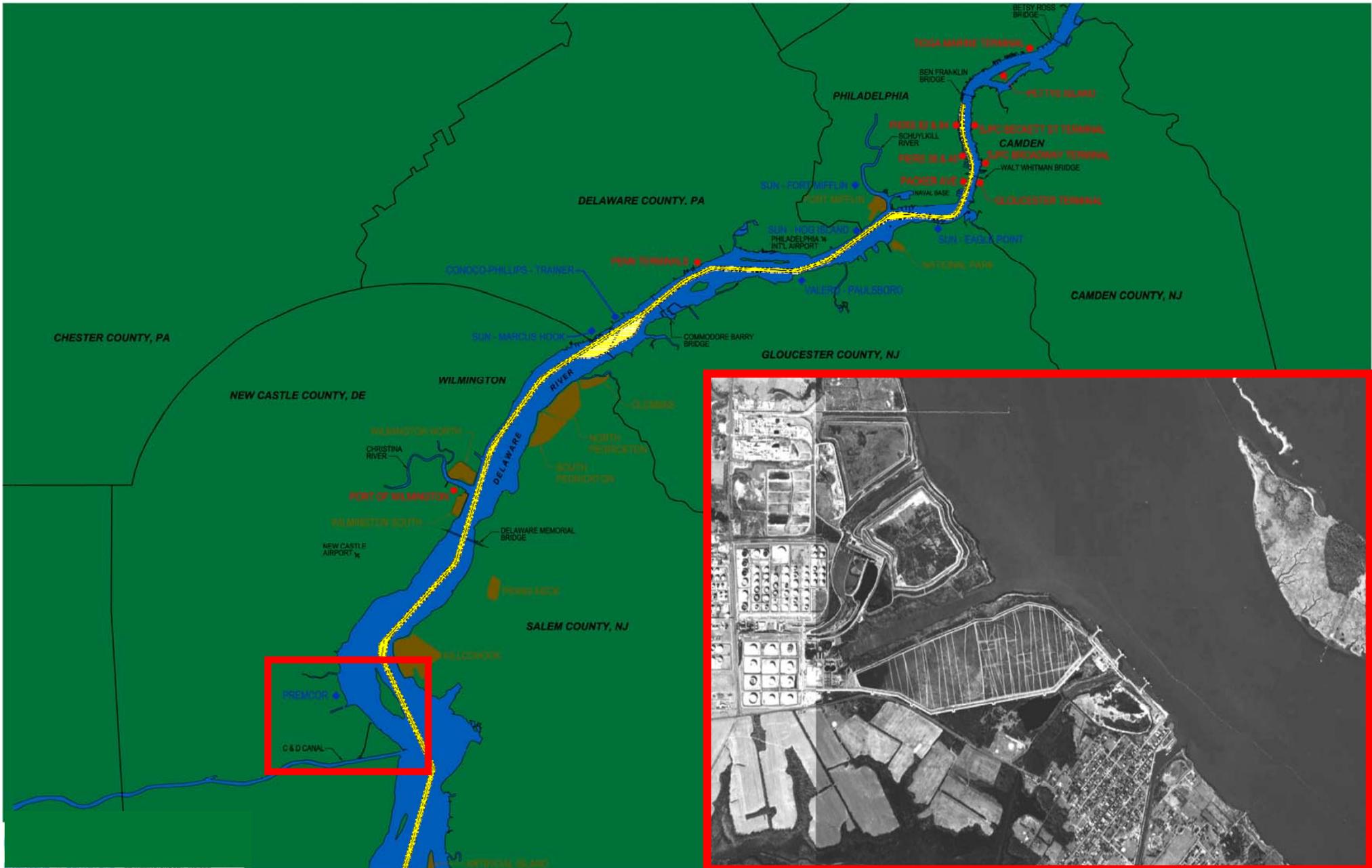
STATUS:

- .65M CY of dredged material/year
- 390 vessels annually, 4.5 M tons of cargo
- Dredging cycle - eight months
- Capacity remaining - uncertain



Premcor Inc.

Delaware City, Delaware



Premcor Inc.

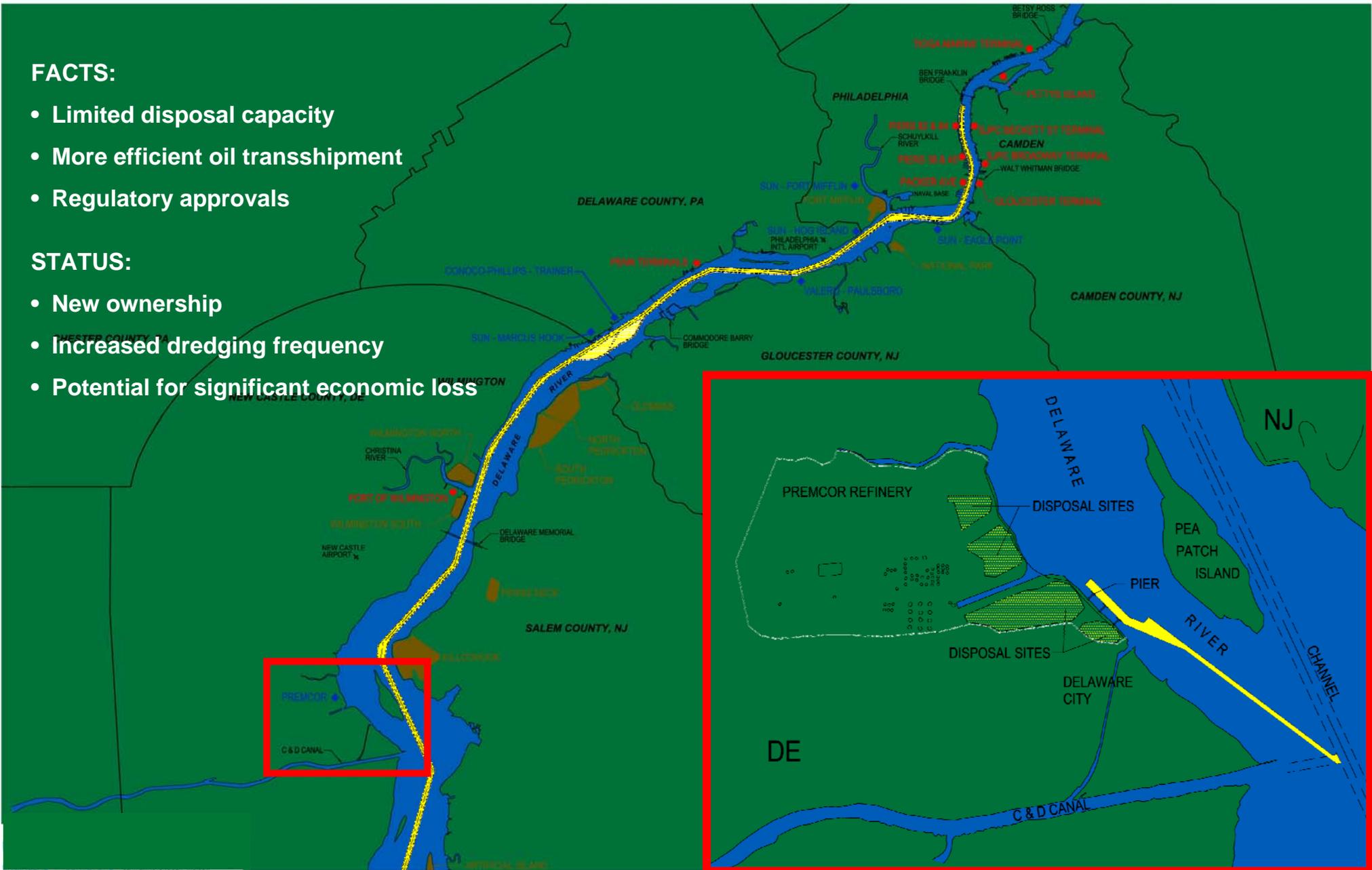
Delaware City, Delaware

FACTS:

- Limited disposal capacity
- More efficient oil transshipment
- Regulatory approvals

STATUS:

- New ownership
- Increased dredging frequency
- Potential for significant economic loss



Economic Development Projects



Delaware River Main Channel Deepening

TIME IS RUNNING OUT

- Federal appropriations
- Corps project justification
- PCA ready for signature



LOST OPPORTUNITIES

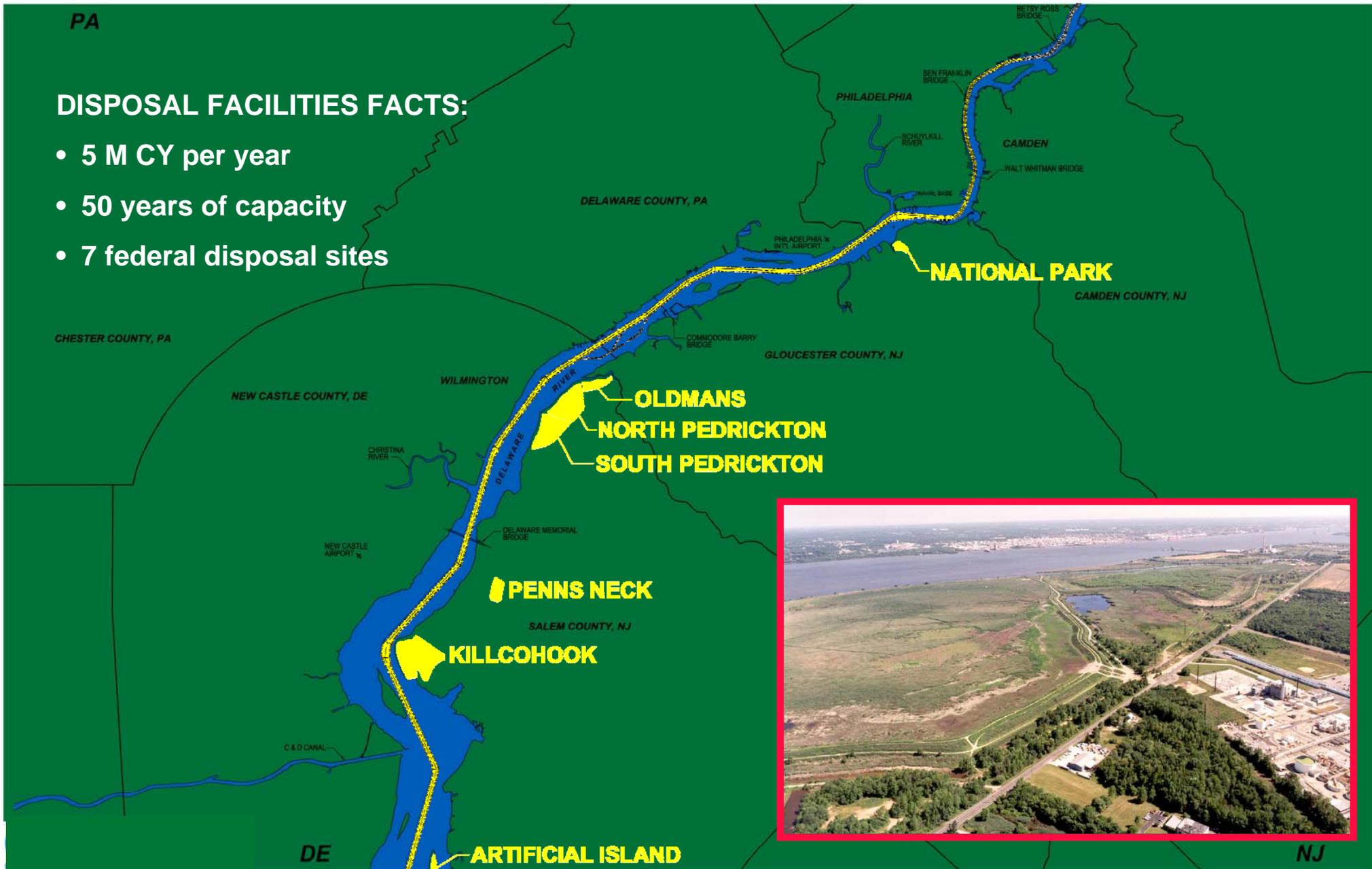
- Viable competitive regional port
- 5 M CY of free fill
- \$75 M construction cost savings



Delaware River Maintenance: Upland Disposal Areas

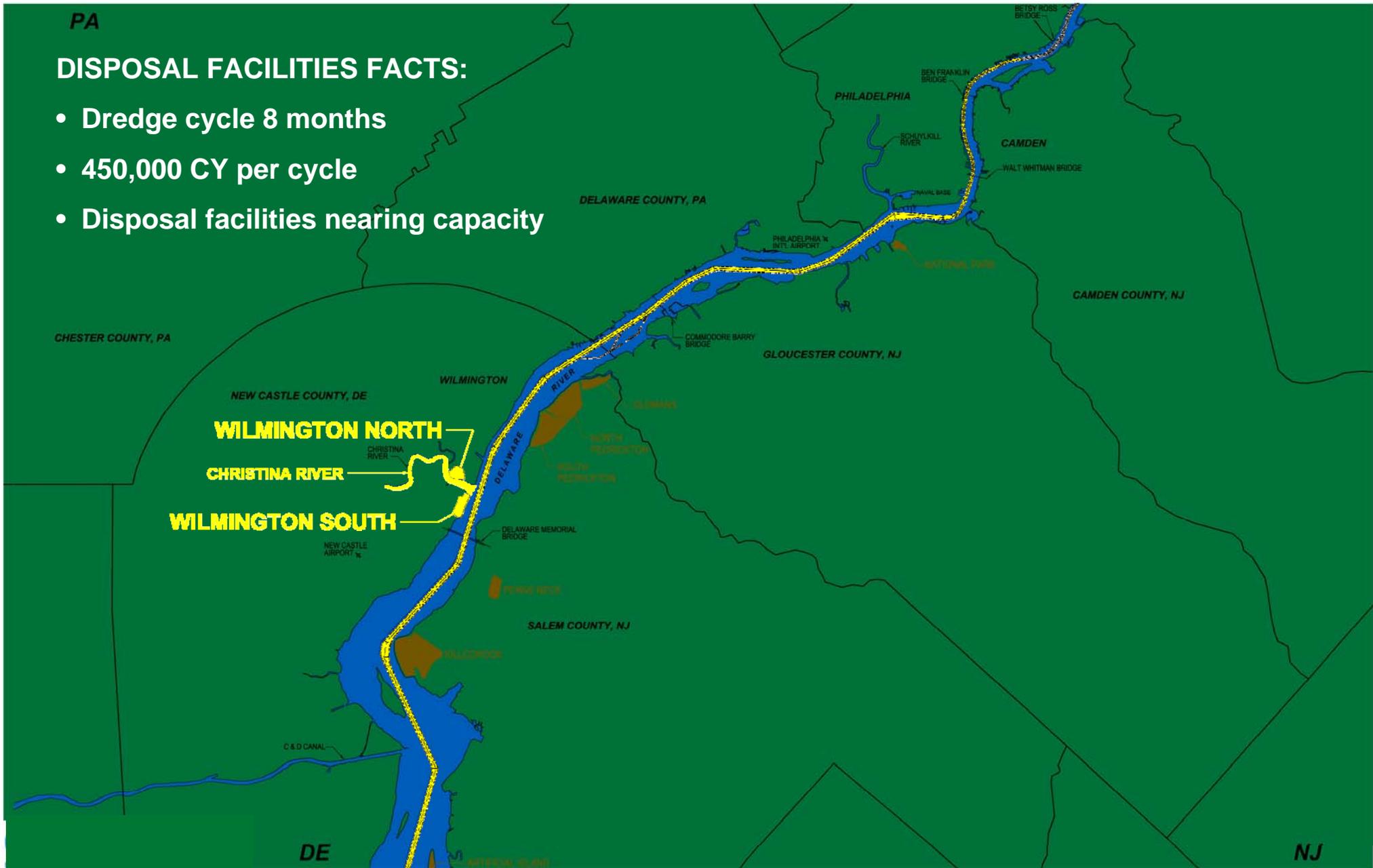
DISPOSAL FACILITIES FACTS:

- 5 M CY per year
- 50 years of capacity
- 7 federal disposal sites



Christina River Maintenance: Upland Disposal Areas

- PA**
- DISPOSAL FACILITIES FACTS:**
- Dredge cycle 8 months
 - 450,000 CY per cycle
 - Disposal facilities nearing capacity

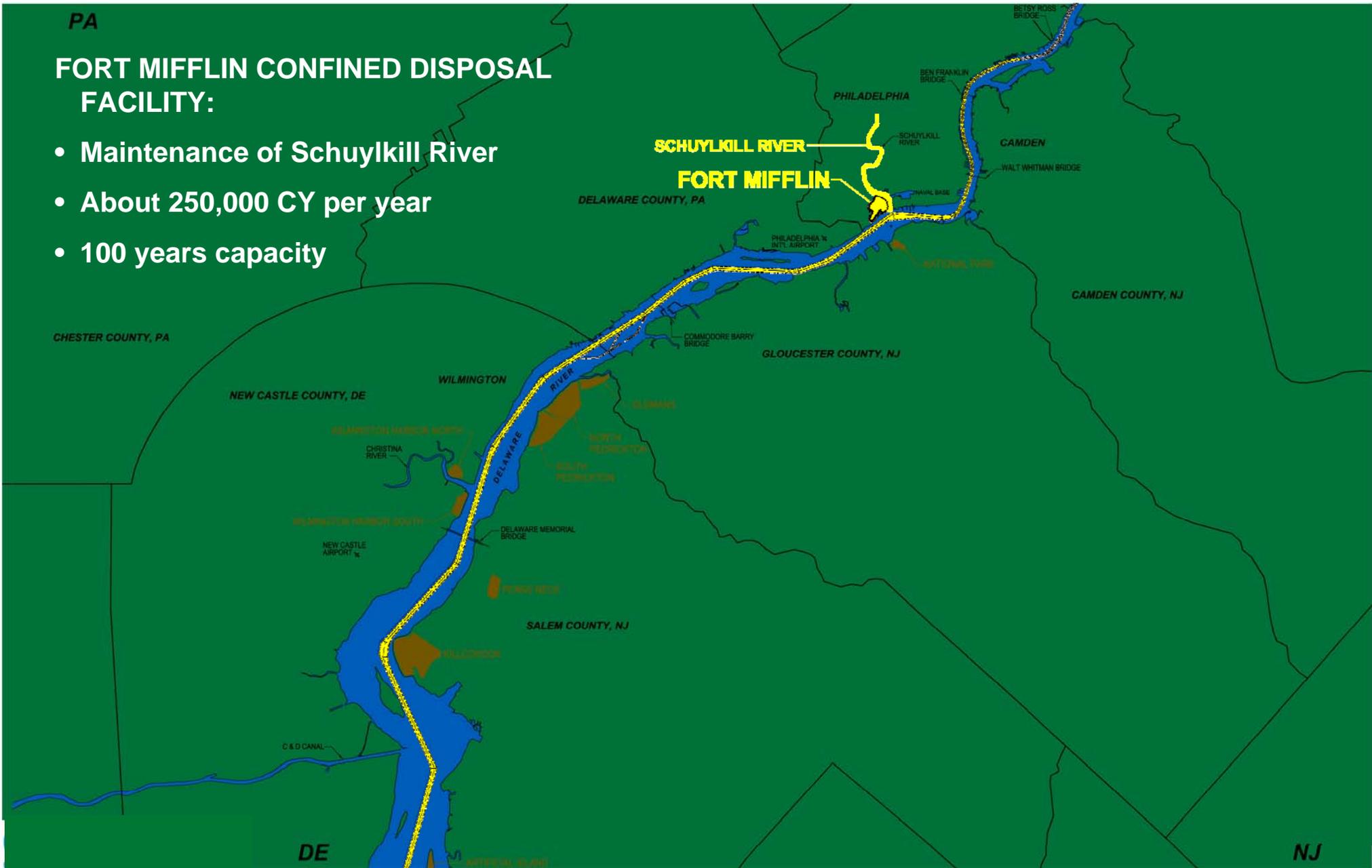


Schuylkill River Maintenance: Upland Disposal Area

PA

FORT MIFFLIN CONFINED DISPOSAL FACILITY:

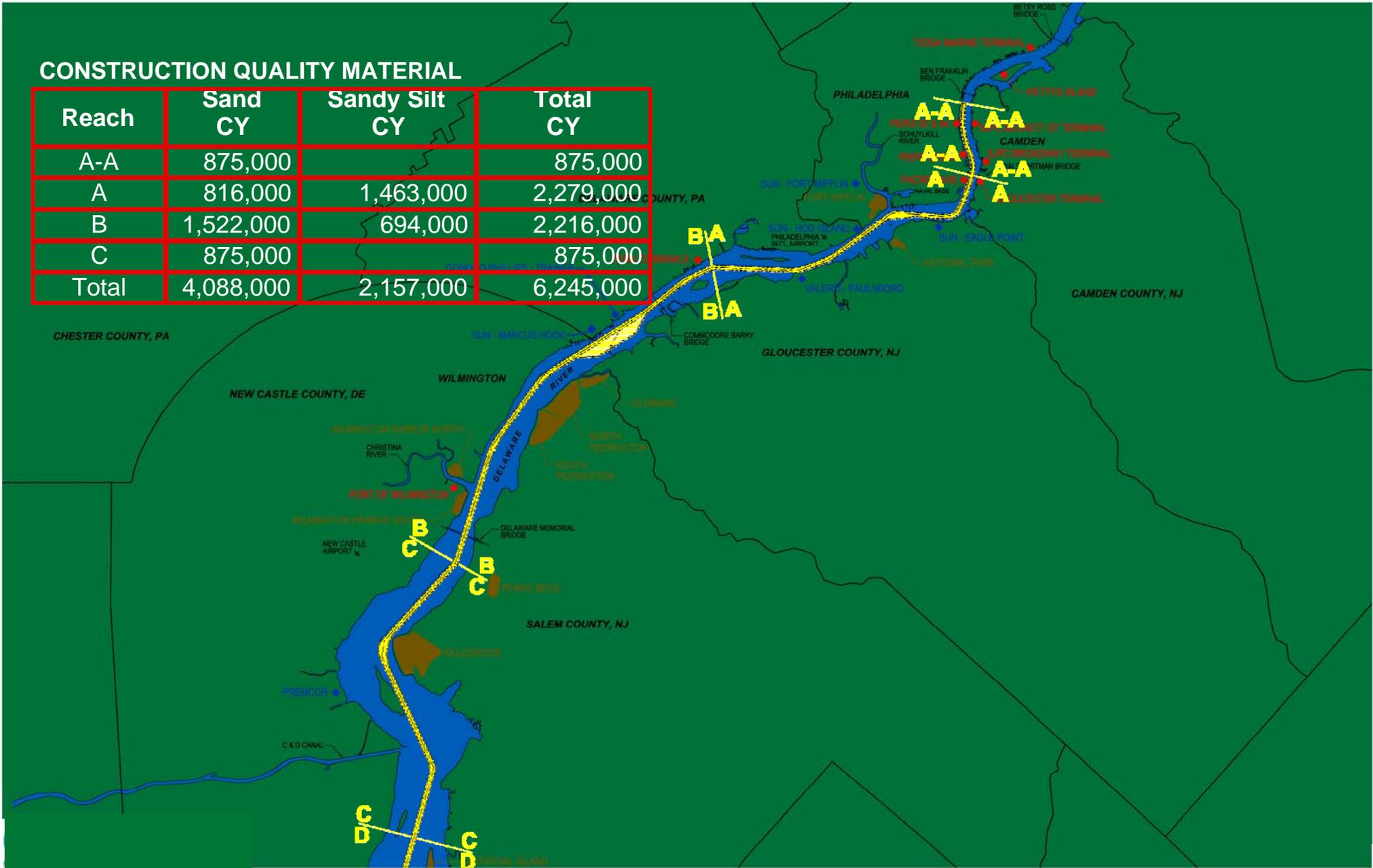
- Maintenance of Schuylkill River
- About 250,000 CY per year
- 100 years capacity



Deepening the Main Channel to 45': The Material

CONSTRUCTION QUALITY MATERIAL

Reach	Sand CY	Sandy Silt CY	Total CY
A-A	875,000		875,000
A	816,000	1,463,000	2,279,000
B	1,522,000	694,000	2,216,000
C	875,000		875,000
Total	4,088,000	2,157,000	6,245,000





Atlanta Regional Commission Freight Planning Initiatives

Delaware Valley Goods Movement Task
Force January 20, 2005

Jane Hayse, AICP

Chief, Transportation Planning Division

Caroline Marshall, AICP

Principal Planner, Transportation Planning Division





ARC Background

- Created in 1971 by the Georgia General Assembly as regional planning and intergovernmental coordination agency
- Federal designated Metropolitan Planning Organization
- State designated Regional Development Center





ARC Background

- Designated Area Agency on Aging
- Local administrative agency for the Atlanta Regional Workforce Board
- Planning staff for the Metropolitan North Georgia Water Planning District





Atlanta Region Demographics

- 3.7 million people – larger than 25 states
- Home to 3 of the nation's 10 fastest growing counties
- 1.9 million jobs
- Diverse employment
 - 31% services
 - 24% trade
 - 9% manufacturing
- Major goods and services distribution hub





Transportation Planning



- Urbanized area covers parts of 19 counties
- Planning boundary recently expanded to reflect 2000 Census data

The Atlanta MPO



Determining Regional Needs

- Regional transportation infrastructure evaluated to determine needs
- Local needs identified through local input
- Freight and goods movement needs identified through on-going task force
- Various studies from ARC and planning partners (GDOT, MARTA, and local jurisdictions)



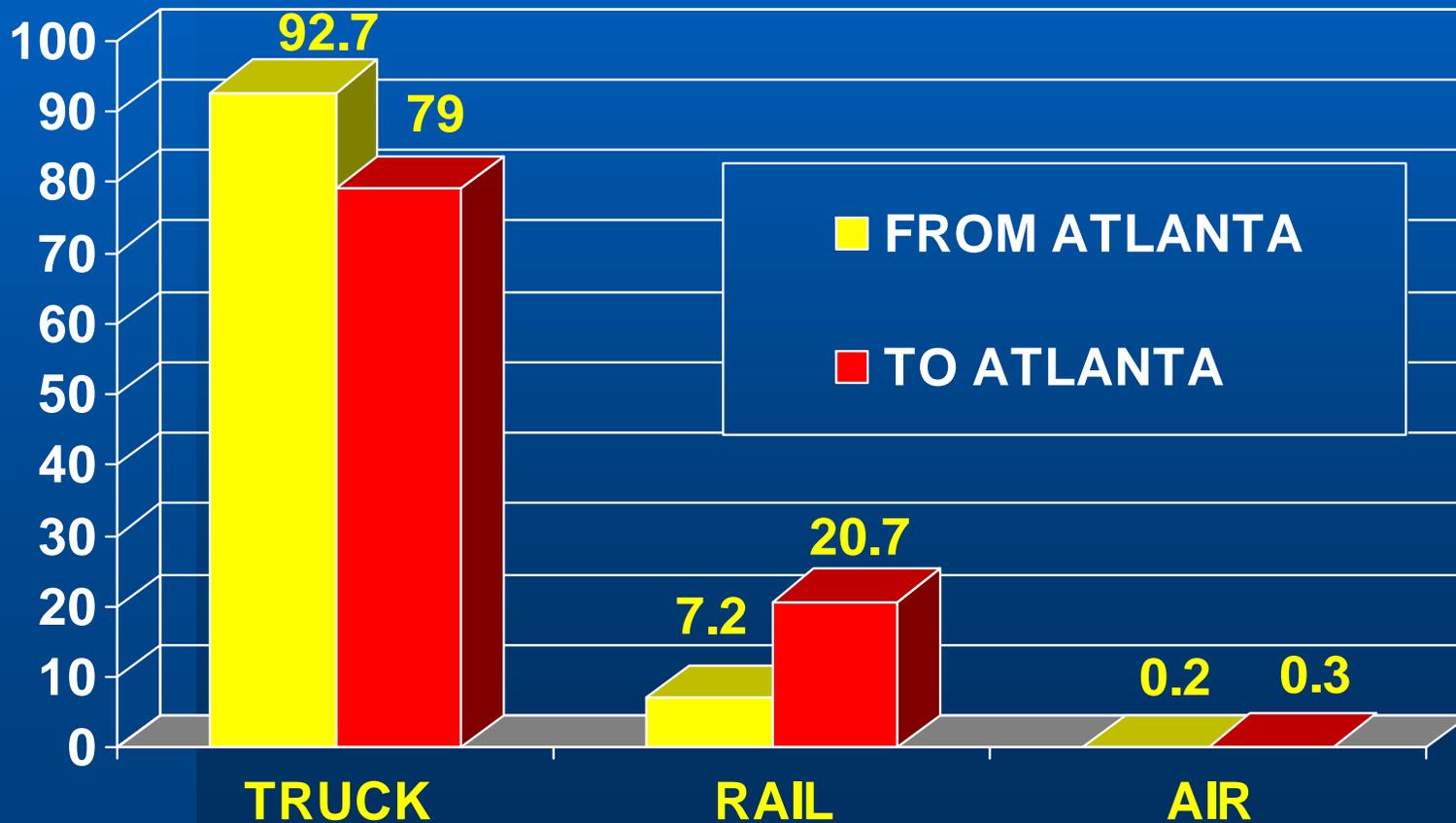
Transportation Challenges



- Congestion on key radial and suburban corridors
- Mobility and safety for people and freight
- Freight and goods movement
- Truck traffic on the highways



Atlanta Region Freight Shipments by Mode, Percent of Tons



Source: Reebie Associates





Importance of Addressing Freight in Our Region

- Key role in growth and economic development decisions
- Key challenges of moving freight in our region
- Key component of regional transportation system
- Integration into the Regional Transportation Planning Process



ARC Freight Advisory Task Force

- Established in 2003 and meets quarterly
- General membership of public/private sector freight representatives

Purpose

- Provide input to Mobility 2030
- Identify freight mobility characteristics and needs
- Prioritize freight transportation needs
- On-going mission to provide input into the planning process





ARC Freight Task Force Goals

- Improve goods and services movement in the region
- Improve reliability of goods movement
- Minimize the cost of goods movement
- Improve characteristics of transportation system for freight movement





ARC Freight Task Force Objectives

- Provide input on policies and improvements for freight mobility
- Identify freight mobility characteristics and needs
- Highlight the significance of freight to the region
- Improve safety of the transportation system
- Prioritize freight transportation needs





ARC Freight Task Force Accomplishments

- Goals and objectives
- Policies for evaluation in *Mobility 2030 RTP*
- "Priority Freight" Corridors
- Identified freight bottlenecks
- Identified freight studies and projects
- Helped develop freight component of *Mobility 2030 RTP*





How Freight is Incorporated in the TIP

- Project submittal forms include specific freight related questions (Percent of truck traffic on roadway)
- TIP Project selection Criteria have specific considerations for freight

FY 2005-2010





How Freight is Incorporated in the RTP

- Goals and objectives to improve intermodal connectivity
- Key roadway improvement projects
- Focus on regionally significant transportation corridors
- Policies and recommendations to improve mobility for people and goods





Highlights of Freight Projects in the TIP and RTP

Regional Freight, Goods and Services Study	Study	\$1M	TIP
I-20 W. ATMS, Thornton Rd. to I-285	ITS	\$10M	TIP
Aviation Blvd. Grade Separation @ NS RR	Interchange Capacity	\$1.3M	TIP
Oakley Industrial Blvd.	Roadway Operations	\$4M	TIP
SR 6-Thorton Rd. truck lanes	Widening 4-6 lanes	\$11M	RTP
I-75 S. to I-285 Westbound	Interchange Upgrade	\$20M	RTP
I-20 W from I-285 to SR 70-Fulton Ind. Blvd.	Widening 8-10 lanes	\$20M	RTP



Regional Goods and Services Plan Development

- Key focus of ARC's overall freight program in 2005
- Most comprehensive assessment of freight planning issues in the region to date
- Goal
 - Proactively address freight and goods movement mobility needs
 - Identify critical regional freight transportation planning infrastructure and policy issues



Future Directions

- Continue freight community involvement
- Identify goods movement needs
- Identify potential freight corridor studies
- Identify priority freight networks
- Identify regional freight bottlenecks
- Conduct Regional Goods and Services Study in 2005



A1



ARC Freight Planning Program



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