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**CORPS is in the Reconnaissance
Phase and has completed the
“*Delaware River Waterfront
Pennsylvania*”**

Expedited Reconnaissance Study
Section 905 (b) (WRDA 1986) Analysis



Purpose of Recon. Phase

- Examine the study area for the identification of problems, needs, constraints, and potential solutions to address or improve environmental restoration, riparian habitat, stream corridor management, water quality control, recreation, and flood reduction
- Determine whether Federal interest exists in proceeding to feasibility phase investigations
- Identify a non-Federal sponsor(s) willing to cost share the feasibility phase in accordance with an executable Feasibility Cost Share Agreement (FCSA) and Project Management Plan (PMP). The FCSA and PMP would be coordinated, negotiated and developed jointly with the non-Federal sponsor



Study Area

- The Delaware River, from the Ben Franklin Bridge north to the Poquessing Creek, and the Tookany/Takony-Frankford Creek, Pennypack Creek and the Poquessing Creek watersheds.

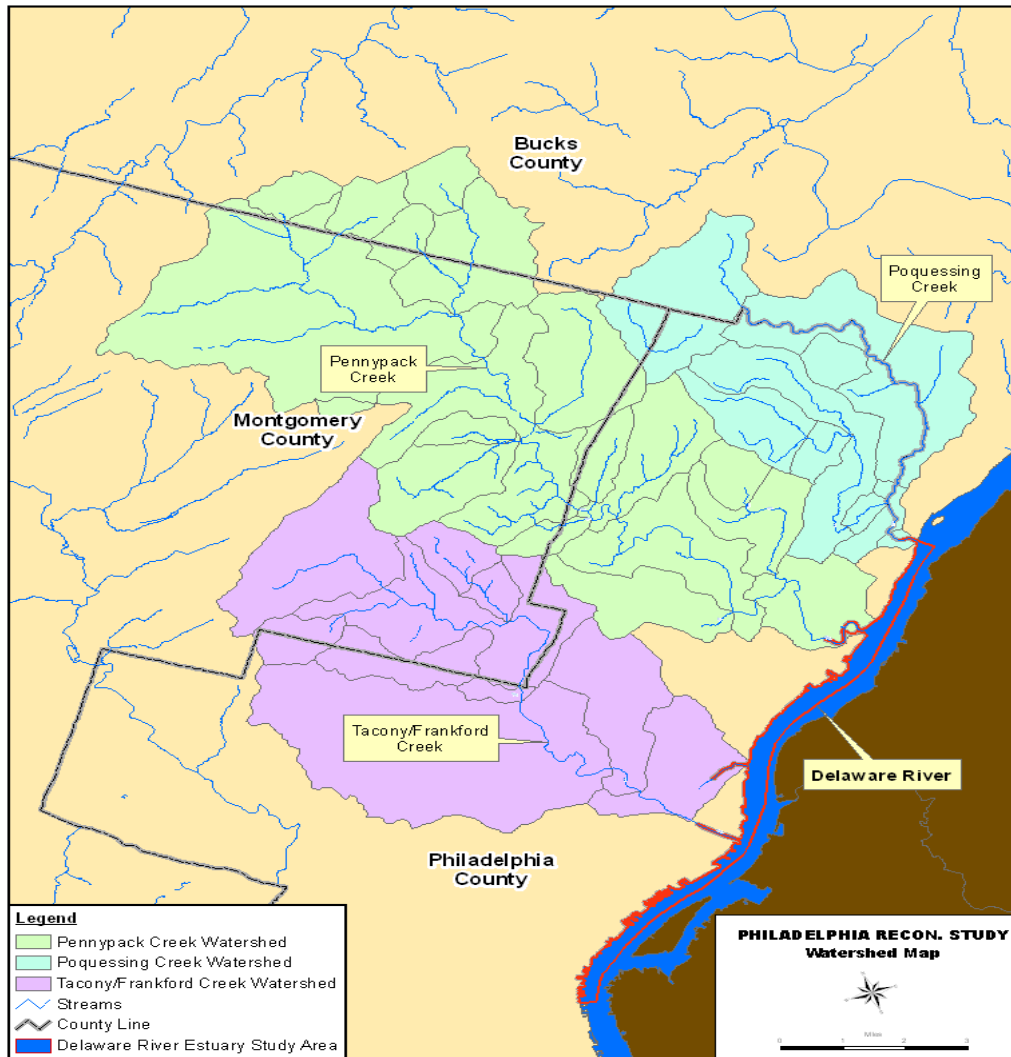


Figure 1



Ben Franklin Bridge, Looking West at Center City Philadelphia



Sugar House Casino Site-Just North of Ben Franklin Bridge



Vegetated Shoreline



Penn Treaty Park



Abandoned Industrial Building



Bulkheaded Parking Lot



Storm Sewer Outfall



Series of Abandoned Piers.



Abandoned Coal Receiving Dock



U.S. ARMY

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TM



Vegetated Cove



U.S. ARMY



TM



Pier for Large Ships



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Refinery



Wastewater Outfall



Abandoned Philadelphia Electric Company



Frankford Creek at Mouth of Delaware River



Frankford Creek Upstream to First Bridge



Abandoned Philadelphia Coke Plant



Vegetated Rip-Rap Shoreline



Bulkheaded and Vegetated Shoreline



Active Marina



Vegetated Shoreline





Abandoned Commercial/Industrial Site



Active Apartment Complex



U.S. ARMY

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TM



**Glen Foerd
House**
29



Active Marina



Confluence of Poquessing Creek and the Delaware River



Pennypack Creek at the mouth of the Delaware River



**Pennypack Creek Shoreline.
Good Baseline for Ecosystem Restoration Success.**



Five-Acre Wetland Creation Site Abutting Pennypack Creek. Mitigation for Wetland Fill Associated with the Philadelphia Airport Expansion.



Public Concerns

- Recurrent flooding in the Bucks and Montgomery Counties portion of the upper Pennypack Creek Watershed
- Loss, fragmentation and degradation of wetlands and riparian corridors
- Localized streambank erosion and head cuts throughout the entire watershed
- Water quality issues
 - CSO's
 - Untreated stormwater
 - Municipal sewer treatment plant discharge
 - Industrial discharge
- Lack of recreational opportunities



Public Concerns Continued.....

- Abandoned industrial sites and brownfields
- Invasive plant species
- Dams impeding migratory fish passage on the Pennypack Creek and its tributaries



Planning Constraints

- Hazardous, Toxic and Radioactive Waste?
- Land availability and the cost for potential ecosystem restoration features, stormwater management structures, recreation facilities and dam and/or pond removal.
- Threatened and endangered short nose sturgeon
- Possible historical or cultural resources
- Eel grass -- this is classified as a Special Aquatic Site according to the 404b guidelines.



Planning Objectives

- Restore, enhance or create wetlands or riparian corridors
- Improve water quality
 - Reduce point and non-point pollution discharge
- Increase passive and active recreation activities
- Remediate industrial sites and brownfields
- Reduce invasive plant species
- Utilize Delaware River dredge material
- Educate the public on water and ecosystem related issues



Planning Objectives continued...

- Increase the quantity and quality of the federally endangered bog turtle's habitat
- Reduce flooding in the Bucks and Montgomery County portions of the Pennypack Creek watershed
- Remove dams and ponds within the Pennypack Creek watershed



Potential Feasibility Studies

- Four independent comprehensive ecosystem and riparian corridor restoration feasibility studies, (1) Delaware Waterfront study area, (2) Tookany/Takony-Franford, (3) Pennypack and (4) Poquessing Creek watersheds. Recreation may be a component of the studies.
 - Problems and opportunities are mutually exclusive, with the exception of the Delaware Waterfront study area which is affected by all the watersheds
 - Splitting watersheds greatly increases the ability to partner an agreement with a sponsor and for the USACE to manage the study efforts



Potential Feasibility Studies Cont...

- Comprehensive integrated watershed management plan for the Delaware Waterfront and the Poquessing Creek watersheds
- Supplemental watershed management plan for the Tookany/Takony-Frankford, and the Pennypack Creek watersheds
- Flood reduction plan for the Bucks and Montgomery Counties portion of the Pennypack Creek watershed



Potential Continuing Authorities Program (CAP) Studies

- Water quality
 - Section 566
- Aquatic ecosystem restoration
 - Section 206, 1135
- Beneficial use of dredge material
 - Section 204
- Recreation
 - Component of GI or Section 206 study
- Flood study
 - Planning Assistance to States, Section 22
 - Section 205



NEXT STEPS

- We need a non-federal sponsor to move the process forward
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