### U.S. ARMY CORPS OF ENGINEERS, PHILADELPHIA DISTRICT

## Tacony Creek Ecological Restoration

- Authority: Section 566 of WRDA 1996
- Non-Federal Sponsor: Philadelphia Water Department
- Date of Agreement: 15 September 2009
- Construction Date: September 2010
- **Designed By:** KCI Technologies
- Constructed By: Ecological Restoration Inc.
   (Subcontractor to C-Con)
- Total Project Cost: TBD
  Non-Federal Share: 25%
  Construction Cost:
- Construction Cost: \$1,831,800 (ARRA)

#### **USACE**

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Under authority of Section 566 of the Water Resources Development Act of 1996, as amended, the U.S. Army Corps of Engineers (Corps) provided design and construction assistance to the Philadelphia Water Department for the restoration of a 2,200 foot segment of Tacony Creek, using a natural stream-channel design approach. PWD initiated the project as part of their watershed management program, completing the initial design effort. The Corps provided final design through KCI Technologies and construction assistance through C-Con, Inc and Ecological Restorations, Inc., (ERI). The Engineering Research and Design Center (ERDC) also provided assistance to the District.

The project involved reshaping the creek banks and bottom to slow water flow, encourage aquatic life, and help stormwater infiltrate the floodplain and surrounding land. LSTP, Rock Vanes and Bendway Weirs were constructed to prevent future erosion and simulate natural habitat for aquatic plants, insects and fish. The project also protected existing wastewater infrastructure. Over 12,000 Pennsylvania native trees, shrubs and grasses were planted along the edge of the creek to help prevent erosion, stabilize streambanks, increase shade, absorb rainwater, filter pollutants from stormwater runoff, and provide habitat for wildlife.

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Project Goals: The purpose of this project was to use natural stream -channel design as a cost efficient approach over structural solutions to improve stream bank geometry, stabilize impaired sections to protect existing PWD infrastructure, provide long-term ecological stability, mitigate impacts from urban development and related hydrologic and hydraulic modifications, and improve aesthetics and riparian and aquatic habitat.





