

U.S. ARMY CORPS OF ENGINEERS, PHILADELPHIA DISTRICT

Cobbs Creek Watershed Habitat Improvement Project

- **Authority:** Section 566 of WRDA 1996
- **Non-Federal Sponsor:** City of Philadelphia: Philadelphia Water Department
- **Date of Agreement:** 24 September 2009
- **Construction Date:** 2013-2014
- **Designed By:** Greene Horne & O'Mara, Inc.
- **Constructed By:** RC&D, Inc.- www.rcndinc.com
- **Estimated Total Project Cost:** \$4,000,000
- **Non-Federal Share:** 25%
- **Estimated Construction Cost:** \$3,000,000



Under authority of Section 566 of the Water Resources Development Act of 1996, as amended, the U.S. Army Corps of Engineers (Corps) can provide design and construction assistance to the Philadelphia Water Department (PWD) to implement environmental improvement projects contained within the Cobbs Creek Integrated Management Plan (CCIMP) completed in 2004.

In order to progress towards the goals of the CCIMP and City's Combined Sewer Overflow (CSO) Long Term Control Plan (LTCP), PWD partnered with the Corps to daylight 700 feet the West Branch Indian Creek and to retrofit the abandoned storm drain pipe to function as a wet weather storage facility for a portion of the combined sewage currently discharging to the East Branch.

This project creates 180,000 gallons of CSO storage available to store flow from the CSO outlet that would otherwise discharge directly to Indian Creek. With this amount of storage available, average annual overflow frequency from this site would decrease from 24 occurrences per year to just 3 per year with a reduction in discharge volumes from 2.9 to 1.2 million gallons per year.

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- **Project Design Funding:**
The design funding for this project was made available through the American Recovery and Reinvestment Act (ARRA).
- **Combined Sewer Overflows:** According to the CCIMP, 20% of the Cobbs Creek watershed is serviced by combined sewers. The City of Philadelphia has 38 regulator structures within the watershed.

One of the major goals of PWD is the reduction or elimination of point source discharges of pollutants to its watersheds. This is especially important in the more sensitive receiving streams and tributaries as those found in the Cobbs Creek watershed. The day-lighting of the West Branch Indian Creek will provide a convenient and cost-effective opportunity of achieving this goal. The benefits of this project include:

- Stream bed and bank stabilization.
- Habitat creation/enhancement.
- Elimination of the maintenance/debris accumulation at the culvert intake wall.
- An average annual CSO volume reduction from 2.9 to 1.2 million gallons (58% reduction) from regulator C_05.
- An average annual reduction in CSO frequency reduction from 24 to 3 overflows per year from regulator C_05.

CSO discharges are the dominant source of fecal coliform in the Cobbs Creek watershed. Combined sewer systems use one pipe to convey sanitary sewage and stormwater runoff to a combined sewage regulator chamber. The regulator captures all of the sanitary sewage in dry weather, and some of the combined sewage in wet weather, sending it to a wastewater treatment plant. The balance of wet weather flow is discharged to an area water body through a CSO outfall.



