

# Cobbs Creek Stream Restoration Feasibility and Basis of Design Studies

Philadelphia, Pennsylvania



all photos above: Initial conditions

In support of its programmatic goals aimed at improving the environment of the Philadelphia area while controlling combined sewer overflows, the Philadelphia Water Department (PWD) has advanced a series of studies and

*The integration of natural stream restoration and wetland creation provides environmental benefits and flood mitigation in a challenging urban environment with numerous constraints.*

restoration projects along the Cobbs Creek stream corridor. Working collaboratively with PWD and project partners, Biohabitats assessed the feasibility of accomplishing natural stream restoration design for 7.1 miles of Cobbs Creek. The Cobbs Creek Stream Restoration Feasibility Study informed decision making along the stream corridor by summarizing existing conditions and developing planning-level cost estimates to undertake the restoration program.

Following the Feasibility Study, PWD selected the upstream-most portions of Cobbs Creek, which flow through a golf course, for the evaluation of design options. Biohabitats then performed targeted field work, analyzed and integrated

available information, and conducted hydraulic modeling to develop restoration design concepts for those segments. A special challenge was that portions of the golf course regularly experienced events that inundated greens and fairways. To address this issue, Biohabitats developed a conceptual-level design that would integrate natural channel design and wetland restoration techniques to achieve environmental benefits such as water quality improvements and riparian enhancement, while also reducing flooding risks along the golf course.

## SERVICES

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