
DeIDOT

DeIDOT Water Quality Improvement Plans

New Castle County, Delaware



Ecological expertise informs plans that help a state, county, and city jointly chart the course for water quality improvement and MS4 compliance.

SERVICES

Ecological Restoration
Conservation Planning

In an effort to comply with their individual MS4 permit requirements, the Delaware Department of Transportation (DeIDOT), New Castle County (NCC) Department of Stormwater Management, and City of Wilmington collaborated to develop Water Quality Improvement Plans for two of the region's major watersheds: Dragon Run and the Christina River. As ecological experts on a consulting team led by Century Engineering, Biohabitats helped DeIDOT and its partners 1) ensure that credits from existing BMPs were being accounted for and maximized and 2) identify opportunities to improve stormwater management via stream restoration and BMP creation and retrofits.

Biohabitats began by reviewing existing data and participating in stakeholder meetings to inform and seek input from the community regarding potential BMPs, stream restoration sites, and cost sharing opportunities. Biohabitats then conducted desktop analyses of several subwatersheds to identify existing BMPs that were not providing impervious disconnection as well as opportunities to retrofit existing DeIDOT or NCC owned BMPs, implement stream restoration, create new BMPs, and remove impervious cover.

After investigating 32 water quality improvement opportunities, preparing site summaries for 20 of them, and participating in a robust site value ranking process, Biohabitats developed concept designs for 11 of the top-ranking sites in the Christina River Watershed. The concepts included hydrologic computations, pollutant removal computations using DURMM v2.0, and Concept Design plans conforming to DeIDOT standard using Microstation. Biohabitats then met with DeIDOT, NCC, and the City of Wilmington to develop Water Quality Implementation Plans.