PHILADELPHIA INDUSTRIAL DEVELOPMENT CORPORATION/PHILADELPHIA DIVISION OF AVIATION

Wetland Mitigation at FDR Park

Philadelphia, Pennsylvania

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Rendering of the proposed 45-acre tidal wetland mosaic in FDR Park.

45-acre mitigation project creates rare, forested, tidal wetlands at Philadelphia's doorstep, while enhancing climate resilience for historic, low-lying FDR park.

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The historic, 350-acre FDR Park is located at the confluence of the Schuylkill and Delaware Rivers, and very close to Philadelphia International Airport. It is also very close to sea level, and thus vulnerable to the impacts of a changing climate.

Working with the Philadelphia Department of Parks and Recreation, the Philadelphia International Airport (PHL), and PIDC Philadelphia's public-private economic development corporation, Biohabitats is transforming a neglected, 45-acre portion of the park into an ecologically functioning mosaic of tidal wetlands. The project aims to mitigate impacts to low-quality wetlands caused by an airport expansion, while also advancing the park's master plan to becoming a resilient, state-of-the art recreation complex.

Biohabitats conducted supplemental field studies of site resources to build upon feasibility studies conducted by PHL and support concept development. Biohabitats then met with stakeholders to gain feedback. Biohabitats is currently preparing final designs, leading local permitting efforts, and supporting PHL with NEPA, State, and federal permitting requirements. The design, which factors in anticipated sea level rise and aims to create a 20+ acre mosaic of forested tidal wetland, a rarity in such an ultra-urban environment. Two-dimensional modeling was used to optimize site grading to ensure that eventual sea level rise would not convert the wetland habitats to open water likely to draw waterfowl considered hazardous to airport operations. The design also calls for the staging of excavated soil for later use in elevating park amenities such as athletic fields.