

PPR Launches Forest Restoration Initiative

Philadelphia Parks & Recreation (PPR) is excited to announce multi-year efforts to revitalize degraded forest stands in three of Philadelphia's historic watershed parks. Led by PPR's Urban Forestry & Ecosystem Management Division, the restoration efforts aim to achieve a viable, self-perpetuating, native-dominated and resilient forest ecosystem that provides valuable ecosystem services to the city and its residents.

The three pilot projects are part of PPR's Forest Management Framework, an innovative action plan published in April 2013 that guides restoration efforts in the city's natural areas. These pilot projects target forest stands that are degraded to varying degrees: Haddington Woods in Cobbs Creek Park, near the intersection of Vine and Daggett Streets; Wigard Woods in Wissahickon Valley Park, bound by Wigard Street, Henry Avenue, and Wisers Mill Road; and Three Springs Hollow in Pennypack Creek Park, between Bustleton Avenue and Krewstown Road.

"Our forest revitalization efforts are ensuring that Philadelphia will continue to have beautiful, functional urban forests 100 years from now," says Joan Blaustein, director of PPR's Urban Forestry & Ecosystem Management division. "Without our help, these forests will not survive. We need to make sure we're doing everything we can to preserve these vital resources and bolster them against looming environmental challenges, including overbrowsing by deer, climate change, and pests like Emerald Ash Borer."

Through a legacy of settlement, industry, agriculture, logging, and development, Philadelphia's forest resources have been subjected to a multitude of damaging impacts and system-wide changes. These changes have created ideal habitat for white tailed deer, which prefer to browse on native plants and continuously consume nearly all native tree seedlings and shrubs, allowing invasive and non-native plants to grow aggressively and outcompete the few native plants that survive browsing. As a result, many areas throughout the parks system, including Haddington and Wigard Woods and Three Springs Hollow, have virtually no native saplings to replace mature trees as they die off and the native forest canopy is not able to regenerate naturally.

PPR's work on these pilot restoration projects is already underway. PPR staff has carefully evaluated each site, mapped forest stands, conducted soil analyses, delineated wetlands, and marked native trees that will be saved. This winter, select invasive and non-native plant species will be removed through a variety of methods at Haddington and Wigard Woods, and wood chips will be used to remediate forest soils. These two stands will be selectively treated with herbicide to prevent re-establishment of invasive plant species and will be reseeded and planted with native forest species. Approximately 25 acres will be fenced in at each site to prevent deer herbivory, and each deer fence will include a number of pedestrian access gates so citizens can continue to enjoy and explore these natural areas while restoration is in progress.

Each project area will be closely monitored and studied throughout the process, and management approaches will be adapted as necessary to ensure long-term success. Results of the studies will be used to inform future management and restoration efforts.

The diverse benefits of a healthy urban forest include improved water quality, protection of native biodiversity, wildlife habitat temperature modification, air pollution reduction, and property value enhancement, among others. According to a report in press by the U.S. Forest Service, the parks



system's forest lands provide significant economic benefit to the City of Philadelphia, including carbon storage worth nearly \$10 million annually, air pollutant removal valued at nearly \$5 million annually, and increased property values worth \$5 million.