

**Warrington Township-
Naturalizing the Detention Basin at Folly and Pickertown Roads
G.G. Document # 4100080718
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PROJECT DESCRIPTION- An existing storm water detention basin, located at the intersection of Pickertown and Folly Roads, approximately 78,000 sq. ft. in size, was modified to reduce pollutant and stormwater runoff, and increase wildlife habitat. This was accomplished by altering the existing concrete low flow channels by removing selected sections to slow the flow, and to extend the existing flow line. Approximately 150 native trees and shrubs and a small meadow, were planted with species selected to thrive in the post construction environment. Project timeframe: December 2017-October 2020.

PROJECT GOALS- The project implements several goals of the Neshaminy Creek River Conservation Plan funded through PADCNR. The purpose of this project was to reduce stormwater runoff and pollutants from entering the Neshaminy Creek, which is on the list of impaired waters. It will protect and improve the surface and groundwater quality in the Little Neshaminy Creek Watershed, and improve the way stormwater is managed by reducing flooding, increasing stream baseflow and improving the hydrologic balance. This will help to improve recreational opportunities, wildlife habitat, and sources of drinking water.



Figure 1: Pre-Construction Basin- This basin was monitored biweekly to determine existing conditions and design the construction plan.



Figure 2: Channel Construction- Removal of the entire eastern low flow channel and selected sections of the southern low flow channel. Removed sections were replaced with filter fabric and stone to allow for infiltration and to disperse stormwater.



Figure 3: Basin Planting- Following several months of monitoring after channel removal, 150 native trees, shrubs and a meadow were planted in late spring.

PROJECT RESULTS- It is estimated that this project will accrue over \$25,000 of stormwater runoff savings by intercepting over 2.5 million gallons of rainfall, over the next 25 years. Annual loadings to the Little Neshaminy Creek will be reduced by 332 pounds of sediment, 7 pounds of nitrogen and 1 pound of phosphorus.

PROJECT COSTS- Total Grant Expenditures = \$16,493.57. Total Match Contributions = \$5,865.03. Total Project Cost = \$22,358.60.

LESSONS LEARNED- Public input throughout the project was key to having this project run smoothly. Also, monitoring of existing conditions for one year prior to construction design, led to better construction and planting results.

PARTNERS- Earthborne Inc. volunteered equipment and an operator to dig the holes for the 150 plants. The Warrington Environmental Advisory Council's volunteers worked to design and plant the native trees and shrubs and perform all of the maintenance work.

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