

Detention Basin Retrofit Improvements Project  
C990002490  
Silver Spring Township, Cumberland County, PA

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#### **PROJECT DESCRIPTION**

This grant funded the construction for the retrofit of five existing Township-owned stormwater conveyance and detention areas (Konhaus Road North, Konhaus Road South, Township Building, Cicada Road, and Mulberry Crossing). The detention basin retrofits included grading, amended soils placement, landscaping with native materials and seed mixes, new outlet structures to reduce flow rates, and other improvements as needed on a site by site basis.

#### **PROJECT GOALS**

The goals of the project were reduction of sediment and nutrient loading, reduction of stormwater runoff rate and volume, improvement of the quality of runoff that reaches streams, and educational opportunities for Silver Spring Township, an MS4-permitted community. This goal was accomplished.

#### **PROJECT RESULTS**

The Detention Basin Retrofit Improvements Project successfully completed five detention basin retrofits for a total sediment reduction of 50,559 lb/yr, which assisted Silver Spring Township to meet the Pollutant Reduction Plan (PRP) requirements associated with their MS4 permit for the 2018-2023 permit term. This upgraded each of these older stormwater basins to current design standards, greatly improving retention of lower storm events and provided significant improvements to stormwater quality and quantity treatment. The project will enhance the filtration and cooling of urban stormwater runoff which will contribute to the improvement of water quality in the local watersheds. Additionally, the project will provide upstream attainment of urban stormwater rate and volume, which, when paired with the existing riparian corridors within the overall Conodoguinet watershed, enhances the effectiveness of the riparian corridors.

#### **PICTURES**

**Pre-Construction**



**Post-Construction**



#### **PROJECT COSTS**

Total spending came in on budget with the grant request, but under budget for the full construction estimate. We were able to successfully complete all 5 basin retrofits at roughly 87% of the anticipated budget amount for the full project. The final Township match to the grant came in at nearly 75%, substantially above the 15% minimum match.

#### **LESSONS LEARNED**

The most challenging part has been the public outreach to explain the need for the upgrades and why these basins would no longer sit as mowed basins. It was also a challenge to explain that the full restoration seed mix would take a few years to fully germinate and grow in. Now that a full growing season is complete, we expect this to be significantly less of an issue moving forward.

#### **PARTNERS**

Herbert, Rowland & Grubic, Inc. – Design, permitting, bid administration, contract administration, construction observation, and grant administration

#### **CONTACT INFORMATION**

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