

Project Description – The installed rain garden/bio-retention feature will reduce and filter an additional 5,000 CF of water from entering Stauffer Run. The expected pollutant removal effectiveness of the planned rain garden is based upon the BMP effectiveness stated in the *Pennsylvania Stormwater Best Management Practices Manual*. Approximately 34.3 lbs. of Total Suspended Solids, 0.07 lbs. of Total Phosphates and 0.12 lbs. of Nitrates are expected to be removed from the runoff through the rain garden during each storm event in excess of one-half inch ($\frac{1}{2}$ ") of rainfall. There is an average of 29 events per year in excess of one-half inch of rainfall which equates to a reduction of 845 lbs. of total suspended solids, 1.66 lbs. of total phosphates, and 1.03 lbs. of nitrates annually.

Project Timeframe – October 1, 2018 through June 30, 2023

Project Goals - The goals and objectives of this project is to complete the final segment of a green infrastructure BMP project that was designed under Project 1321 using Section 319 funds. The original design called for two rain gardens and two pervious pavement parking lots. One rain garden and both parking lots were completed in 2017 under projects 1426 and 1516. This project will construct the final rain garden (~7780 sq. ft.) that will remove an additional 5,000 CF of storm water runoff from entering Stauffer Run. Bids will be solicited for the construction portion of the project.

Pictures –



Project Results – A single rain garden/ bioswale BMP was implemented at the site through 319 funds. Approximately 5000 sq. ft. of hillside was excavated to a depth of approximately 7 ft to serve as the basin of the swale. Appropriate pipe inlets and outlets were installed in accordance with the plan. In total, approximately 6.5 acres of land will drain into the basin capable of storing approximately 3700 CF of rainwater for a given storm event.

Project Costs - \$102,277 EPA Section 319(h) plus an additional \$63,243 in match funds.

Partners – Jacobs Creek Watershed Association, Inc.