

F. Project Summary – One Page Project Summary Handout

Route 31 Green Infrastructure BMP's
Application ID: SW160027
Sponsor: Jacobs Creek Watershed Association, Inc.

Project Description: Shupe Run is a tributary of Jacobs Creek that is listed by the EPA under section 303(d) of the Clean Water Act, as well as the 2009 JCWA Watershed Implementation Plan (WIP), as impaired from sedimentation loading. This project saw the installation of permeable sidewalks and bioretention downspout basins in strategic locations along State Route 31 in Mount Pleasant Borough. Project timeframe: 3/25/22 - 9/26/22

Project Goals: The goal was to reduce sediment, nitrogen, and phosphorus loads and stormwater volume originating from Route 31 through infiltration, thereby mitigating effects to Shupe Run.

Project Results: The combined infiltration of the permeable paver sidewalks and bioretention basins was estimated to reduce total annual stormwater volumes by 48.1%, capturing over 5,000 m³ of runoff and preventing nearly a ton of combined sediment, nitrogen, and phosphorus from entering Shupe Run annually.

Quality Measure	Pre BMP Installation	Post BMP Installation	Reductions (%)
<i>Runoff Volume</i>	12,040 m ³ /yr	6,253 m ³ /yr	48.1%
<i>Total Suspended Solids</i>	1,699 kg/yr	882 kg/yr	48.1%
<i>Total Nitrogen</i>	37 kg/yr	19 kg/yr	48.6%
<i>Total Phosphorus</i>	4 kg/yr	2 kg/yr	50.0%



Pre-Construction Sidewalk



Completed Permeable Sidewalk

Project Costs: \$268,331.25 Growing Greener Grant.

Lessons Learned: Adaptability in the face of unforeseen curveballs (COVID19, existing infrastructure, unwilling adjacent landowners, etc.).

Partners: Jacobs Creek Watershed Association, Inc.; Project Advisor Jack Crislip; Hunt Valley Environmental, LLC Project Manager; Simko Project Management Services, Project Manager; The Markosky Engineering Group, Inc.; 319 Nonpoint Source Program.