C990000730 Stewart Farm Ag BMP Grant-Armstrong Conservation District

PROJECT DESCRIPTION: This project installed agricultural BMPs on the Stewart Farm to reduce the sediment and nutrient runoff to the un-named tributary to Cowanshannock Creek (Cowanshannock Creek Watershed). The Stewart Farm worked with the Armstrong Conservation District (ACD) and the Natural Resource Conservation Service (NRCS) to install the following agricultural BMPs to address the nutrient and sedimentation problems: Heavy Use Area Protection, Manure Storage Structure, Roofs & Covers, Roof Runoff Management, Underground Outlet, Fence, Obstruction Removal, Water Control Structure, Livestock Pipeline, Watering Facilities, Animal Trail & Walkways, Access Road, and Pump/Pressure Tank as recommended by NRCS and ACD.

PROJECT GOALS: The goal of the project was to install agricultural BMPs on a farm to reduce the sediment and nutrient runoff to an un-named tributary to Cowanshannock Creek (Cowanshannock Creek Watershed).

PROJECT RESULTS:

As a result of the Stewart Farm Ag BMP Grant project, the following conservation practices were installed on the Stewart Farm: Manure Storage Structure (616 SF), Roofs and Covers (3,508 SF), Roof Runoff Control (176 LF), Access Road (107 LF), Animal Trail & Walkway (5,247 LF), Structure for Water Control (5 water bars, 1 surface inlet box), Watering Facilities (Hydrant/Rubbermaid Trough/Freeze Proof Trough) (2/2/1), 4" Underground Outlet (122 LF), 6" Underground Outlet (215'), 8" Underground Outlet (362'), Heavy Use Area Protection/Trough (2,737/312 SF), Fencing (181/70 LF), Obstruction Removal Existing Concrete (350 SF), Livestock Pipeline (636 LF), and pump/pressure tank (0/1). An Act 38 Nutrient Management Plan and Conservation Plan was developed for the farm operation.

PROJECT COSTS: Growing Greener Grant Amount: $149,705.00 Total Spent: $196,078.00

POLLUTANT LOAD REDUCTIONS: Coupled with this construction was a pre and post-construction stream monitoring system. The post-construction water sample from downstream showed significant improvement from the pre-construction downstream sample. The most drastic change was with the bacteria counts. Nitrate levels from downstream of the project area dropped after construction was completed. This shows that less manure is entering the stream, causing lower levels of nutrients and bacteria in the downstream samples. The decrease in the bacteria counts and the nitrate levels post construction shows that the water quality improved with the proper BMPs in place.

PARTNERS: Landowners: Stewart Farm

Support: PACD Engineering Program (TAG), Kittanning NRCS, Clarion NRCS Technical Office

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HUA w/ MANURE STORAGE

ANIMAL TRAIL & WALKWAY

WATERING TROUGH