

Mahantango Brown to Green GGG Summary Report

The Mahantango Brown to Green Project installed nutrient and sediment load reducing Best Management Practices (BMPs) on a livestock, forage and cash grain farm located in the headwaters of the Mahantango Creek watershed along an unnamed tributary to the Little Mahantango Creek. A small stream begins on the farm that is owned and operated by Kyle Brown, who grows crops on land in both Schuylkill and Northumberland Counties and raises assorted livestock at a location just over the Schuylkill/Northumberland County line. He currently operates 216 acres of no-till cropland, grows 12 acres of permanent grazed hayland, and manages 24 acres of permanent pasture. The livestock operation currently consists of 80 beef, 38 sheep, and several goats.

Mr. Brown currently participates with the USDA Natural Resources Conservation Service (NRCS) to implement a Conservation Plan and a Comprehensive 590 Nutrient Management Plan for his operation. The plans identified an extensive list of BMPs for the farming operation. The BMPs funded through this Growing Greener Grant included a roofed heavy use area protection and roofed animal waste storage system. The heavy use area protection is a 42' x 180' roofed bedded pack and stacking facility where the beef cattle can be confined when pasture conditions are not favorable for grazing, and the attached roofed manure storage will be utilized to store manure for up to six months. Over the course of several years 2018 – 2021, with the assistance of NRCS EQIP funding, Mr. Brown has installed streamside exclusionary fencing, offstream watering systems, stream crossings, stabilized animal walkways, erosion control on pasture, and incorporated cover crops into his crop rotation as part of his conservation efforts.



Before: Animals concentrated in stream



Roofed HUA beef bedded pack, walkway



Pasture fencing, waterer, walkway, stream crossing



Streambank fencing, crossing pasture management



Roofed HUA bedded pack, manure stacking

Total Cost of Roofed Heavy Use Area and Manure Storage: \$210,442
 Growing Greener Funding: \$154,610
 NRCS EQIP Funding for Roofed HUA: \$52,290
 NRCS Funding for all other BMPs installed: \$69,588

313 Waste Storage Facility dry stack	1600sqft	575 Trails and Walkways	630ft
561 Heavy Use Area Protection	1680sqft	587 Structure for Water Control	2
367 Roofs and Covers	3280sqft	580 Streambank Protection	30 ft
558 Roof Runoff Structure	164ft	533 Pumping Plant	1
620 Underground Outlet(s)	996 ft	Pressure tank and pump housing	1
512 Pasture/ Hay Plantings	3.8ac	587 Structure for Water Control	1
340 Cover crops	12 ac	620 Underground Outlet	95 ft
382 Fence – electric	12,033ft	590 Nutrient Management Plan	203 ac
516 Livestock Pipeline	2,936ft	528 Prescribed Grazing	43.70ac
614 Watering facility	5		

According to estimates provided by the Department of Environmental Protection, the Mahantango Brown to Green Project will save an estimated 17,844 pounds of nitrogen and 15,600 pounds of phosphorus each year from entering the Mahantango Creek watershed. These reductions in nutrient and sediment loading will aid the Schuylkill Conservation District in their mission to improve water quality in local watersheds, and ultimately the Chesapeake Bay.

Partners involved: Chesapeake Bay Engineer (Dauphin CD), NRCS (Pottsville field office staff)

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