

Project Goals: 1) Improve water quality of the Neshaminy Creek 2) Facilitate BMP compliance with Act 38 Nutrient Mgmt on two equine CAOs 3) Bolster BCCD's existing equine outreach efforts to improve the equine community's awareness and adoption of conservation practices.

Project Description: To implement best management practices (BMPs) on two equine farms defined as a Concentrated Animal Operations (CAOs). Located in the Neshaminy Creek Watershed, these BMPs focused on addressing manure & nutrient management and soil erosion to improve water quality. Primary BMPs implemented include (2) Roofed Manure Storage Facilities, (3) Heavy Use Area Protections & Vegetated Buffers, Grass Waterways & Diversions, as well as many other secondary BMPs were implemented.

Installed BMPs – Farm #1 Frank's Stables			
Code	Practice Name	Qty	Units
313	Waste Storage Facility	1	No
367	Roofs and Covers	1	No
558	Roof Runoff Structure	80	LF
620	Underground Outlet	550	LF
587	Structure for Water Control	1	No
560	Access Road	52	LF
412	3 Grassed Waterways	0.55	Ac
362	3 Grass Diversions	1215	LF
468	Lined Waterway Outlets	74	LF
606	Subsurface Drain (to support diversion)	1510	LF
342	Critical Area Planting	1.3	Ac
484	Mulching	1.3	Ac
558	Roof Runoff Structure	230	LF
620	Underground Outlet Pipe	250	LF
561	3 Stone Heavy Use Areas (HUA)	25520	SF
635	3 Vegetated Buffers	1.63	Ac
382	Fence	3250	LF

Installed BMPs- Farm #2 Flying Colors			
Code	Practice Name	QTY	Units
313	Waste Storage Facility	1	No
367	Roofs and Covers	1	No
558	Roof Runoff Structure	100	LF
560	Access Road	70	LF
620	Underground Outlet	105	LF
587	Structure for Water Control	1	No

Pollutant	Frank's Stables				Flying Colors Riding		TOTAL Project
	WSF	Waste Mgmt System	Erosion	FARM TOTAL	WSF	FARM TOTAL	
Nitrogen (lbs/yr)	1,846	1,752	184	3,782	786	786	4,568
Phosphorus (lbs/yr)	168	195	92	455	72	72	527
Sediment (T/yr)	NA	NA	107	107	NA	0	107

Above Nutrient Reductions using the EPA Region 5 nutrient reduction model

Equine CAO BMP Implementation Grant # C990002448 Prepared by R. Herstine, Bucks County Conservation District January 24,2024

Below After: Roofed manure storage facility (Farm 2)



Below Before: manure pile on unimproved surface next to a stream (Farm 2)



Below After: Heavy Use Area Protection (Farm 1)



Below Before: Untreated Animal Concentration Area (Farm 1)



Below After: Grass Diversion to divert upslope stormwater around HUAP (Farm 1)



Project Costs:

Growing Greener: \$305,140

ACAP: \$196,111.79

Landowner: \$20,129.45

BCCD: \$35,037.33

Partners: USDA NRCS, State Conservation Commission's Agricultural Conservation Assistance Program (ACAP), Franks Stables, Flying Colors

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