

## Conservation Success on Carroll County Dairy Farm Shows Agriculture is a Part of Solution

**P**anora Acres is a family dairy farm in Carroll County, Maryland. Currently owned and operated by brothers Norman and Paul Sellers, the farm has transformed over the years into a conservation model.

The 1500 acres of farmland lie within the Gunpowder Patapsco Watershed and water from the area runs to the Pretty Boy and Liberty reservoirs, both major components of the Baltimore city water system.

The Sellers work with the Carroll County Soil Conservation District and the Natural Resources Conservation Service (NRCS) to ensure the water leaving their farm is as clean as possible.

A conservation plan outlines the resource concerns faced by many dairy farmers, and the ways in which Panora Acres can address them.

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**Carroll County District Conservationist Eric Hines (left) and Paul Sellers discuss the manure pit Sellers uses on his farm to safely store manure when it's not needed as fertilizer on his crop fields.**

Farm Bill programs make these treatments economically viable and the solutions often help improve the farm's bottom line.

To keep excess nutrients and sediment from running into the small stream on the property, 14 acres of grass buffers were planted along the banks where the cattle once grazed. Stream crossings were erected to keep others pastures accessible to the 600-head herd, and prevent the stream bank from eroding as the cattle move across. Two bridges provide the cattle safe passage while protecting the native brook trout and bog turtle habitats.

While 14 acres may seem like a lot of

pasture to give up, Paul Sellers sees it as just another part of his operation.

“We do what we can here. We always weigh the cost-benefit before implementing a conservation practice, and most often conservation pays,” Paul said. “As long as there's clean water coming out, it's worth it.”

With help from NRCS's Environmental Quality Incentives (EQIP) program, the Sellers recently built an agriculture chemical mixing and storage facility. The large shed has a concrete floor with a lip around the side, so if spills occur while mixing or loading the sprayer, they are easy to clean up and will not leach into the ground.

Paul finds added benefit to the facility in the security it provides, as he is now able to lock up his expensive chemicals when he's not on the farm.

Panora also has a comprehensive system for handling the cattle's waste, built with help from the EQIP program. Two manure storage pits hold waste and prevent unnecessary fertilizer from being applied on the landscape.

"The second pit provides enough storage so we don't have to haul in the winter," Paul said. "We really only apply when the soil and crops need nutrients."

The system also includes a concrete walkway around the feeding barn, an area that is heavily traveled by the cattle and potentially a muddy mess before it was protected. The concrete prevents erosion as well as an impenetrable surface for manure that is easy to clean. A small drain next to the calving barn on the farm leads to a pipe that pumps manure to the storage pits, preventing the need for trucks to move the manure that can potentially be spilled and carried into the waterways.

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"This system is a popular method for improving water quality on dairy farms," says Carroll District Conservationist Eric Hines. "The Sellers are a great example of family farmers making the environmental improvements on their farm that are necessary for it to succeed for the next generation."

The Sellers make regular stops in the Carroll field office, ensuring that as their operation grows, their conservation plan will transform with it. Paul says the technical and financial help he's received from NRCS has been key to Panora Acres' success.

"We appreciate the help from NRCS," said Paul. "It seems like a new regulation comes down every day, and NRCS has always offered a solution. We couldn't do it without them." 💧

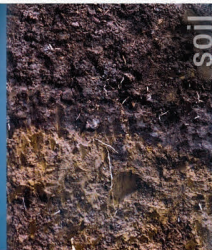


**BEFORE:** At Panora Acres, 600 cattle were depositing nutrients and eroding the banks of a small stream on the farm.



**AFTER:** Through the Environmental Quality Incentives Program (EQIP), the family installed stream crossings to allow safe passage and avoid erosion and nutrients in the stream.

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soil



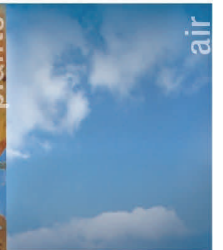
water



animals



plants



air