

## Talbot Ditch Retrofit Partnership

[mostcenter.org/casestories](https://mostcenter.org/casestories)

### Problem:

On Maryland's Eastern Shore, runoff from agricultural land typically flows to roadside ditches, which conveys runoff to receiving streams, rivers, and the Chesapeake Bay. Agricultural runoff often contains high levels of nitrogen and phosphorous, which can cause nutrient over-enrichment, algal blooms, and dead zones in the Bay.

### Solution:

Traditional roadside ditches can be modified so that they slow and filter polluted runoff. Talbot County piloted this approach at two dozen sites throughout the county. It retrofitted the ditches to a two-stage design consisting of a deep central channel and broad "bench" sides planted with native vegetation, which allow water to be slowly absorbed into the ground rather than sprinting to nearby creeks. The design promises to deliver benefits for both water quality and soil health. Scientists estimate that 150 installed projects can reduce nitrogen pollution of 8,000 pounds per year from developed land 30,000 pounds per year from agricultural land. Not only will this program keep the water clean, it will also support and create engineering and construction jobs.



Retrofitting existing ditches with new benches allow vegetation to absorb nutrients and trap sediment.



Photo Credit: Chesapeake Bay Foundation

## Key Project Facts

**Type of Project:** Bioretention

**Scale:** 24 sites being piloted

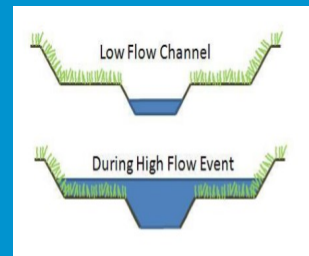
**Cost:** \$508,190

**Funding Sources:** MD Department of Natural Resources' Chesapeake and Atlantic Coastal Bays Trust Fund; Talbot County

**Contact:** Alan Girard, [agirard@cbf.org](mailto:agirard@cbf.org)

**More Info:** <https://www.cbf.org/about-cbf/locations/maryland/issues/roadside-ditch-retrofits-needed-in-talbot-county.html>

The structure of a "two-stage" ditch shows wide benches on the sides of a deeper central channel, creating a natural floodplain.



## What is Polluted Runoff?

The growth of our cities has resulted in too many paved surfaces, which prevent rain water from being absorbed by the ground. Instead, the water runs off streets and buildings, collecting trash and dangerous chemicals on its way. This contaminated water overflows into our streams and rivers, creating public health hazards and toxic waters.

Stormwater projects create safe paths for polluted runoff to be captured and filtered before it reaches our waterways. They keep communities healthy and the environment clean.

**When communities and their local governments work together to solve big problems like stormwater runoff, that's a story worth telling!**