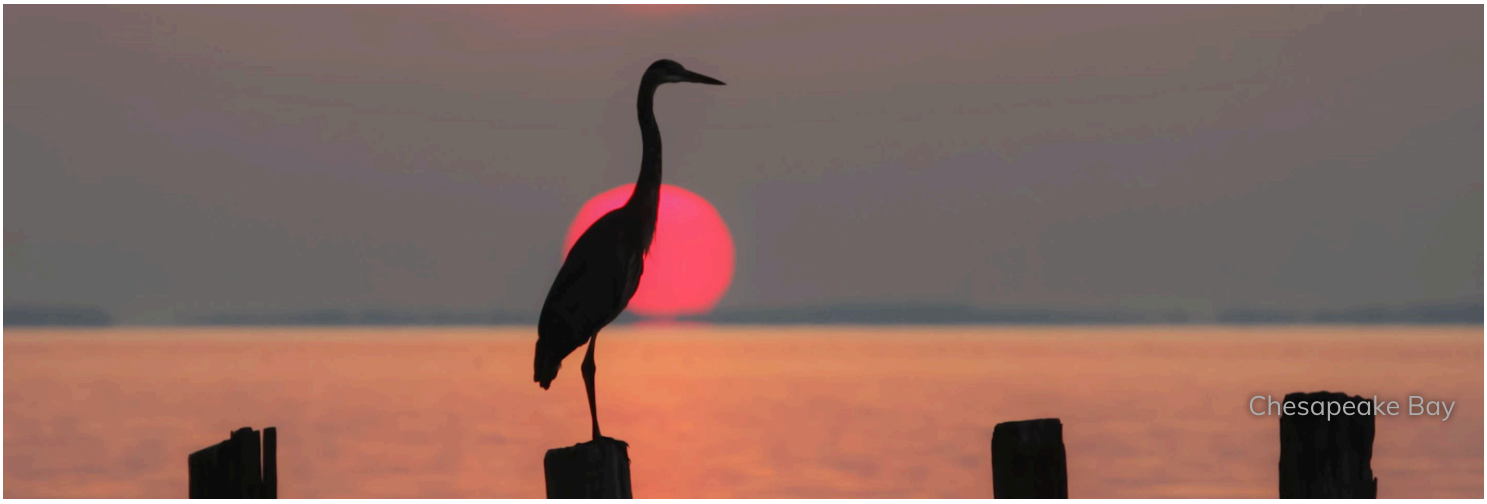

Conowingo Watershed Implementation Plan

The Conowingo Watershed Implementation Plan (CWIP) addresses nutrient loads entering the Chesapeake Bay as a result of Conowingo Dam reaching its trapping capacity. It has been determined that the reservoir has reached dynamic equilibrium and is no longer preventing a portion of the pollutant load from flowing downstream.

The funding provided is part of Maryland's innovative approach using a "pay-for-success" model which provides payment for verified environmental outcomes only upon demonstration of successful implementation. As an interstate agency, SRBC is able to serve as the financing authority. This allows Maryland to fund projects upstream and count those nutrient reductions against its CWIP obligations.

The "pay-for-success" funding model encourages innovative and cost-effective approaches to nitrogen reductions in a competitive process, and as such, this first round of funding has nitrogen reductions priced from approximately $150 per pound of nitrogen reduced, to as low as approximately $6 per pound, for a variety of practices. Total annual nitrogen loads are projected to be reduced by approximately 46,000 pounds per year, for a total of approximately 368,200 pounds of nitrogen reduced over the lifespans of the projects funded.

Resources

- RFP for Verified Nutrient Reductions
- Pay for Success Program

News

- 10/16/2023: Conowingo Pay for Success Program, Requests for Proposals Announced
- 08/15/2024: Innovative Program Awards $11 Million to Reduce Chesapeake Bay Conowingo Pollutants

Contact

ConowingoWIP@srbc.gov

Pay-for-Success Awardees

Precision Nutrient Management

Awardee: HGS, LLC and its partners ***$2,033,007***

HGS, LLC and its partners (RES LLC, The Mill, Center for Watershed Protection, Earthcare LLC, Ecosystem Planning and Restoration LLC) will use the awarded funds to achieve a 20% annual reduction for nitrogen coming from agricultural lands predominantly in Maryland that would otherwise end up in local waters and the Chesapeake Bay. Through utilization of precision nutrient management strategies and specialty fertilizers, nitrogen application for corn, sorghum, and small grains will be reduced to provide more precisely what is needed to grow the crops, while also improving yields. The project is estimated to reduce approximately 135,500 pounds of nitrogen for the 20-year lifespan of the project for a price of approximately $15 per pound of nitrogen reduced.

Forest Riparian Buffers and Land Use Conversion

Awardee: Alliance for the Chesapeake Bay ***$664,175***

The Alliance for the Chesapeake Bay will implement two highly effective nutrient and sediment reduction agricultural best management practices on approximately 60 acres of agricultural land within the lower Susquehanna drainage basin. Over 35 acres of new riparian forest buffer will be installed on a farm near Kirkwood, Pa., while over 24 acres of row crop field will be converted to permanent grassland near Havre De Grace, Md. These practices are unique in that they also provide a myriad of other environmental benefits simultaneously like carbon sequestration and wildlife habitat. The projects are estimated to reduce approximately 35,000 pounds of nitrogen for the 15-year lifespan of the projects for a price of approximately $19 per pound of nitrogen reduced.

Precision Nutrient Management

Awardee: Rosetree Consulting, LLC ***$772,485***

Rosetree Consulting, LLC, will work with farms over 4 growing seasons in Maryland and Pennsylvania to incentivize reductions in commercial nitrogen fertilizer rates where alternative biological products are applied as part of the project. These products, that harness a more sustainable microbial process for promoting plant access to nitrogen sources in the air and soil, avoid the increased likelihood for commercial fertilizers to build up in the soils and leach into the groundwater and/or run off into local streams. Focusing on a strategy that builds trust and reduces risk to the farmer with the use of these products through this “pay-for-success” program, will help with adoption of this new approach that could yield significant reductions of nitrogen and phosphorus loads for local streams and the Bay if more widely implemented. The project is estimated to reduce approximately 123,300 pounds of nitrogen for just the 4-year lifespan of the project for a price of approximately $6 per pound of nitrogen reduced.

Forest Riparian Buffers

Awardee: Keystone Streams, LLC ***$1,274,258***

The Keystone Streams, LLC, project will restore native forest on approximately 17 acres of open agricultural land along a stream in the lower Susquehanna region of Pennsylvania to reduce

nutrient loads from reaching local waters and the Chesapeake Bay. In addition to reducing nutrient and sediment loads, the project's other benefits include, but are not limited to, floodplain protection, creating wildlife habitat and increasing carbon storage. The project is estimated to reduce approximately 25,700 pounds of nitrogen for the 20-year lifespan of the project for a price of approximately $50 per pound of nitrogen reduced.

Stream Restoration (3 Projects)

Awardee: Ecotone, LLC **$6,647,025**

The Ecotone, LLC, projects will implement nutrient and sediment load reductions through urban and non-urban stream restoration at three different locations within the Deer Creek Watershed, in both Maryland and Pennsylvania (2 sites in Maryland, 1 in Pennsylvania). Work at each location will include removal of legacy sediment to reconnect the floodplain to improve stream stability and flood resiliency, as well as reduce bank erosion. Other benefits will include carbon sequestration, wetland restoration and habitat enhancement as added co-benefits. The projects are estimated to reduce approximately 48,700 pounds of nitrogen for the 10-year lifespan the projects for an average price of approximately $136 per pound of nitrogen reduced. The approximate price per pound of the three projects ranged from $127 to $150.

4423 North Front Street
Harrisburg, PA 17110
(717) 238-0423
srbc@srbc.gov

8 am to 4 pm