

2025 Union County

Clean Water Progress Snapshot

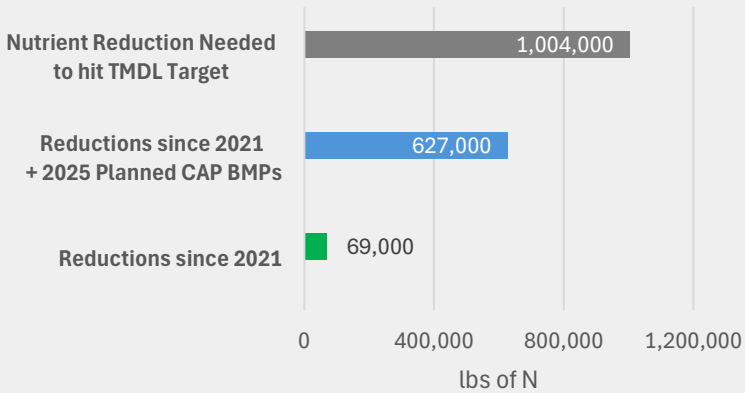
Union County is one of 34 counties in Pennsylvania’s Chesapeake Bay Watershed that have developed a voluntary Countywide Action Plan (CAP). The goal of each CAP is to reduce nitrogen, phosphorus, and sediment loads generated within the county. Mitigating these nutrient loads benefits not only the health of the Chesapeake Bay but also improves local water and soil quality. This Snapshot provides an overview of the county’s current nutrient loading rates, the county identified nutrient reduction goals, and the progress made to date.

Current Conditions

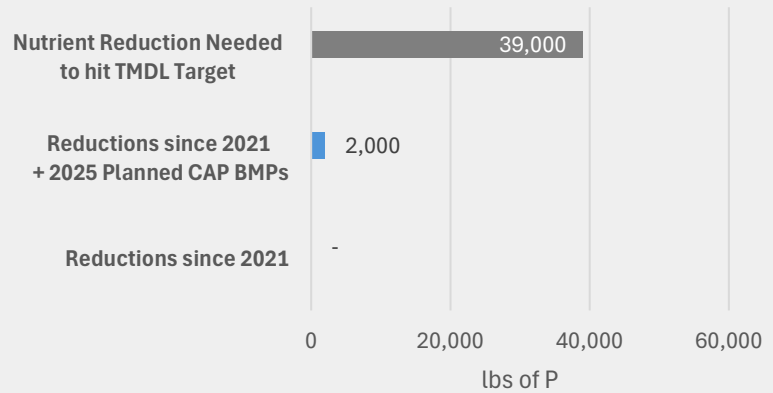
Union County’s current nutrient loading rate is approximately 2.66 million pounds of nitrogen and 150,215 pounds of phosphorus per year. To meet the requirements established under the Chesapeake Bay Total Maximum Daily Load (TMDL), the county must reduce these loads to 1.66 million pounds of nitrogen and 111,215 pounds of phosphorus annually. Achieving this target will require total reductions of 1 million pounds of nitrogen and 39,000 pounds of phosphorus.

Union County has been working on implementation efforts related to the CAP since 2021 resulting in 69,000 pounds of nitrogen reductions. Due to technical changes in the Chesapeake Assessment Scenario Tool (CAST), nutrient loading rates to the county have increased affecting results below. This change is not necessarily reflective of on-the-ground implementation or monitoring efforts in the county. Additionally, in its 2025 CAP BMP Entry Form, the county set a goal to reduce nutrient loads by 558,000 pounds of nitrogen and 2,000 pounds of phosphorus.

Nitrogen Reduction Progress



Phosphorus Reduction Progress



Union County’s Top 3 Most Implemented Best Management Practices of 2024



#1

Nutrient Management Core N



#2

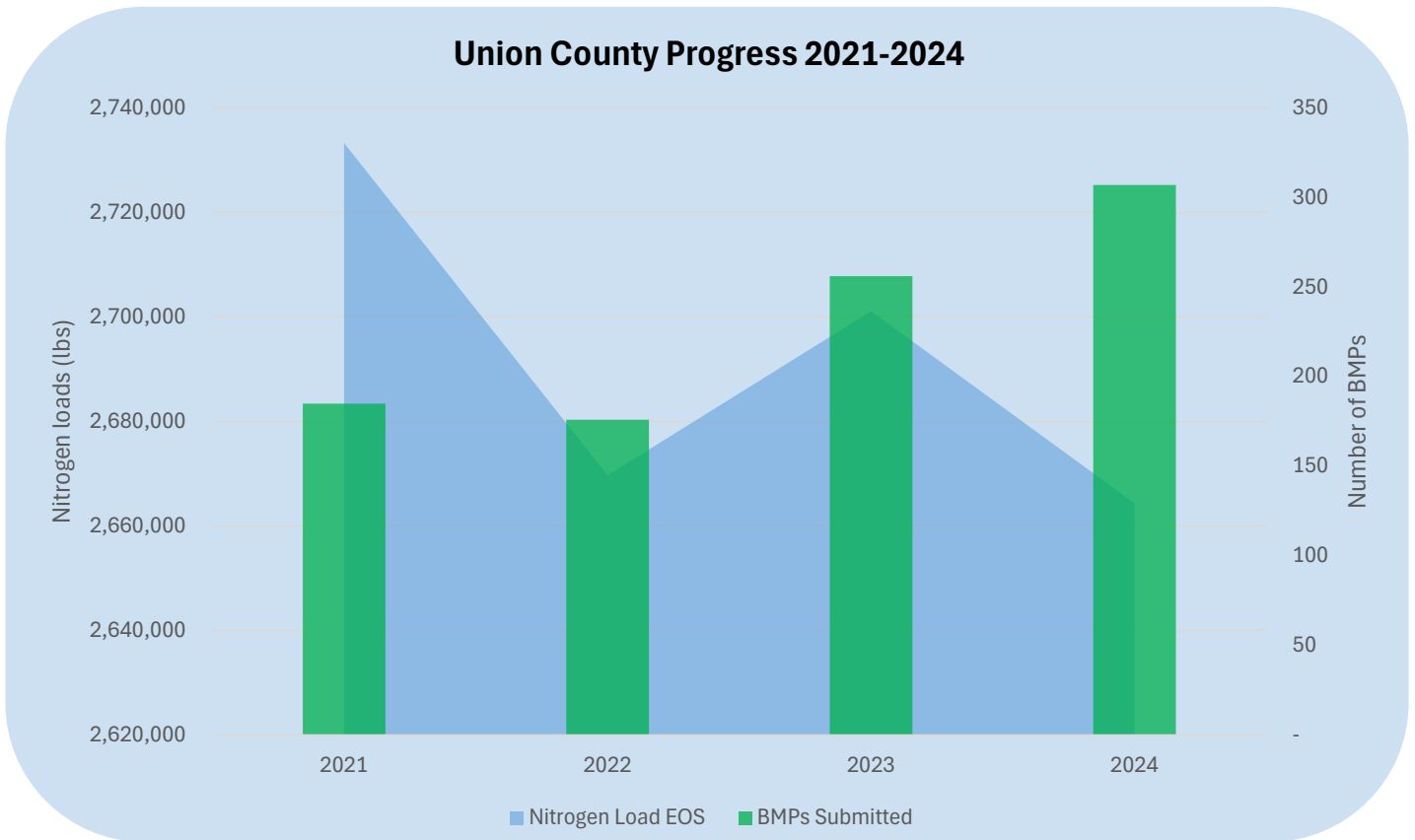
Nutrient Management Core P



#3

Conservation Plans

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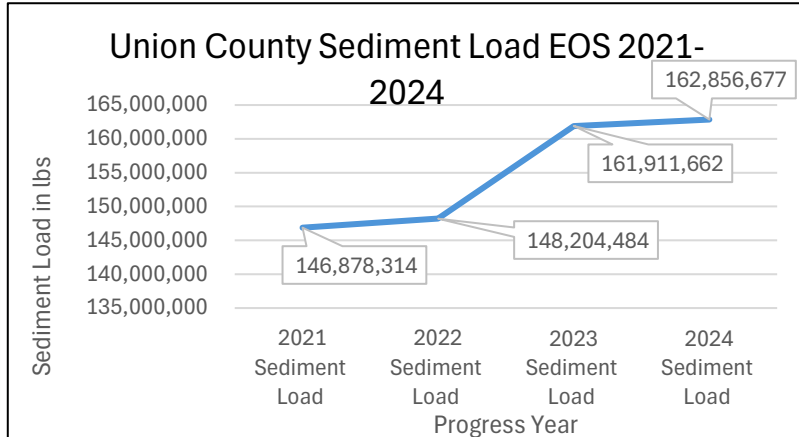
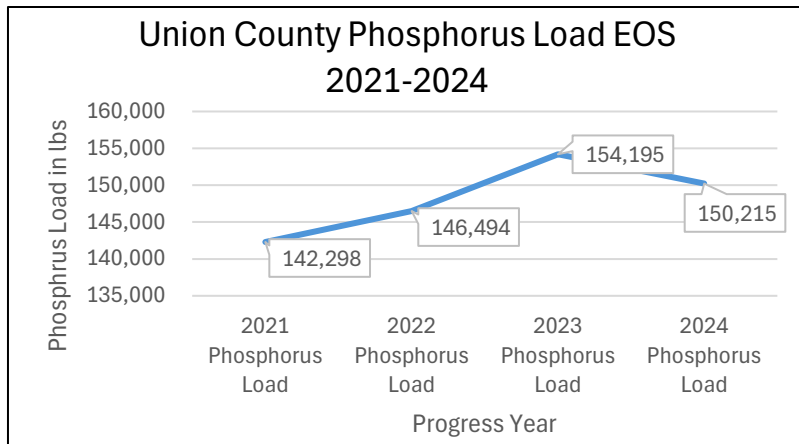


Union County contains 6 major watersheds: Buffalo Creek, Fishing Creek, Middle Creek, Penns Creek, White Deer Hole Creek, and West Branch Susquehanna River. Watersheds in Union County have elevated levels of nitrogen, phosphorus, and sediment. Of the 611 total stream miles in Union County, approximately 19% are impaired.

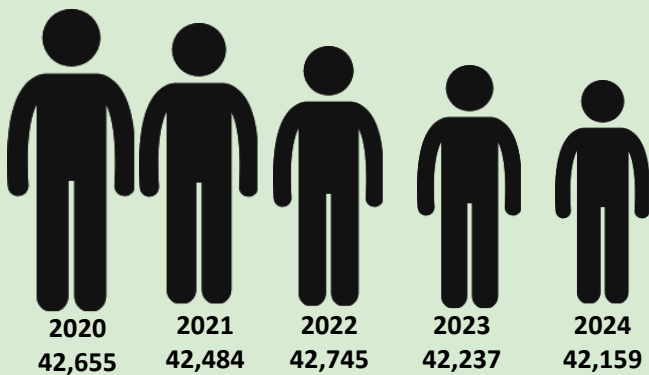
279

Nutrient Impaired Stream Miles in Union County

As you review the information provided in this Snapshot, it is important to keep in mind that several influencing factors are beyond the control of the local organizations participating in the CAP process. These include population growth, land use changes, and limitations within the Chesapeake Assessment Scenario Tool (CAST).



Population Change from 2020 to 2024



Disclaimer: This dataset represents the original information submitted to NEIEN/CAST and does not reflect all active Best Management Practices (BMPs) currently in the CAST system. It may not include subsequent updates, corrections, or additions. Furthermore, this data does not account for BMP credit durations or lifespans as defined within the CAST model.