

Virginia's Chesapeake Bay Watershed Nutrient Credit Exchange Program

PES & Nature-Based Solutions · Good practice · United States of America

Quality score: 40/100

Evidence strength: Observational / pre–post

Summary

Since 2005, Virginia's nutrient exchange lets dischargers trade nitrogen/phosphorus credits to meet Chesapeake Bay TMDL limits; in 2020 alone 316,330 lb N and 27,803 lb P were delivered with 100% compliance, though EPA warns poorly calibrated trades can blunt reductions.

Key dimensions

Dimension	Score
Carbon — sequestration / storage, evidenced	0/3
Biodiversity — conservation / improvement, evidenced	1/3
Water & soil — retention, infiltration, erosion control	3/3
Fire resilience — risk reduction, evidenced	0/3
Governance, certification & transferability	2/3

Evaluated by C-NAPSE

Data sources

C-NAPSE web research — accessed 2026-08-05

Virginia Department of Environmental Quality (DEQ); Virginia Nutrient Credit Exchange Association — accessed 2026-08-05

EPA Watershed-Based Permitting Case Study: Virginia's Chesapeake Bay Nutrient Credit Exchange (EPA-833-F-23-009, 2023) — accessed 2026-08-05

Virginia DEQ — Nutrient Trading — accessed 2026-08-05

Environmental Integrity Project — Pollution Trading in the Chesapeake Bay — accessed 2026-08-05

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