



ConserveVirginia

Mission

To conserve Virginia's biodiversity through biological inventory, data management and analysis, protection, and stewardship.

Maintain a statewide database for:

- conservation planning
- environmental review
- land protection for the conservation of biodiversity
- the protection and ecological management of natural heritage resources



Sections

Inventory



Zoologists



Botanists



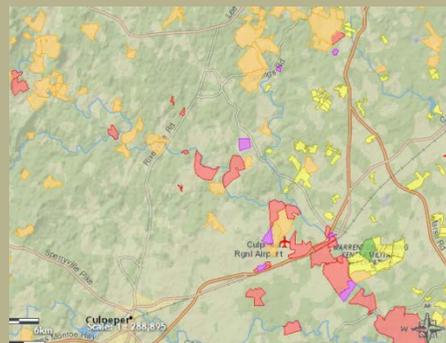
Ecologists

> 35 years of data collection
and analysis

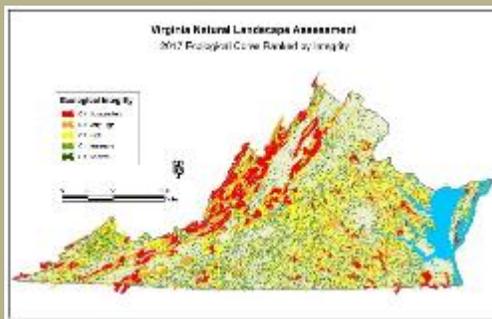
Information Management



Biodiversity data management



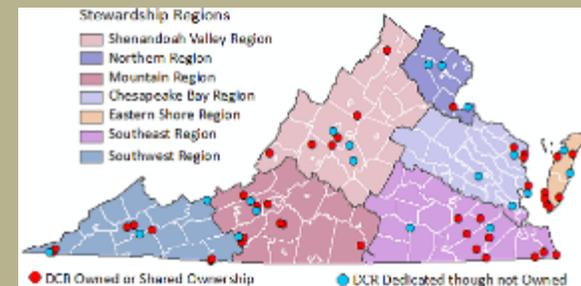
Conservation Lands Database



Conservation Planning Tools

Data Sharing and Dissemination

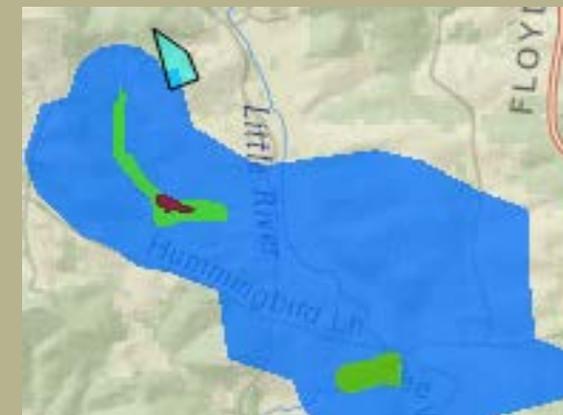
Protection



Stewardship



Environmental Review

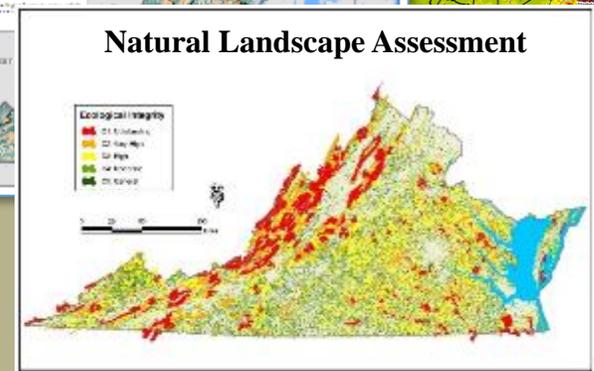
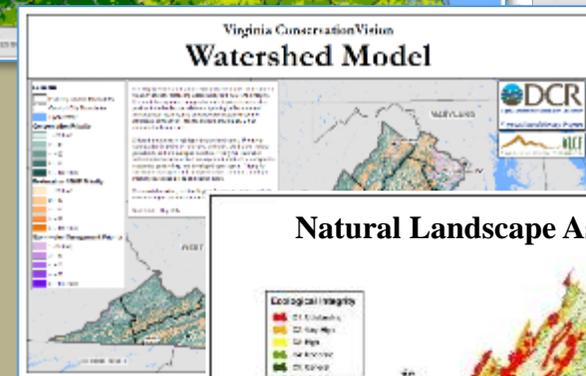
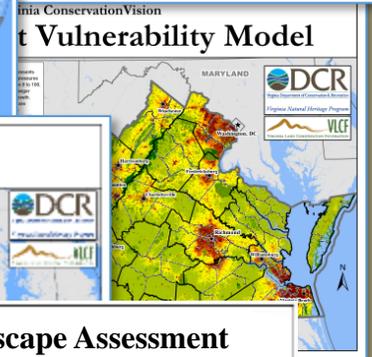
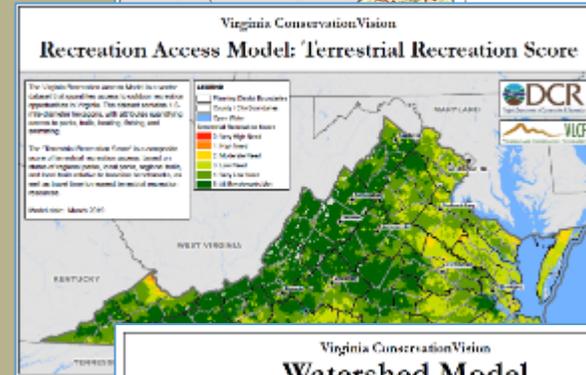
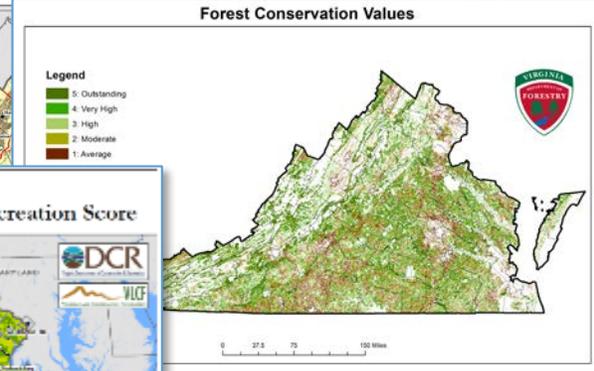
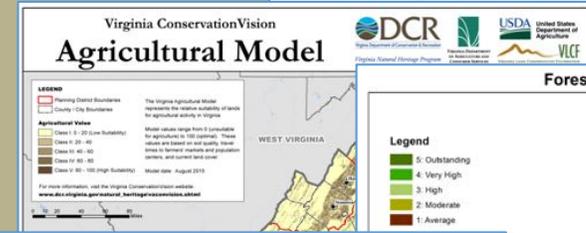
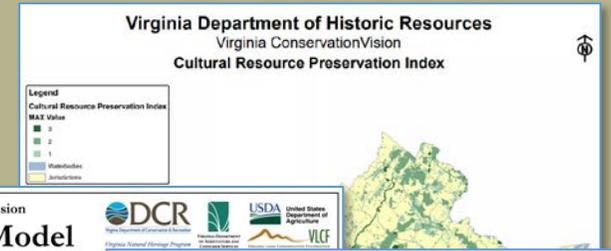


ConservationVision

Virginia's Conservation Planning Atlas

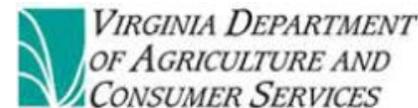
Conservation Themes:

- Ecological Integrity
- Cultural Assets
- Agriculture
- Forestry
- Recreation
- Watersheds
- Vulnerability to Development
- Potential Rare Species Richness
- Wetlands



Conserve Virginia

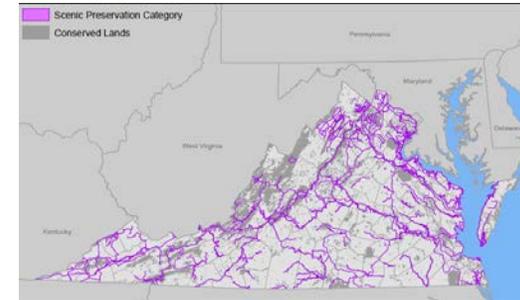
Data Providers



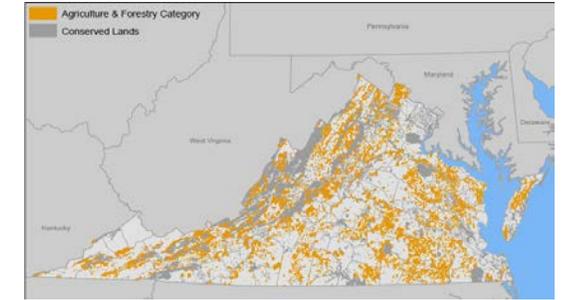
Conserve Virginia v2.0

- Twenty-one (21) priority layers contributed from 14 state and federal agencies and conservation organizations
- Consolidated into 7 categories

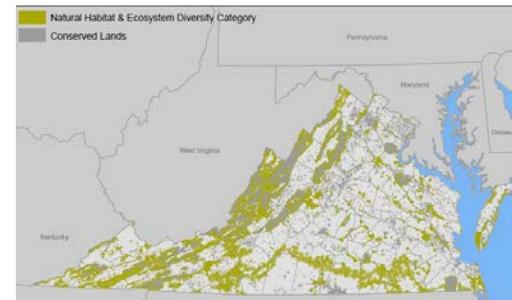
SCENIC PRESERVATION



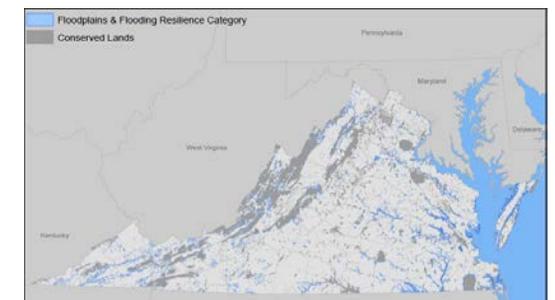
AGRICULTURE AND FORESTRY



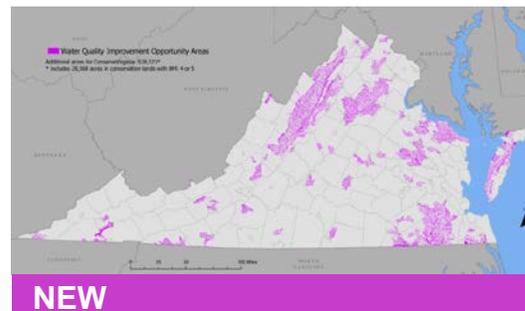
NATURAL HABITAT AND ECOSYSTEM DIVERSITY



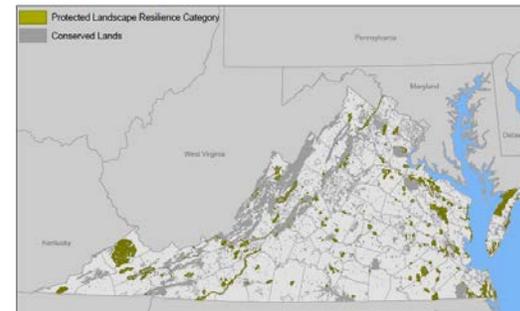
FLOODPLAINS AND FLOODING RESILIENCE



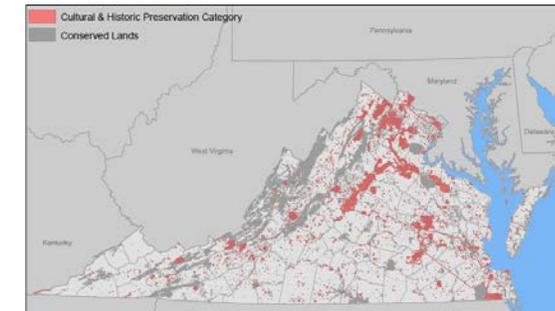
WATER QUALITY IMPROVEMENT



PROTECTED LANDSCAPES RESILIENCE



CULTURAL AND HISTORIC PRESERVATION



ConserveVirginia

v2.0

HISTORIC JUSTICE

USCT-African American Units Involvement Battlefields

Civil War battlefields

- New input added 128,964 acres to ConserveVirginia



Conserve Virginia

v2.0



SCENIC PRESERVATION Scenic Rivers



Six Additions:

Pound River

17 miles – Wise and Dickenson Co.

Clinch River

37.6 miles – Tazewell and Russell Co.

Maury River

19.25 miles – Rockbridge Co.

Staunton River

11.5 miles – Halifax and Charlotte Co.

James River

20 miles – Albemarle, Buckingham and Fluvanna Co.

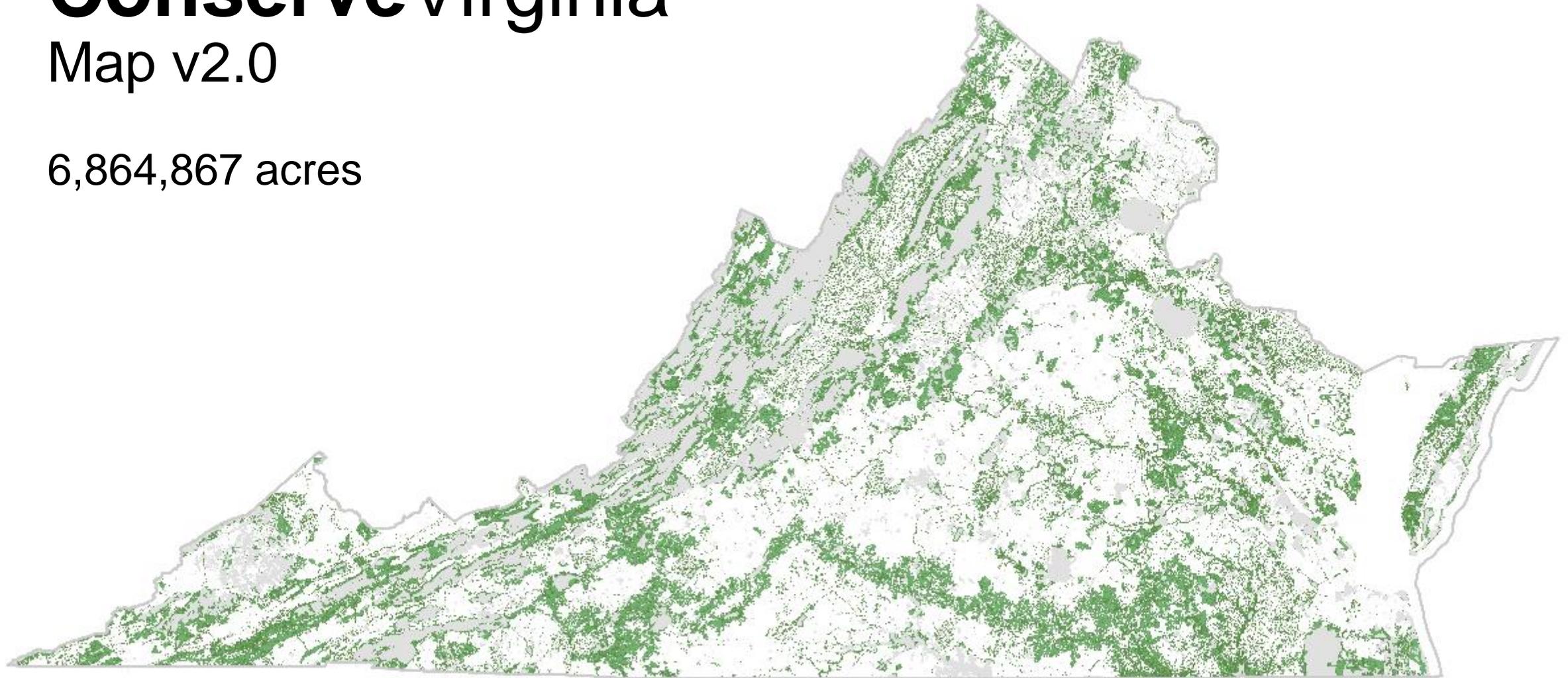
Grays Creek

6 miles – Surry Co.

ConserveVirginia

Map v2.0

6,864,867 acres



Water Quality Improvement

Pollutants

- Nitrogen, phosphorus, and sediment loadings from agricultural sources

Excluded sources:

- Development
- Natural
- Septic
- Wastewater

Assessments

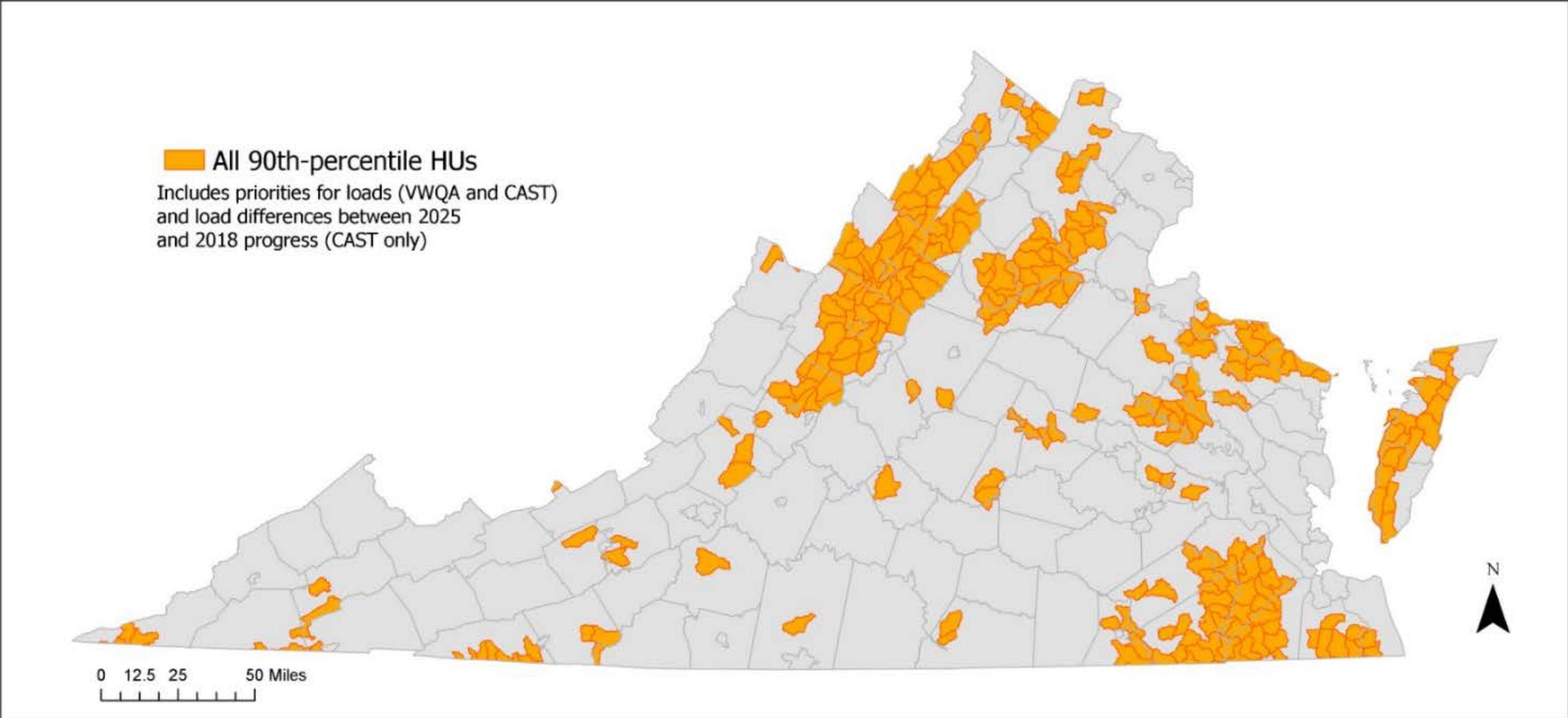
- Chesapeake Bay Program Phase 6 Watershed Model (CAST-2018)
- Virginia Water Quality Assessment
- With consideration of the goals of the Chesapeake Bay Watershed Implementation Plan (WIP III).

The screenshot displays the 'Chesapeake Assessment Scenario Tool' website. At the top, there is a navigation bar with 'HOME', 'PUBLIC REPORTS', 'LEARNING', 'ABOUT', and 'CONTACT US'. The DCR logo and 'Virginia Department of Conservation and Recreation' are also visible. A search bar is located in the top right corner. Below the navigation bar, there is a section for 'PUBLIC REPORTS - COMPARE MAP' with a description of the tool's purpose. A map interface is shown with a legend for '2017 Progress - Nitrogen - Edge of Stream (lbs/year)' and a dropdown menu for '2018 Progress'. The legend indicates loadings of > 300.00, > 200.00, > 100.00, > 1001, and 0 - 1000. A navigation menu on the right lists various services like 'Soil and Water Conservation', 'Overview, Regional Offices', 'Nutrient Management', 'Agricultural Incentives', 'Conservation Planning', 'Watersheds', 'Resource Management Planning', 'Soil and Water Conservation Districts', and 'District Engineering Services'. At the bottom, there is a footer with a search bar and navigation links: 'Discover the Chesapeake', 'Learn the Issues', 'State of the Chesapeake', 'Take Action', 'In the News', 'Who We Are', and 'What We Do'.

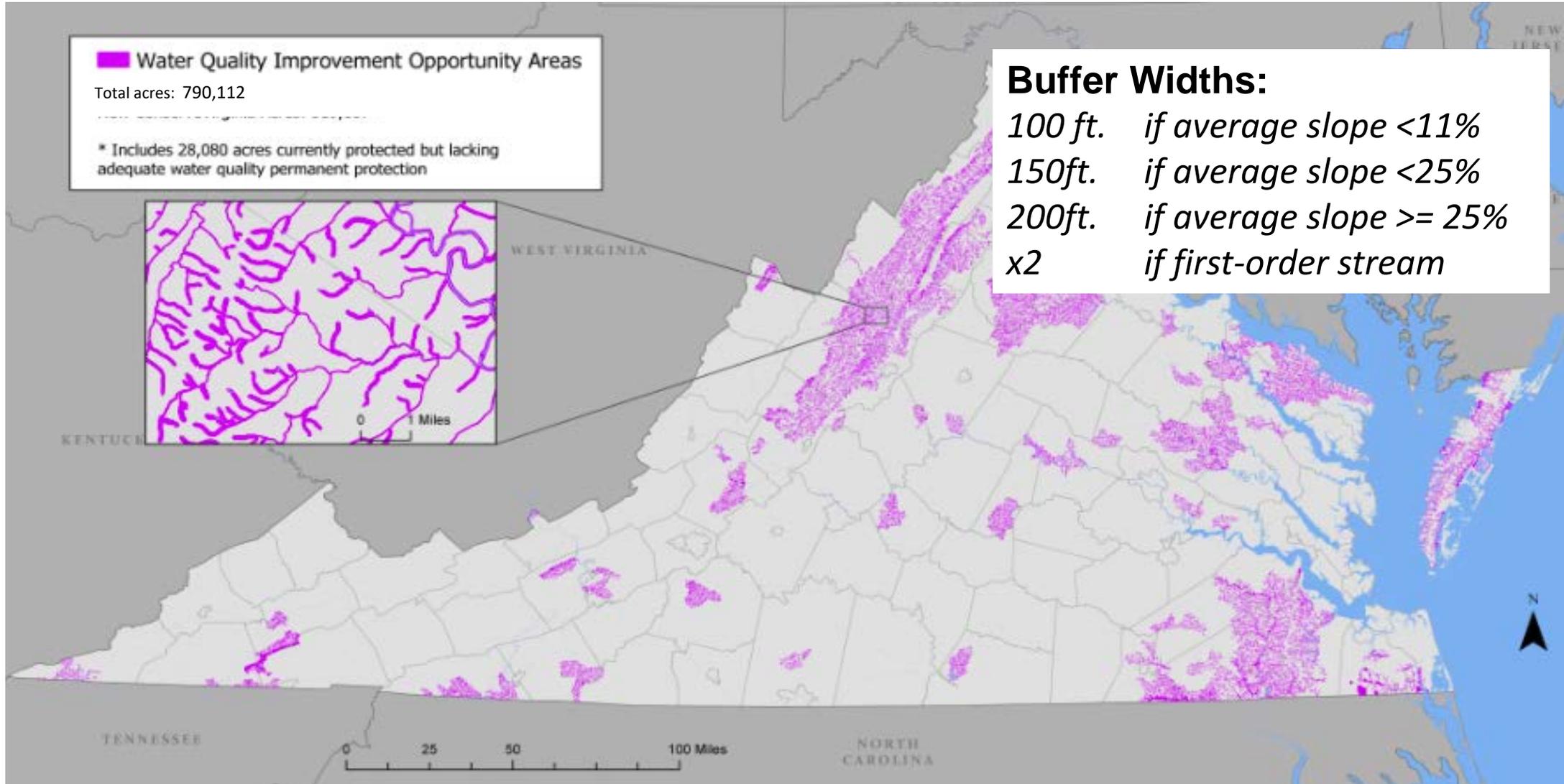
Watershed Implementation Plans

Watershed Implementation Plans (WIPs) include detailed, specific steps each jurisdiction will take to meet the goals of the Chesapeake Bay Total Maximum Daily Load by 2025.

Water Quality Improvement



Water Quality Improvement



Layers

- ConserveVirginia
- ConserveVirginia Map
- Agriculture & Forestry Category
- Natural Habitat & Ecosystem Diversity Category
- Floodplains & Flooding Resilience Category
- Cultural & Historic Preservation Category
- Scenic Preservation Category
- Protected Landscapes Resilience Category
- Water Quality Improvement Category

Conservation Planning

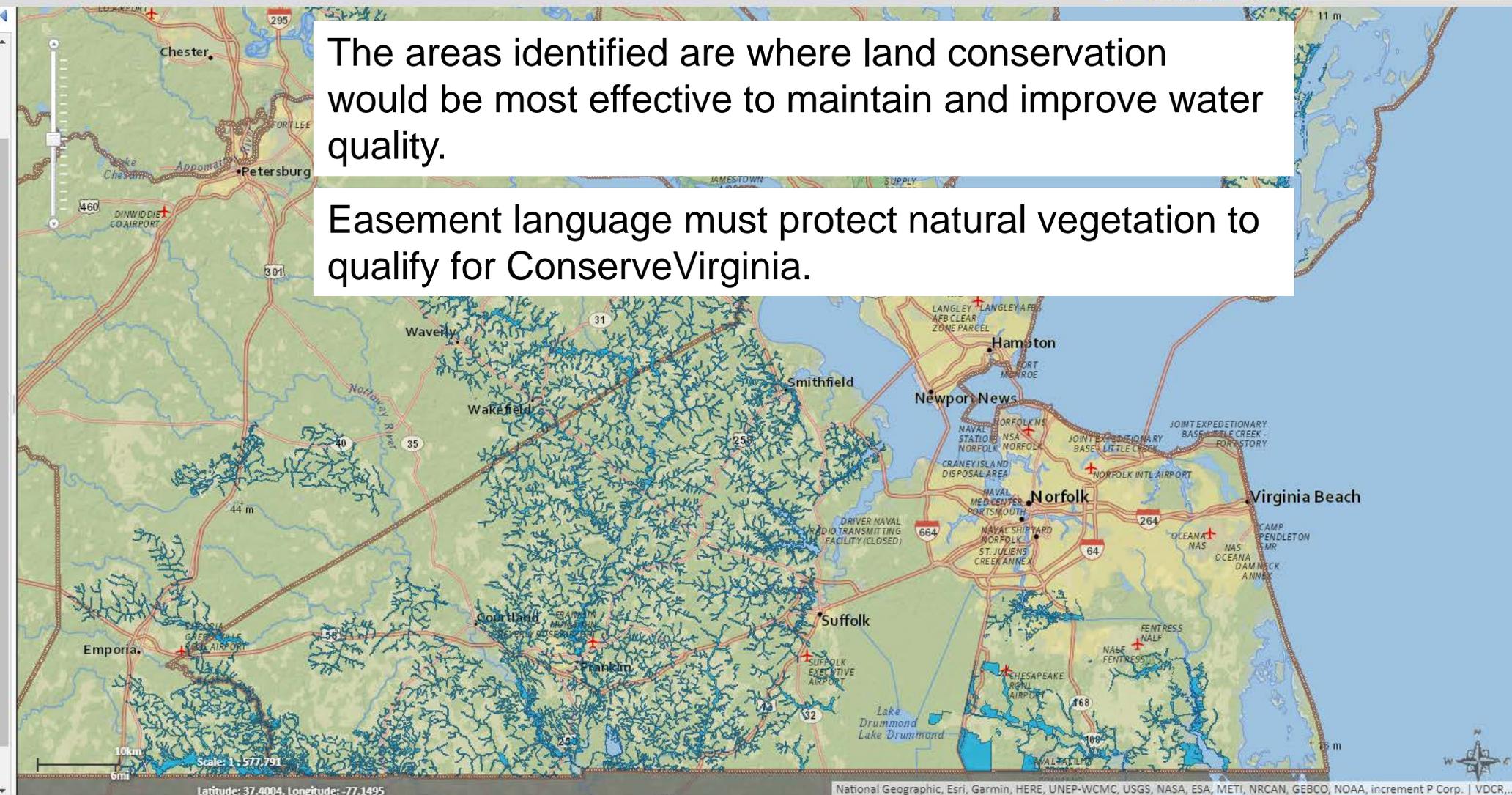
- Potential Rare Species Richness
- Ecological Cores
- Natural Land Network
- Forest Conservation Values
- Watershed Model
- Recreation Access Model
- Cultural Resource Preservation Index
- Agricultural Model
- Development Vulnerability Model

Reference Layers

- 24K Grid
- National Wetlands Inventory
- Scenic Rivers
- Streams (NHD)
- Trails
- USGS Placenames
- VDOT Roads

Boundaries

- Counties
- Physiographic Provinces
- Planning Districts
- Subwatersheds (12 digit USGS)
- Watersheds (8 digit USGS, subbasin)
- Virginia Boundary



The areas identified are where land conservation would be most effective to maintain and improve water quality.

Easement language must protect natural vegetation to qualify for ConserveVirginia.

Water Quality Improvement Proposed Inputs

ConserveVirginia v 3.0

1. *Healthy Waters Conservation Opportunity Areas*

- In the interest of improving water quality to maintain confirmed healthy waters
- Improvement and protection of water quality in degraded watersheds is essential for retaining the diversity and integrity of these systems

Basic approach:

- 12-digit HUC
- 50th percentile loadings
- Identify those watersheds containing confirmed Healthy Waters
- Within these watersheds, use topographic position, stream catchments, stream networks, land cover, etc., to target the best lands that could be conserved to improve water quality
- Once conserved, natural vegetation would need to be established and protected in perpetuity under easement to qualify as a success for ConserveVirginia

Water Quality Improvement Proposed Inputs

ConserveVirginia v 3.0

2. *INSTAR Reaches Quality Improvement Opportunity Areas*

- In the interest targeting agricultural BMP efforts to improve water quality for low-scoring INSTAR reaches
 - Goal of elevating scores and status to Healthy Waters
- Improvement and protection of water quality in degraded watersheds is essential for retaining and improving the diversity and integrity of these systems

Basic approach:

- Identify low-scoring INSTAR reaches in agricultural landscapes
- Analyze topographic position, stream networks, stream catchments, slope, and proximity to open water to determine agricultural areas upstream of INSTAR reaches
 - and the best places to establish riparian buffers and exclude animals to improve water quality.
- Will need to control for source pollution, where possible

Water Quality Improvement Proposed Inputs

ConserveVirginia v 3.0

3. Aquatic Life Conservation Opportunity Areas

- In the interest of improving water quality to maintain good ecological conditions as indicated by macroinvertebrate communities
- Improvement and protection of water quality in degraded watersheds is essential for retaining the diversity and integrity of these systems

Basic approach:

- 12-digit HUC
- 50th percentile loadings
- identify those watersheds containing stream sites indicative of good ecological conditions based on macroinvertebrate communities (CPMI >56 or SCI >72)
 - 50th percentile of reference site distribution, as expected under least-disturbed conditions
- Within these watersheds, use topographic position, stream catchments, stream networks, land cover, etc., to target the best lands that could be conserved and improved with riparian buffers to maintain good ecological conditions.
- Once conserved, natural vegetation would need to be established and protected in perpetuity under easement to qualify as a success for ConserveVirginia.



Search DCR Site



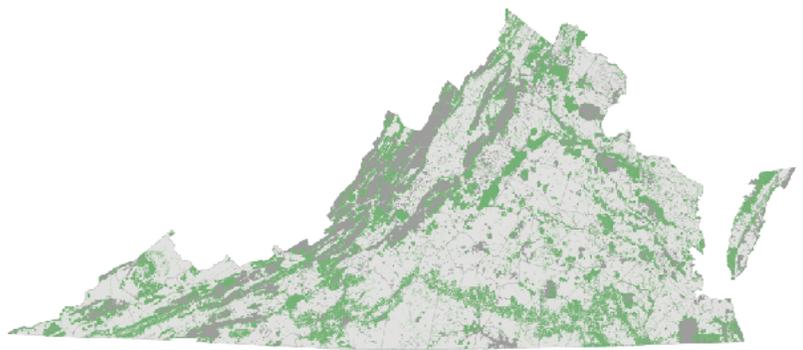
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ConserveVirginia

**Governor Northam's Unveiling of
ConserveVirginia 2.0: Water Quality & Historic Justice**

[ConserveVirginia 2020 Update](#) (PDF)



I believe that we need a land conservation strategy that is focused and targeted toward making measurable progress on our natural resource goals... Through this data-driven process, we will prioritize the most important targeted lands and direct limited resources toward those conservation projects that provide the greatest benefit in the most cost-effective manner. – Gov. Ralph Northam, remarks at the 2018 Virginia United Land Trusts Conference

Virginia's land conservation investments are essential to making the commonwealth a wonderful place to live and visit. Land and water conservation protects the places Virginians love, supports a high quality of life, and fosters economic growth and prosperity. In 2016, the **Trust for Public Land** reported that every \$1 invested in land conservation returns \$4 in economic value in natural goods and services in the form of improved air and water

<https://www.dcr.virginia.gov/conservevirginia/>



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Conserving Virginia's biodiversity through inventory, data analysis, protection, stewardship, and environmental review