ConserveVirginia

Joe Weber

Virginia Department of Conservation and Recreation

Division of Natural Heritage

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
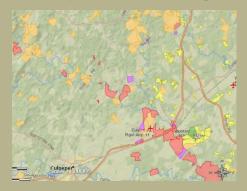
Inventory

Zoologists

Botanists

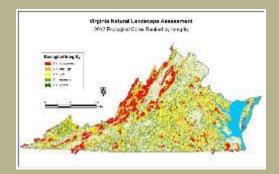

Ecologists

> 35 years of data collection and analysis
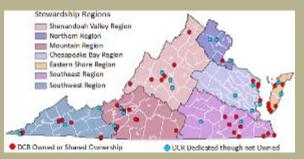
Information Management

Biodiversity data management

Conservation Lands Database

Conservation Planning Tools

Data Sharing and Dissemination

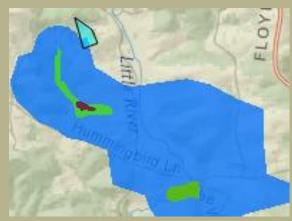## Protection

Stewardship

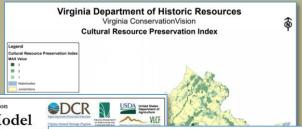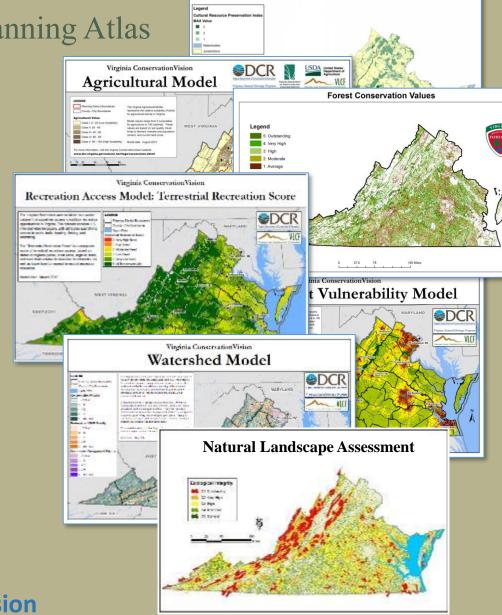## Environmental Review

ConservationVision

Virginia's Conservation Planning Atlas

Conservation Themes:

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

http://www.dcr.virginia.gov/natural-heritage/vaconvision

ConserveVirginia

LIS
VIRGINIA LAW

Code of Virginia ▾ | Search

- **Code of Virginia**

Popular Names

2021 Updates

SECTION LOOK UP

ex. 2.2-4007.01 | Go

Administrative Code

Constitution of Virginia

Charters

Authorities

Compacts

Uncodified Acts

Code of Virginia

Table of Contents » Title 10.1. Conservation » Subtitle I. Activities Administered by the Department of Conservation and Recreation » Chapter 1. General Provisions » Article 1. Department of Conservation and Recreation » § 10.1-104.6:1. ConserveVirginia program established

← Section → | 🖶 Print | 📄 PDF | ✉ email

§ 10.1-104.6:1. ConserveVirginia program established.

A. The Department shall develop a program for the creation, maintenance, operation, and regular updating of a data-driven Geographical Information Systems model to prioritize potential conservation areas across the Commonwealth that would provide quantifiable benefits to the citizens of Virginia. Such program shall be known as ConserveVirginia. The model shall synthesize multiple mapped data inputs, divided into categories, each representing a different overarching conservation value, including (i) agriculture and forestry, (ii) natural habitat and ecosystem diversity, (iii) floodplains and flooding resilience, (iv) cultural and historic preservation, (v) scenic preservation, (vi) protected landscapes resilience, and (vii) water quality improvement.

B. The Department shall consult regularly with the Chief Resilience Officer, the Special Assistant for Coastal Adaptation and Protection, the Department of Forestry, the Department of Agriculture and Consumer Services, the Department of Historic Resources, the Department of Wildlife Resources, the Department of Environmental Quality, the Marine Resources Commission, and any other state or federal agency or private organization deemed appropriate to provide data or information to update methodologies, map layers, and emerging conservation priorities.

C. The Department shall review and revise the methodology used to develop and prioritize each conservation value identified in subsection A. The Department shall conduct such review and revision process no less than once every two years, and such process shall include public hearings and solicitation of public comment. The Department shall continue to develop ways to incorporate and encourage environmental justice, as defined in §

Established ConserveVirginia

Specified the categories of conservation values
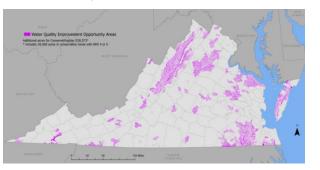
Mandated consultation with:
- Chief Resilience Officer
- Special Assistant for Coastal Adaptation and Protection
- State Agencies
- Federal Agencies
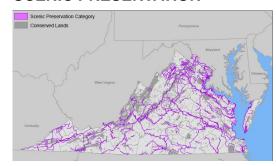- Appropriate NGOs

Outlined revision schedule

Required public data access

ConserveVirginia
v2.0

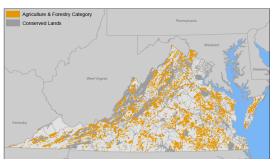- Twenty-one (21) priority layers contributed from 14 state and federal agencies and conservation organizations

- Consolidated into 7 categories
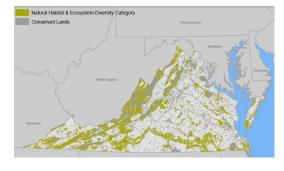
SCENIC PRESERVATION

AGRICULTURE AND FORESTRY

NATURAL HABITAT AND ECOSYSTEM DIVERSITY

FLOODPLAINS AND FLOODING RESILIENCE

WATER QUALITY IMPROVEMENT

PROTECTED LANDSCAPES RESILIENCE

CULTURAL AND HISTORIC PRESERVATION
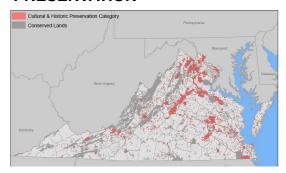
ConserveVirginia — Data Providers

ConserveVirginia

Map v2.0

6,864,867 acres
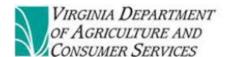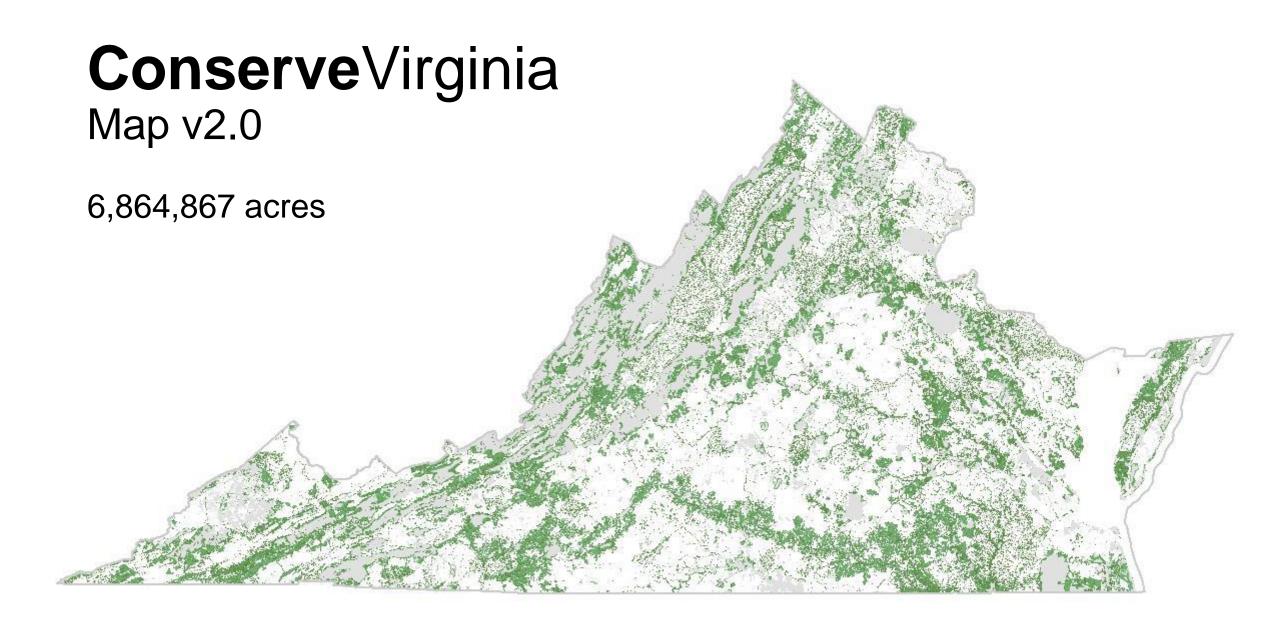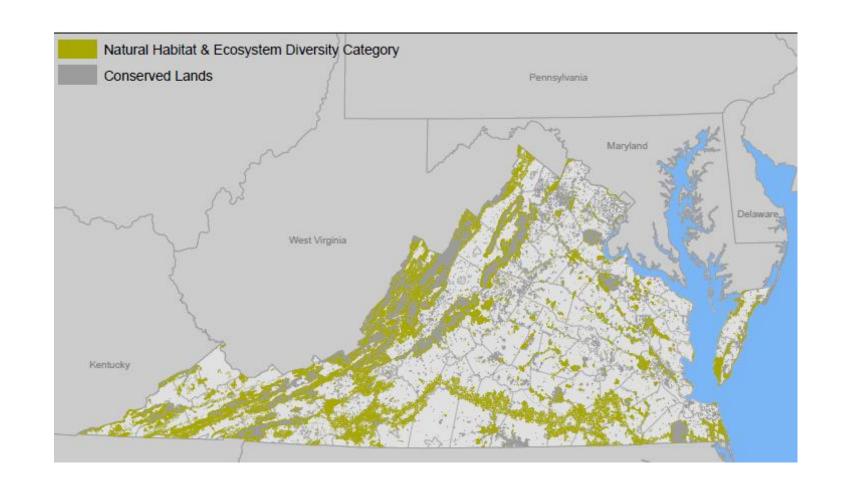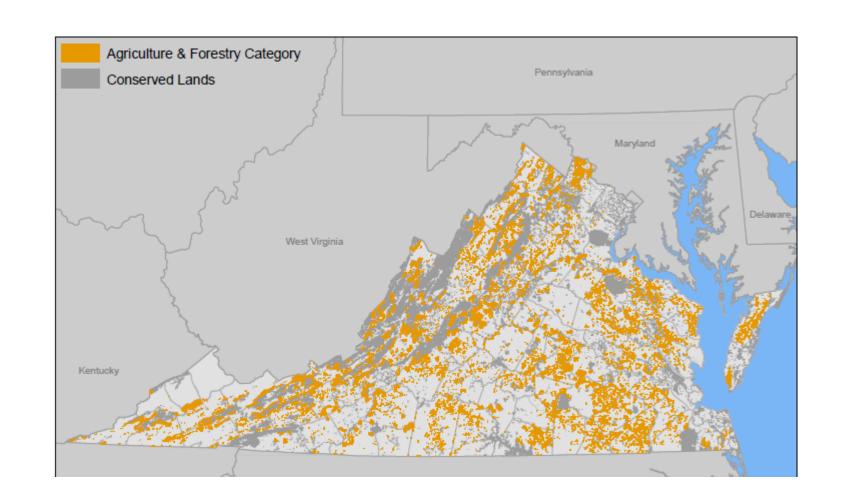
Natural Habitat & Ecosystem Diversity

- Natural Landscape Assessment C1 Cores

- Resilient & Connected Landscapes

- Resilience Corridors

- Natural Heritage Conservation Sites

- Brook Trout Streams
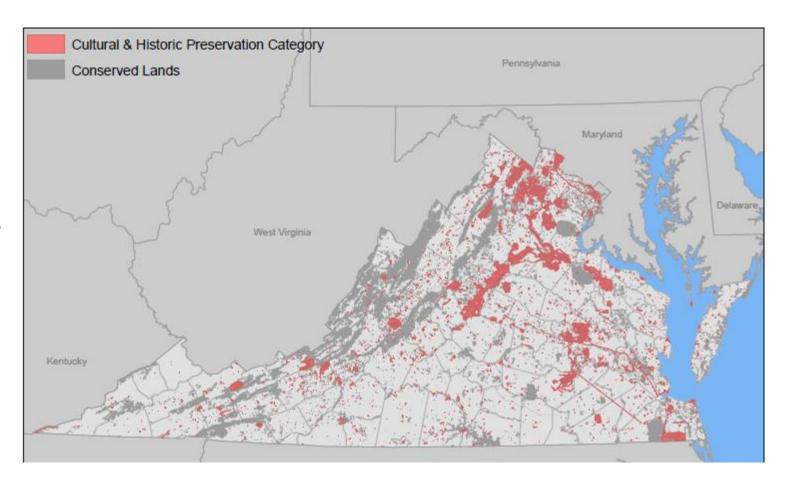
Agriculture & Forestry

- Agriculture Model – Soil Suitability, Land Cover & Travel Time to Market

- Forest Conservation Values Model (DOF) - highest quality, most productive, and most vulnerable forestland

- There are almost 5.5 million acres of working lands in ConserveVirginia
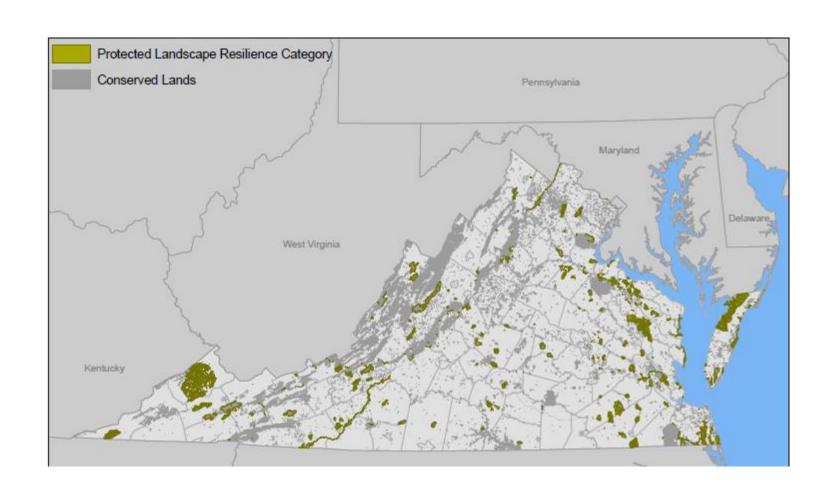
Cultural & Historic Preservation

- Cultural Resource Preservation Index (DHR)

  - USCT-African American Units Involvement Battlefields

  - National Historic Landmarks

  - Battlefield Study and Core Areas

  - Areas on or with potential eligibility for:
    - National Register of Historic Places
    - Virginia Landmarks Registry
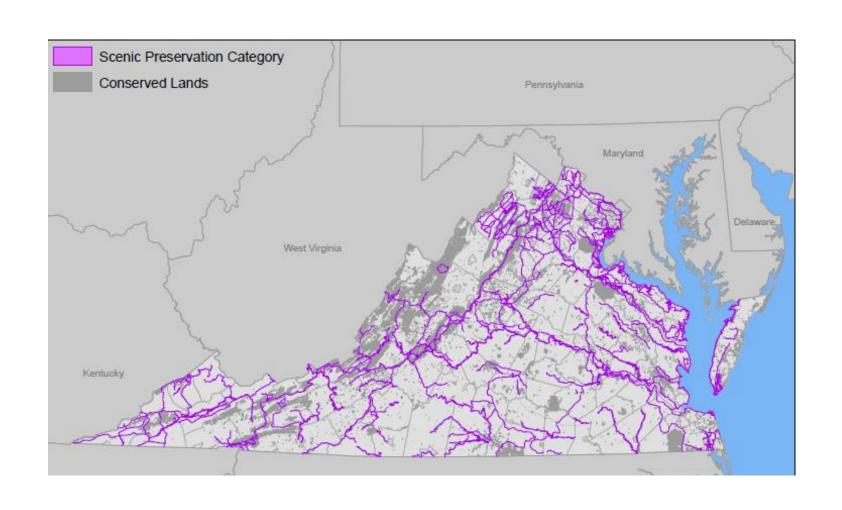
Protected Landscapes Resilience

- Priority areas most critical to resilience of protected lands under ownership of:
  - USFWS
    - National Wildlife Refuges
  - USNPS
    - National Parks
  - USFS
    - National Forests
  - Virginia DGIF
    - Wildlife Management Areas
  - Virginia DCR
    - State Parks and Natural Area Preserves
  - Virginia DOF
    - State Forests
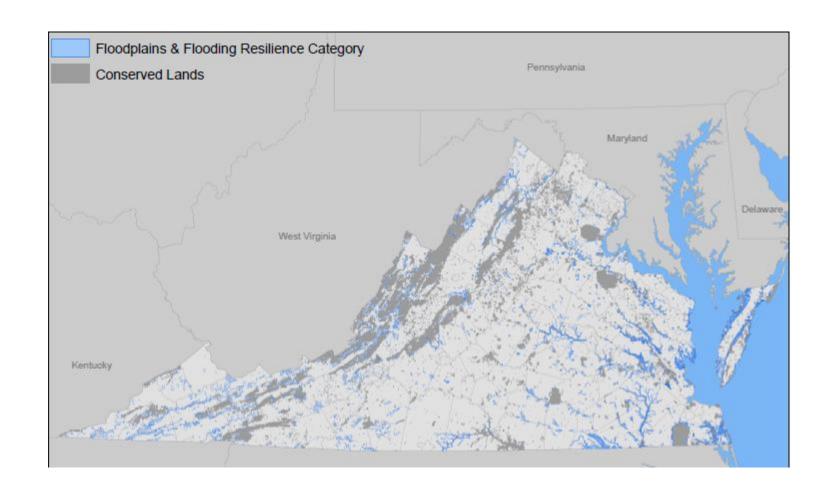
Scenic Preservation

- National and State Designated Scenic Byways

- State Designated Scenic Rivers

- All-American Roads

- National Scenic Trails

- National Historic Trails

- National Millennium Trails

- National Recreational Trails

Floodplains & Flooding Resilience

- Riverine Flooding

- Virginia Wetlands Catalog

- Coastal Flooding

Floodplains & Flooding Resilience
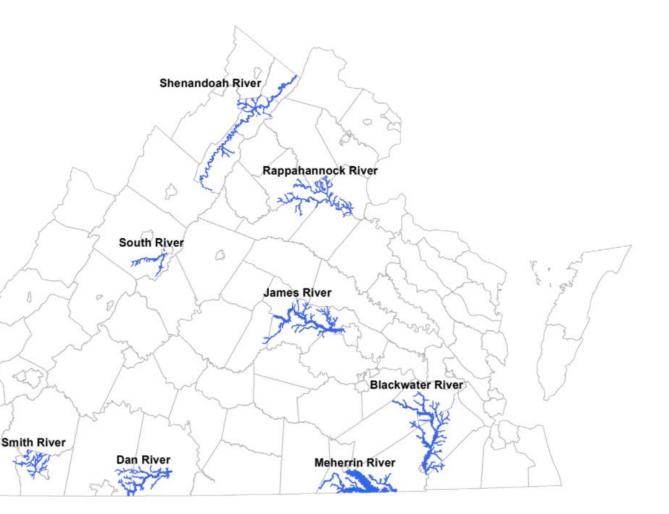
Riverine Flooding
- Forest and agricultural lands upstream of the 10 worst flooding disasters
- According to Commonwealth of Virginia Hazard Mitigation Plan
  - Based on risk, dollar losses, and federal disaster declarations

Floodplains & Flooding Resilience
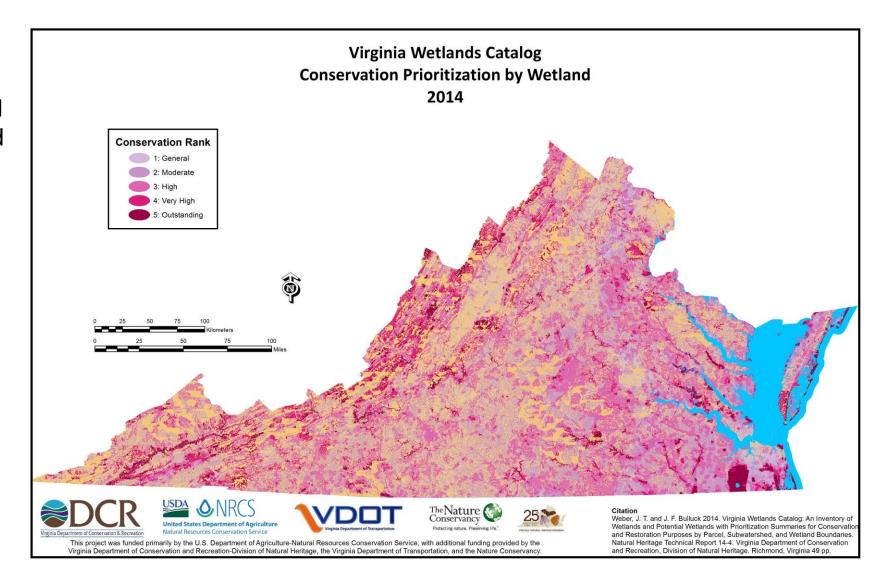
ConservationVision
   Virginia Wetlands Catalog
   - mapped and predicted wetlands, streams and floodplains
   - top two classes

Floodplains & Flooding Resilience
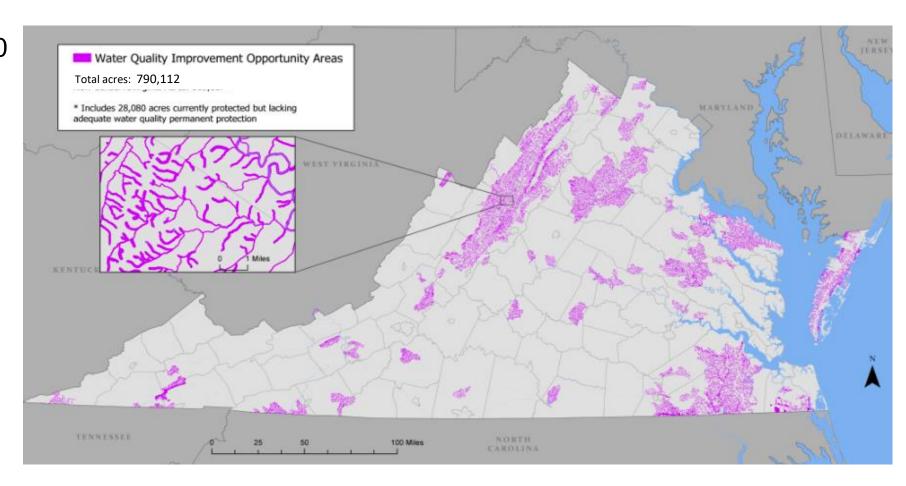
Coastal Flooding
- TNC Coastal Ecological Resiliency
    - Includes wetlands identified as above average or far above average resilience
    - Indicates the greatest long-term potential for adaptive response
    - Assumed a projected rise in sea level of 6 feet
- VIMS Marsh Migration and Marsh Building Model
    - Includes wetlands in the highest class in estuarine and freshwater areas that:
        - provide the highest ecological services
        - provide for the highest marsh migration potential to adjacent natural lands.

Water Quality Improvement

- New category for Version 2.0 (2020)

- Lands where protected vegetative buffers would be most effective to maintain and improve water quality

- Added 790,112 acres to ConserveVirginia

Water Quality Improvement
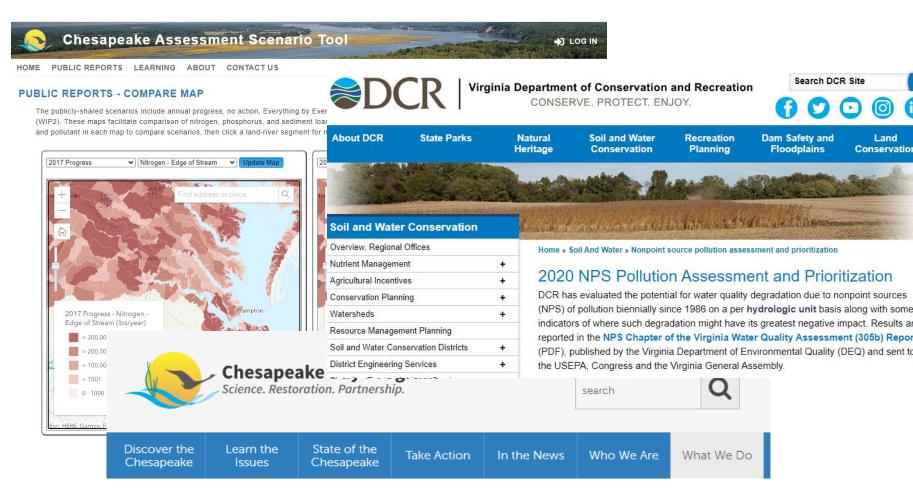
Pollutants
- Nitrogen, phosphorus, and sediment loadings from agricultural sources
  - Excluded sources:
    - Development
    - Natural
    - Septic
    - Wastewater
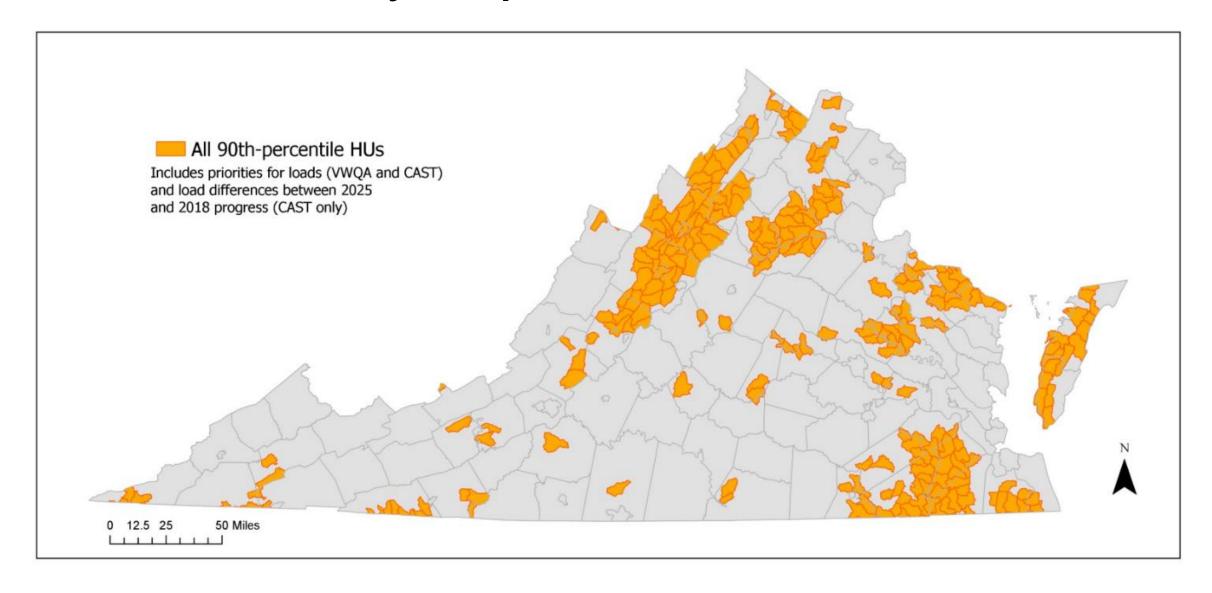
Assessments
- Chesapeake Bay Program Phase 6 Watershed Model (CAST-2018)
- Virginia Water Quality Assessment
- With consideration of the goals of the Chesapeake Bay Watershed Implementation Plan (WIP III).
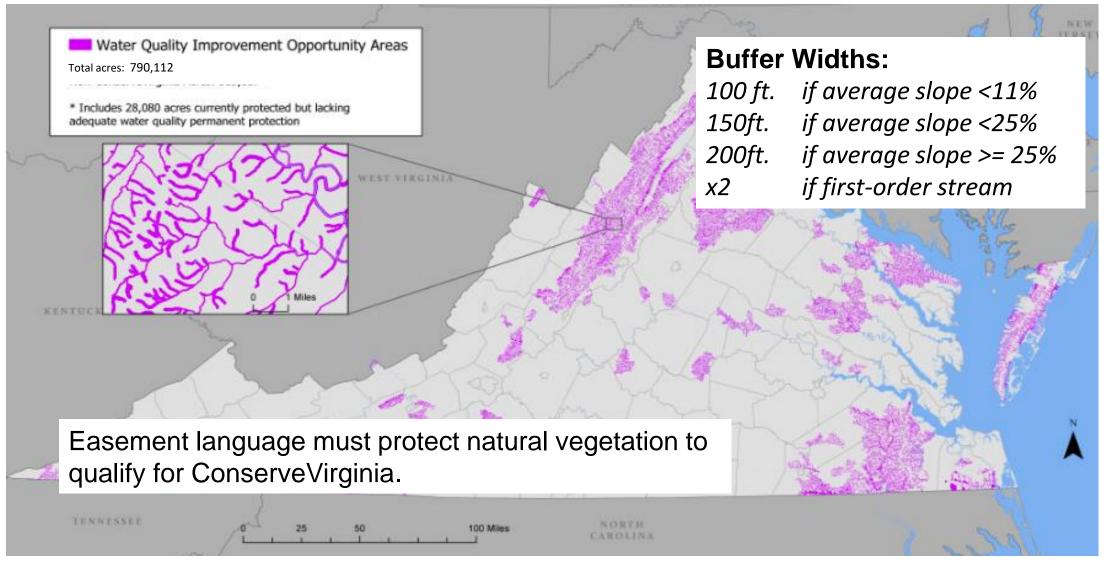
Water Quality Improvement

All 90th-percentile HUs

Includes priorities for loads (VWQA and CAST)
and load differences between 2025
and 2018 progress (CAST only)

0   12.5   25   50 Miles

Water Quality Improvement

Water Quality Improvement Opportunity Areas

Total acres: 790,112

* Includes 28,080 acres currently protected but lacking adequate water quality permanent protection

0   1 Miles

Buffer Widths:
100 ft.   *if average slope <11%*
150ft.   *if average slope <25%*
200ft.   *if average slope >= 25%*
x2   *if first-order stream*

Easement language must protect natural vegetation to qualify for ConserveVirginia.

Water Quality Improvement

New inputs for Version 3.0 (coming soon!)
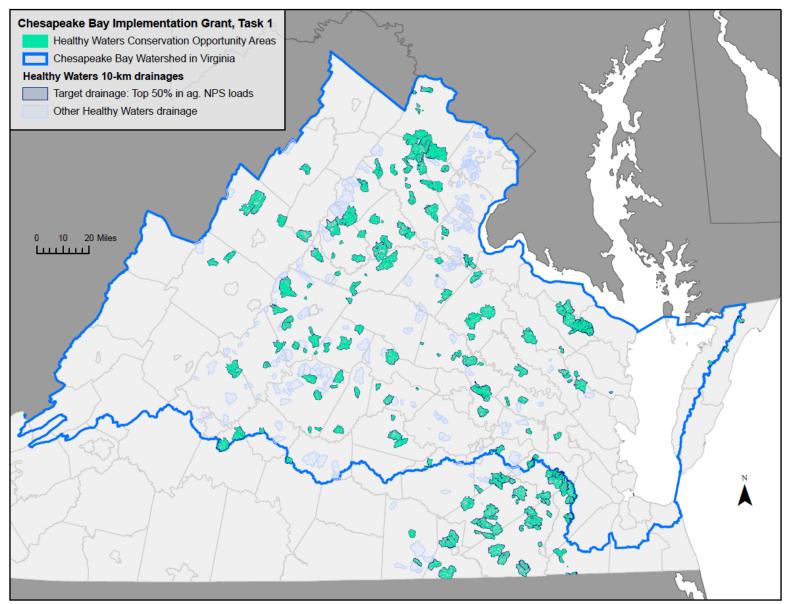
- Aquatic Life Conservation Opportunity Areas

- Healthy Waters Conservation Opportunity Areas

- Restoration Candidate BMP Opportunity Areas
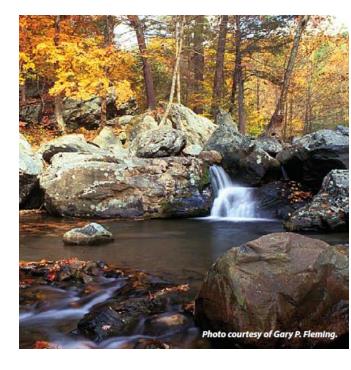
Water Quality Improvement Category
Aquatic Life Conservation Opportunity Areas

Macroinvertebrates are important bioindicators – organisms that act as living recorders of environmental conditions.

Water Quality Improvement Category
Healthy Waters Conservation Opportunity Areas

Chesapeake Bay Implementation Grant, Task 1
- Healthy Waters Conservation Opportunity Areas
- Chesapeake Bay Watershed in Virginia

Healthy Waters 10-km drainages
- Target drainage: Top 50% in ag. NPS loads
- Other Healthy Waters drainage

0   10   20 Miles

Photo courtesy of Gary P. Fleming.

HEALTHY WATERS
A new ecological approach to identifying and protecting healthy waters in Virginia
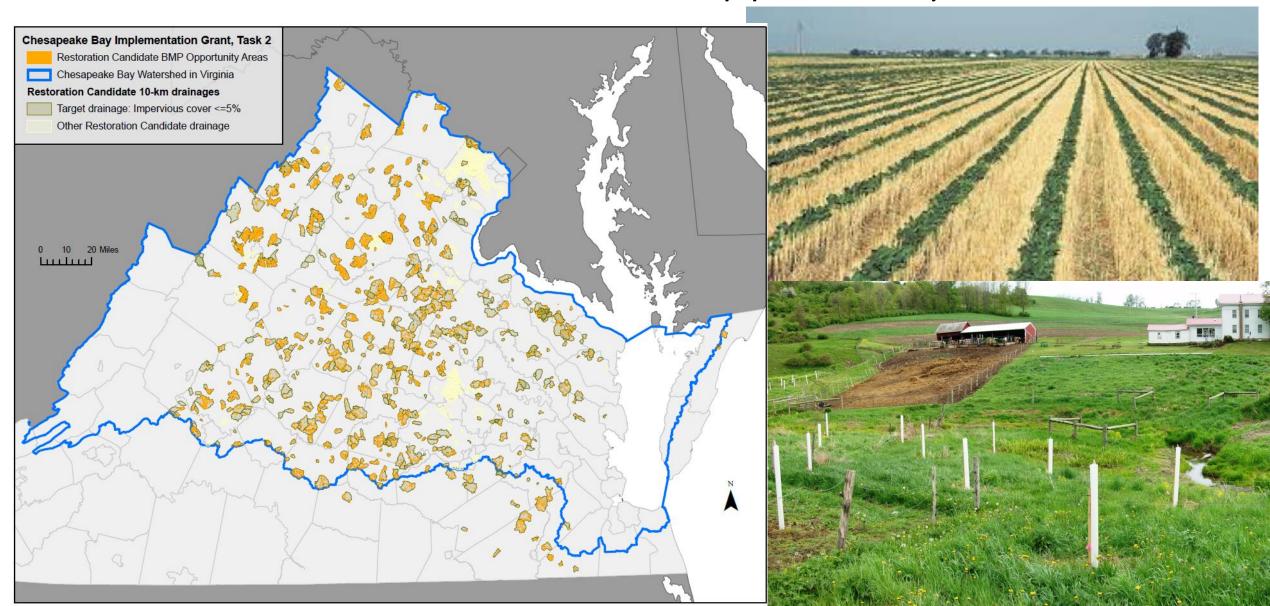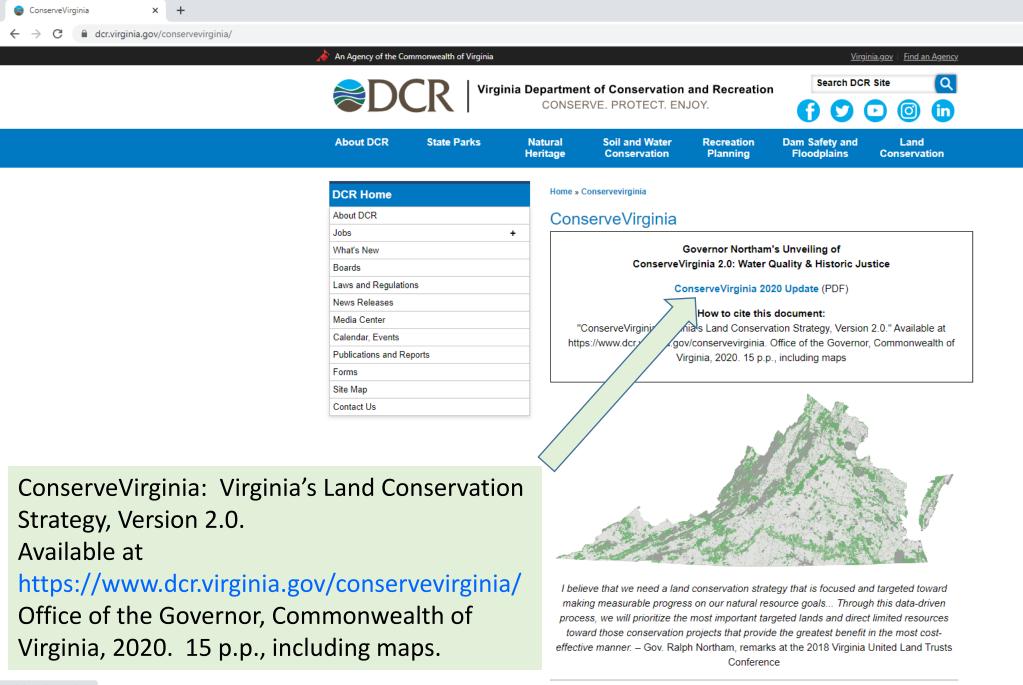
Water Quality Improvement Category
Restoration Candidate BMP Opportunity Areas

ConserveVirginia: Virginia's Land Conservation
Strategy, Version 2.0.
Available at
https://www.dcr.virginia.gov/conservevirginia/
Office of the Governor, Commonwealth of
Virginia, 2020. 15 p.p., including maps.

Water Quality Improvement

Outdoor Recreation
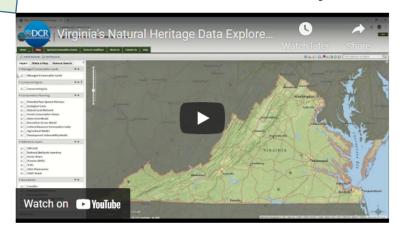
Outdoor recreation, including access for underserved communities, is a critical component of the strategy. In 2016, the Trust for Public Land reported that outdoor recreation generates $13.6 billion in consumer spending and $923 million in state and local tax revenues in Virginia. Identifying land conservation opportunities to expand upon recreational opportunities, on land and water, is a key consideration for conservation efforts across all ConserveVirginia categories. The Virginia ConservationVision Recreation Model is used to assess public access values of land conservation projects, to place emphasis on providing outdoor recreation opportunities in areas where there is currently greatest need.

To create ConserveVirginia, the commonwealth's highest value lands for conservation were identified by utilizing data from multiple sources including federal and state agencies, land trusts, non-profits and others. To learn more about the specific datasets used and in-depth category information, please review the full ConserveVirginia document (PDF).

How to use ConserveVirginia

To view detailed maps of ConserveVirginia and its land categories, visit the Virginia Natural Heritage Data Explorer.

the demonstration video below that shows how to use ConserveVirginia in NHDE.

How to use ConserveVirginia
in
Virginia Natural Heritage Data Explorer.

Pause | 00:00:00 | Select Area | Audio | Record Pointer

DCR | **Virginia Department of Conservation and Recreation**

Home | Map | Species/Communities Search | Terms & Conditions | About Us | Contact Us | Help

Welcome to the Virginia Department of Conservation and Recreation's
Natural Heritage Data Explorer

This site provides interactive access to various map data representing Natural Heritage resources and other conservation values in Virginia.

ConserveVirginia, Virginia's statewide land conservation plan, is now available here.

The Virginia Natural Heritage Data Explorer was updated on January 11, 2020. To ensure the updates work correctly, we recommend refreshing your browser's cache. Instructions can be found here: https://www.refreshyourcache.com/en/home/

This site should be viewed in Firefox version 3.6 or higher, Google Chrome, or Safari version 3 or higher, or Internet Explorer 10 or higher.

Open Access: You do not need to register for use, nor log in, if you are interested in using the site for land use planning or conservation planning. Anyone can freely view and create maps of conservation status and conservation values, by clicking the "**Map**" tab above. Click the "**Species/Communities Search**" tab to search our database and create summaries of Natural Heritage Resources (i.e. rare species populations and natural communities) by conservation status ranks, counties, watersheds, and other descriptors.

Subscription Access: A subscription *is* required to access additional sensitive Natural Heritage Resources data, and/or to use the site for project review. If you represent a company, conservation organization or government agency looking for this service, please send an email with contact information and how your organization or company will utilize the website to nhderegister@dcr.virginia.gov. We will respond to your
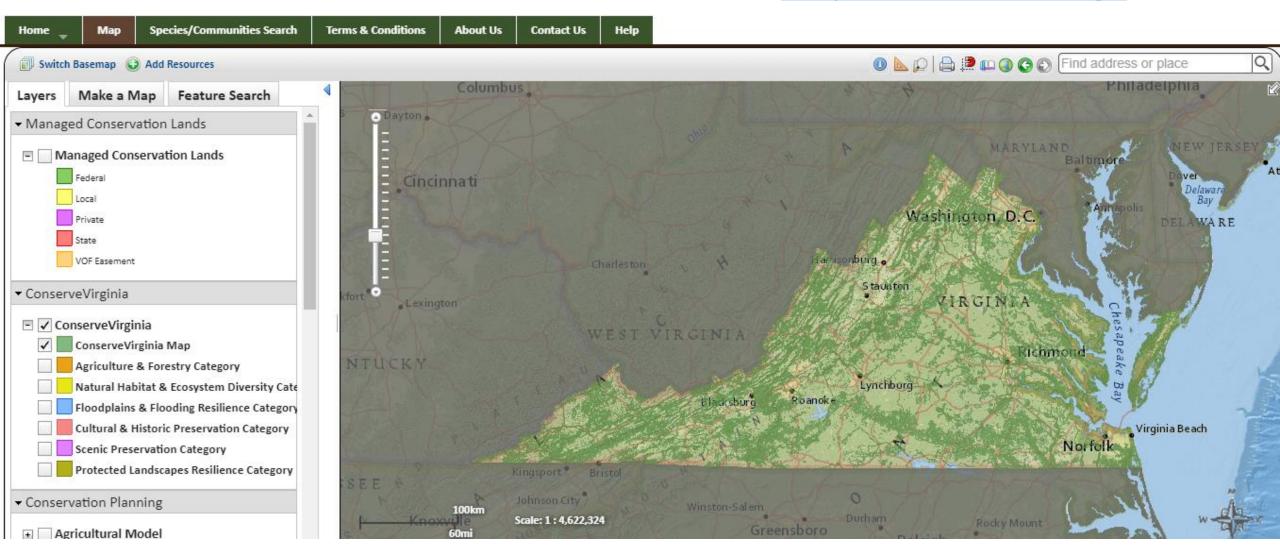
User login

E-mail or username *

Password *

- Create new account
- Request new password

Log in

ConserveVirginia on Natural Heritage Data Explorer

ConserveVirginia
SUCCESS STORIES - CHESAPEAKE BAY
WATERSHED
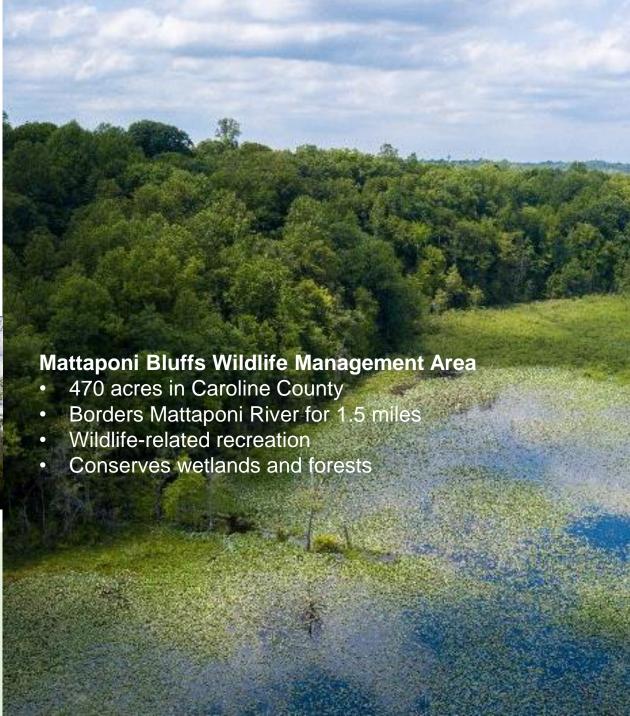
ConserveVirginia
SUCCESS STORIES

PUBLIC ACCESS AND HABITAT
New Wildlife Management Area

Mattaponi Bluffs Wildlife Management Area
- 470 acres in Caroline County
- Borders Mattaponi River for 1.5 miles
- Wildlife-related recreation
- Conserves wetlands and forests

ConserveVirginia Category:
PROTECTED LANDSCAPES RESILIENCE

ConserveVirginia
SUCCESS STORIES

Forest Preservation
Eastern Shore Forest Conservation Initiative

- Expands existing Wildlife Management Areas
- Facilitates natural marsh migration
- Supports coastal resilience
- Provides public access
- Includes critical habitat for migratory birds
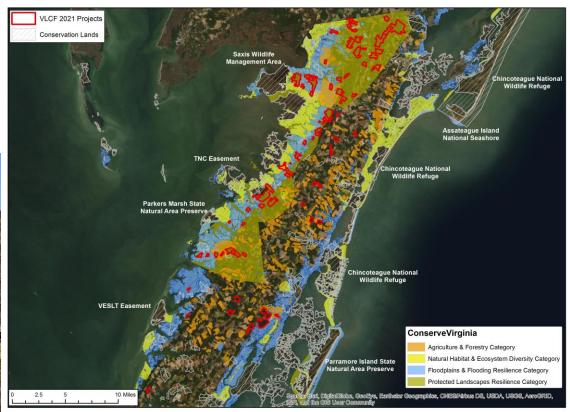- 8,654 acres total, including
  - 7,286 acres of forest
  - 6,000 acres of forested wetlands
  - 20 miles of streams

Eastern Shore Forest Conservation Initiative

VLCF 2021 Projects
Conservation Lands

Saxis Wildlife Management Area

Chincoteague National Wildlife Refuge

TNC Easement

Assateague Island National Seashore

Chincoteague National Wildlife Refuge

Parkers Marsh State Natural Area Preserve

Chincoteague National Wildlife Refuge

VESLT Easement

ConserveVirginia
Agriculture & Forestry Category
Natural Habitat & Ecosystem Diversity Category
Floodplains & Flooding Resilience Category
Protected Landscapes Resilience Category

Parramore Island State Natural Area Preserve

0   2.5   5   10 Miles

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ConserveVirginia Categories:
AGRICULTURE AND FORESTRY
NATURAL HABITAT AND ECOSYSTEM DIVERSITY
FLOODPLAINS AND FLOODING RESILIENCE
PROTECTED LANDSCAPE RESILIENCE

ConserveVirginia

SUCCESS STORIES

Natural Areas

Lyndhurst Ponds Natural Area Preserve

- Protects Shenandoah Valley Sinkhole Ponds
- Supports globally rare plant communities
- 349 acres, created new NAP

ConserveVirginia Categories:

NATURAL HABITAT AND ECOSYSTEM DIVERSITY

WATER QUALITY IMPROVEMENT

AGRICULTURE AND FORESTRY

FLOODPLAINS AND FLOODING RESILIENCE

ConserveVirginia

SUCCESS STORIES

Natural Areas

Cave Hill Natural Area Preserve

- Protects natural heritage resources
- Preserves significant geological features
- Has cultural significance
  - Used by Native American peoples
  - Explored by several founding fathers
- 117 acres, created new NAP

ConserveVirginia Categories:

NATURAL HABITAT AND ECOSYSTEM DIVERSITY

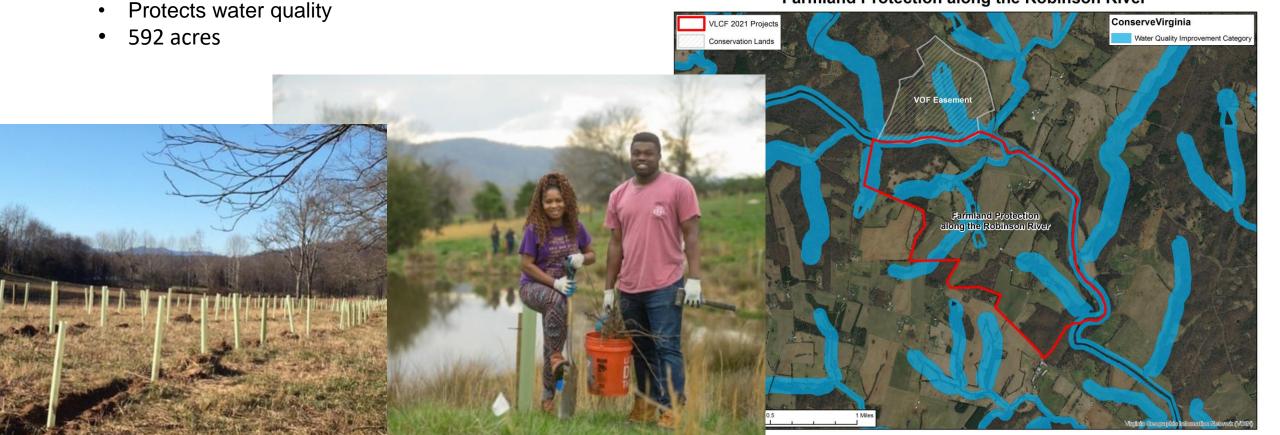**FLOODPLAINS AND FLOODING RESILIENCE**

WATER QUALITY IMPROVEMENT

ConserveVirginia
SUCCESS STORIES

Farmlands Preservation
Farmland Protection along the Robinson River

- Conserves working farmland
- Protects water quality
- 592 acres

Farmland Protection along the Robinson River

VLCF 2021 Projects
Conservation Lands

ConserveVirginia
Water Quality Improvement Category

VOF Easement

Farmland Protection
along the Robinson River

0.5   1 Miles

Virginia Geographic Information Network (VGIN)

ConserveVirginia
SUCCESS STORIES

Open Space and Parks
River Farm

- Protects 1,150 feet of mostly forested shoreline along the Potomac River
- Provides public access
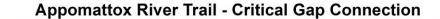- 24 acres

ConserveVirginia Categories:
SCENIC PRESERVATION

ConserveVirginia
SUCCESS STORIES

Open Space and Parks
Appomattox River Trail – Critical Petersburg Gap Connection

- Protects state scenic Appomattox River
- Completes the Appomattox River Trail
- Provides public access
- 8 acres, with over 2,000 ft. of riverfront

Appomattox River Trail - Critical Gap Connection

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Conserving Virginia's biodiversity through inventory, information management, protection, and stewardship