

State Lands Watershed Implementation Plan Briefing for Virginia Colleges and Universities

July 14, 2021



**Office of the Secretary of Natural and Historic
Resources**



Virginia Department of Environmental Quality





Source: ChooseCleanWater.org

“Stormwater runoff is among the most harmful and challenging sources of pollution to the Chesapeake Bay and its tributaries. Virginia has taken bold action to reduce nutrient and sediment pollution and we have made meaningful progress, but we must step up these efforts to achieve our clean water goals by 2025. As one of the largest landowners in the Bay watershed, this directive will ensure that the Commonwealth leads by example.”

Governor Northam

June 3, 2021

Executive Directive 17 Signing Ceremony

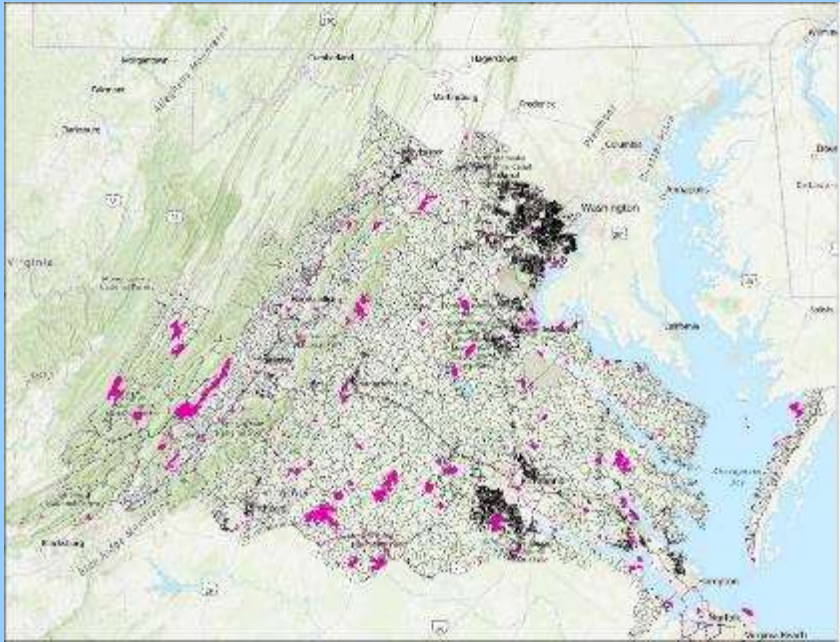
The Secretary of Natural Resources, in consultation with the Secretary of Administration and the Governor's Conservation Cabinet, will establish a team of state agency staff to develop a **state agency watershed implementation plan** to achieve significant reductions in nonpoint source nutrient and sediment pollution originating from the lands and activities of all state agencies, public institutions of higher learning and other state governmental entities that own/or manage land in Virginia. The first step in this process is the identification and mapping of all state owned and/or managed lands not already encompassed in local government efforts. Once the area of state-owned lands is established, the land use on these areas will be used to determine the aggregate level of nutrient reductions needed. **Virginia will strive to achieve reductions of nutrient and sediment pollution from state-owned and/or managed lands consistent with expectations of this WIP.** The team will consider innovative approaches to achieving the aggregate reductions most cost-effectively, including geographic targeting, trading, and maximizing co-benefits.

Phase III WIP – Initiative #3

State Lands WIP Team

- **Ann Jennings, Office of Natural Resources**
- **Katie Sallee, Office of Natural Resources**
- **Mike Nolan, Department of General Services**
- **Ed Zimmer, Department of Forestry**
- **Timothy Newton, Department of Corrections**
- **Meghan Mayfield, Department of Corrections**
- **Tom Allen, Old Dominion University**
- **George McLeod, Old Dominion University**
- **Chad Peevy, Old Dominion University**
- **Chris Swanson, Department of Transportation**
- **Ed Wallingford, Department of Transportation**
- **Tracey Harmon, Department of Transportation**
- **Stephen Schoenholtz, Virginia Water Resources Research Center**
- **Brian Benham, Virginia Tech**
- **David Spears, Department of Mines, Minerals, and Energy**
- **Kristin Carter, University of Virginia**
- **Nathan Burrell, Department of Conservation and Recreation**
- **Gray Anderson, Department of Wildlife Resources**
- **James Martin, Department of Environmental Quality**
- **Arianna Johns, Department of Environmental Quality**
- **Megan Sommers Bascone, Department of Environmental Quality**

Mapping State Lands



Develop State Lands GIS

Contract for Development

Review by SWIP Team

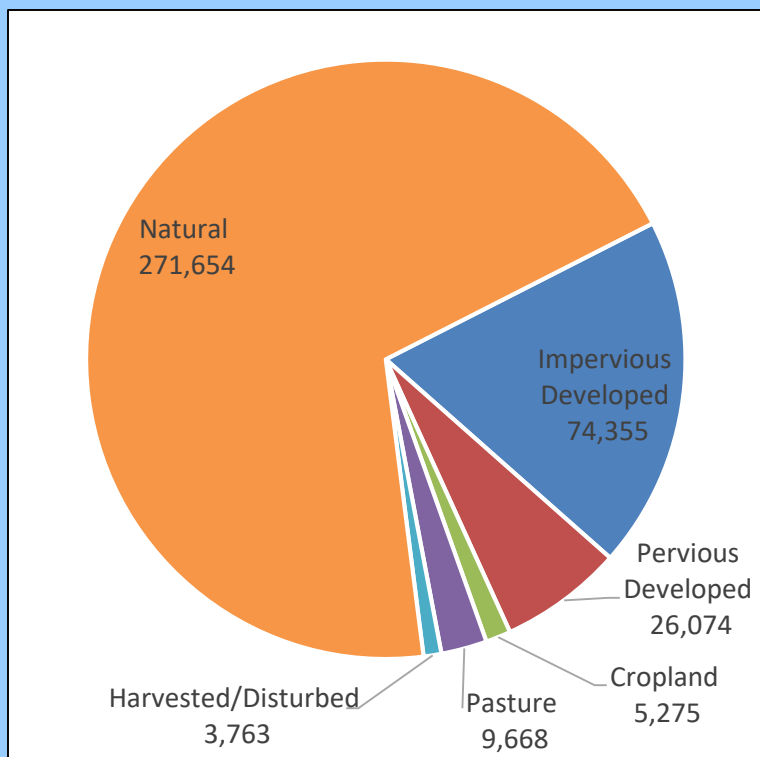
Corrections

3,703 Polygons, 451,477 Acres

Hosting and Future Maintenance

State Land Area	Number of Polygons
< 1 acre	1,648
> 1 acre < 5 acres	590
> 5 acres < 10 acres	232
> 10 acres < 50 acres	352
> 50 acres < 100 acres	126
> 100 acres < 1,000 acres	328
> 1,000 acres	50

Land Use and Loads



Intersect with Land Use
2013 Imagery Based Land Use
Calculate Load Reduction Goals
Exclude MS4 Impervious Areas
Reductions Consistent with WIP III
122,000 Pounds N, 10,100 Pounds P
Develop SWIP to Meet Reduction Goals

Basin	SWIP Acres	Total N Reduction (lbs.)	Total P Reduction (lbs.)
Potomac	62,915	28,000	3,200
Rappahannock	33,941	22,000	800
York	51,284	17,000	900
James	230,415	47,000	4,800
Eastern Shore	12,234	8,000	400
Virginia Bay Watershed	390,789	122,000	10,100

FARM AND FOREST LANDS

- ✓ Chesapeake Bay Goals
- ✓ Local Water Quality
- ✓ Soil Health
- ✓ Carbon Sequestration
- ✓ Farm Sustainability
- ✓ Wildlife Corridors



MANAGED TURF

- ✓ Chesapeake Bay Goals
 - ✓ Local Water Quality
 - ✓ Reduce Water Use
 - ✓ Reduce Air Pollution
 - ✓ Wildlife Habitat
 - ✓ Pollinator Habitat
 - ✓ Picturesque Scenery



DEVELOPED LANDS

- ✓ Chesapeake Bay Goals
- ✓ Local Water Quality
- ✓ Reduce Water Use
- ✓ Reduce Urban Heat Islands
- ✓ Reduce Flooding



FOREST BUFFERS & TREE CANOPIES

✓ Chesapeake Bay Goals

- ✓ Local Water Quality**
 - ✓ Reduce Erosion**
- ✓ Improve Air Quality**
- ✓ Reduce Urban Heat Islands**
- ✓ Wildlife Habitat**
- ✓ Flood Control**
- ✓ Carbon Sequestration**



WETLAND & STREAM RESTORATION

- ✓ Chesapeake Bay Goals
- ✓ Local Water Quality
- ✓ Wildlife Habitat
- ✓ Public Safety
- ✓ Erosion & Flood Control



Living Shorelines

- ✓ Chesapeake Bay Goals
 - ✓ Local Water Quality
 - ✓ Shoreline Protection
- ✓ Coastal Resilience
 - ✓ Reduce Erosion
 - ✓ Wildlife Habitat
 - ✓ Carbon Sequestration



SEPTIC SYSTEMS, PET WASTE, OUTREACH & EDUCATION

- ✓ Chesapeake Bay Goals
- ✓ Local Water Quality
 - ✓ Public Health
 - ✓ Public Support



A photograph of a red cardinal perched on a light-colored rock. The background is a blurred natural landscape with trees and foliage. The text is overlaid on the image.

State Lands WIP Interagency Technical Team

**James Martin & Megan Sommers Bascone with DEQ
Tracey Harmon & J. Alex Forasté with VDOT
Louise Finger and Gray Anderson with DWR
Ed Zimmer with DOF
Meghan Mayfield with DOC
Forrest Atwood with DCR
Kristin Carter with UVA**

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Questions?