



Chesapeake Bay Program  
*Science. Restoration. Partnership.*



# Intersection of Protected Lands and Forested Lands in the Chesapeake Bay Watershed

Sophie Waterman, USGS  
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# Data Used

- 2024 Protected Lands Indicator:  
[https://gis.chesapeakebay.net/ags/rest/services/ChesapeakeProgress/cpProtectedLands\\_2024/MapServer](https://gis.chesapeakebay.net/ags/rest/services/ChesapeakeProgress/cpProtectedLands_2024/MapServer)
- Chesapeake Bay Land Use/Land Cover (LULC) Database 2024 Edition T3:  
<https://www.usgs.gov/data/chesapeake-bay-land-use-land-cover-lulc-database-2024-edition>



# What do we count as a forest?

## Land Use/Land Cover General (18) Classes

- Forest: Tree canopy with an unmanaged understory that is part of a large patch. Large patches are at least 1-acre in area with a minimum patch diameter of 36-meters (~120 feet) and may include areas of early successional forest (natural succession and harvested forest). Smaller patches of tree canopy are classed as forest if they are part of a large early-successional forest patch and comprise at least 10% of the patch area. Forests that are also wetlands are included in this class.
- Forest, Other: Small patches of contiguous tree canopy that do not meet forest area and/or width requirements, such as agricultural windbreaks and small woodlots, where the understory is assumed to be undergoing natural or managed succession. Trees within wetlands are included in this class.



# Questions asked of the data

How many acres of protected lands are forested?

How many acres of forest are protected?

How many acres of land in easements are forested?

How many acres of protected forested land are in each jurisdiction?

Who owns the protected forested land?



How many acres of protected lands are forested?

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- 7,103,907 acres of our 9,273,380 acres of protected lands are forested
- 77% of our protected lands are forested





How many acres of forested lands are protected?

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- There are 24,457,241.7 acres of forest in the watershed; 7,103,907 of those acres are protected.
- 29% of forested lands are protected





How many acres of land in easements are forested?

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- There are 1,132,594 acres of protected lands in easements in the watershed
  - 2,574,351 acres of easements are forested
  - 44% of the land in easements is forested





# How many acres of protected + forested land are in each jurisdiction?

Jurisdiction	Acreages of Protected Forest	Total Acres of Protected Land in Jurisdiction	Percent of Protected Lands that are forested
Delaware	70,234.80	130,605.51	54%
DC	4,925.56	8,385.66	59%
Maryland	929,873.57	1,700,265.61	55%
New York	276,966.83	307,392.99	90%
Pennsylvania	3,023,978.60	3,688,214.42	82%
Virginia	2,493,238.29	3,118,595.18	80%
West Virginia	304,689.30	319,920.85	95%
<b>Watershed</b>	7,103,906.95	9,273,380.22	77%



# Who owns the protected forested lands?

Own Type	Acreages of Protected Forest	Total Acres of Protected Land by Own type	Percent of Protected Lands that are forested
Federal	1,931,612.76	2,100,186.32	92%
State	3,709,343.15	4,144,238.54	90%
Private	981,675.10	2,273,297.72	43%



## 2022 Numbers (2022 PLI and 2021/22 LULC)



- Protected Forests: 7,052,200.81 acres
- Total Forests: 24,457,241.7 acres
- Total Protected Lands: 9,190,273.32 acres
- 77% of protected lands are forested
- 29% of forested lands are protected



A close-up photograph of dark, woody branches of a flowering tree, likely cherry, covered in clusters of small, vibrant pink blossoms. The background is a clear, bright blue sky, slightly out of focus. A semi-transparent white rectangular box with rounded corners and a thin green border is centered in the image, containing the text.

Why is it so hard to look at  
historic protected lands data?





# PLI Data Quality Issues

- Inconsistent schema usage (74% Non-Compliant w/PADUS 3.1 Schema)
- Duplicate and overlapping polygons (76% of records overlap by  $\leq 25\%$ )
- Omission of required attribute data
  - **Date of Establishment (Missing in 38% of records)**
  - GAP Status (Missing in 45% of records)
  - Public Access (Missing in 36% of records)
- Unique masking requirements by jurisdiction
- Inconsistent with PAD-US dataset
  - Not the same data sources
    - PAD-US uses The Nature Conservancy, The Conservation Fund, and The Trust for Public Lands



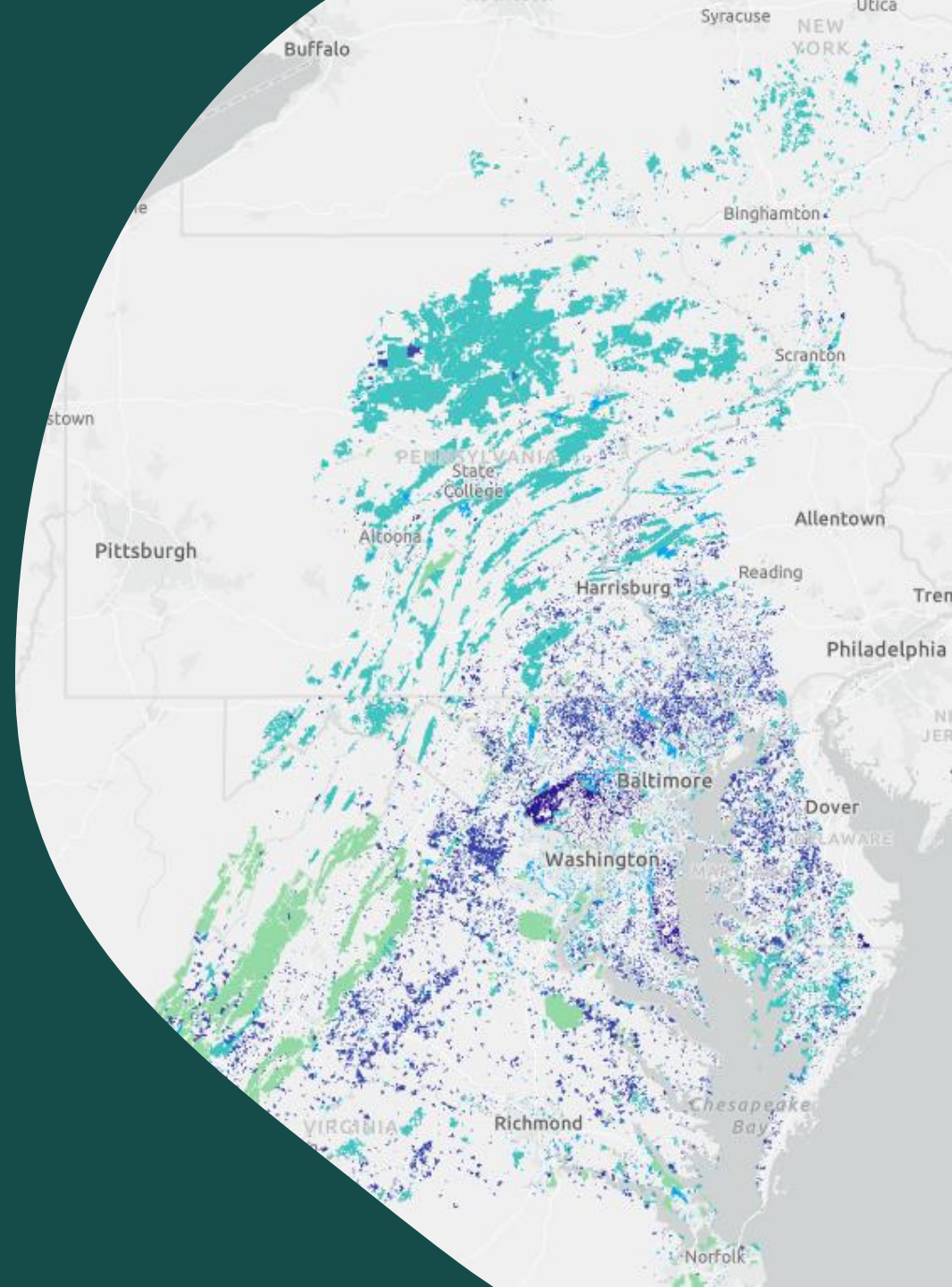
# Create and Implement a Standardized Schema for Protected Lands Data and Attributes

## Standard PLI Schema

- Consensus on the PLI schema
- What fields should be required?
  - DoE
  - GAP Status
  - Public Access

## Improve Attribution

- **Attribution of DoE**
  - NFWF-funded project to fill DoE gaps
- Attribution completion goals
- How will missing data and non-compliant submissions be treated?





# Next Steps



- Riparian Forest Numbers
  - How many acres of forest are there in riparian areas?
  - How much of those forests are protected?
  - What jurisdictions protect the most riparian forests?



All photos are from the [Chesapeake Bay Program Flickr](#)