

Healthy Watersheds Indicator

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Healthy Watersheds GIT
April 8, 2024



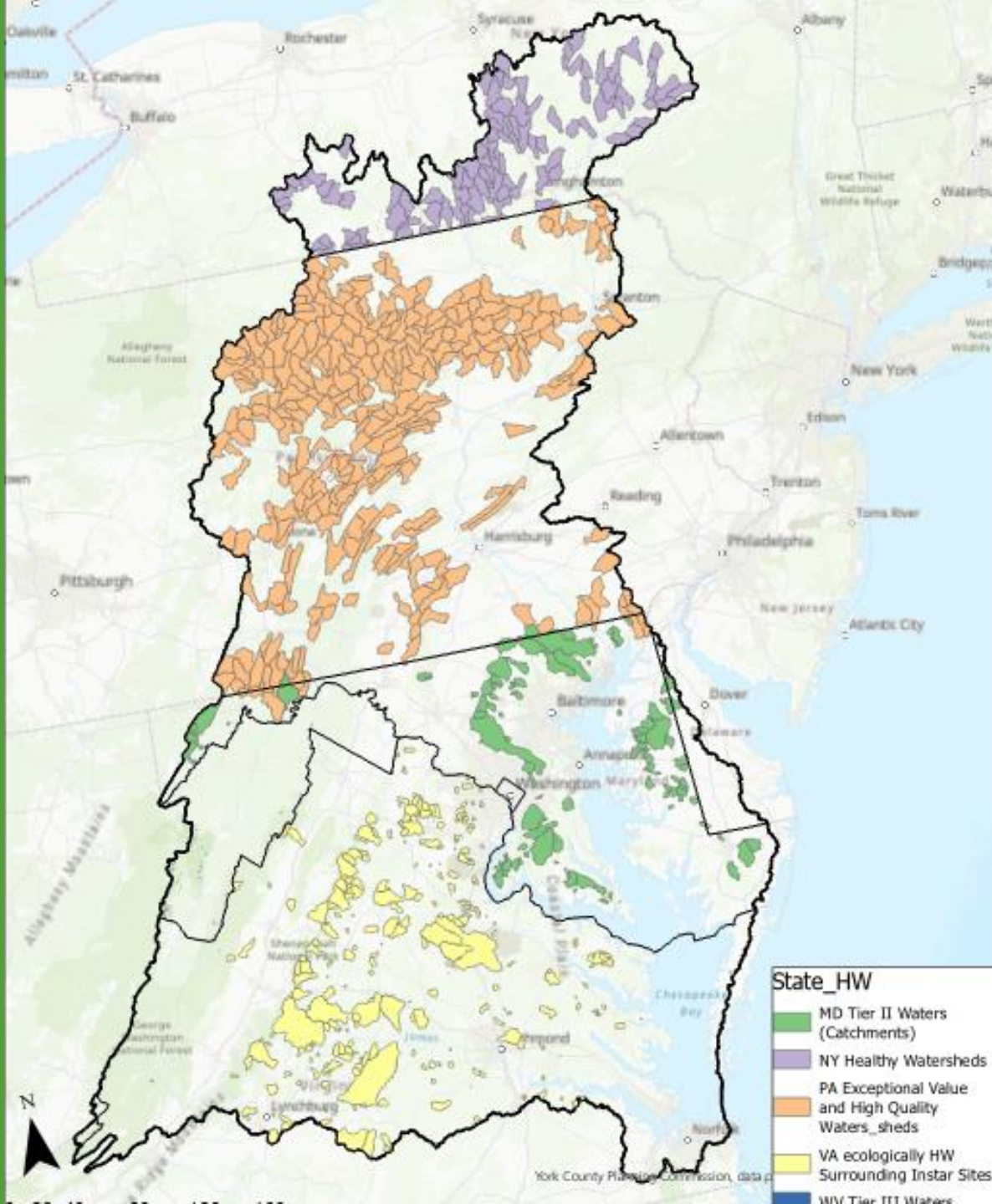
Healthy Watersheds Goal

Goal: Sustain state-identified healthy waters and watersheds recognized for their high quality and/or high ecological value

Outcome: 100 percent of state-identified healthy waters and watersheds remain healthy.


Proposed Indicators

- Monitor the landscape within the state-identified healthy watersheds using 1-meter resolution Land Use/Land Cover and 2022 Protected Lands dataset.
- Metrics:
 - Percent and Acres of Impervious in 2017/18 and change from 2013/14-2017/18
 - Percent and Acres of protected natural lands in 2017/18



Chesapeake Bay 1-meter Land Use/Cover Classification: 18-Classes for Visualization


1. Roads (1)

 20 Roads


2. Structures (2)

 21 Structures
90 Agricultural Structures

3. Impervious, Other (4)

 22 Other Impervious (Parking lots, driveways)
31 Extractive Impervious
32 Solar Field Panel Arrays
91 Animal Operation Impervious

4. Tree Canopy Over Impervious (5)

 23 TC over Roads
24 TC over Structures
25 TC over Other Impervious
94 TC over Agricultural Structure
95 TC over Animal Operation Impervious


5. Turf Grass (1)

 27 Turf Grass

6. Tree Canopy over Turf Grass (1)

 26 Tree Canopy over Turf Grass


7. Pervious, Developed (7)

 28 Bare Developed
33 Solar Field Barren
34 Solar Field Herbaceous
35 Solar Field Shrubland
36 Suspended Succession Barren
37 Suspended Succession Herbaceous
38 Suspended Succession Shrubland

8. Forest (4)

 40 Forest
54 Riverine Wetlands Forest
64 Terrene Wetlands Forest
74 Tidal Wetlands Forest


9. Tree Canopy, Other (4)

 41 Tree Canopy, Other
53 Riverine Wetlands Tree Canopy
63 Terrene Wetlands Tree Canopy
73 Tidal Wetlands Tree Canopy


10. Harvested Forest (5)

 45 Harvested Forest Barren
46 Harvested Forest Herbaceous
55 Riverine Wetlands Harvested Forest
65 Terrene Wetlands Harvested Forest
75 Tidal Wetlands Harvested Forest


11. Natural Succession (4)

 42 Natural Succession Barren
43 Natural Succession Herbaceous
44 Natural Succession Shrubland
15 Bare Shore

12. Cropland (5)

 80 Cropland Barren
81 Cropland Herbaceous
82 Orchards and Vineyards Barren
83 Orchards and Vineyards Herbaceous
84 Orchards and Vineyards Shrubland

13. Pasture and Hay (4)

 85 Pasture/Hay Barren
86 Pasture/Hay Herbaceous
92 Animal Operation Barren
93 Animal Operation Herbaceous

14. Extractive (1)

 30 Extractive Barren

15. Tidal Wetlands, non-forested (3)

 70 Tidal Wetlands Barren
71 Tidal Wetlands Herbaceous
72 Tidal Wetlands Shrubland


16. Riverine Wetlands, non-forested (3)

 50 Riverine Wetlands Barren
51 Riverine Wetlands Herbaceous
52 Riverine Wetlands Shrubland

17. Terrene Wetlands, non-forested (3)

 60 Terrene Wetlands Barren
61 Terrene Wetlands Herbaceous
62 Terrene Wetlands Shrubland

18. Water (5)

 10 Tidal Waters
11 Lakes & Reservoirs
12 Riverine Ponds
13 Terrene Ponds
14 Streams and Rivers (visible water)

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Natural

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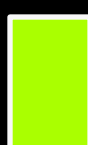
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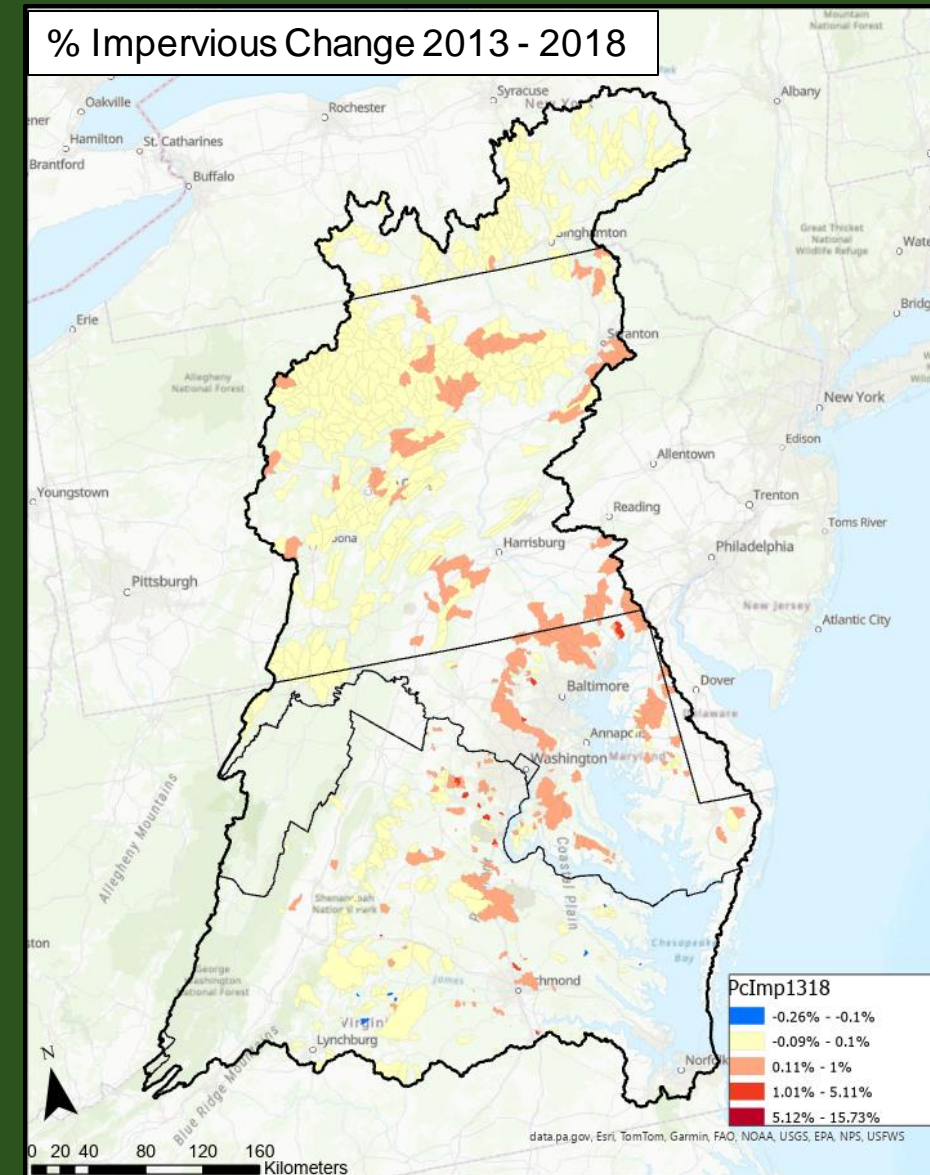
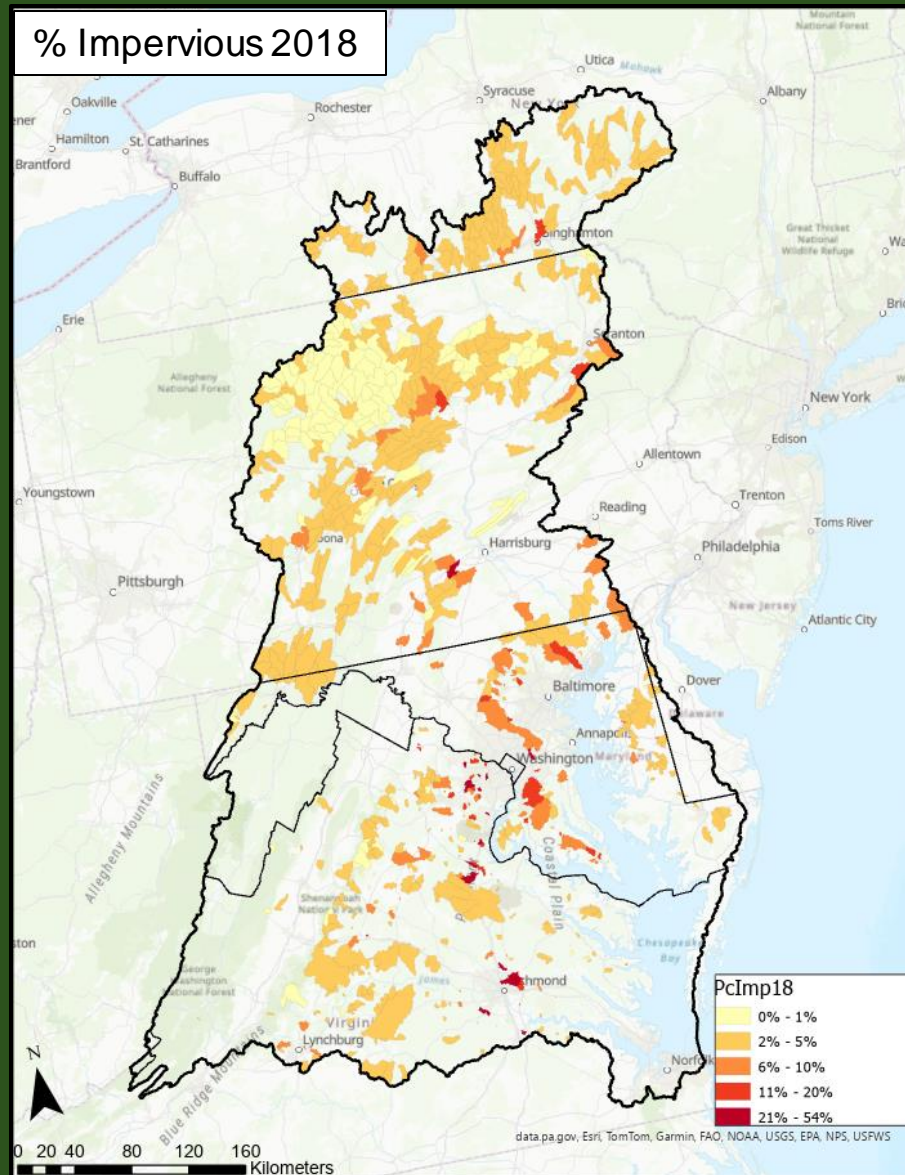
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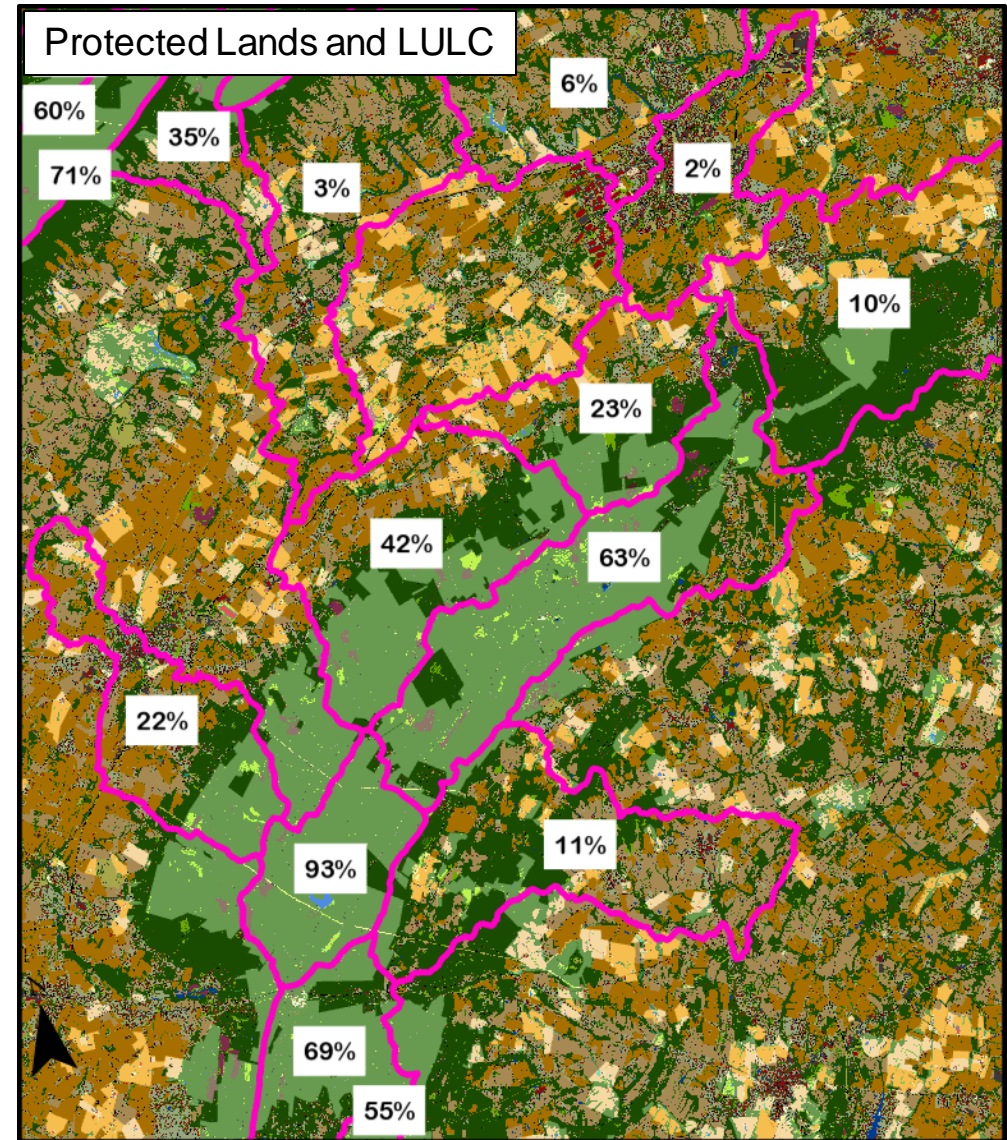
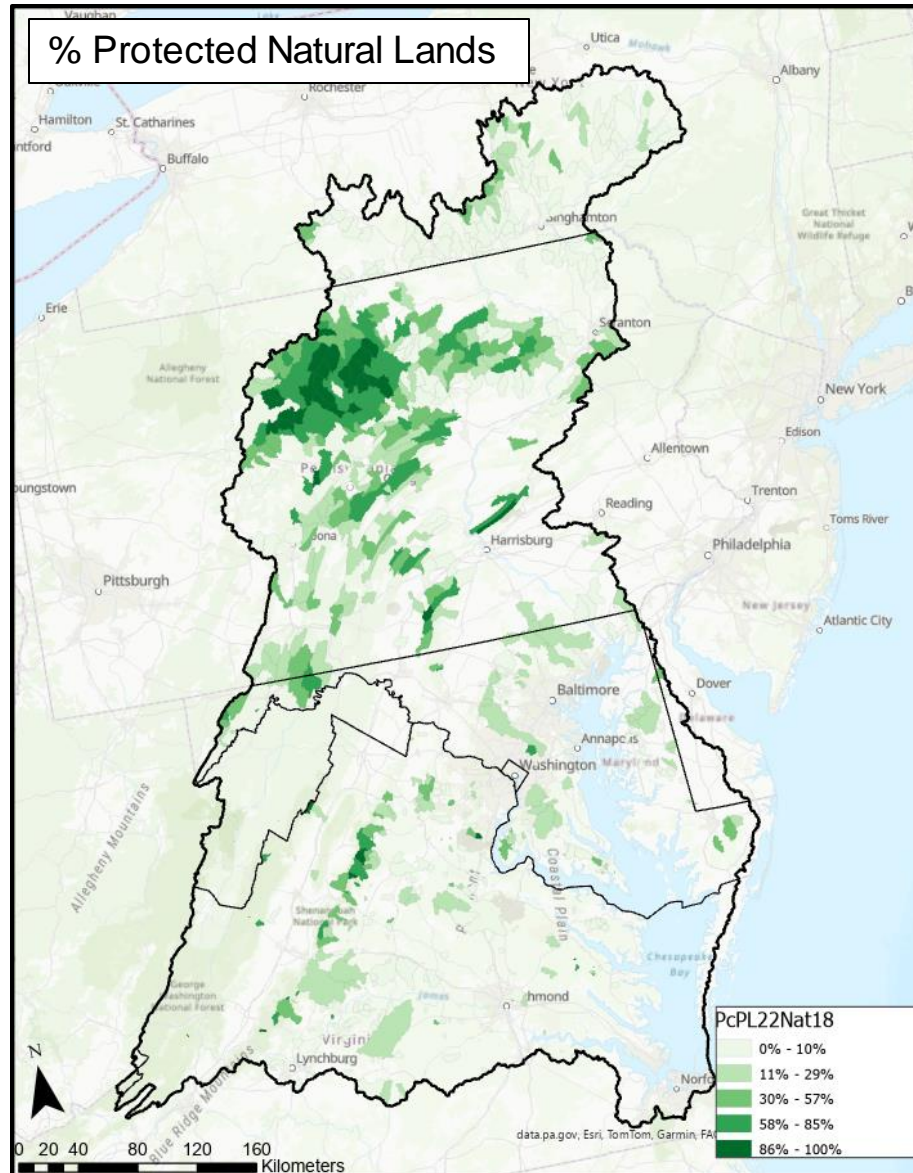
Impervious and Impervious Change in State-Identified Healthy Watersheds



Impervious and Impervious Change in State-Identified Healthy Watersheds by State

State	Impervious (2018) Acres	Impervious (2013-2018) Acres	% Impervious (2018)	% Impervious (2013-2018)	State-Identified Land Acres
MD	68,189	2,754	5.19%	0.21%	1,313,522
NY	41,932	251	2.61%	0.02%	1,607,476
PA	132,289	4,747	2.13%	0.08%	6,210,112
VA	73,530	2,017	3.47%	0.10%	2,118,674
WV	1	0	0.40%	0.00%	251

Protected Natural Lands in State-Identified Healthy Watersheds



Protected Natural Lands in State-Identified Healthy Watersheds by State

State	Protected Natural Lands Acres	% Protected Natural Lands
MD	280,545	21%
NY	115,507	7%
PA	2,322,188	37%
VA	324,434	15%
WV	247	98%

Land Use/Land Cover (2018) in State-Identified Healthy Watersheds

Baltimore County, Maryland

2013 Imagery



2018 Imagery



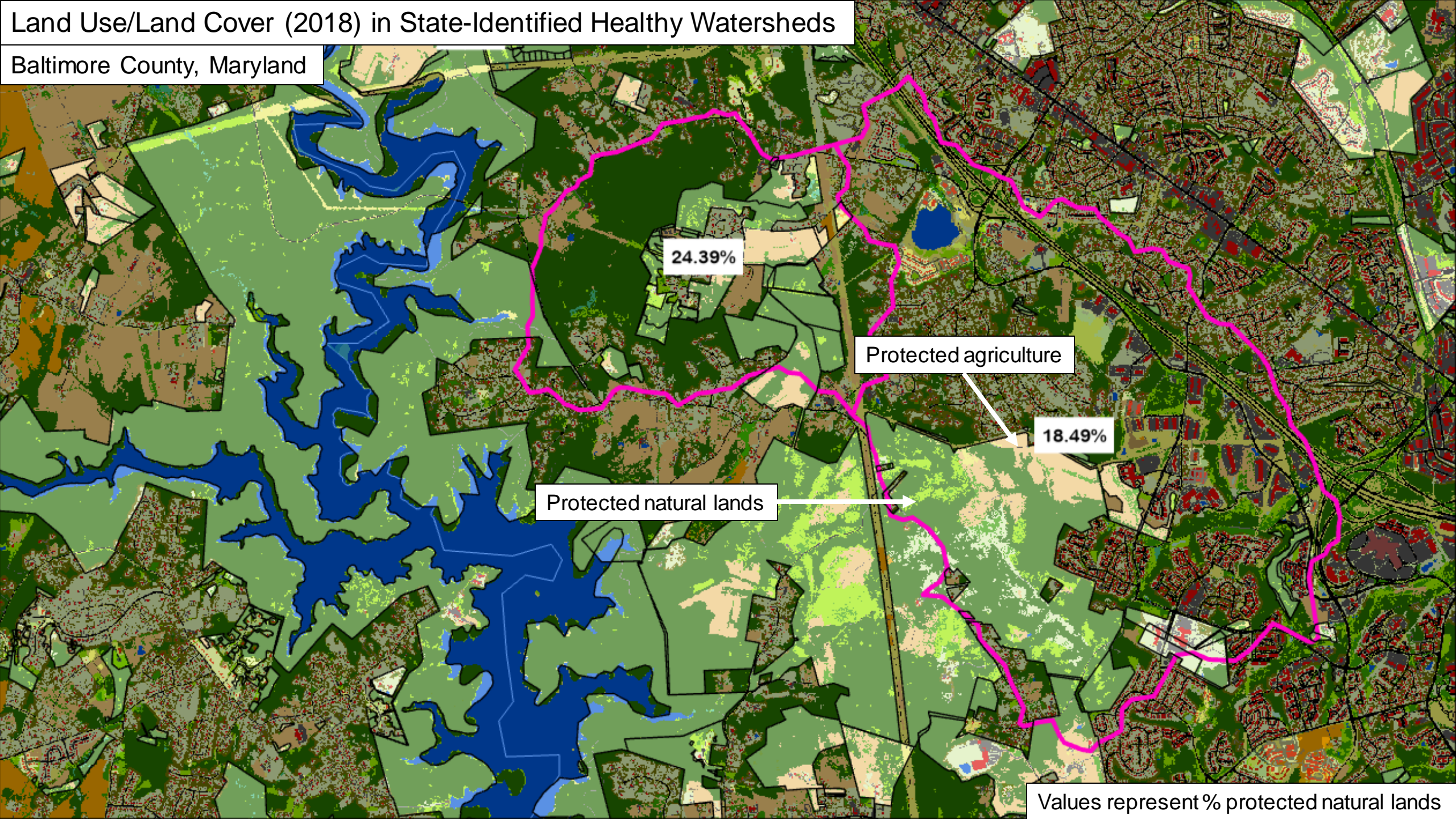
4.41%, 0.11%

18.24%, 1.32%

Values represent % impervious and % impervious change.

Land Use/Land Cover (2018) in State-Identified Healthy Watersheds

Baltimore County, Maryland



Land Use/Land Cover (2017) in State-Identified Healthy Watersheds

Steuben and Yates Counties, New York

2013 Imagery



2017 Imagery

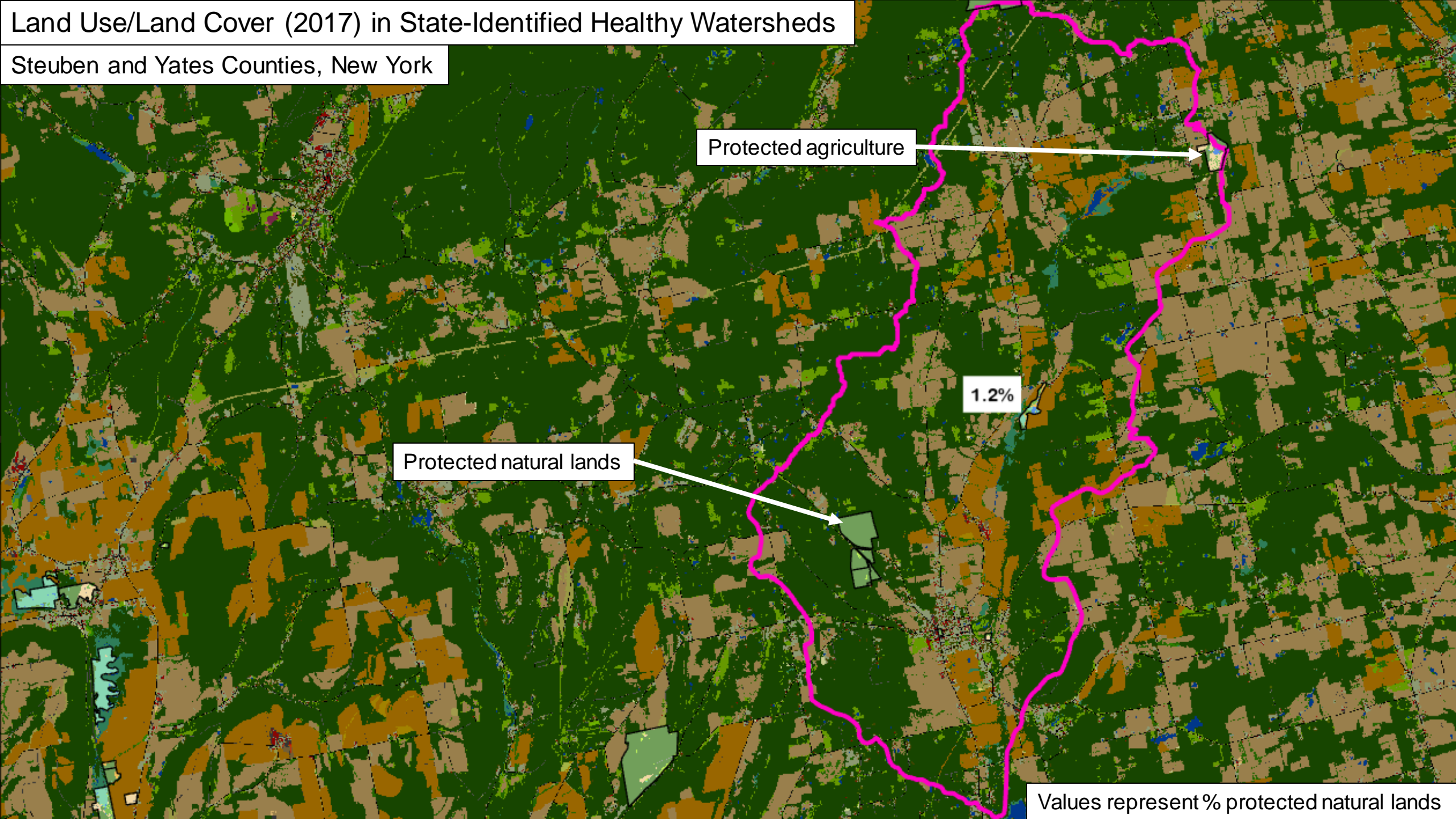


2.36%, 0.03%

Values represent % impervious and % impervious change.

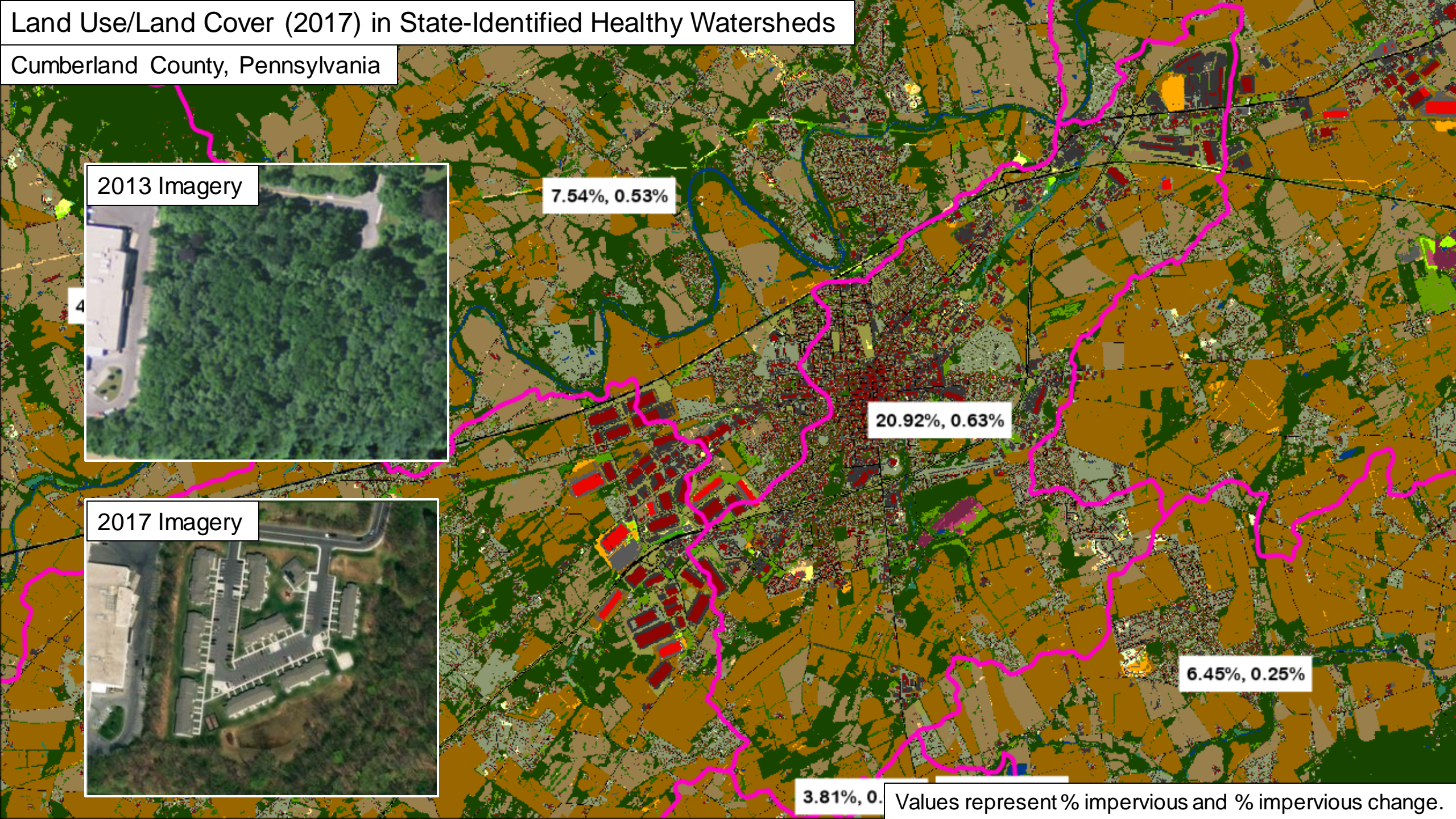
Land Use/Land Cover (2017) in State-Identified Healthy Watersheds

Steuben and Yates Counties, New York



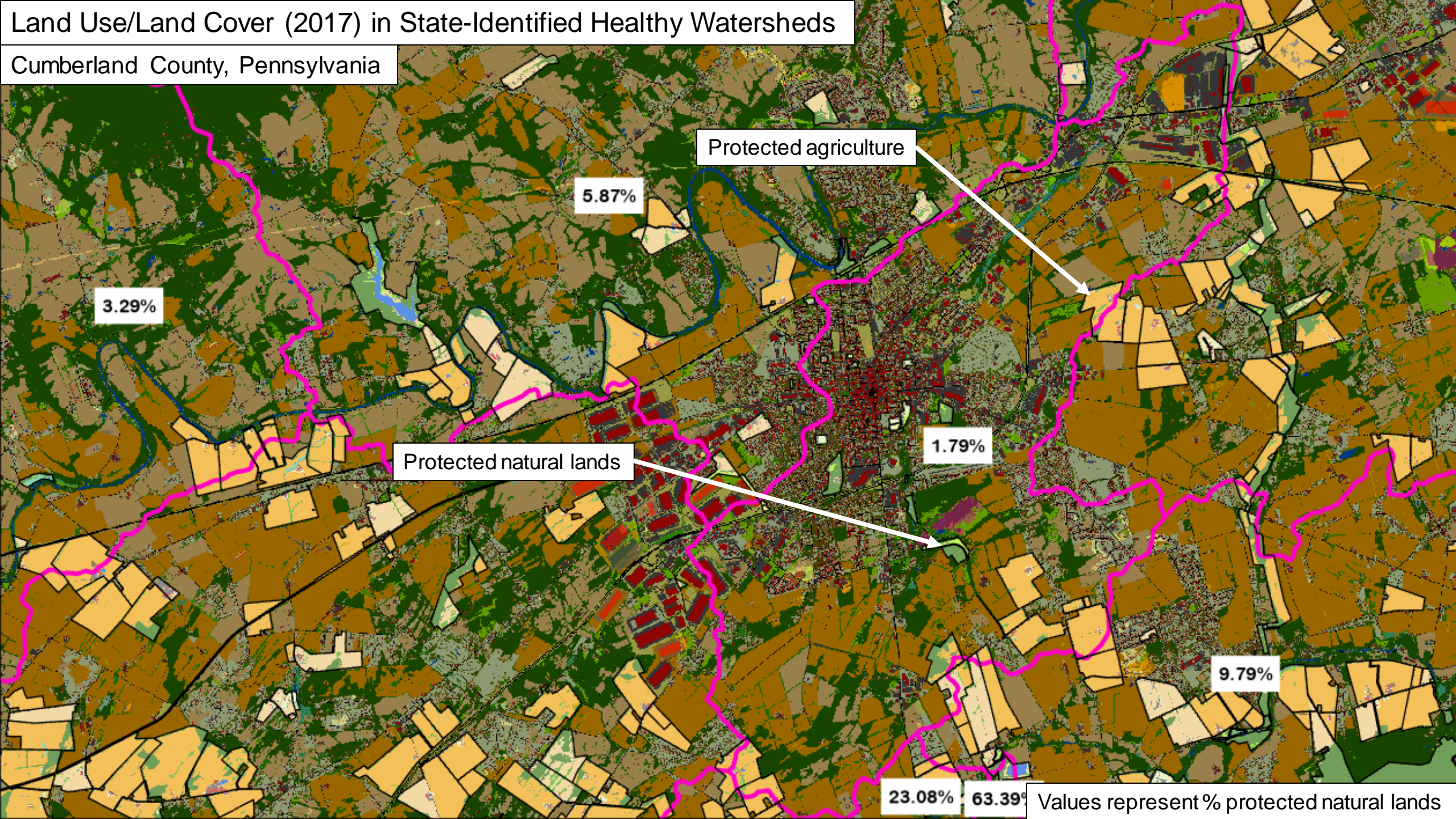
Land Use/Land Cover (2017) in State-Identified Healthy Watersheds

Cumberland County, Pennsylvania



Land Use/Land Cover (2017) in State-Identified Healthy Watersheds

Cumberland County, Pennsylvania



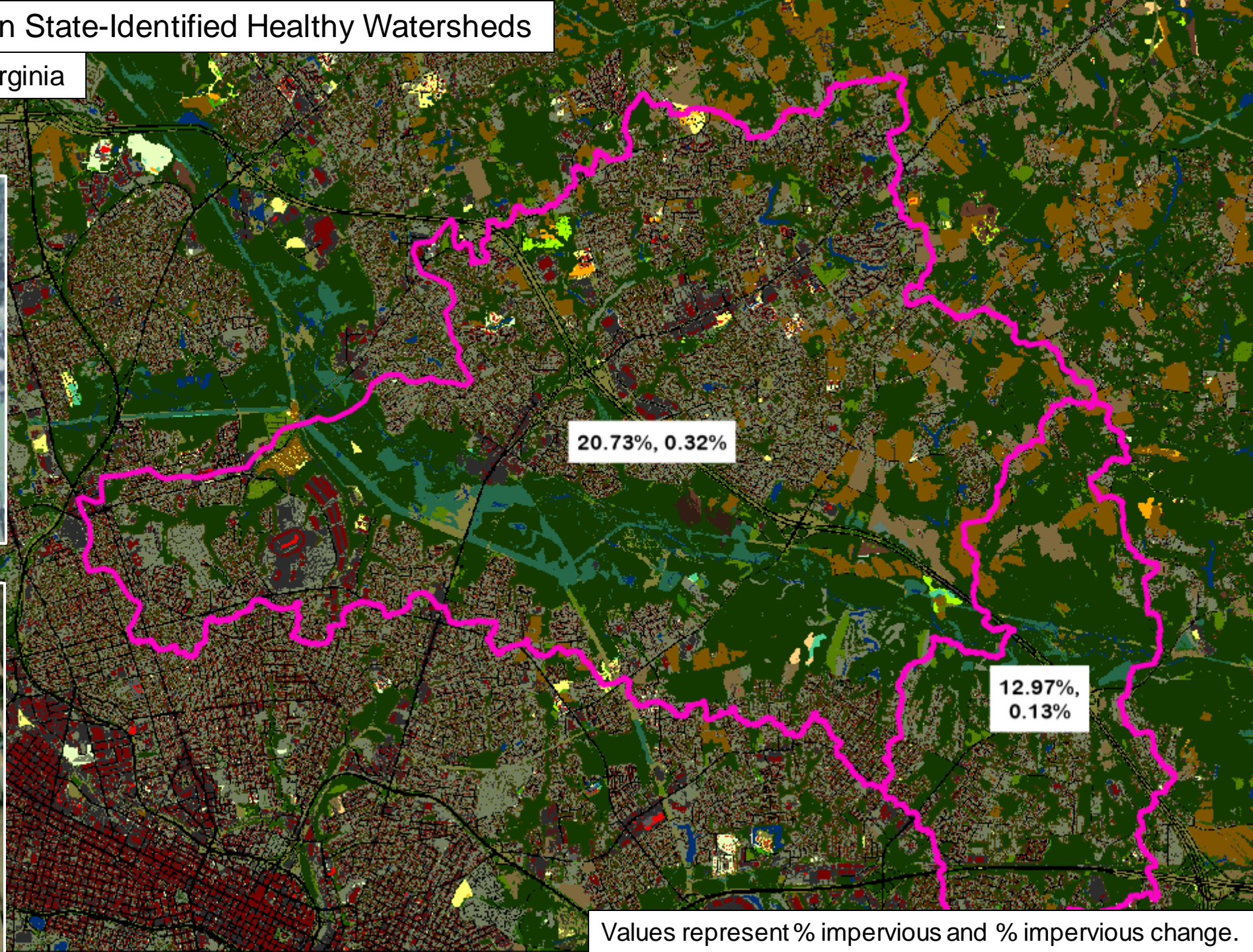
Land Use/Land Cover (2018) in State-Identified Healthy Watersheds

Hanover and Henrico Counties, Virginia

2014 Imagery



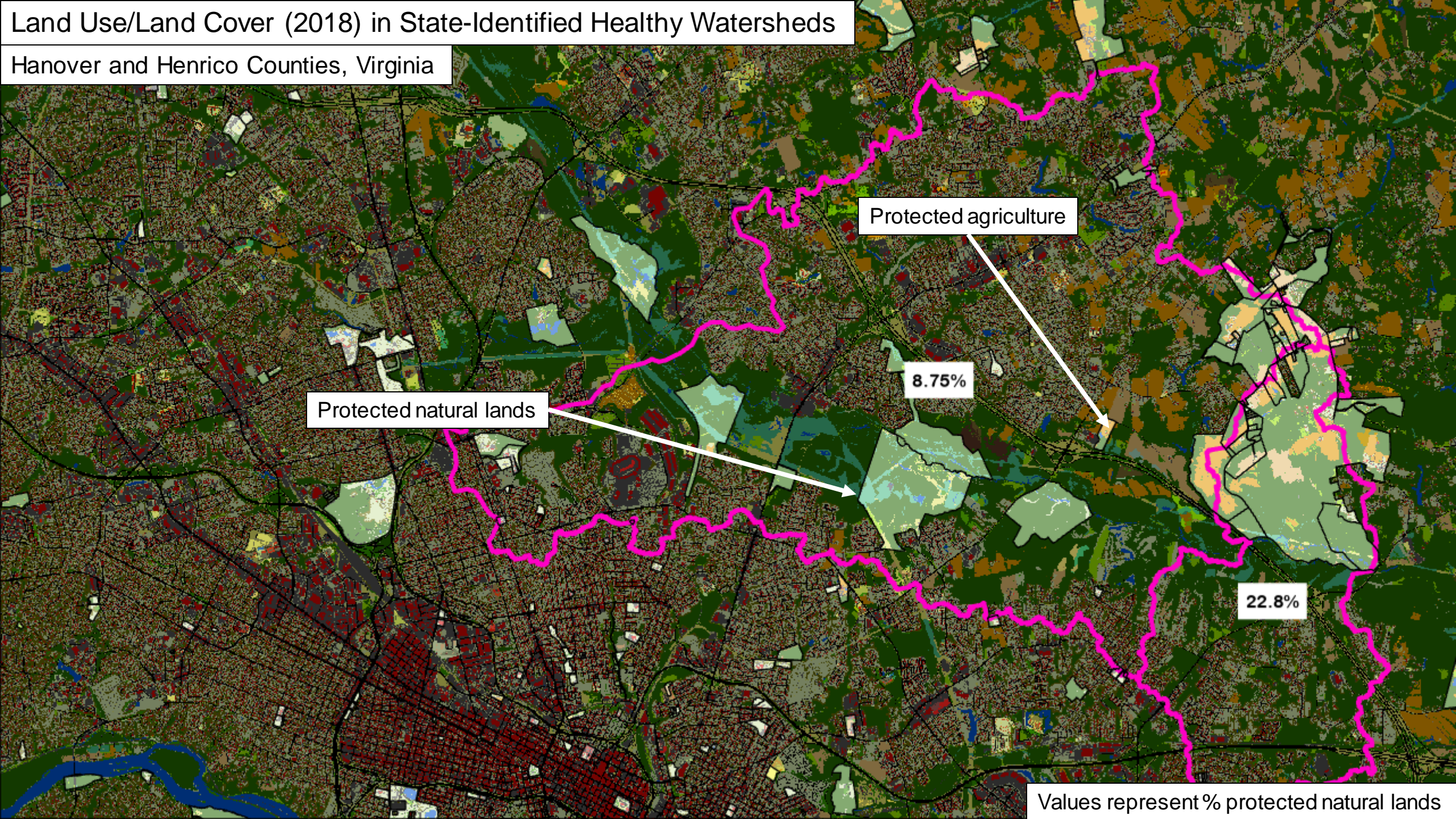
2018 Imagery



Values represent % impervious and % impervious change.

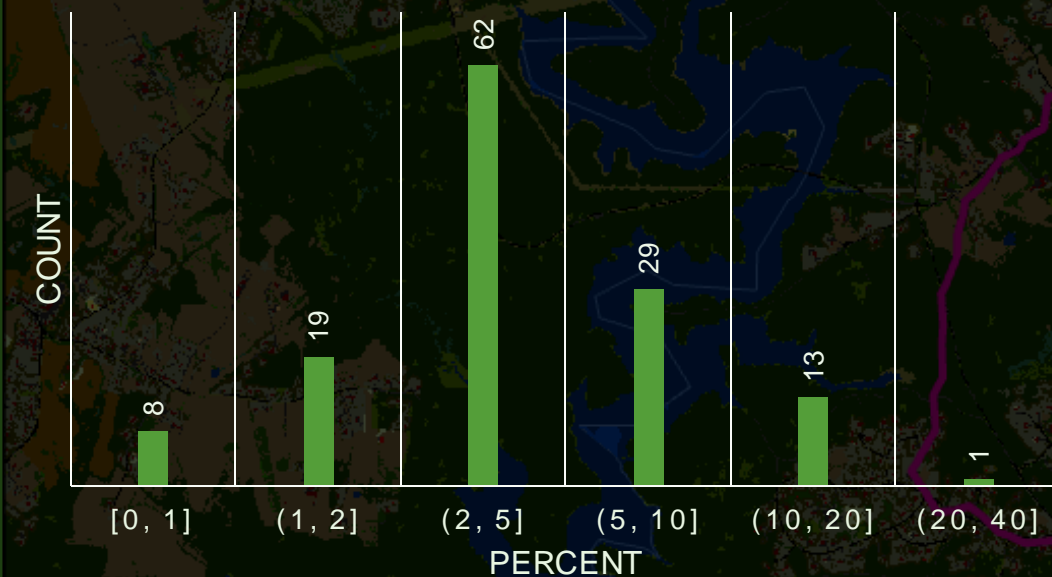
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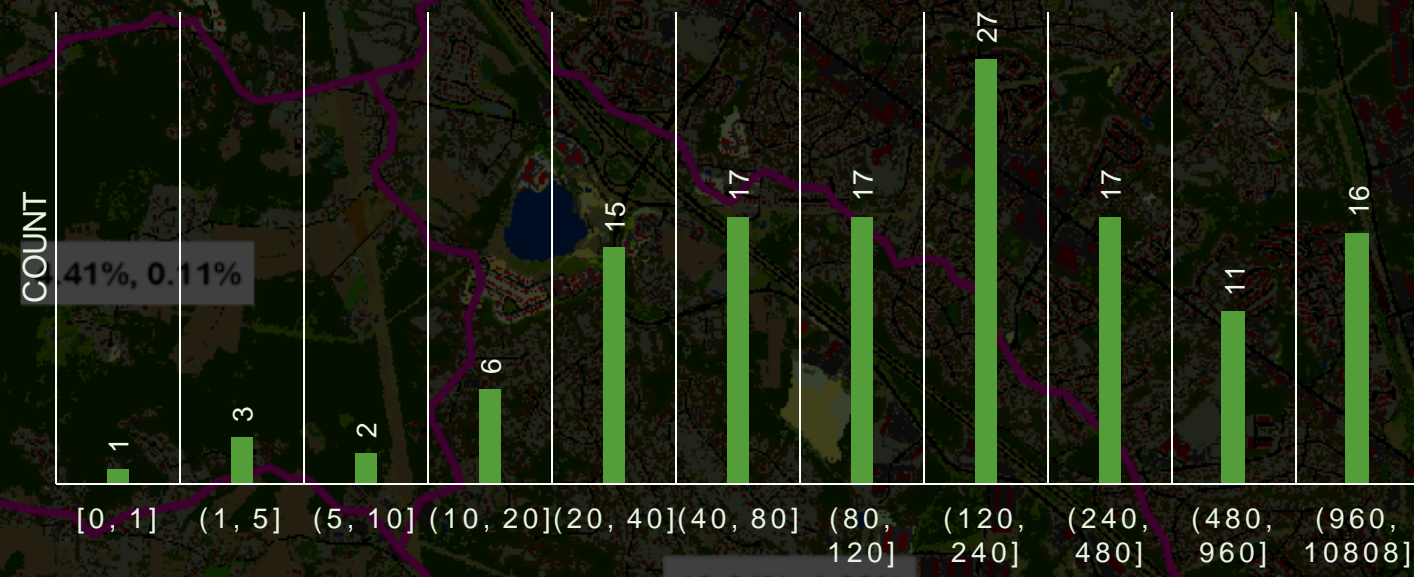


Maryland: Impervious Distribution Across Tier II Watersheds

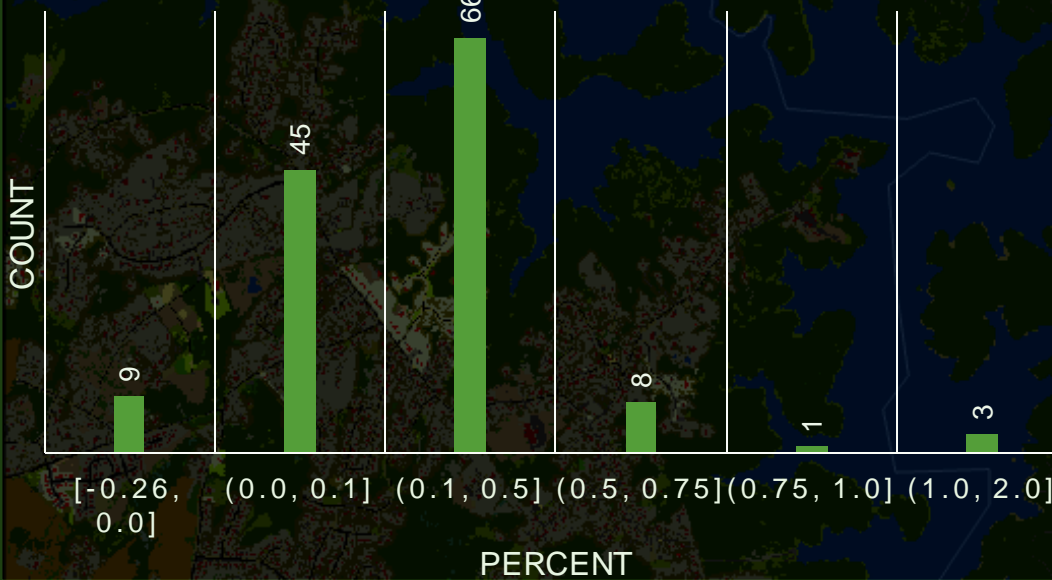
% IMPERVIOUS



ACRES OF IMPERVIOUS



% IMPERVIOUS CHANGE

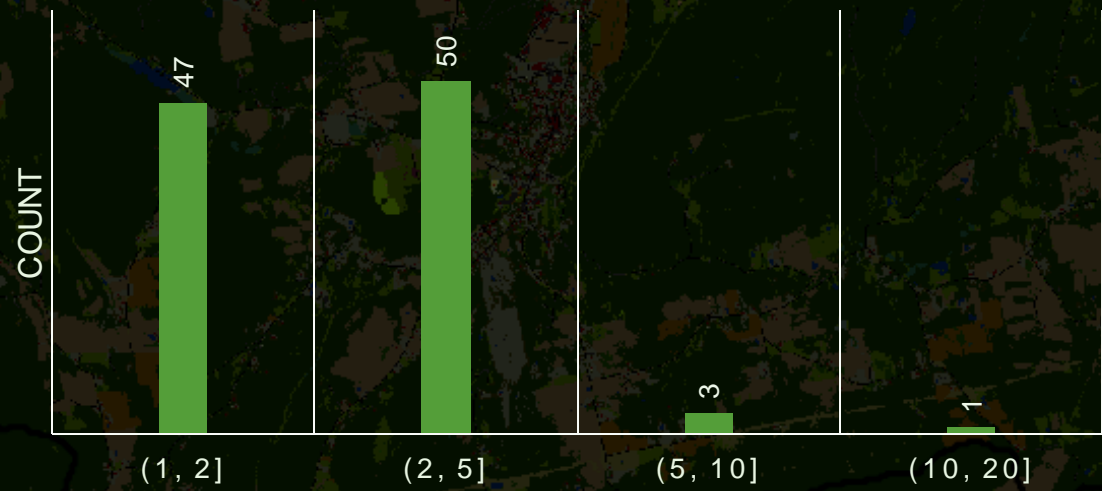


ACRES OF IMPERVIOUS CHANGE

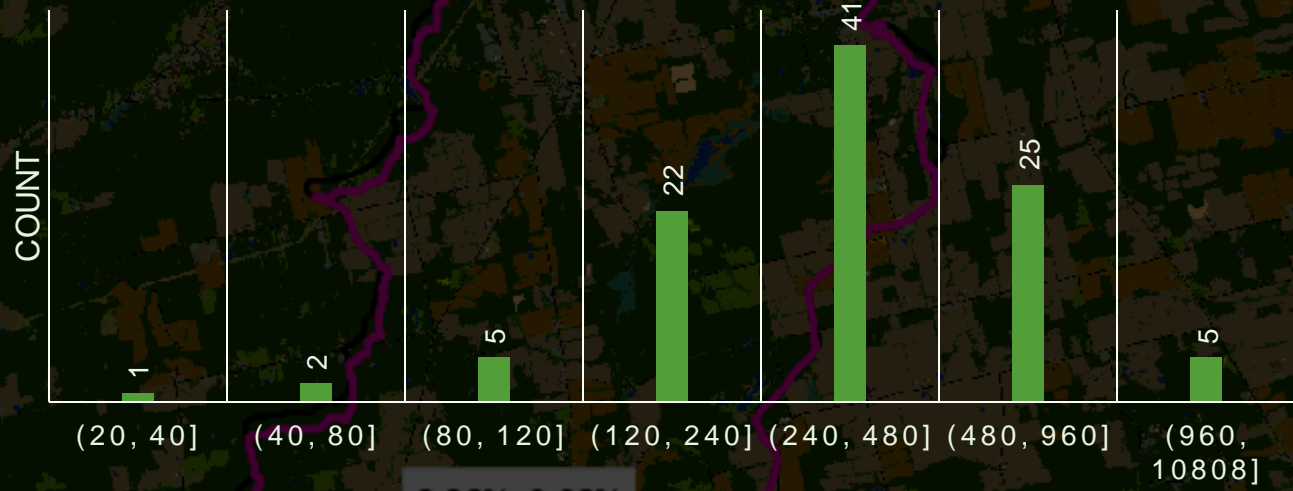


New York: Impervious Distribution Across Healthy Watersheds

% IMPERVIOUS

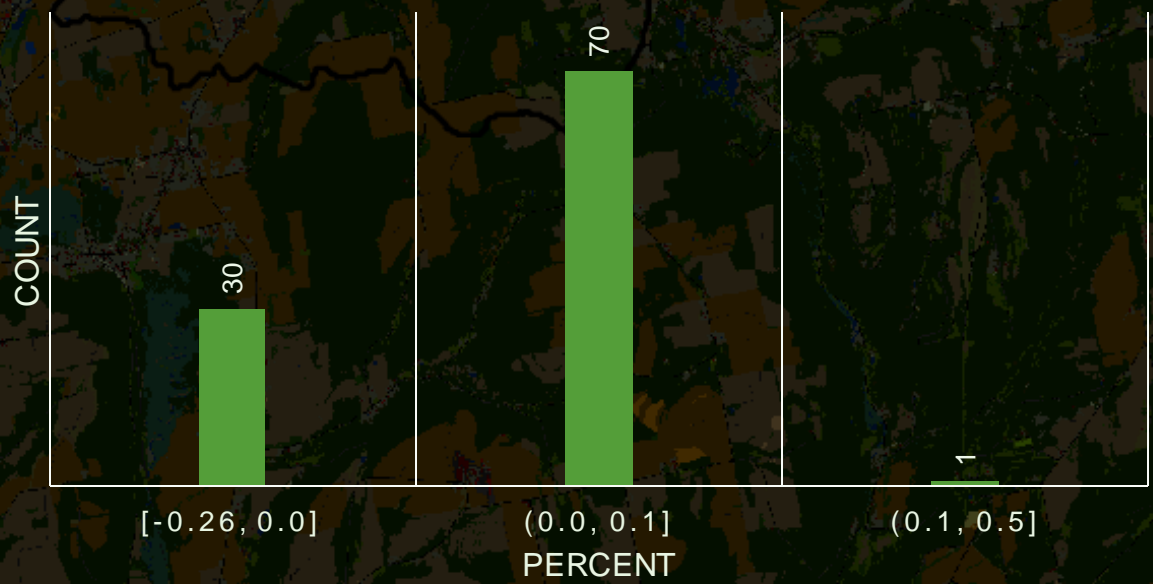


ACRES OF IMPERVIOUS

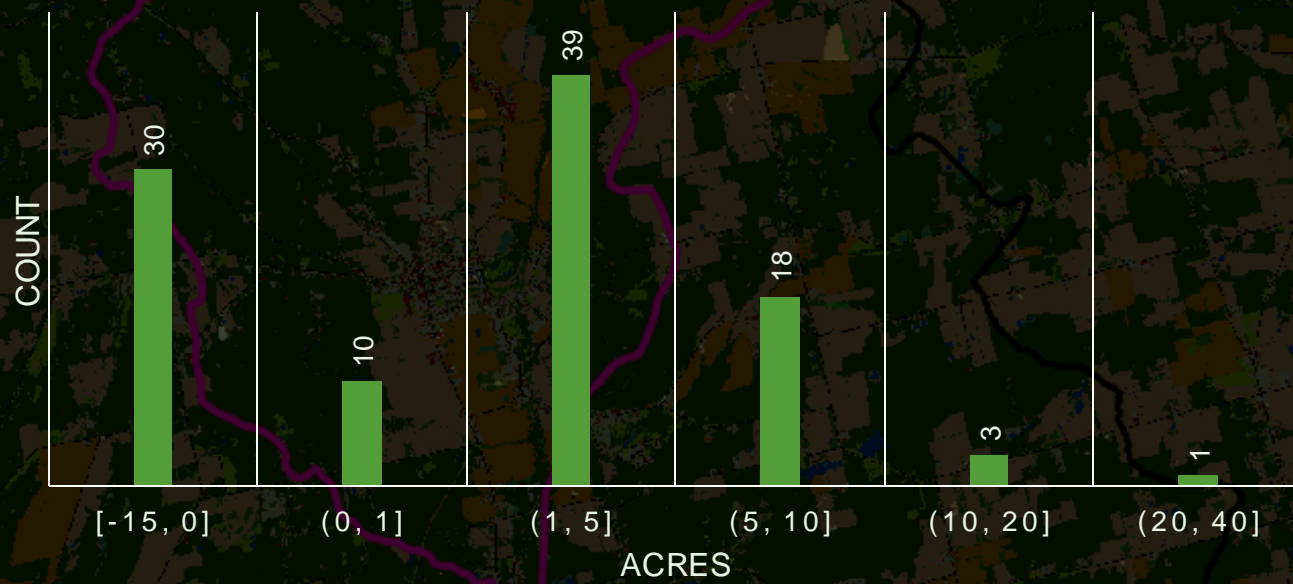


2.36%, 0.03% ACRES

% IMPERVIOUS CHANGE

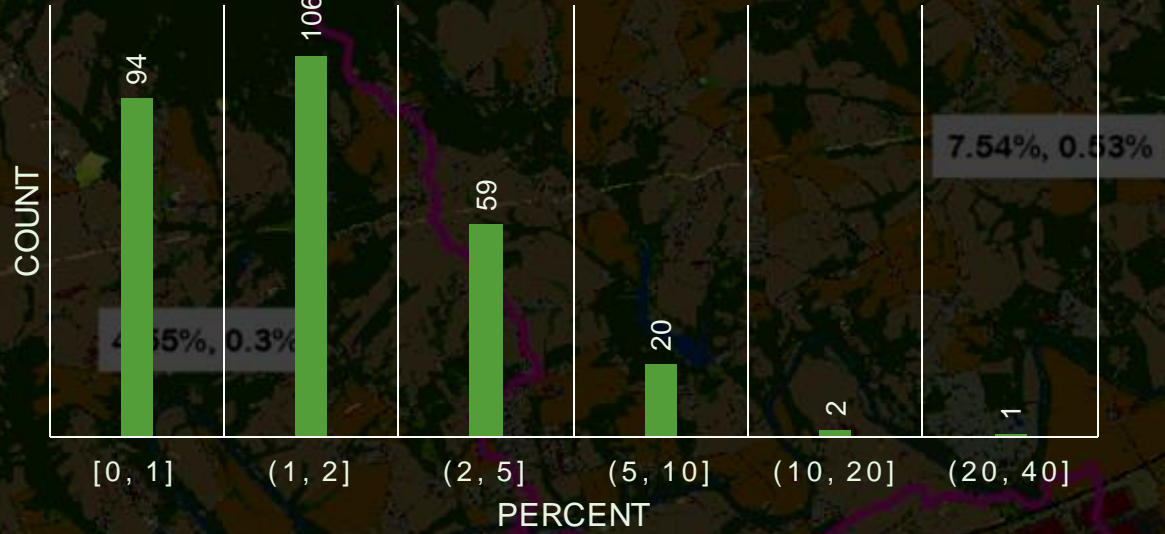


ACRES OF IMPERVIOUS CHANGE



Pennsylvania: Impervious Distribution Across Exceptional Value and High-Quality Waters

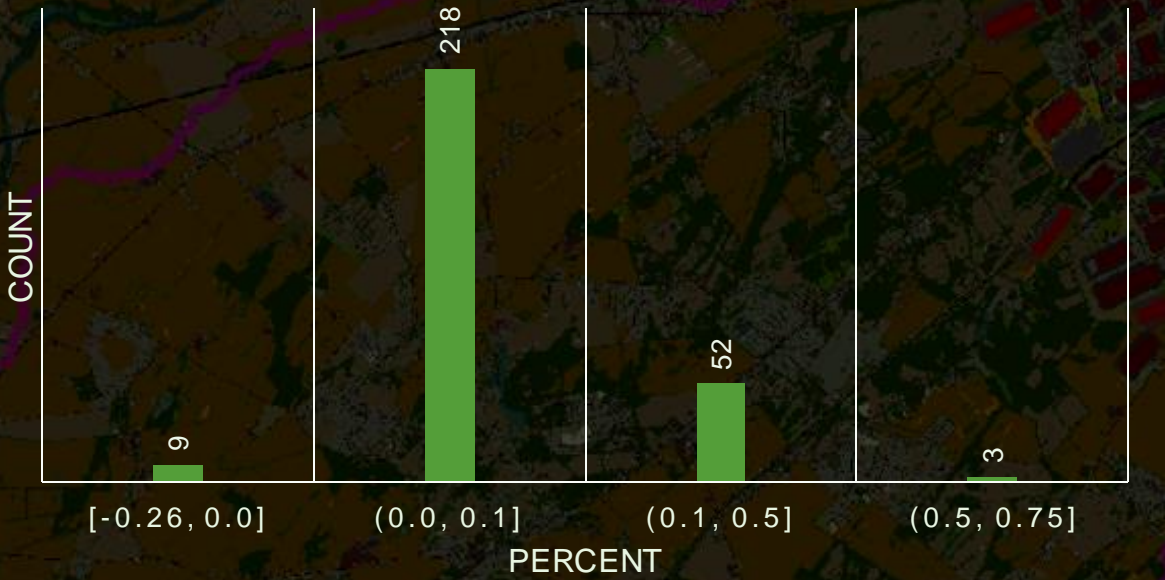
% IMPERVIOUS



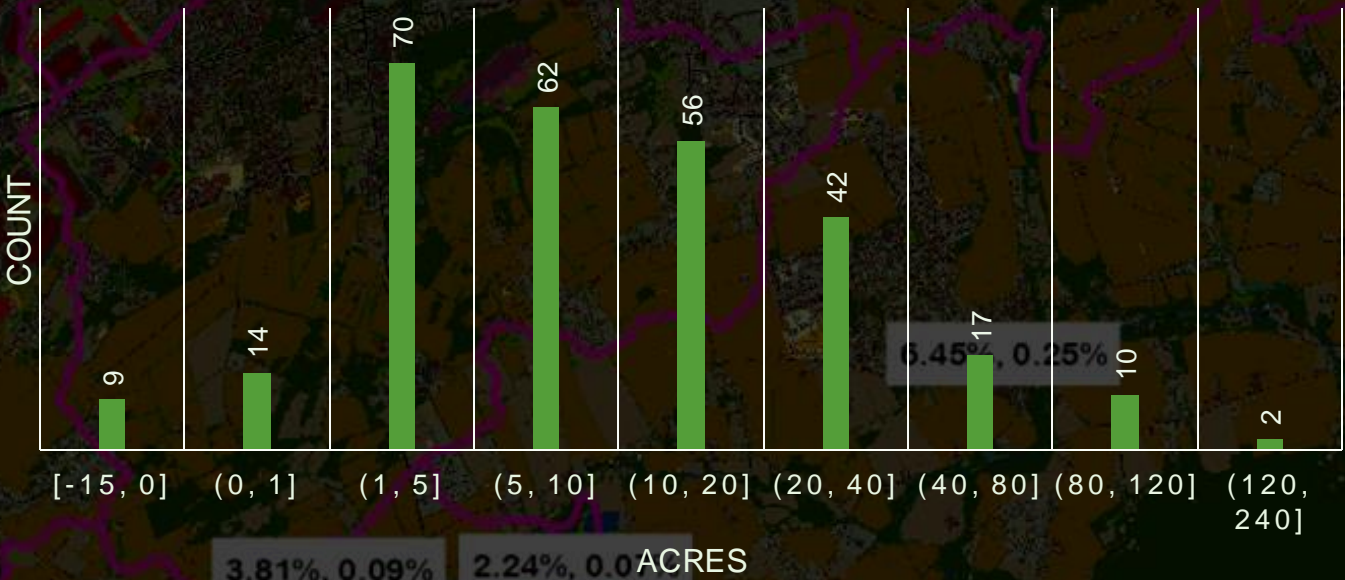
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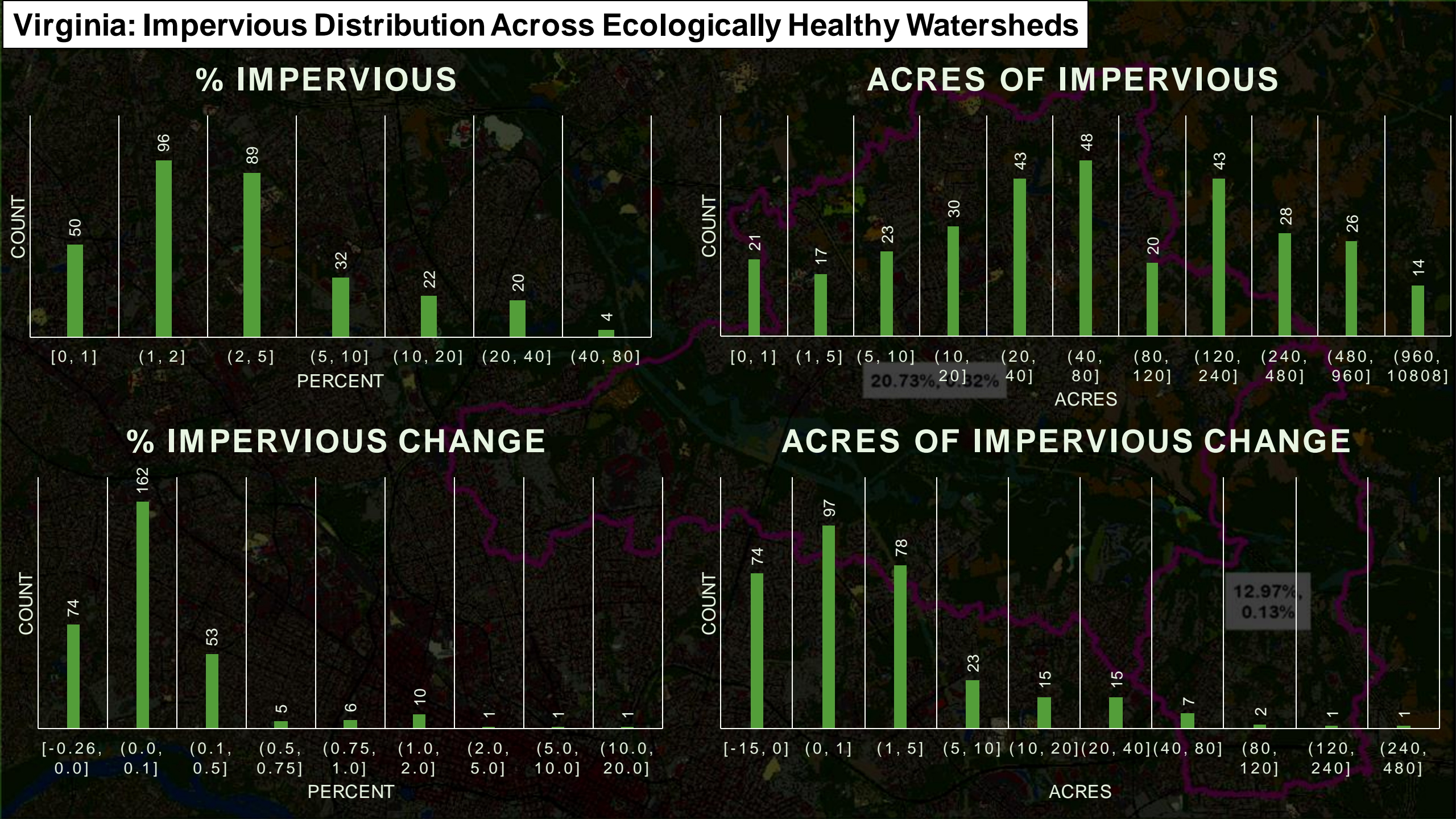


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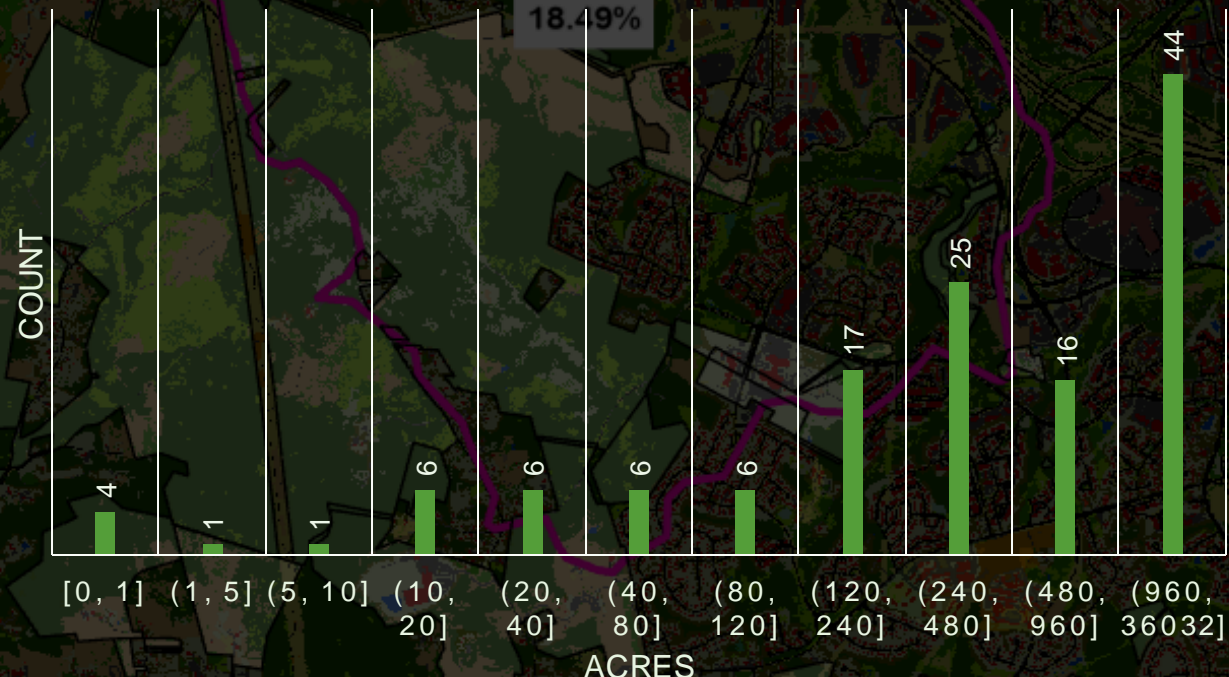


Maryland: Protected Natural Distribution Across Tier II Watersheds

PERCENT OF PROTECTED NATURAL LANDS

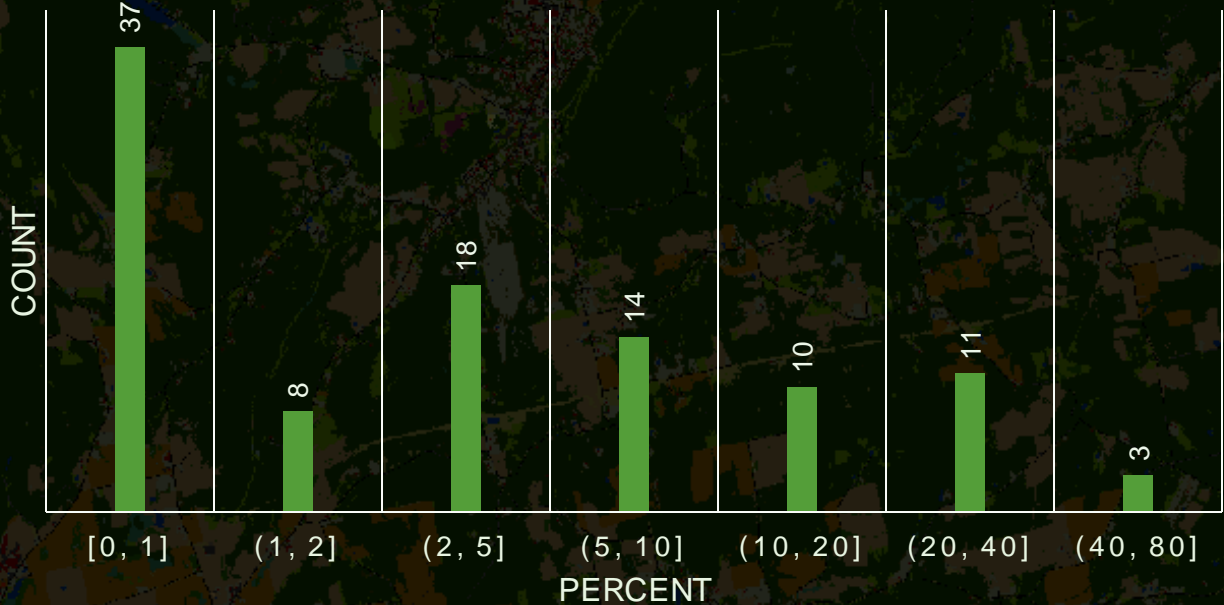


ACRES OF PROTECTED NATURAL LANDS

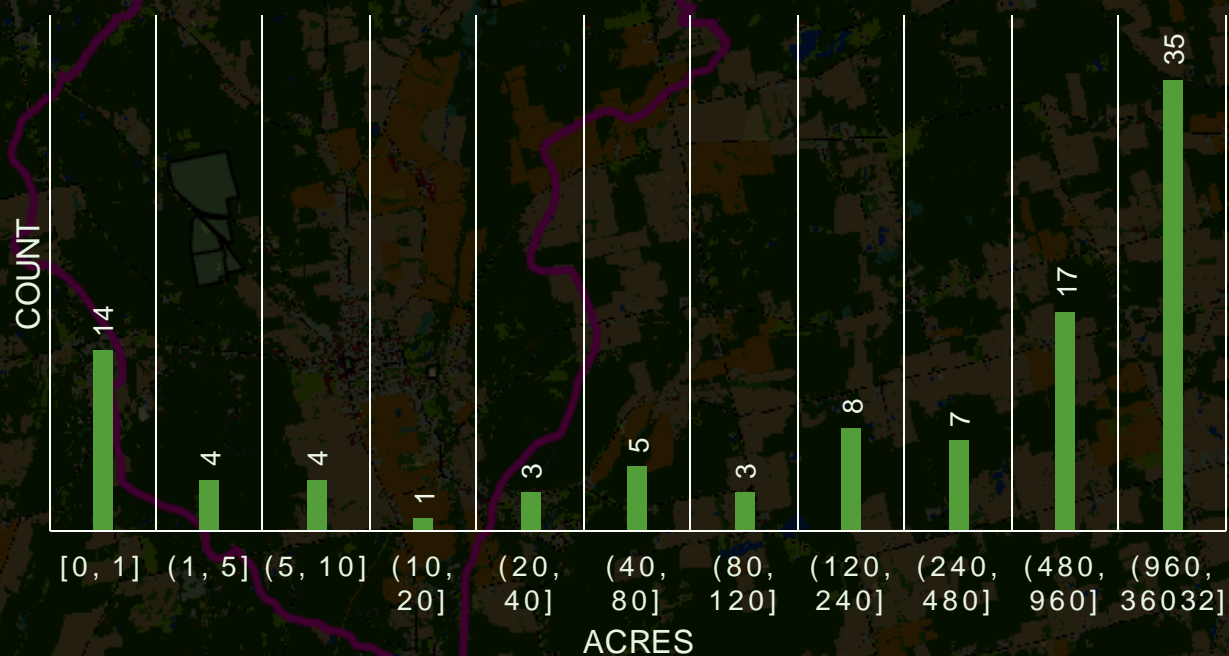


New York: Protected Natural Distribution Across Healthy Watersheds

PERCENT PROTECTED NATURAL LANDS

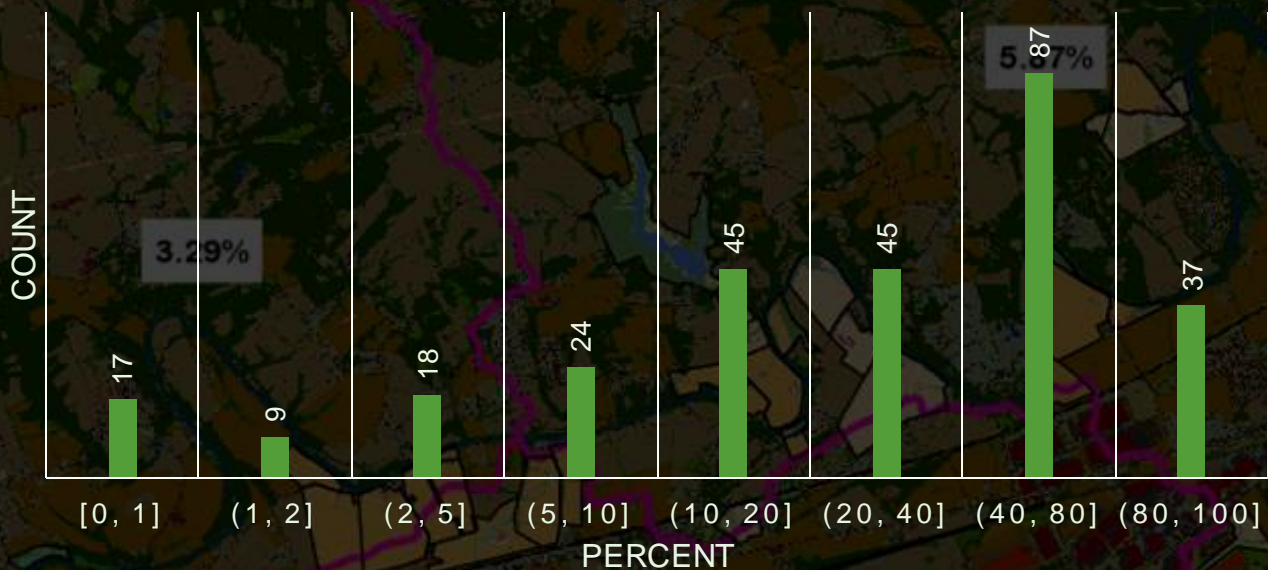


ACRES OF PROTECTED NATURAL LANDS



Pennsylvania: Protected Natural Distribution Across Exceptional Value and High-Quality Waters

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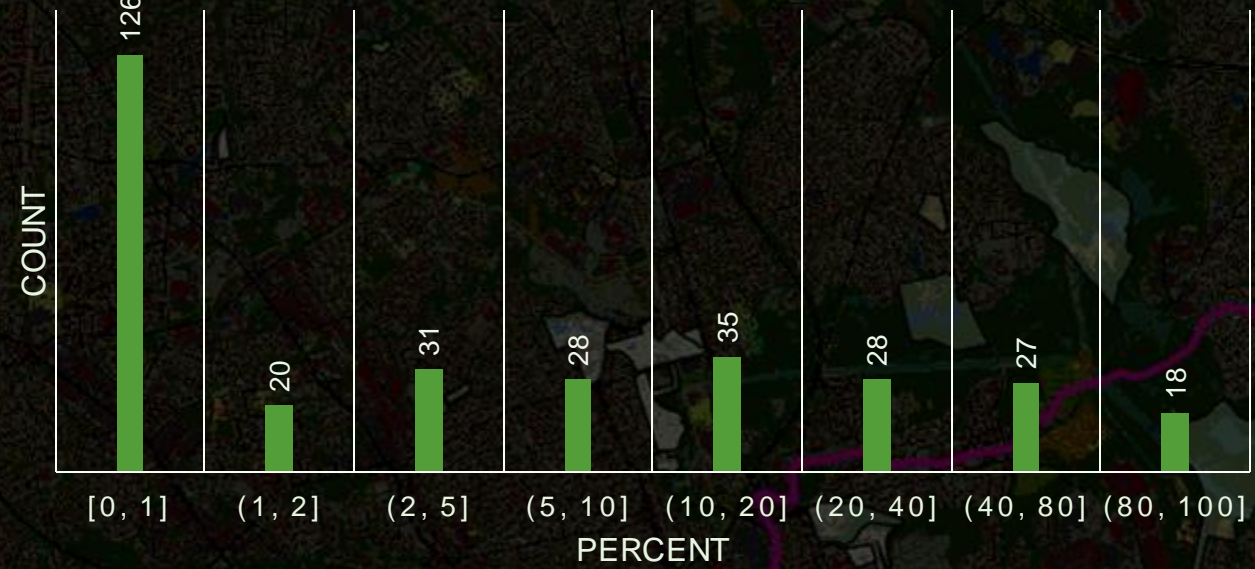


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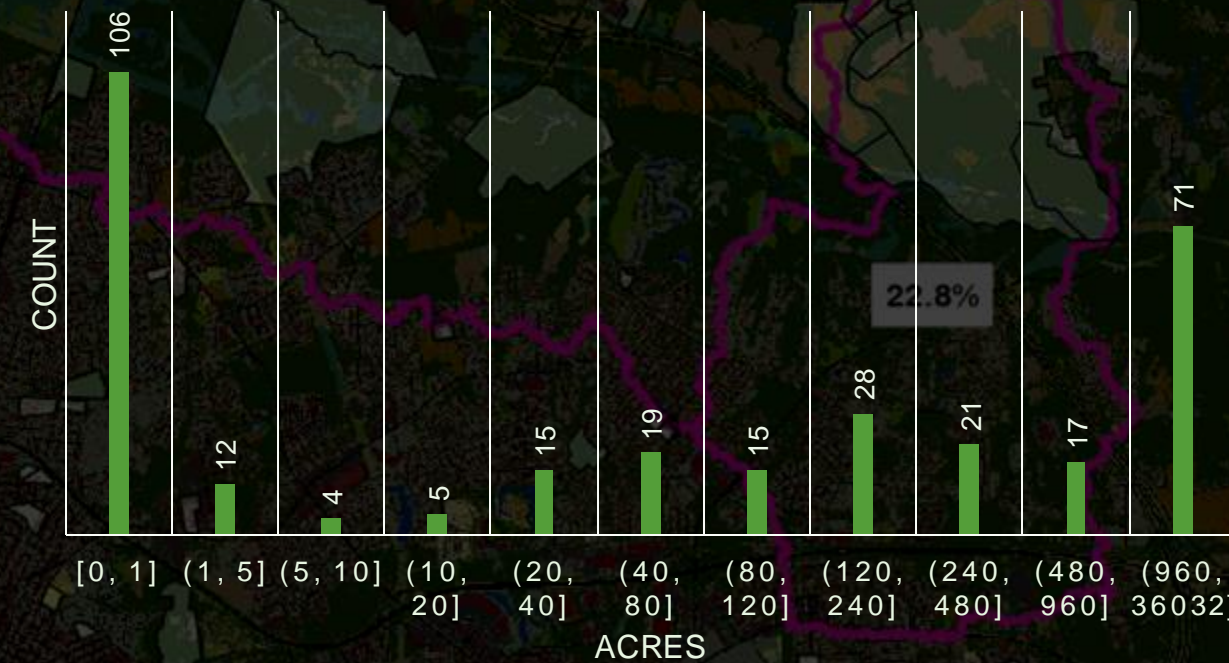


Virginia: Protected Natural Distribution Across Ecologically Healthy Watersheds

PERCENT PROTECTED NATURAL LANDS



ACRES OF PROTECTED NATURAL LANDS





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