

CHWA 2.0 Use Case



Identifying Catchments That Need Buffers

Forest Buffers



RECENT PROGRESS
INCREASE



OUTLOOK
OFF COURSE

Continually increase the capacity of forest buffers to provide water quality and habitat benefits throughout the Chesapeake Bay watershed. Restore 900 miles of riparian forest buffers per year and conserve existing buffers until at least 70 percent of riparian areas in the watershed are forested.

MadisonMilwaukeeGrand RapidsLansingChicago

Chesapeake Healthv Watersheds Assessment 2.0

Select Metrics to Add to Map

Guide

Map Layers

Click the eye icon to hide and show layers.
Click the three dots to change layer opacity.

Hydrological
Reference Layers

...

Political Boundary
Reference Layers

...

Overlay Layers

...

Filter Results

...

Predicted BIBI Score

...

Full Dataset (no
symbology)

...

Legend

Hydrological Reference Layers

Chesapeake Bay Watershed Boundary

☐

Political Boundary Reference Layers

Counties

☐

States

☐

Predicted BIBI Score

Watershed Catchment Report

< 0 of 0 >

Clear Selected

Watershed Info

Hover over each metric in the report for more
information. Click on the metric name to view the
original data source. Bolded text denotes the top 10
most significant in the random forest model.

Icons Credit: Tracey Saxby, Catherine Collier, Dieter Tracey, Integration
and Application Network, University of Maryland Center for
Environmental Science (ian.umces.edu/imagelibrary/)

Generate Report

Zoom To

*Report might take up to 1 minute to generate.

InfoLayersFiltersLegendTablePrintAdd LayersReport

Selected features:1

Powered by Esri

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Madison

Milwaukee

Grand Rapids

Lansing

Chicago

Detroit

Windsor

Boston

Providence

Chesapeake Health Watersheds Assessment 2.0

Select Metrics to Add to Map

Guide

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Map Layers

Click the eye icon to hide and show layers. Click the three dots to change layer opacity.

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Hydrological Reference Layers

...

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👁

Political Boundary Reference Layers

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Overlay Layers

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Filter Results

...

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Predicted BIBI Score

...

👁

Full Dataset (no symbology)

...

Hydrological Reference Layers

Chesapeake Bay

☐

Political Boundary Reference Layers

Counties

☐

States

☐

Predicted BIBI Score

Atlanta

☐

Info

Layers

Filters

Legend

Table

Print

Esri, HERE, Garmin, USGS, EPA, NPS | Esri, HERE, NPS

You can add layers to the map by clicking on a category, subcategory, and metric layer.

Some metrics are provided at the catchment-level (meaning they were calculated within the boundaries of the catchment shown), while other metrics are provided at the watershed-level (meaning they were calculated across all catchments upstream of the catchment shown).

Note: Hovering over each metric in the catchment report provides additional information about each metric.

Metrics with Highest Impact on Assessment

People

»

Sediment

»

Land Use Land Cover

»

Select By Metric Group

Landscape Condition

»

Hydrology

»

Water Quality

»

Habitat

»

% Tree Cover with Unmanaged Understory 2017/18 Watershed

% Tree Cover with Unmanaged Understory 2017/18 Catchment

% Tree Canopy with Managed Understory 2017/18 Watershed

% Natural Land in Riparian 2017/18 Watershed

% Impervious Cover 2017/18 Watershed

% Tree Cover in Riparian 2017/18 Watershed

Selected features: 1

1

2

Powered by Esri

Chesapeake Healthy Watersheds Assessment 2.0

Select Metrics to Add to Map

Guide



Map Layers

Click the eye icon to hide and show layers.
Click the three dots to change layer opacity.

- ☒ Hydrological Reference Layers ...
- ☒ Political Boundary Reference Layers ...
- ☒ Overlay Layers ...
- ☒ Filter Results ...
- ☒ % Tree Cover in Riparian 2017/18 Watershed ...
- ☒ Predicted BIBI Score ...
- ☒ Full Dataset (no symbology) ...

Legend

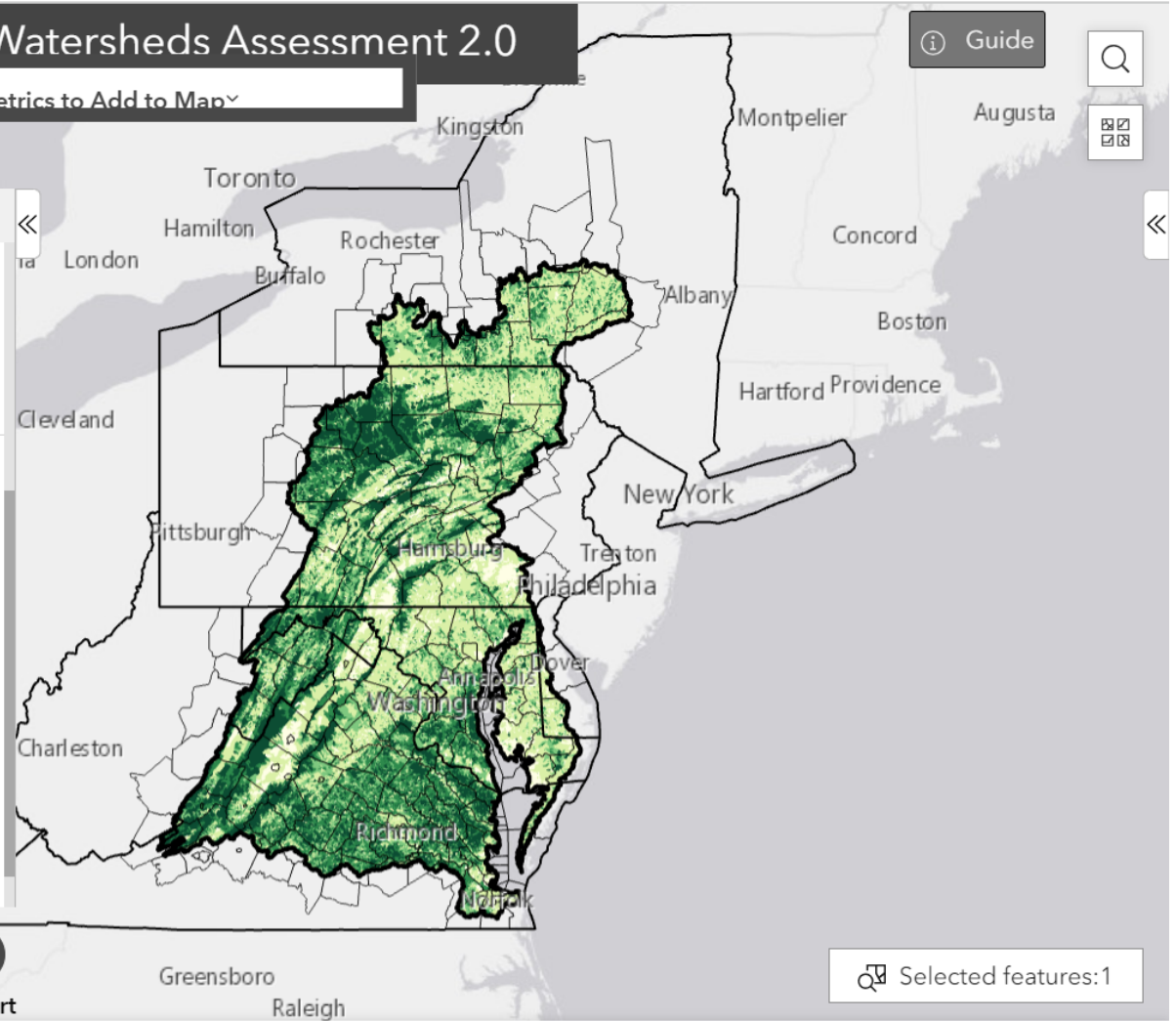
States



% Tree Cover in Riparian 2017/18 Watershed

% Tree Cover in Riparian 2017/18 Watershed

- Low (0-35%)
- Medium-Low (35-70%)
- Medium (70-80%)
- Medium-High (80-90%)
- High (90-100%)



Selected features: 1

Chesapeake Healthy Watersheds Assessment 2.0

Select Metrics to Add to Map

Metrics with Highest Impact on Assessment

People	>>
Sediment	>>
Land Use Land Cover	>>

Select By Metric Group

Landscape Condition	>>
Hydrology	>>
Water Quality	>>
Habitat	>>

Geomorphology	>>
Vulnerability: Climate Change	>>
Vulnerability: Land Use Change	>>
Vulnerability: Water Use (mil gal/day)	>>
Vulnerability: Wildfire Risk	>>

Additional Views

Overlay Layers	>>
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States



% Tree Cover in Watershed

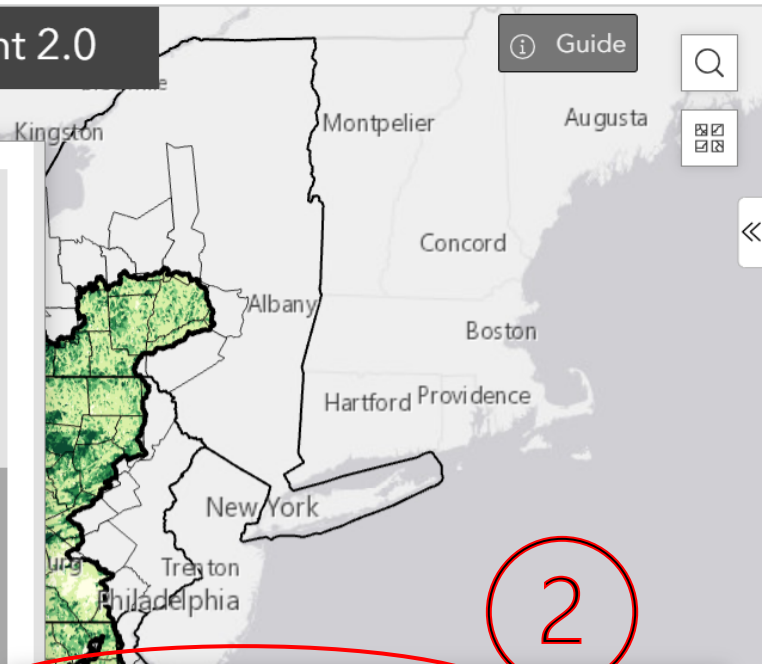
% Tree Cover in Watershed

- Low (0-35%)
- Medium-L
- Medium (35-60%)
- Medium-H
- High (60-100%)

Map Layers

Click the eye icon to hide and show layers.
Click the three dots to change layer opacity.

- Hydrological Reference Layers
- Political Boundary Reference Layers
- Overlay Layers
- Filter Results
- % Tree Cover in Riparian 2017/18 Watershed
- Predicted BIBI Score
- Full Dataset (no symbology)



State-Identified Healthy Watersheds

- Protected Lands
- Cross GIT HUC12 Conservation Composite
- Change in Stream Temperature
- Chessie BIBI Scores

DEIJ

Habitat Protection

Chesapeake Healthy Watersheds Assessment 2.0

Select Metrics to Add to Map

Map Layers

Click the eye icon to hide and show layers.
Click the three dots to change layer opacity.

- ▶ Hydrological Reference Layers ...
- ▶ Political Boundary Reference Layers ...
- ▶ Overlay Layers ...
- Filter Results 1
- ▼ State-Identified Healthy Watersheds ...
- ^ Increase transparency
- ^ Decrease transparency
- Details

Legend

Hydrological Reference Layers

Chesapeake Bay Watershed Boundary



Political Boundary Reference Layers

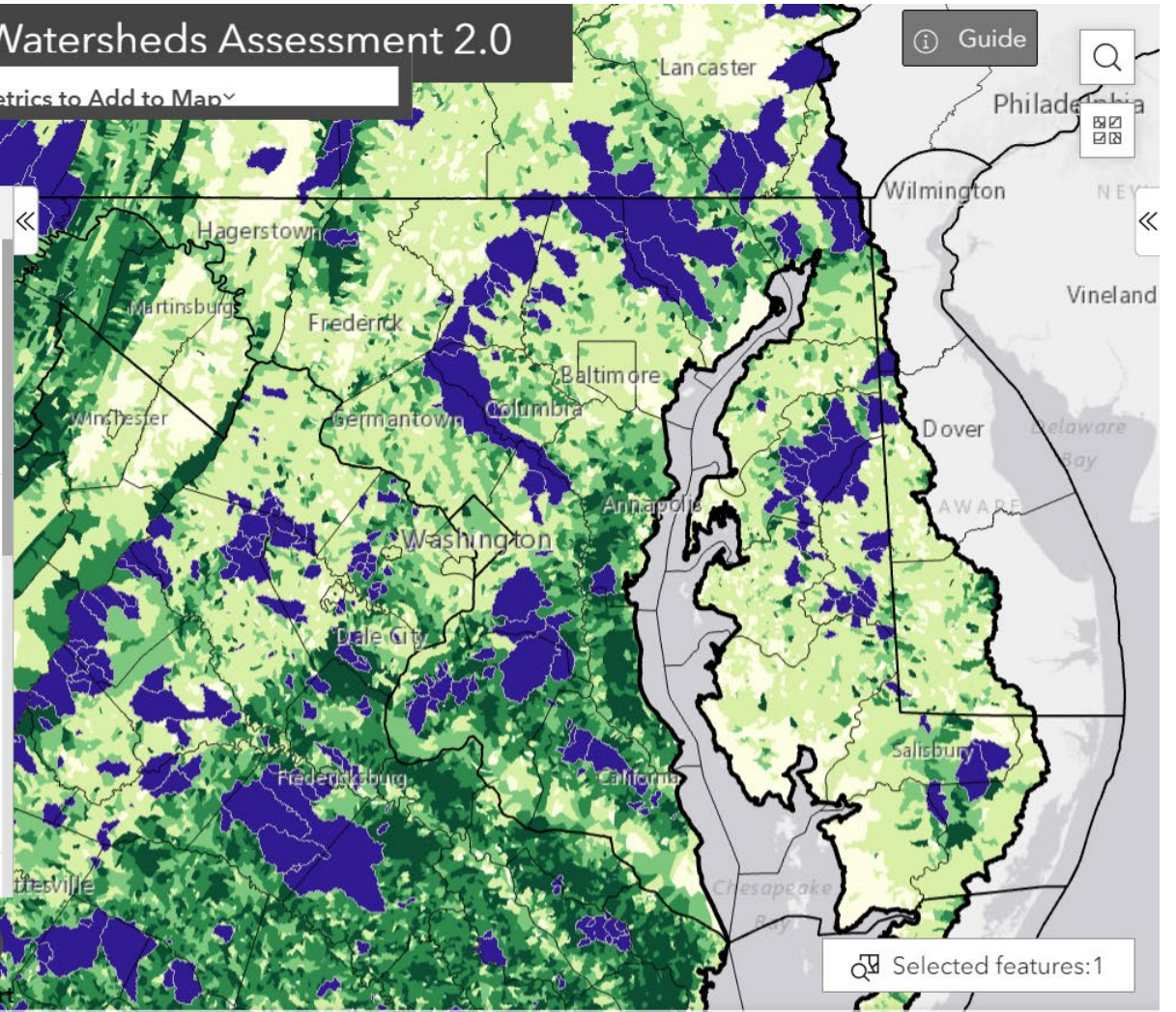
Counties



States



State-Identified Healthy Watersheds



Selected features: 1

Legend

State-Identified Healthy Watersheds

State-Identified Healthy Watersheds



% Tree Cover in Riparian 2017/18 Watershed

% Tree Cover in Riparian 2017/18 Watershed



Low (0-35%)



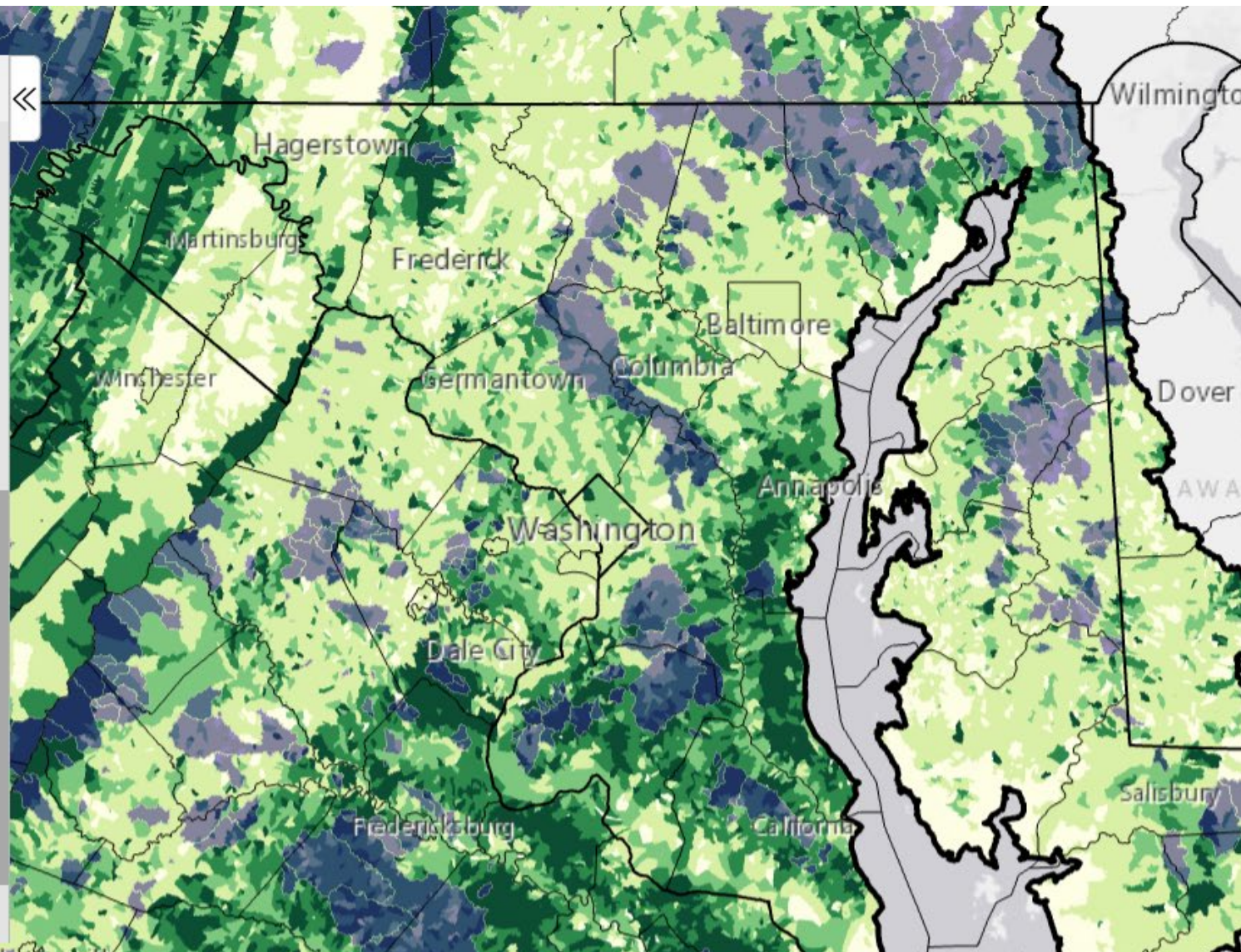
Medium-Low (35-70%)



Medium (70-80%)



Medium-High (80-90%)



Legend

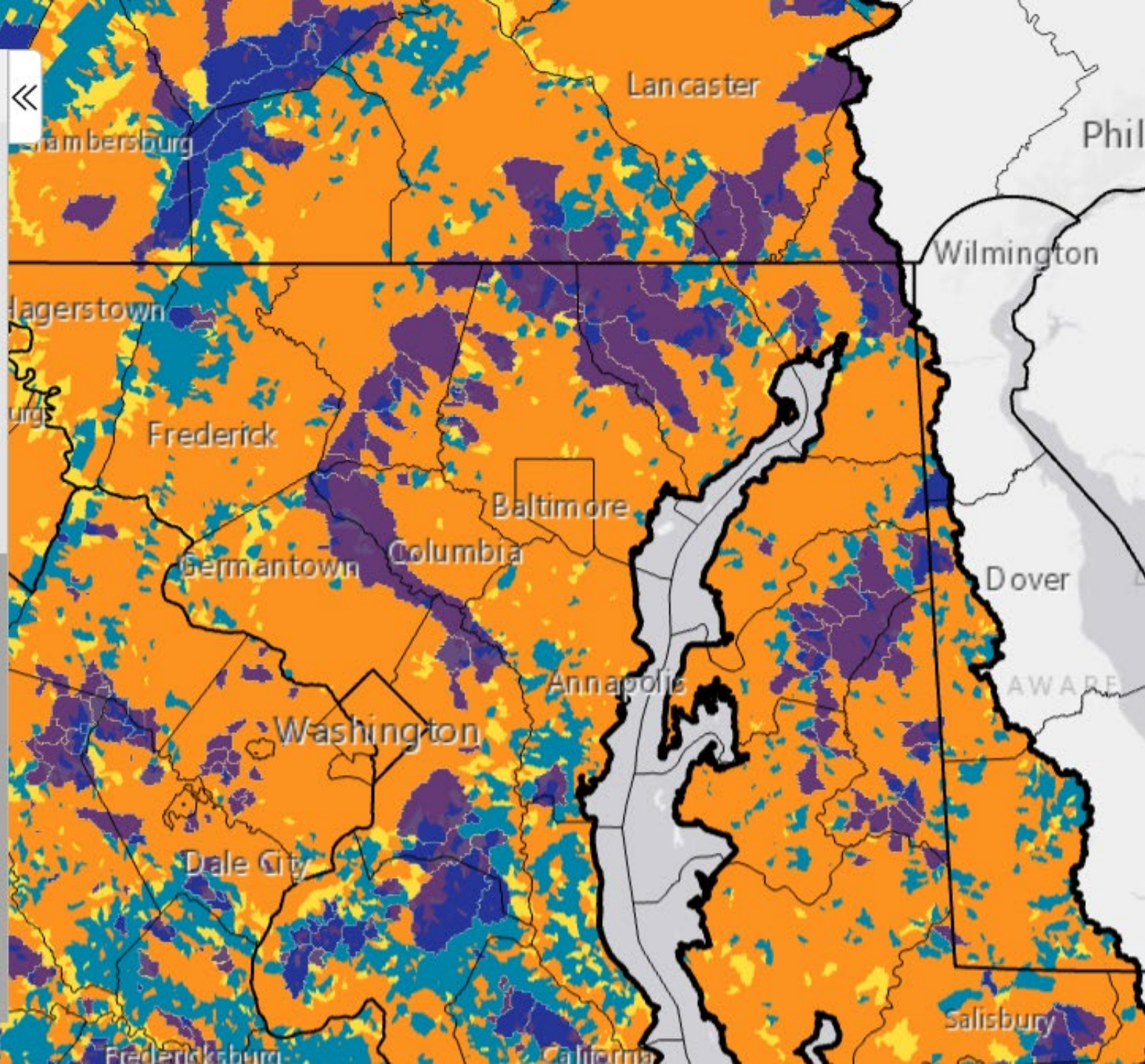
Overlay Layers

State-Identified Healthy Waters and Watersheds - 2017



Predicted BIBI Score

Predicted BIBI Score



Chesapeake Healthy Watersheds Assessment 2.0

Guide

Select Metrics to Add to Map

Layers

Hide and show layers.
Change layer opacity.

Layers

Boundary
Layers

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Watersheds

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Filters



Legend



Table



Print



Add Layers



Report

Watershed Catchment Report

< 1 of 1 >

Clear Selection

Watershed Info

Hover over each metric in the report for more information. Click on the metric name to view the original data source. Bolded text denotes the top 1 most significant in the random forest model.

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Generating...

2

Zoom

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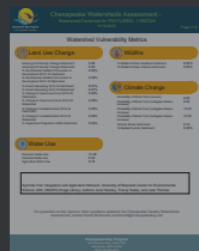
Selected feature



1



2



Chesapeake Watersheds Assessment -

Watershed Factsheet for FEATUREID: 11687226

10/16/2023

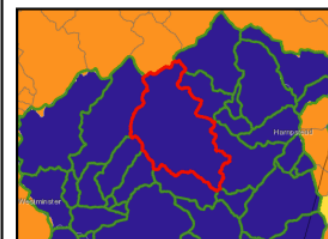
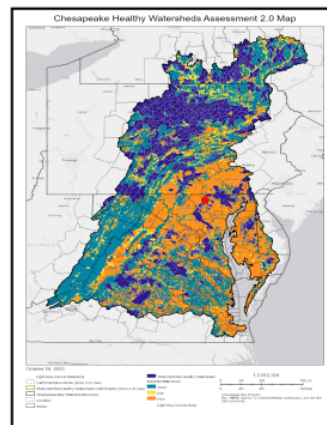
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The Chesapeake Bay Program (CBP), through its Maintain Healthy Watersheds Goal Implementation Team, has a goal of maintaining the long-term health of watersheds identified as healthy by its partner jurisdictions.

[Maintain Healthy Watersheds Goal Implementation Team](#)

Watershed Info

Catchment ID	11687226
PredScore	poor
State	MD
County	Carroll, MD
HUC12 Acres	13404
HUC12 Headwater	Yes
HUC12 ID	020600030801
HUC12 Name	East Branch of North Branch Patapsco River



Filters

Please ensure that the filter results layer is visible in the "Map Layers" widget. Please ensure that the toggle to the right of the filter group is turned on for the filter to be

State Identified Healthy Watersheds ☐

Predicted Bibi Score ☐

Location-based Filters ☐

HUC12-based Filters ☐

Bioregion ☐

Geomorphology Metric Filters ☐



Info



Layers



Filters



Legend