

The screenshot displays the 'Restoration Tool' interface. On the left is a map of the Northeastern United States and parts of Canada, with a red outline highlighting the region. A yellow starburst graphic is overlaid on the map with the text: 'Relevant NRCS conservation practices are available for the whole region.' On the right is a sidebar with a 'Sandbox' header and a 'Parameters' section. The 'Parameters' section has two main steps: '1. Select planning unit and geography' and '2. Select metrics'. Under step 1, 'Entire northeast' is selected in a dropdown menu. Under step 2, '2 items selected' is shown in a dropdown menu. A list of metrics is displayed below, with 'Riparian Conservation Practices 2001-2010' checked. A red arrow points from the bottom of the list to the '3. Select NRCS conservation practices' step in the text below.

Relevant NRCS conservation practices are available for the whole region.

Parameters

1. Select planning unit and geography [Visualize](#)

Entire northeast

2. Select metrics

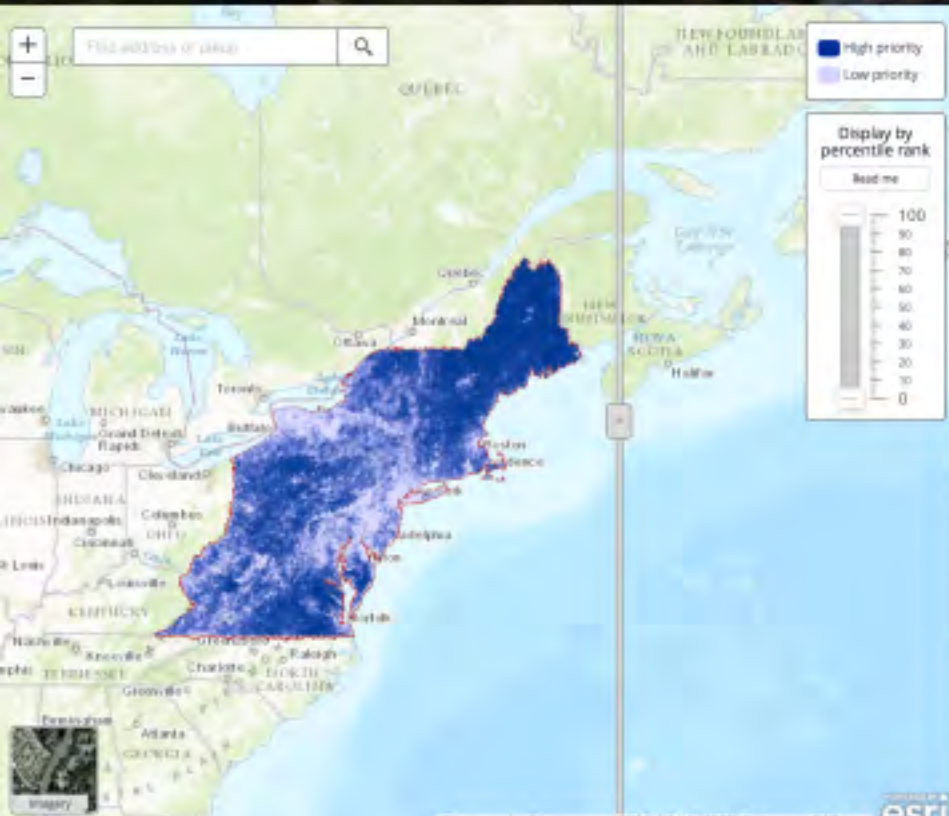
2 items selected

Close this menu after selecting metric(s)

Deselect All

- Land Management Practices After 2020
- Riparian Conservation Practices Total
- Riparian Conservation Practices 2000 and earlier
- Riparian Conservation Practices 2001-2010 ✓
- Riparian Conservation Practices 2011-2020
- Riparian Conservation Practices After 2020
- Wetland Conservation Practices Total
- Wetland Conservation Practices 2000 and earlier
- Wetland Conservation Practices 2001-2010

3. Select NRCS conservation practices to identify areas that might have willing landowners, or areas that need more effort.



Sandbox

Parameters

Models

Please create a model and select "Get Results".

Custom model 1

Forest Loss: 10, Riparian Conservation Practices 2001-2010: 10, Early Successional Habitat Development/Management 2001-2010: 10, Species American woodcock: 10

Display on left Display on right Sheet (CSV) PDF

Results

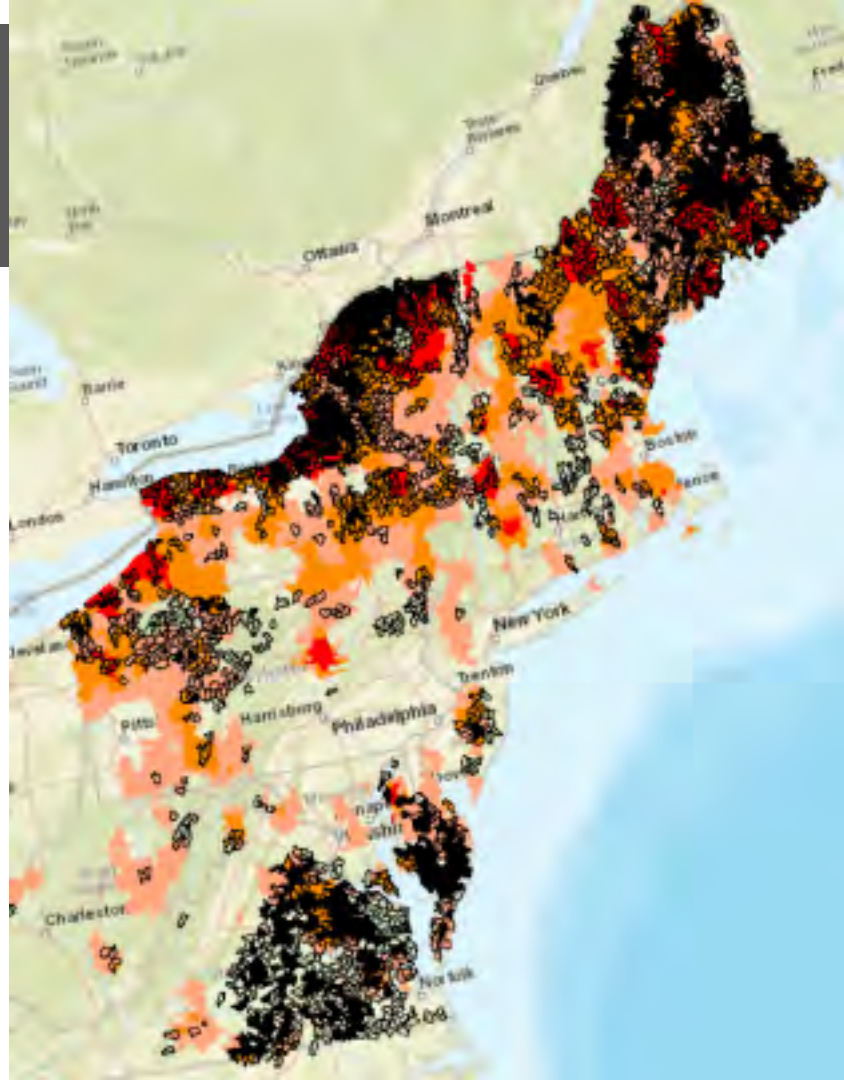
Northeast United States



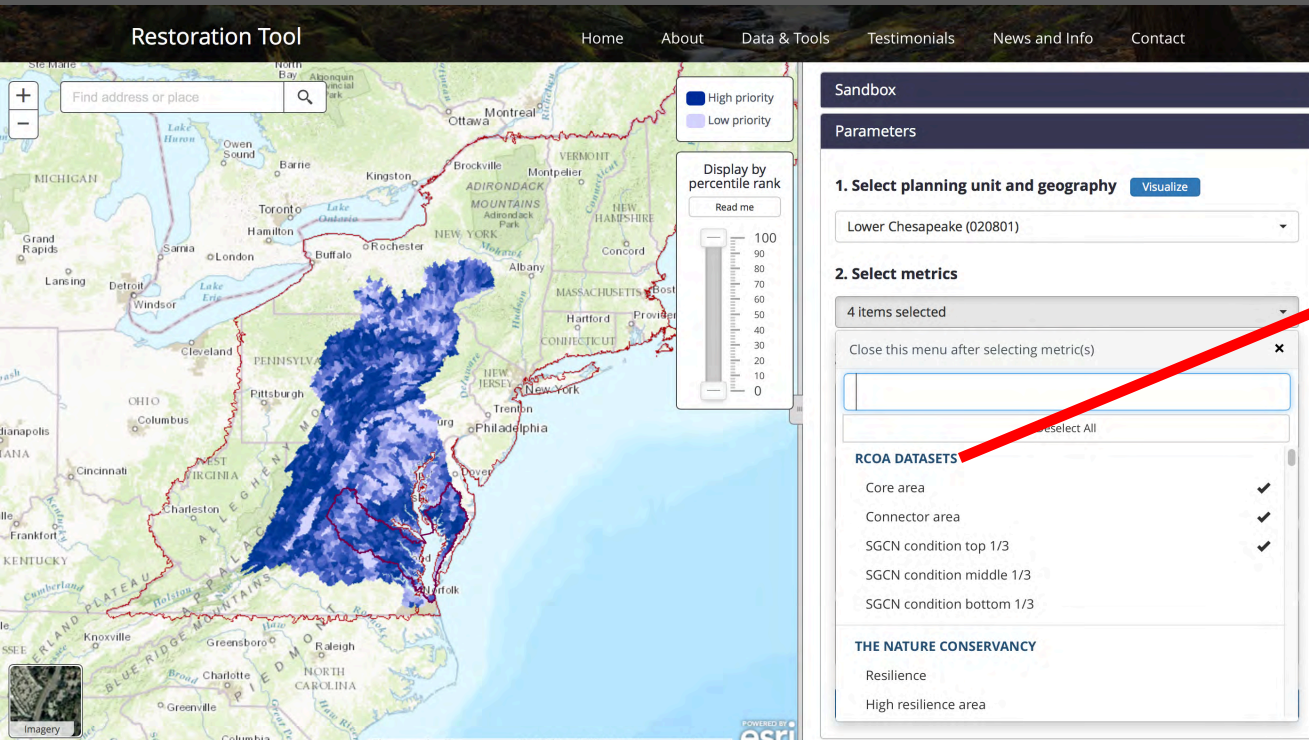
5. Download a map and report to your computer.

Potential Results

- Solid black shows woodcock focus areas where NRCS has been highly active;
- Black outline shows woodcock focus areas where NRCS has been inactive;
- Red and orange is woodcock abundance (Throgmarten)



Simplify RCOA results



RCOA DATASETS

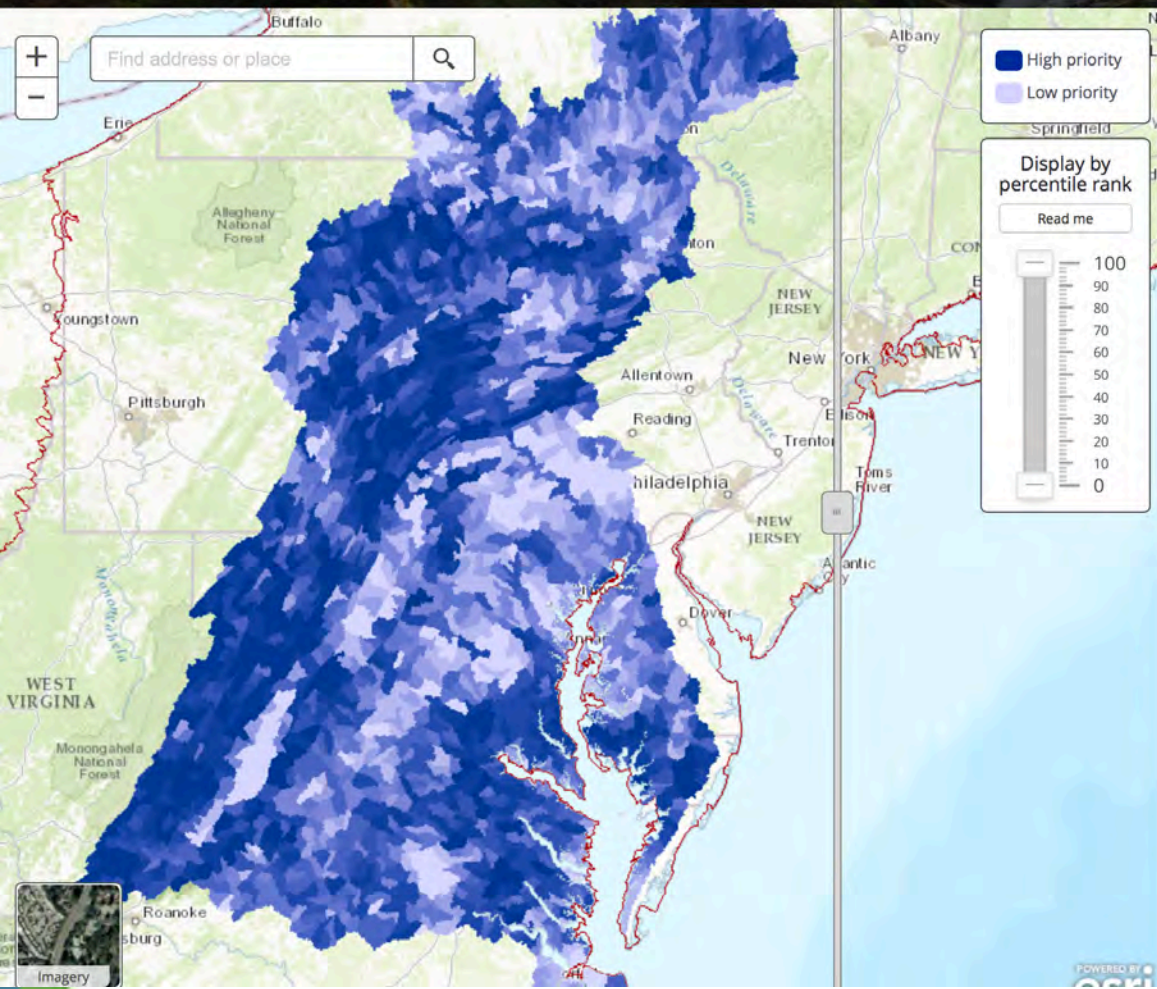
Core area

Connector area

SGCN condition top 1/3

SGCN condition middle 1/3

SGCN condition bottom 1/3



Sandbox

Parameters

1. Select planning unit and geography

Visualize

Chesapeake Bay watershed

2. Select metrics

4 items selected

3. Specify weights (1-10)

What do the weights mean?

Core area ¹

Remove

Positive

2

Connector area ¹

Remove

Positive

1

SGCN condition top 1/3 ¹

Remove

Positive

2

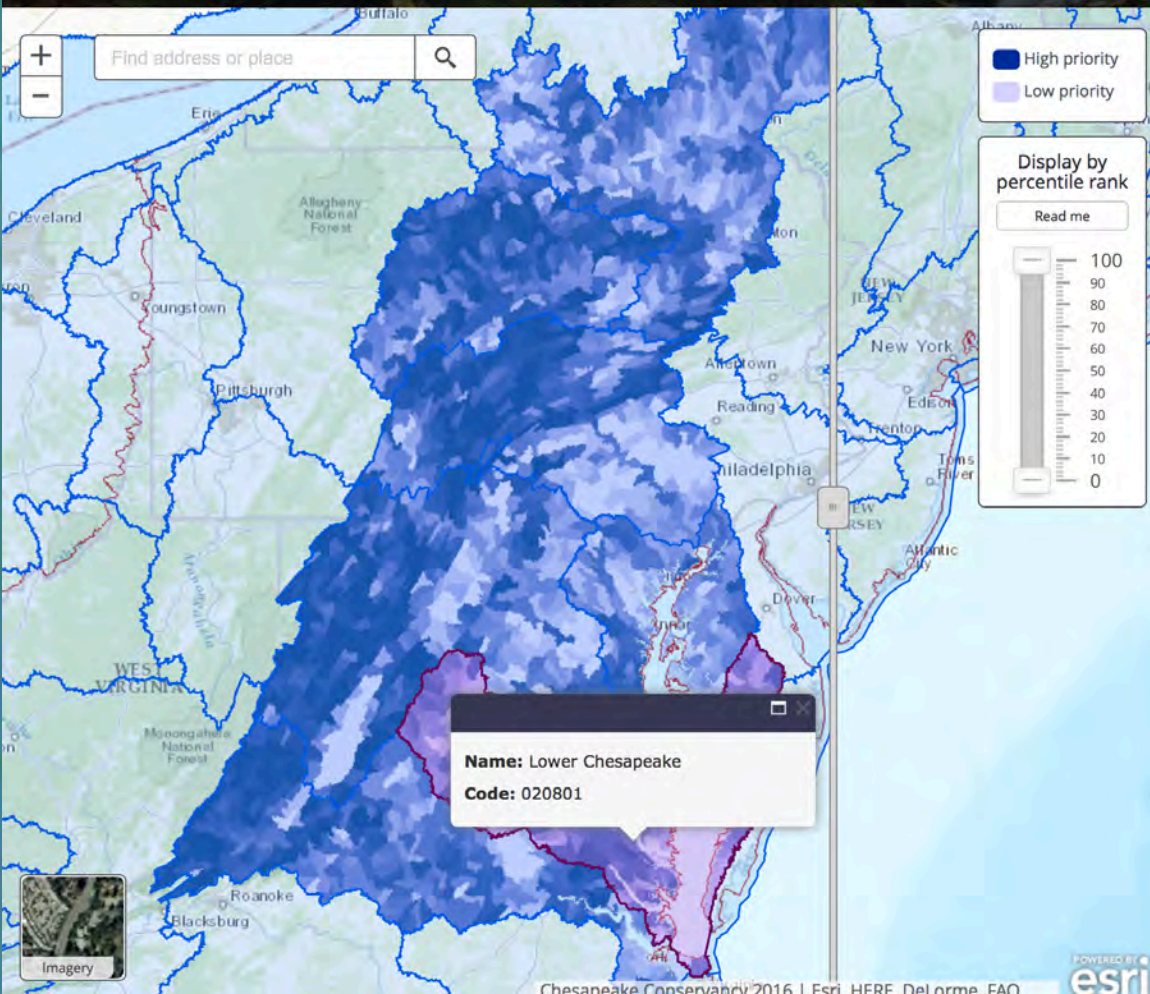
Concentrated flow area ¹

Remove

Positive

1

Get New Result



Sandbox

Parameters

1. Select planning unit and geography

Remove

Lower Chesapeake (020801)

2. Select metrics

4 items selected

3. Specify weights (1-10)

What do the weights mean?

Core area

i

Remove

Positive

2

Connector area

i

Remove

Positive

1

SGCN condition top 1/3

i

Remove

Positive

2

Concentrated flow area

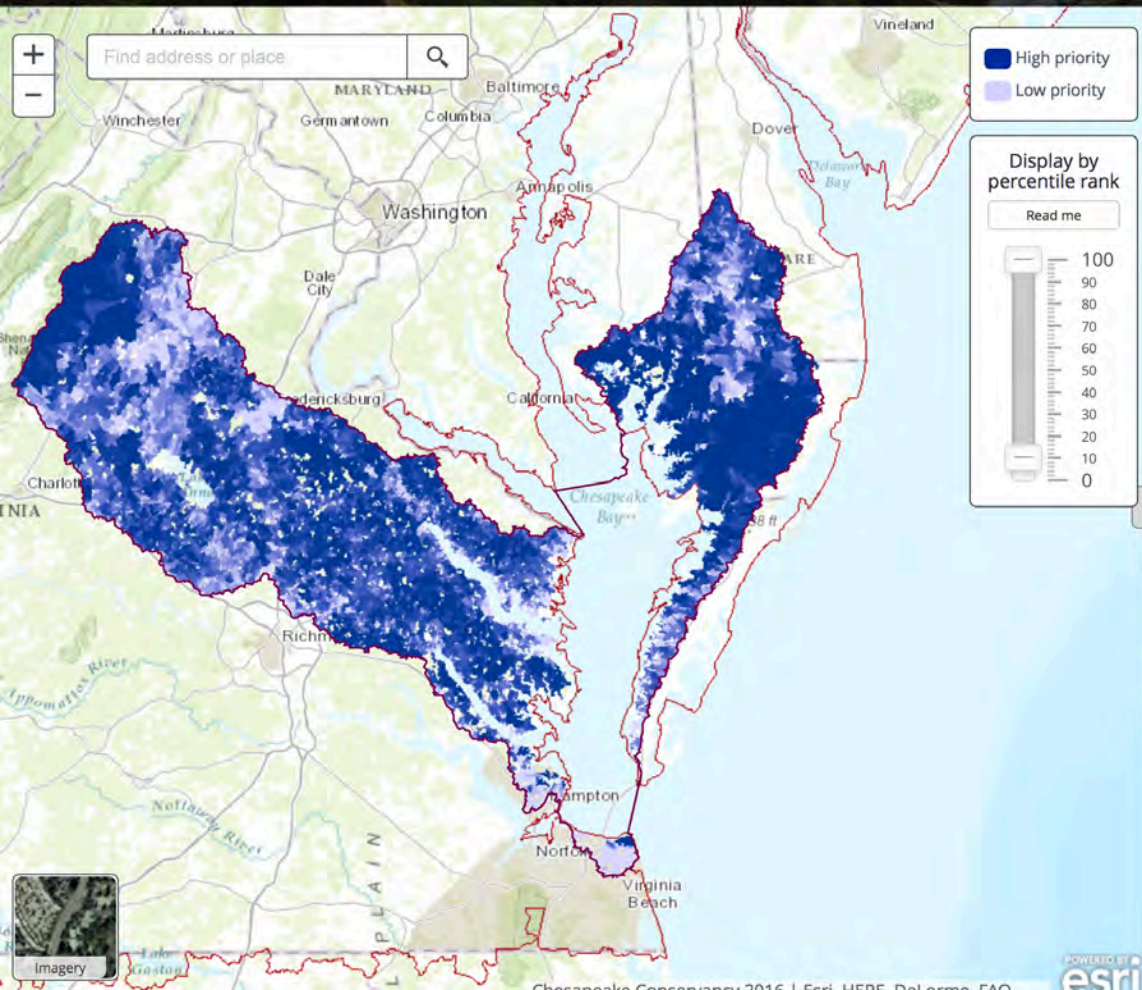
i

Remove

Positive

1

Get New Result



Sandbox

Parameters

Models

Please create a model and select "Get Results".

Custom model 1

Core area 1: 2, Connector area 1: 1, SGCN condition top 1/3 1: 2, Concentrated flow area 1: 1

Display on left

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Sheet (CSV)

PDF

Custom model 2

Core area 1: 2, Connector area 1: 1, SGCN condition top 1/3 1: 2, Concentrated flow area 1: 1

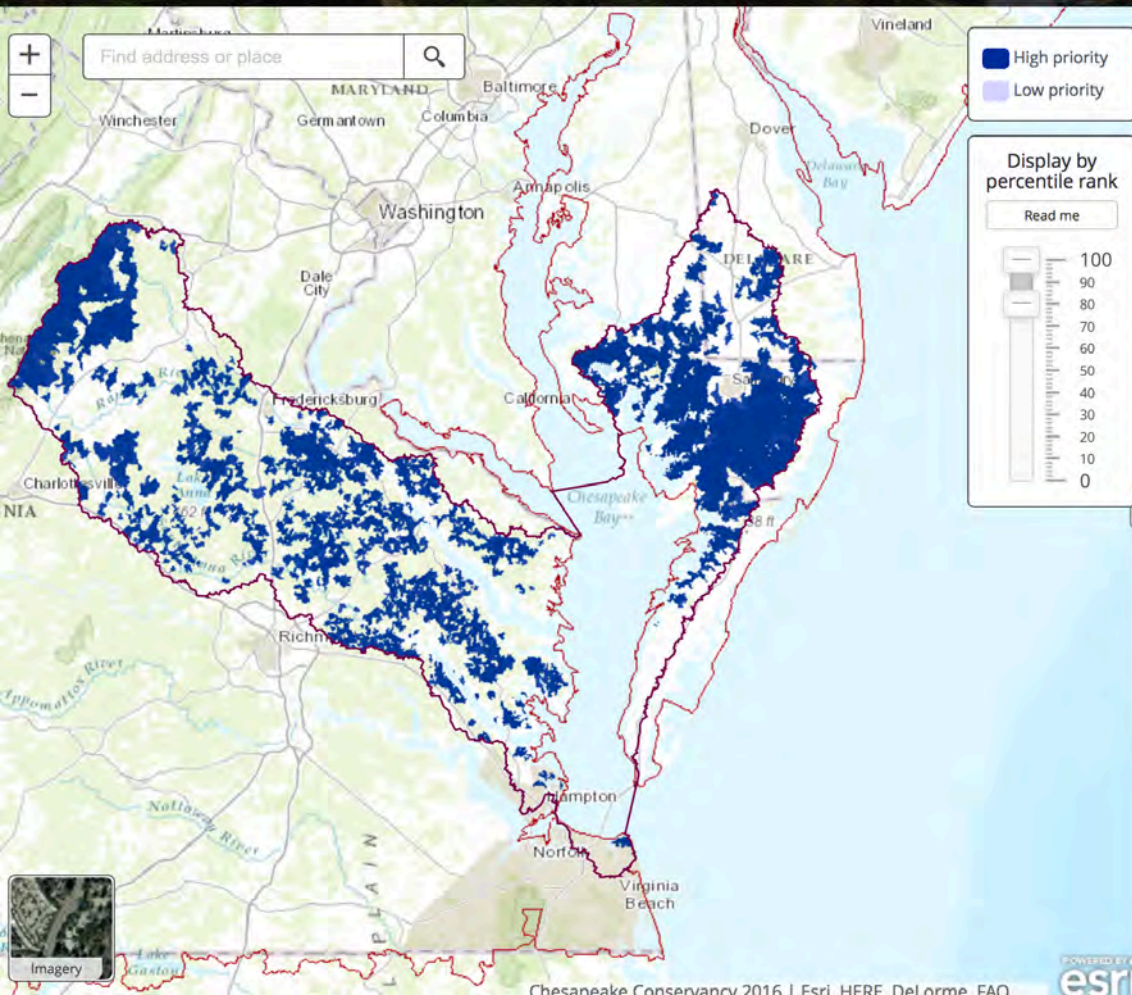
Display on left

Display on right

Sheet (CSV)

PDF

Results



Sandbox

Parameters

Models

Please create a model and select "Get Results".

Custom model 1

Core area 1: 2, Connector area 1: 1, SGCN condition top 1/3 1: 2, Concentrated flow area 1: 1

Display on left

Display on right

Sheet (CSV)

PDF

Custom model 2

Core area 1: 2, Connector area 1: 1, SGCN condition top 1/3 1: 2, Concentrated flow area 1: 1

Display on left

Display on right

Sheet (CSV)

PDF

Results

Scenario Building

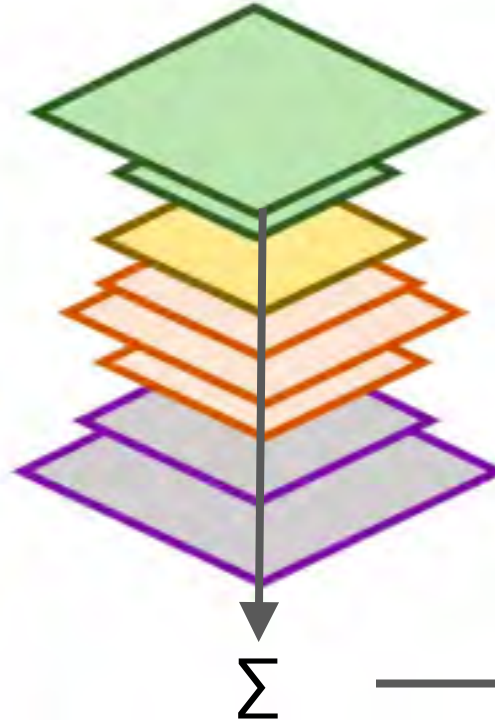
1. Objective



2. Restoration criteria



3. Weighted model



4. Prioritization map



Priority rank =
sum of weighted metrics

Scenario building process

Refine your objective

- Target species or habitat
- Desirable habitat conditions
- Specific actions & opportunities
- Limiting factors



Scenario building process

Focus on key factors to identify opportunities

- Target species or habitats

Which specific habitats and/or target species are the focus of your management effort?



Scenario building process

Focus on key factors to identify opportunities

- Target species or habitats
- Ecological site conditions

What general site conditions are necessary to ensure that management will generate the desired habitat response?



Scenario building process

Focus on key factors to identify opportunities

- Target species or habitats
- Ecological site conditions
- Conservation practices

Do you want to focus effort where NRCS practices or GAP status indicate willing landowners, or target completely new areas?

The answer might lead to different strategies: focus on public lands, re-entry on willing landowners, and new recruitment...



Scenario building process

Focus on key factors to identify opportunities

- Target species or habitats
- Ecological site conditions
- Conservation practices
- Current land uses or factors that help or hinder

Which prior land uses help or hinder management?

What makes a site inoperable or inaccessible?

Which stresses are currently present that might be mitigated?



Scenario building process

Focus on key factors to identify opportunities

- Target species or habitats
- Ecological site conditions
- Conservation practices
- Current land uses that help or hinder
- Synergistic priorities

Are there related initiatives or mapped regional focus areas that are compatible?



Scenario building process

We can use surveys to help select the proper metrics and weights.

9. Average age of forest LOST during last 10-year period

Mark only one oval.

0 1 2 3 4 5 6 7 8 9 10

0=Not
important or
useful to
identify
opportunities
for early
successional
management

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

10=Very
important or
useful to
identify
opportunities
for early
successional
management

10. Area of forest GAINED during last 10-year period

Mark only one oval.

0 1 2 3 4 5 6 7 8 9 10

0=Not
important or
useful to
identify
opportunities
for early
successional
management

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

10=Very
important or
useful to
identify
opportunities
for early
successional
management



Scenario building process

Based on your input, we can develop customized metrics and upload your data to be integrated with other regional results.



Restoration Tool

Sandbox

Access all available datasets and design your own restoration scenario



Get started

Early Successional Habitat

Access restoration scenarios developed by experts



American woodcock: forest management

American woodcock: riparian restoration

American black duck: demo

Aquatic Habitat

Access restoration scenarios developed by experts



Road-stream crossings

Expert scenarios can be uploaded.

Demo: Riparian buffers

- **Where should we plant forest buffers to increase connectivity (flow) for terrestrial/aquatic wildlife, conserve soil, and adapt to climate driven flooding?**

Scenario building process

Focus on key factors to identify forest riparian buffer opportunities for SGCN

- Target species or habitats
 - important SGCN habitats
- Ecological site conditions
 - high quality wetlands/streams
 - productivity soils for forest/wildlife
 - low forest cover
 - poor local connectivity
 - high regional flow potential



BDJV photo gallery: G. Michael Haramis, USFWS

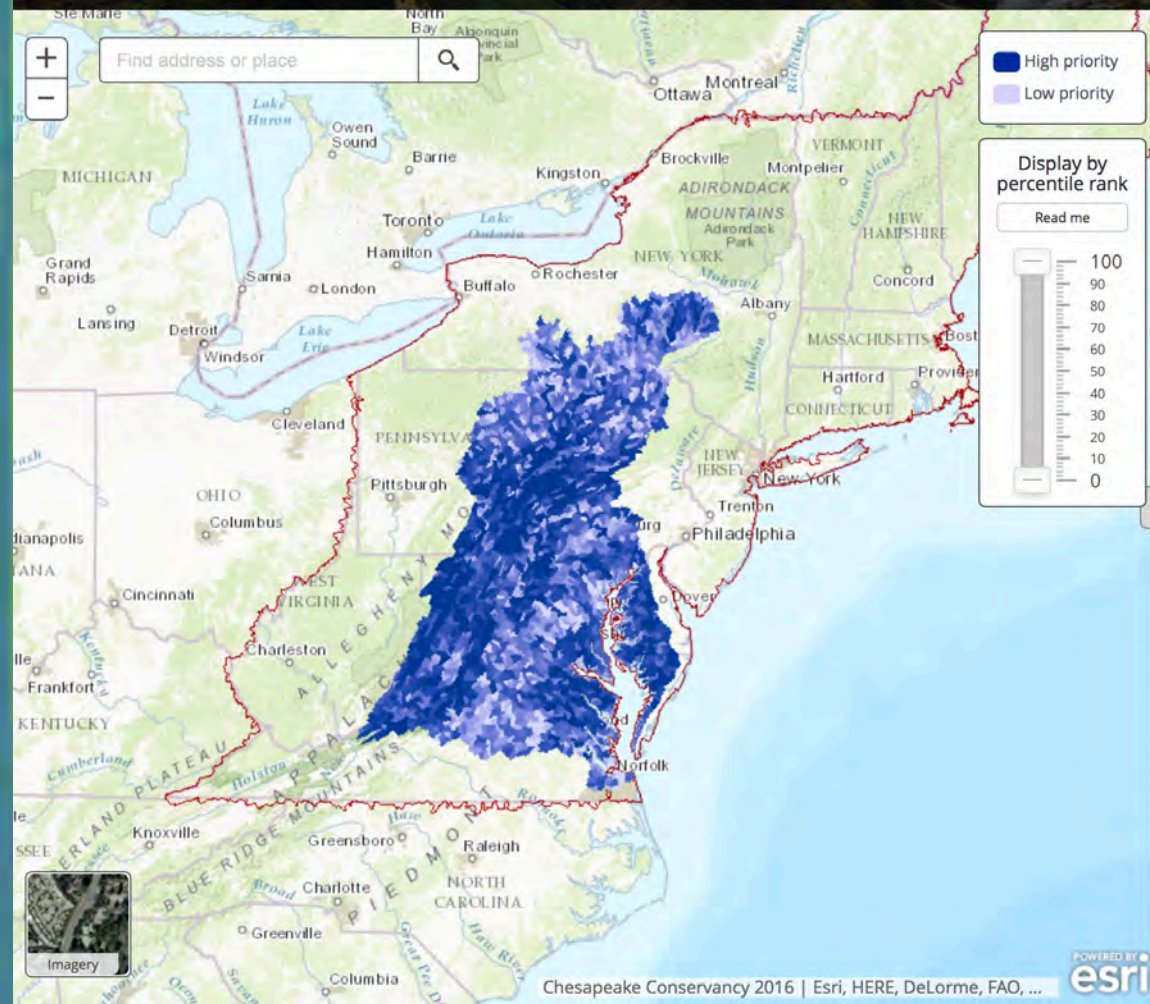
Scenario building process

Focus on key factors to identify forest riparian buffer opportunities for SGCN

- Conservation practices
 - increase riparian forest buffers
- Current land uses that help or hinder
 - agriculture is desirable
 - impervious surfaces hinder



BDJV photo gallery: G. Michael Haramis, USFWS



Connector area ¹ [Remove](#)

Positive 6

SGCN condition top 1/3 ¹ [Remove](#)

Positive 10

Concentrated flow area ¹ [Remove](#)

Positive 6

SGCN condition middle 1/3 ¹ [Remove](#)

Positive 8

Diffuse flow area ¹ [Remove](#)

Positive 4

IEI Terrestrial bottom 1/3 ¹ [Remove](#)

Positive 3

IEI Terrestrial middle 1/3 ¹ [Remove](#)

Positive 3

Forest Cover ¹ [Remove](#)

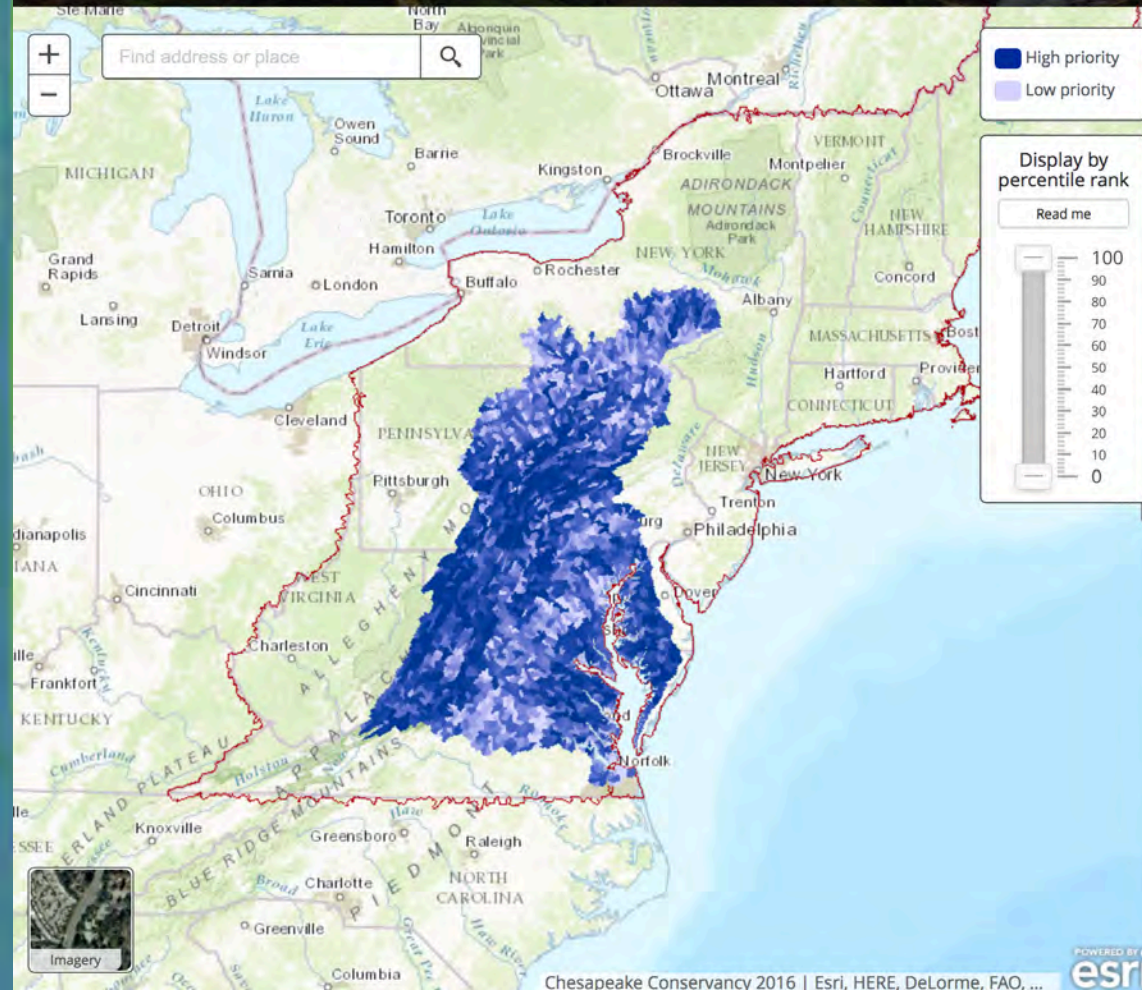
Negative 10

Cultivated crops ¹ [Remove](#)

Positive 3

Pasture/hay ¹ [Remove](#)

Positive 2

[Get New Result](#)

Models

Please create a model and select "Get Results".

Custom model 1

Core area ①: 2, Connector area ①: 1, SGCN condition top 1/3 ①: 2,
Concentrated flow area ①: 1

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Custom model 2

Core area ①: 2, Connector area ①: 1, SGCN condition top 1/3 ①: 2,
Concentrated flow area ①: 1

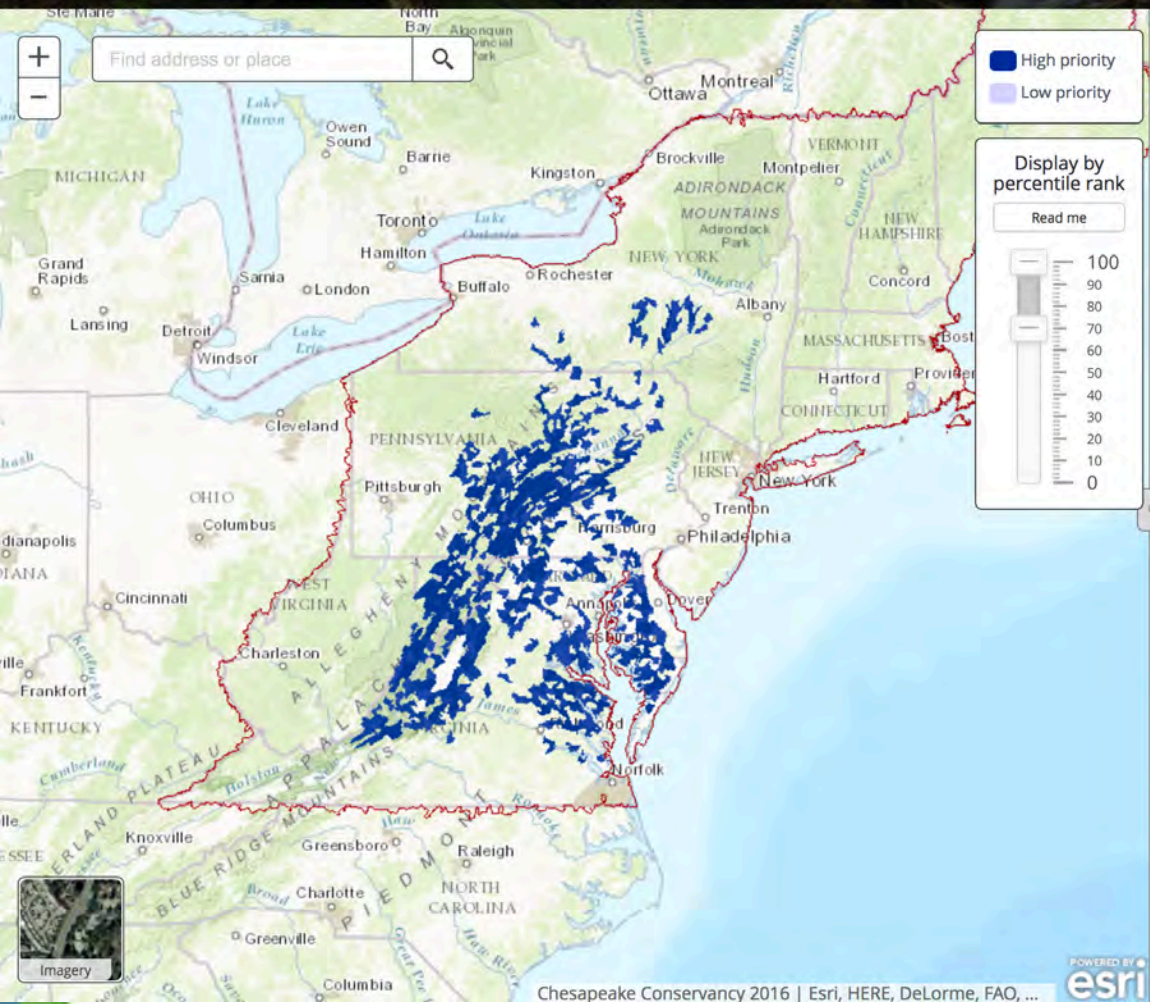
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Custom model 3

Connector area ①: 6, SGCN condition top 1/3 ①: 10, Concentrated flow area ①:
6, SGCN condition middle 1/3 ①: 8, Diffuse flow area ①: 4, IEI Terrestrial bottom
1/3 ①: 3, IEI Terrestrial middle 1/3 ①: 3, Forest Cover ①: -10, Cultivated crops
①: 3, Pasture/hay ①: 3, IEI Metric Connectedness bottom 1/3 ①: 3

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Results

[Get New Result](#)

Models

Please create a model and select "Get Results".

Custom model 1

Core area 1: 2, Connector area 1: 1, SGCN condition top 1/3 1: 2,
Concentrated flow area 1: 1

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Custom model 2

Core area 1: 2, Connector area 1: 1, SGCN condition top 1/3 1: 2,
Concentrated flow area 1: 1

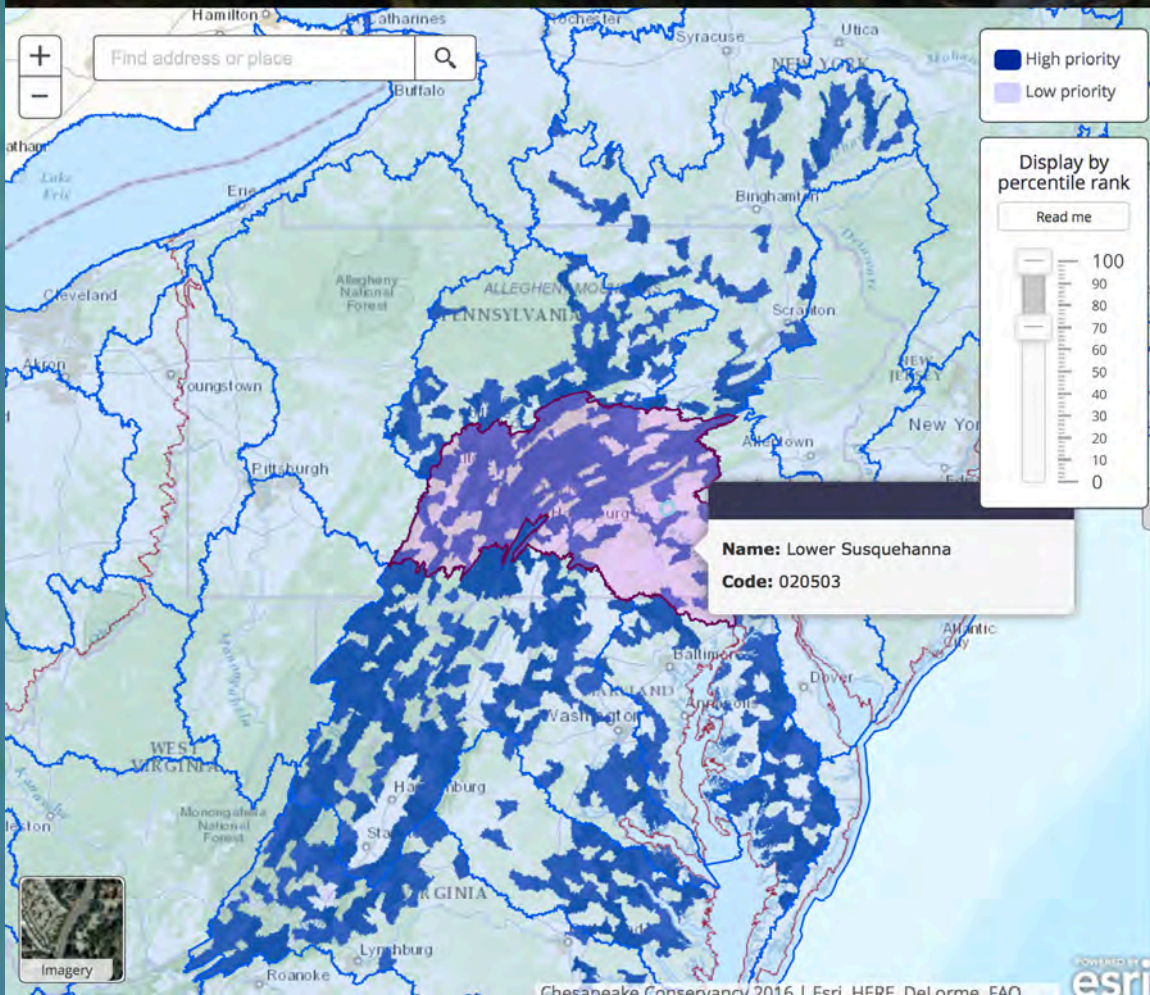
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Custom model 3

Connector area 1: 6, SGCN condition top 1/3 1: 10, Concentrated flow area 1: 6,
SGCN condition middle 1/3 1: 8, Diffuse flow area 1: 4, IEI Terrestrial bottom 1/3 1: 3,
IEI Terrestrial middle 1/3 1: 3, Forest Cover 1: -10, Cultivated crops 1: 3,
Pasture/hay 1: 3, IEI Metric Connectedness bottom 1/3 1: 3

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Results



Sandbox

Parameters

1. Select planning unit and geography

Remove

Lower Susquehanna (020503)

2. Select metrics

11 items selected

3. Specify weights (1-10)

What do the weights mean?

Connector area

1

Remove

Positive

6

SGCN condition top 1/3

1

Remove

Positive

10

Concentrated flow area

1

Remove

Positive

6

SGCN condition middle 1/3

1

Remove

Positive

8

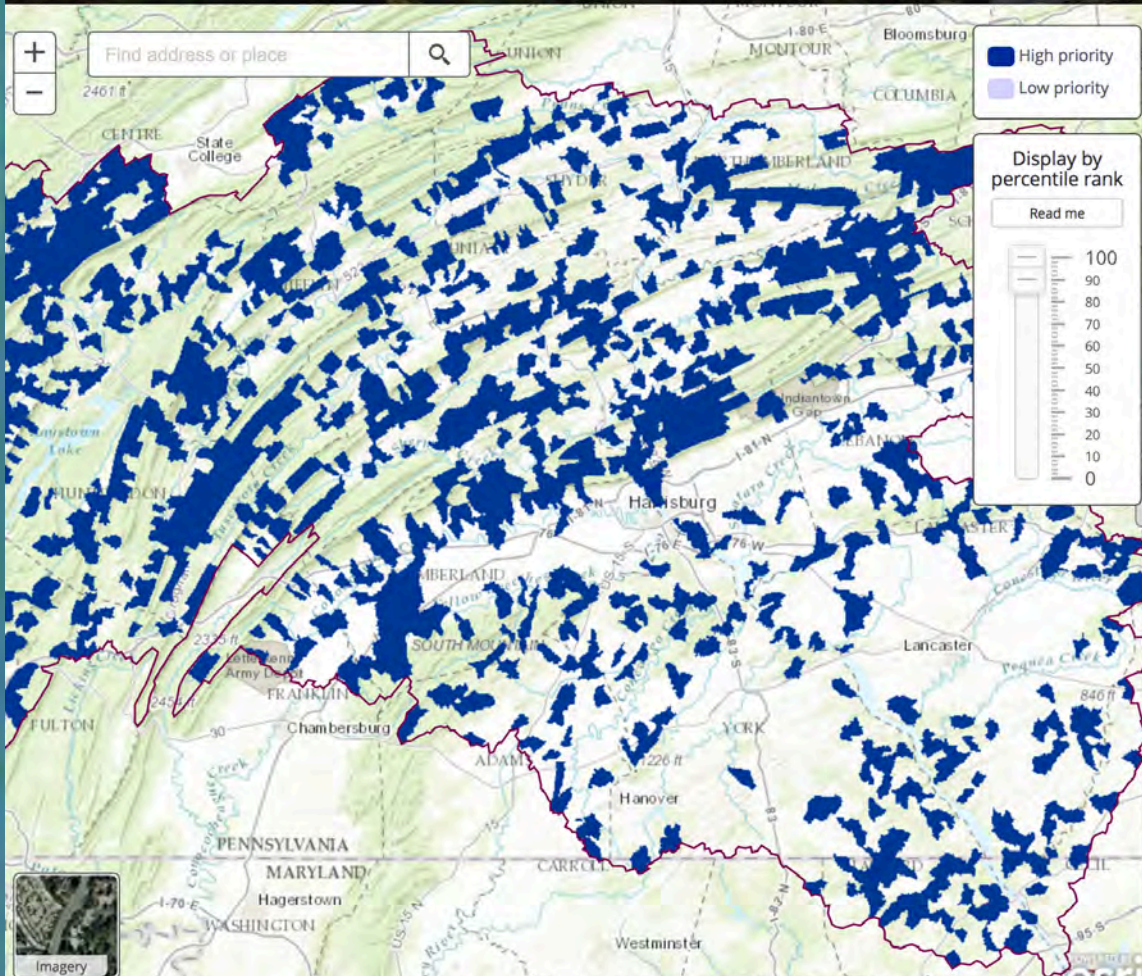
Diffuse flow area

1

Remove

Positive

4



Core area 1: 2, Connector area 1: 1, SGCN condition top 1/3 1: 2,
Concentrated flow area 1: 1

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Custom model 2

Core area 1: 2, Connector area 1: 1, SGCN condition top 1/3 1: 2,
Concentrated flow area 1: 1

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Custom model 3

Connector area 1: 6, SGCN condition top 1/3 1: 10, Concentrated flow area 1:
6, SGCN condition middle 1/3 1: 8, Diffuse flow area 1: 4, IEI Terrestrial bottom
1/3 1: 3, IEI Terrestrial middle 1/3 1: 3, Forest Cover 1: -10, Cultivated crops
1: 3, Pasture/hay 1: 3, IEI Metric Connectedness bottom 1/3 1: 3

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Custom model 4

Connector area 1: 6, SGCN condition top 1/3 1: 10, Concentrated flow area 1:
6, SGCN condition middle 1/3 1: 8, Diffuse flow area 1: 4, IEI Terrestrial bottom
1/3 1: 3, IEI Terrestrial middle 1/3 1: 3, Forest Cover 1: -10, Cultivated crops
1: 3, Pasture/hay 1: 3, IEI Metric Connectedness bottom 1/3 1: 3

[Display on left](#)[Display on right](#)[Sheet \(CSV\)](#)[PDF](#)**Results**

Demonstration



Discussion



Links

Website for RCOA Version 1.0:

<http://rcoa.cicapps.org>

Webinar series summary and archive:

<http://rcoa.cicapps.org/news-and-info/>