State of the Forests 2.0

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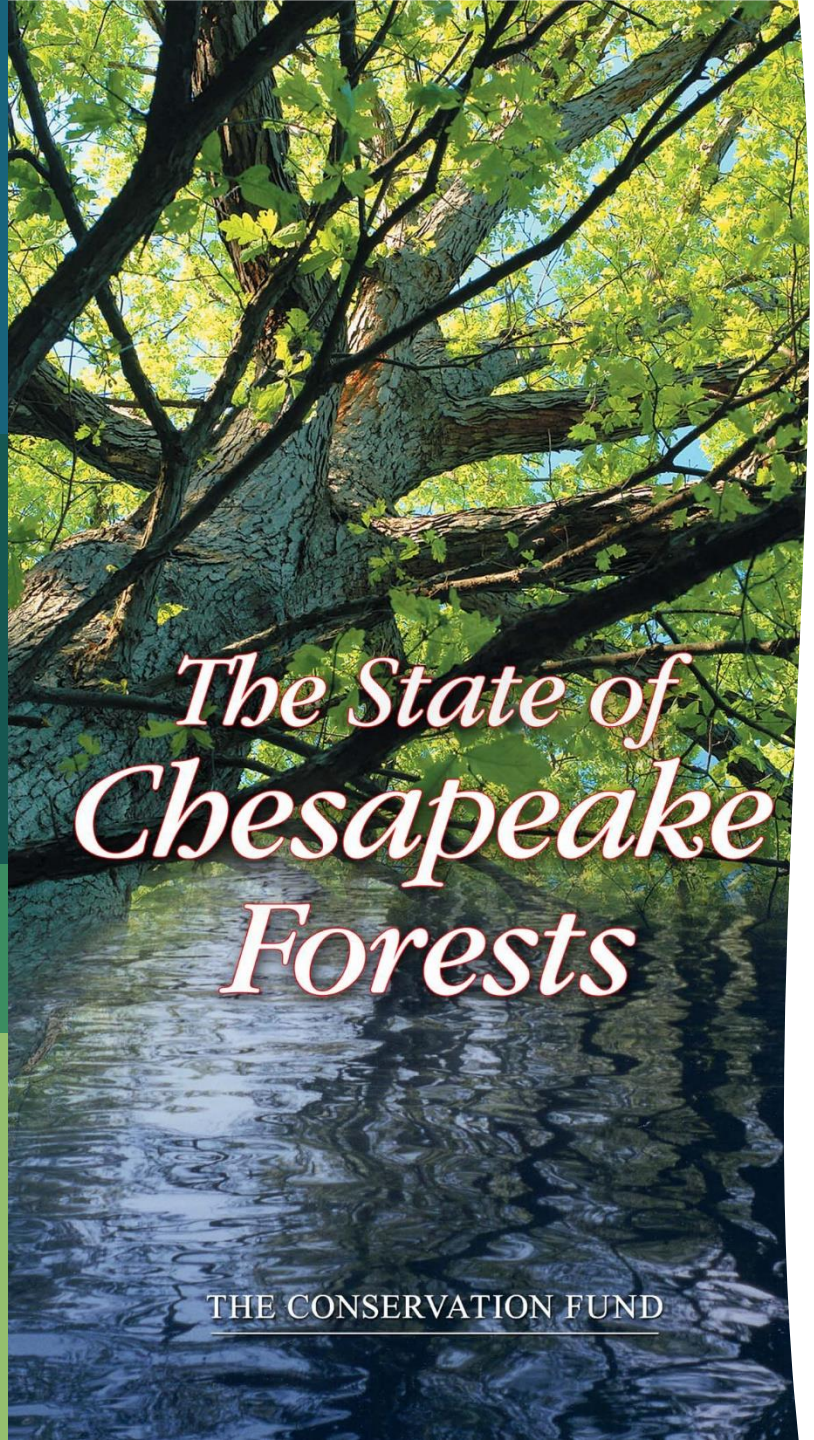


State of the Chesapeake Forests

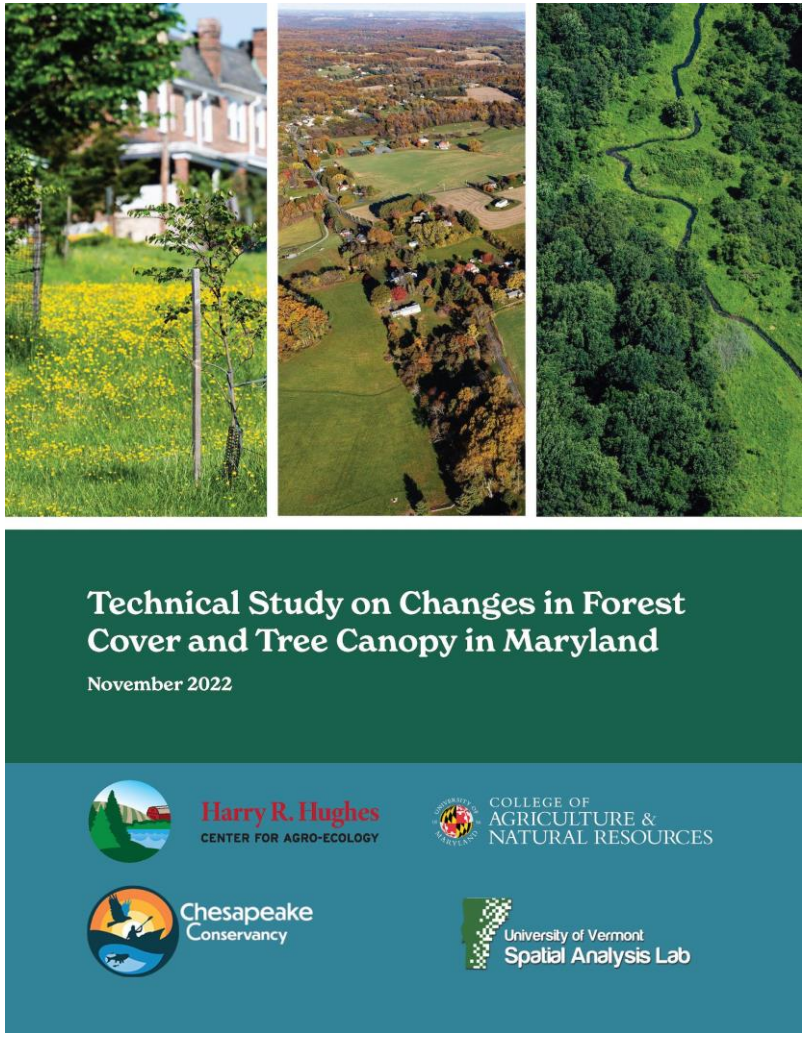
- History
- Importance of forests for habitat, watershed function, economy
- Current and expected future conditions
- Strategies for protection, restoration and stewardship

SOTF 2.0 Goals

- Characterize current state of the forests based on high-res data
- Characterize forest/tree cover change since 2013
- Evaluate implications for water quality and other ecosystem services
- Identify potential management and policy implications

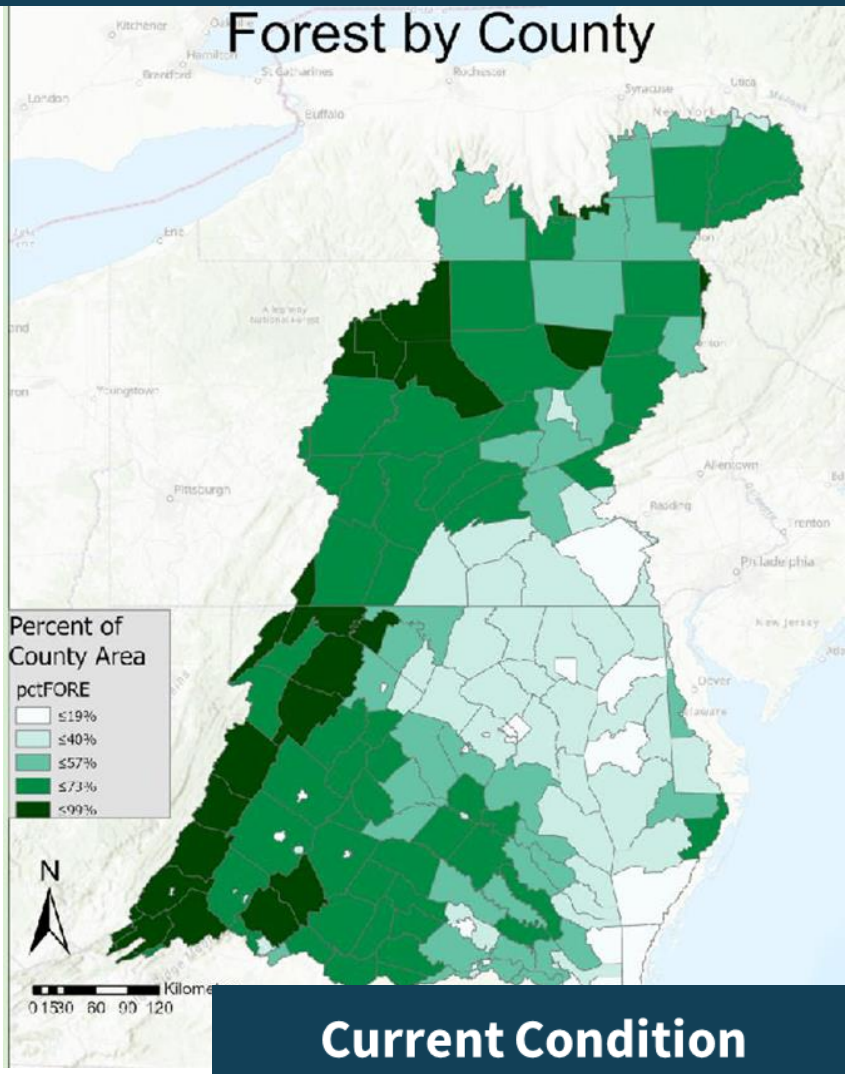
Maryland Forest Technical Study

- Quantified existing forest cover and tree canopy and changes
- Identified potential locations for afforestation and reforestation
- Evaluated fragmentation and disturbance



SOTF 2.0 Key Storylines: Current Conditions

- There is much less forest than there was historically
- Describe distribution of forests and trees throughout the watershed
  - Relative prevalence of forest in the headwaters
- Forests/trees provide many important ecosystem services in the watershed



Current Condition

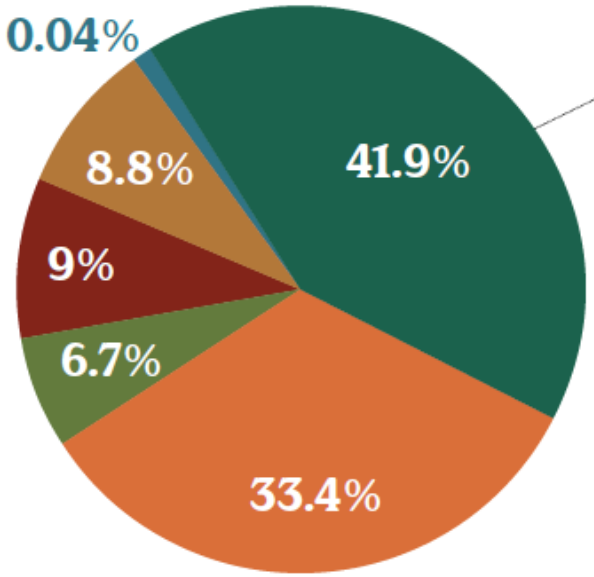
Phase I – Current Condition (2017/18)

- All tree cover with detail pop-outs
  - Forest
  - Tree canopy over turf grass
  - Tree canopy over impervious
  - Other tree canopy
- Forest
- Overlays
  - Community tree canopy footprint
  - Protected areas
- Riparian tree cover

Full outline available on the meeting calendar page

What is the land use/land cover **breakdown** in your county?

341,668 ACRES OF LAND AREA
IN CUMBERLAND COUNTY



41.9% Tree Cover[1]
142,219 acres

33.4% Agriculture
113,222 acres

6.7% Turf Grass
(Lawns)
22,569 acres

9% Impervious
(Buildings/Pavement)
30,882 acres

8.8% Other[2]
29,890 acres

0.04% Non-Forested Wetlands
163 acres

1. Tree cover includes all trees occurring on all land uses, such as individual trees found over turf, impervious, agricultural, wetlands, or other lands. It also includes areas of "forest," defined in this dataset as patches of tree cover 1 acre or greater, with a minimum patch width of 240 feet.

2. Other includes a mixture of non-treed land uses not captured in the main pie chart categories. See the Data Guide for detailed definitions of "other" and all the land use categories.

Where does tree cover occur in your county?

82% is in forest (**116,180** acres)

1% is over impervious (**2,128** acres)

11% is over turf grass (**15,762** acres)

6% is other tree cover (**8,149** acres)

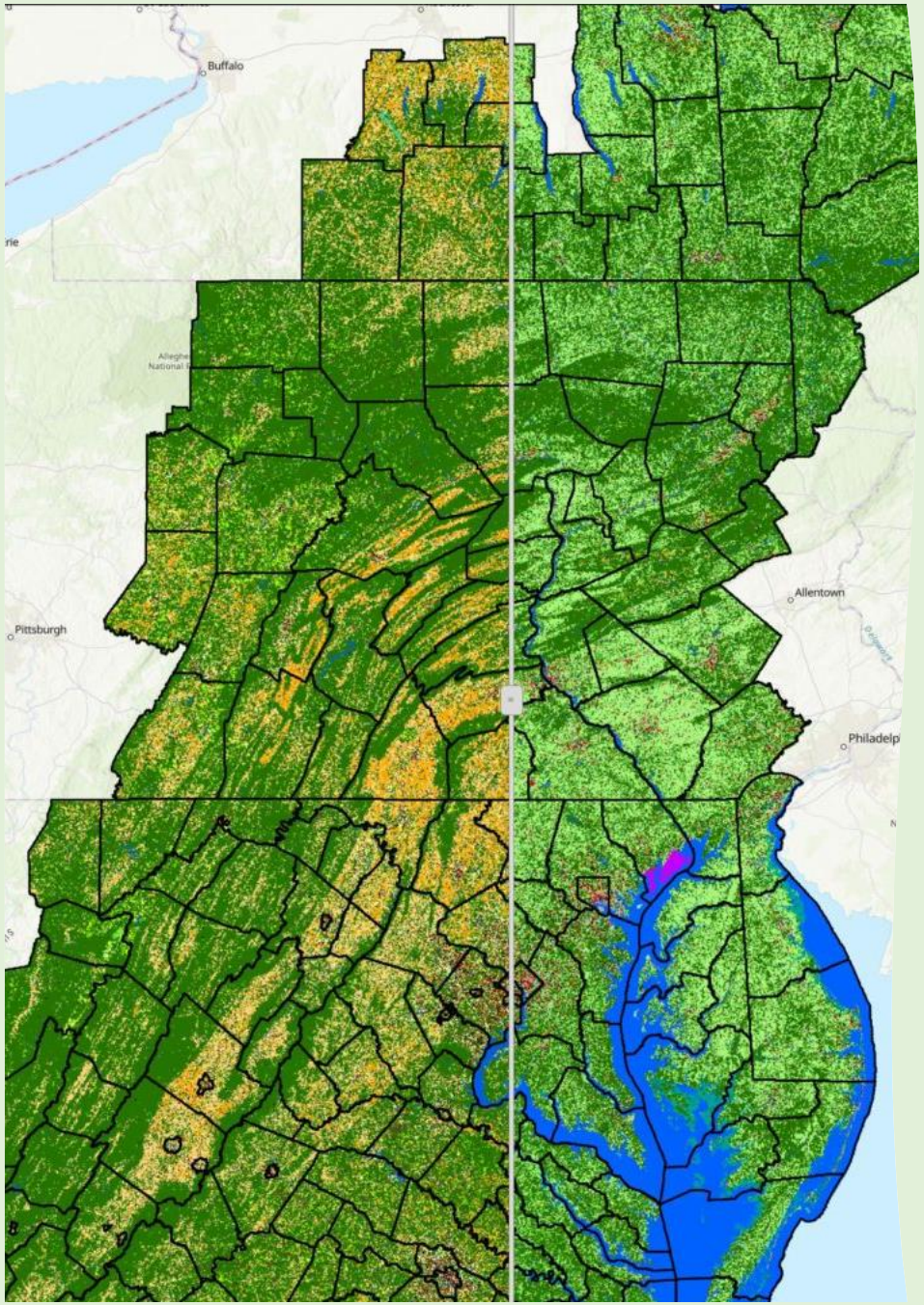
What are some benefits of tree cover in your county?

Total Air Pollution Removal Value
9.7 million lbs removed annually
$9.2 million saved annually
Total air pollution removal includes CO, NO_2, O3, SO_2, and Particulate Matter (PM2.5, PM10).

Gallons of Reduced Stormwater Runoff Value
560.1 million gallons reduced annually
$5.0 million saved annually

Carbon Sequestered Value
120,250 tons removed annually
$10,594 saved annually

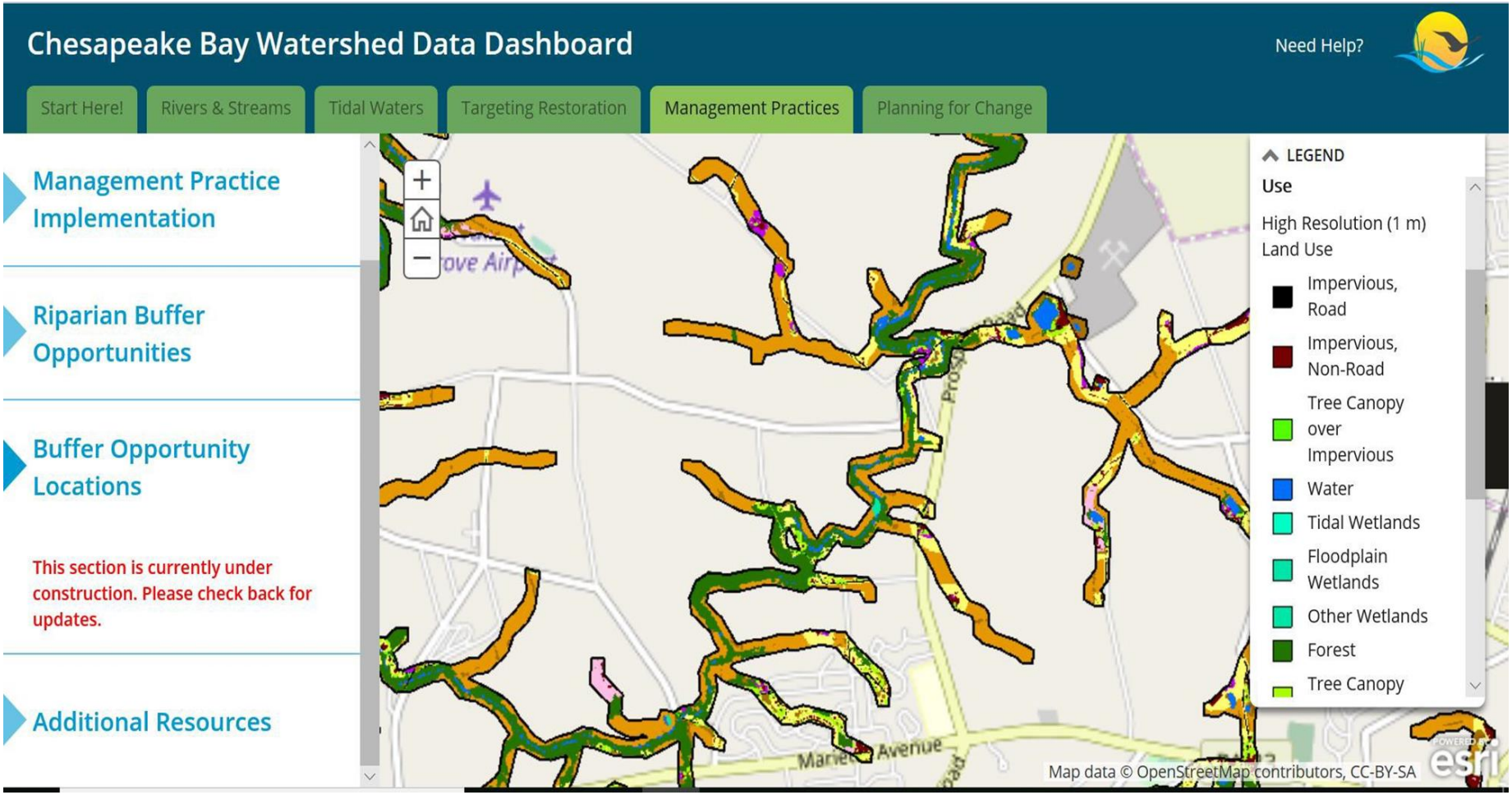
Calculated based on 2017 tree cover data using: *landscape.itreetools.org*



LULC Viewer with forest and tree canopy classes only?

Current Condition

Visualizing RFB coverage



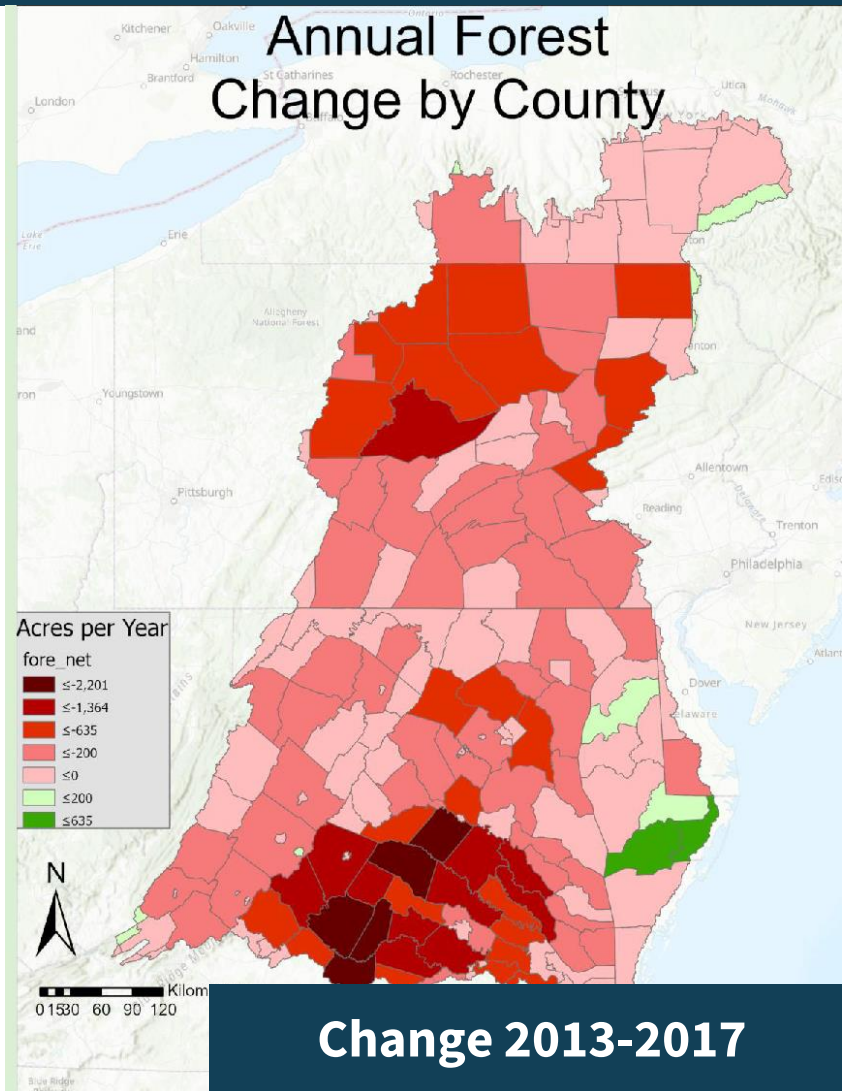
Key Storylines: Change from 2013/14 to 2017/18

- The biggest transition by far in the watershed is the result of timber harvesting
- We are losing more trees than we are gaining in developed areas
- Forest/tree loss has implications for ecosystem services provisioning (which are not evenly distributed)

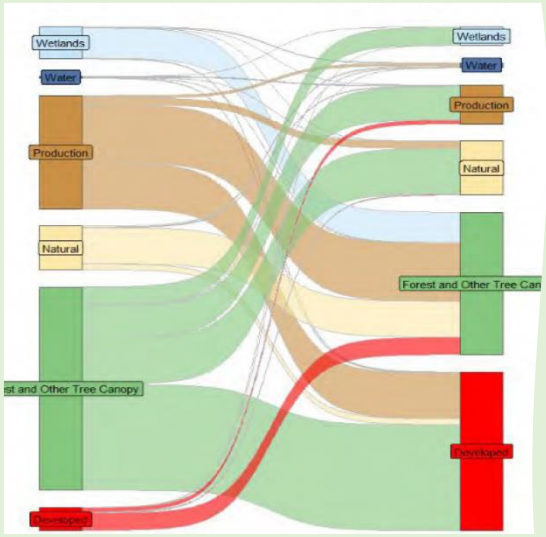
Phase I – Change from 2013/14 to 2017/18

Loss/gain

- All tree cover
- Forest
- Overlays
  - Community tree canopy footprint
  - Protected areas
- Riparian tree cover



CBPO Land Use/Land Cover Transitions from 2013-2017



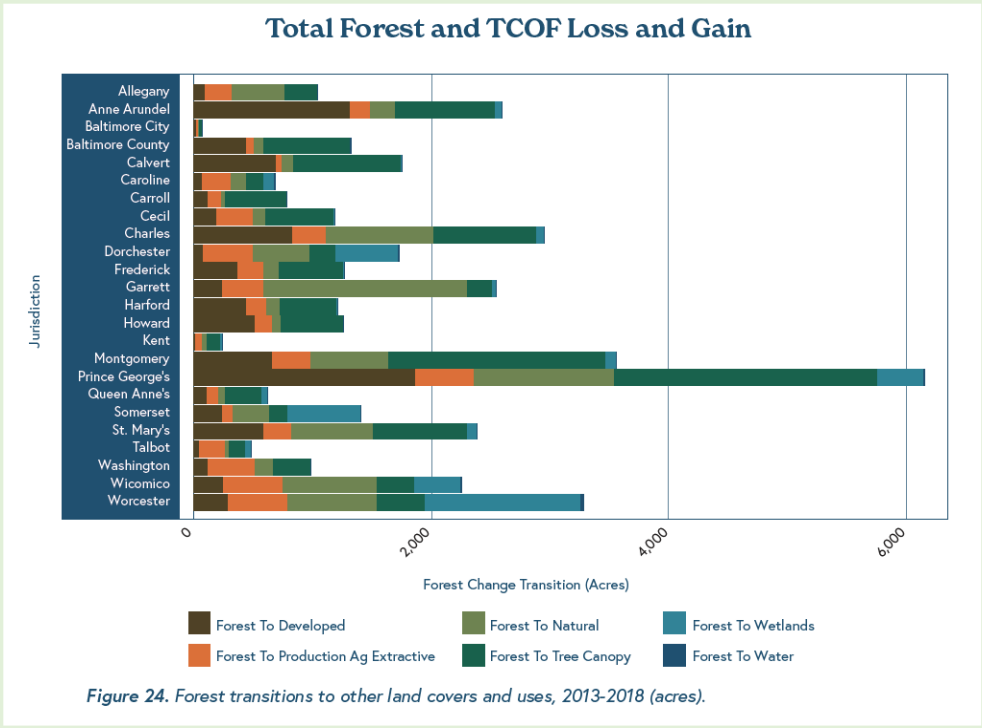
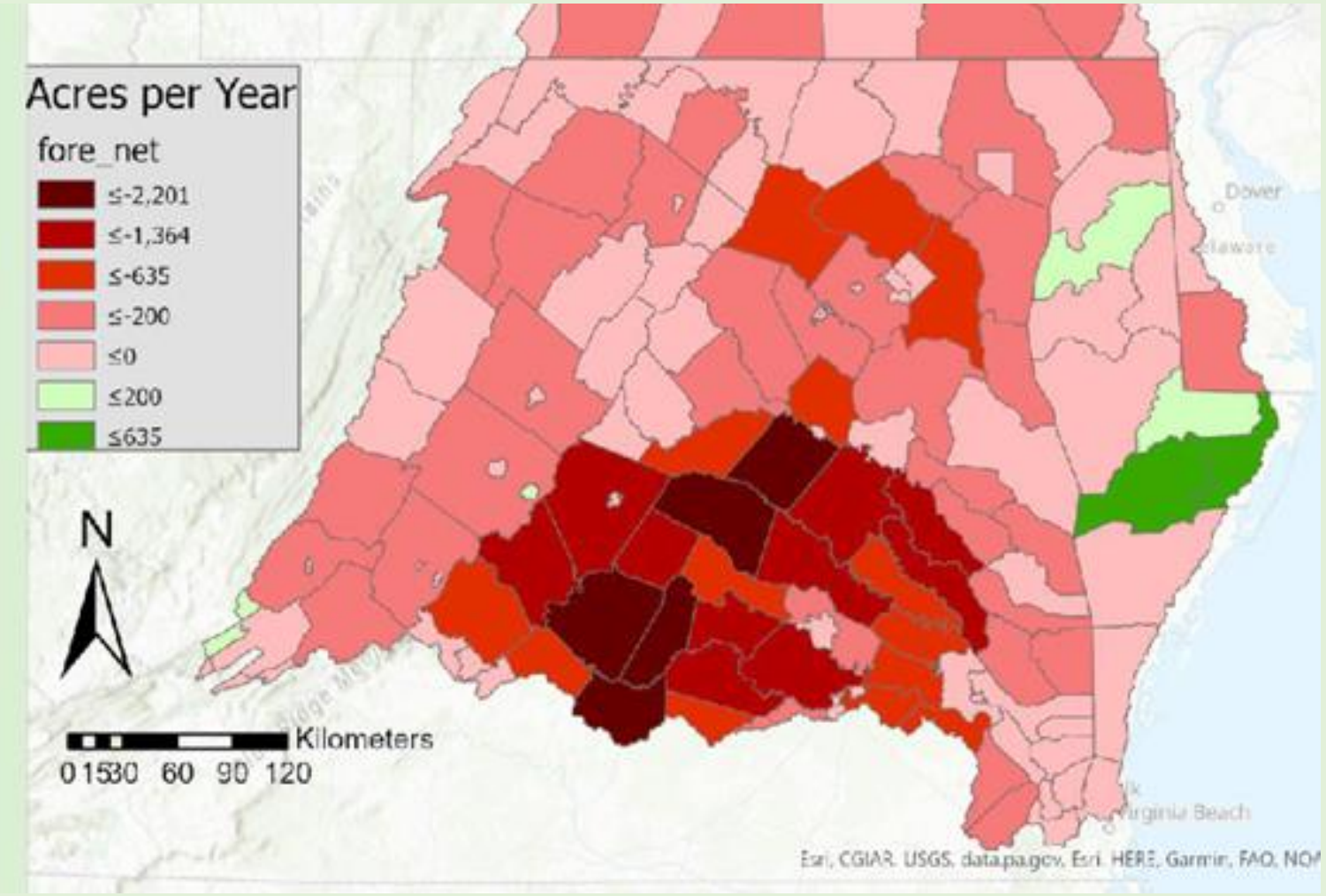


Figure 24. Forest transitions to other land covers and uses, 2013-2018 (acres).

Transitions

- Which classes should be included?

Change 2013-2017



Hot Spots/Drivers

Change 2013-2017

Phase I – Implications for restoration and management

- Planting opportunity areas
  - Riparian areas only
  - Watershed-wide plantable area
- Water quality
- Other ecosystem services
- Management/Policy

Phase 2 and Beyond

- Equity overlays
- Forest condition analyses
  - Successional classes/age classes
  - Forest health
- Fragmentation/ parcelization analyses

Questions and discussion

- Are there other key storylines we should capture?
- Are there other maps/analyses we should prioritize developing in Phase 1 to tell the story?
- What other case studies illustrating the major drivers of loss/gain should we include?
- Should we develop a simplified viewer in the story map? If so, what classes should we include?