Riparian Forest Buffer Indicator Update

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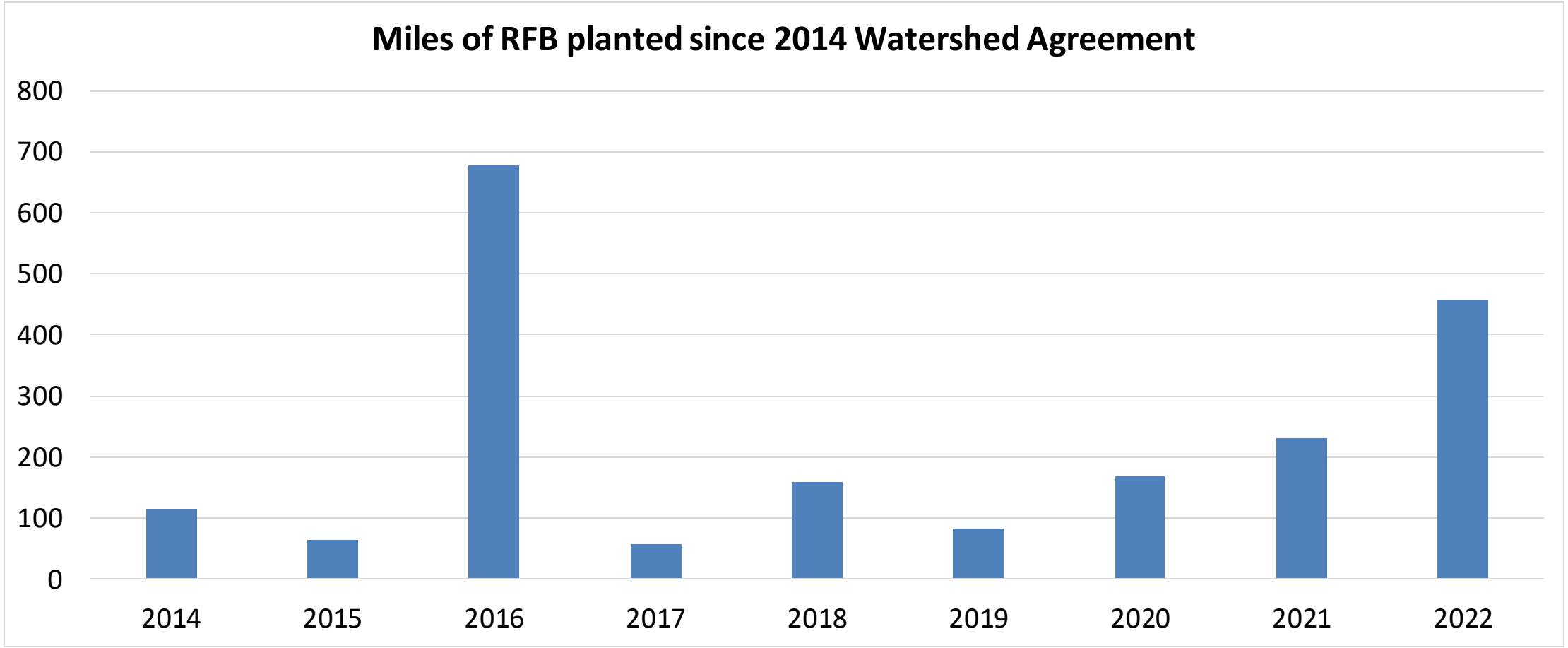
Through the Chesapeake Bay Watershed Agreement*, the Chesapeake Bay Program has committed to…*

Vital Habitats Goal

Riparian Forest Buffer Outcome*: Restore 900 miles per year of riparian forest buffer* and conserve existing buffers until at least 70 percent of riparian areas throughout the watershed are forested.

457 miles planted in 2022*!!

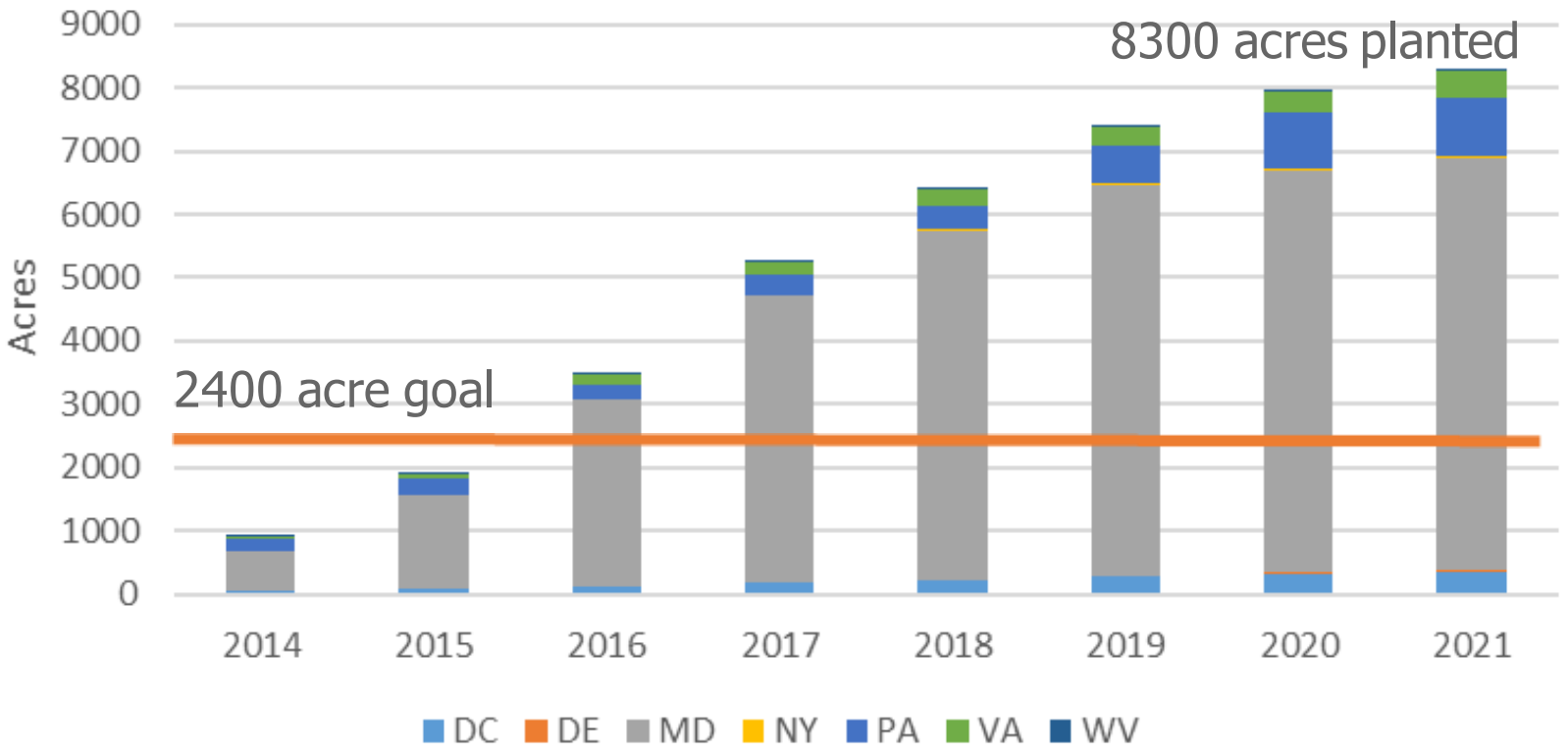


*Draft data subject to revision

OUTLOOK OFF COURSE

Tree Canopy Indicator

1. Urban Tree Planting BMPs Reported (cumulative acres)



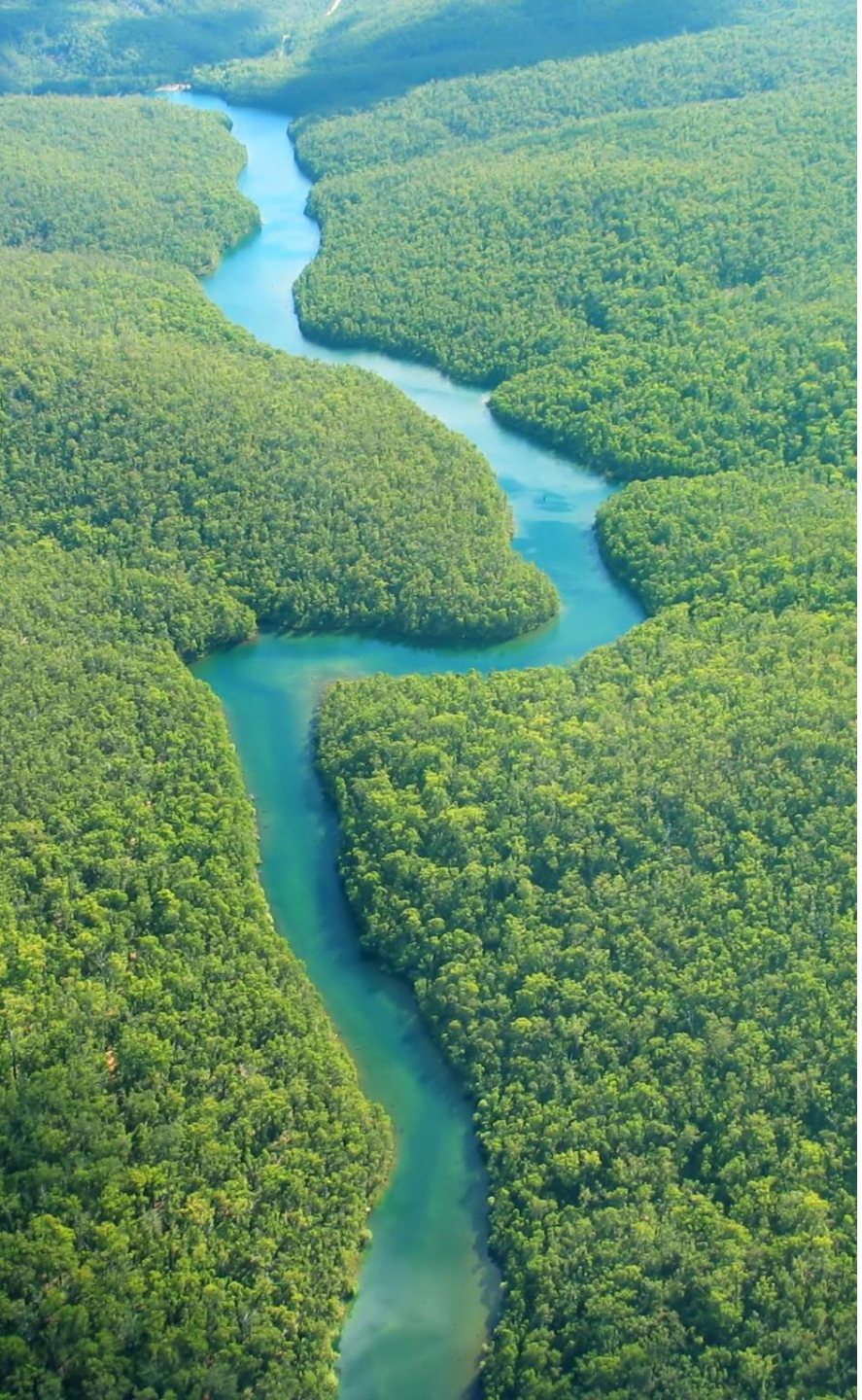
2. Land Use/Land Cover Change Detected from Imagery

Tree Canopy Net Change in Census Places (2013/14-2017/18)	
Jurisdiction (CB Only)	**Net Change** (Acres)
Delaware	-28
DC	21
Maryland	-13,804
New York	78
Pennsylvania	-2,444
Virginia	-9,548
West Virginia	-107
Total	-25,832

TC Indicator on Chesapeake Progress

Tree Canopy Net Change

Jurisdiction	Tree Canopy Acres, 2013/14	Baseline Year	Tree Canopy Acres, 2017/18	Year 2	Net Change in Acres
DE	2,995	2013	2,967	2018	-28
DC	13,637	2013	13,658	2017	21
MD	629,925	2013	616,121	2018	-13,804
NY	48,762	2013	48,840	2017	78
PA	302,826	2013	300,382	2017	-2,444
VA	663,677	2014	654,129	2018	-9,548
WV	14,955	2014	14,847	2018	-107
Total Watershed	1,676,776		1,650,944		-25,832



Expanding the RFB Indicator

- Add land use data to Chesapeake Progress to show % of riparian area forested by state and total watershed (for 2013/14 and 2017/18)
- Use new 1:24K stream network to define riparian area
- Use 100 ft buffer from stream for official indicator (but have data available for 35 ft and 300 ft)
- Forest= Areas with mature tree canopy and an unmanaged understory (Forest + Other Tree Canopy classes)

Tree Canopy in the Riparian Zone

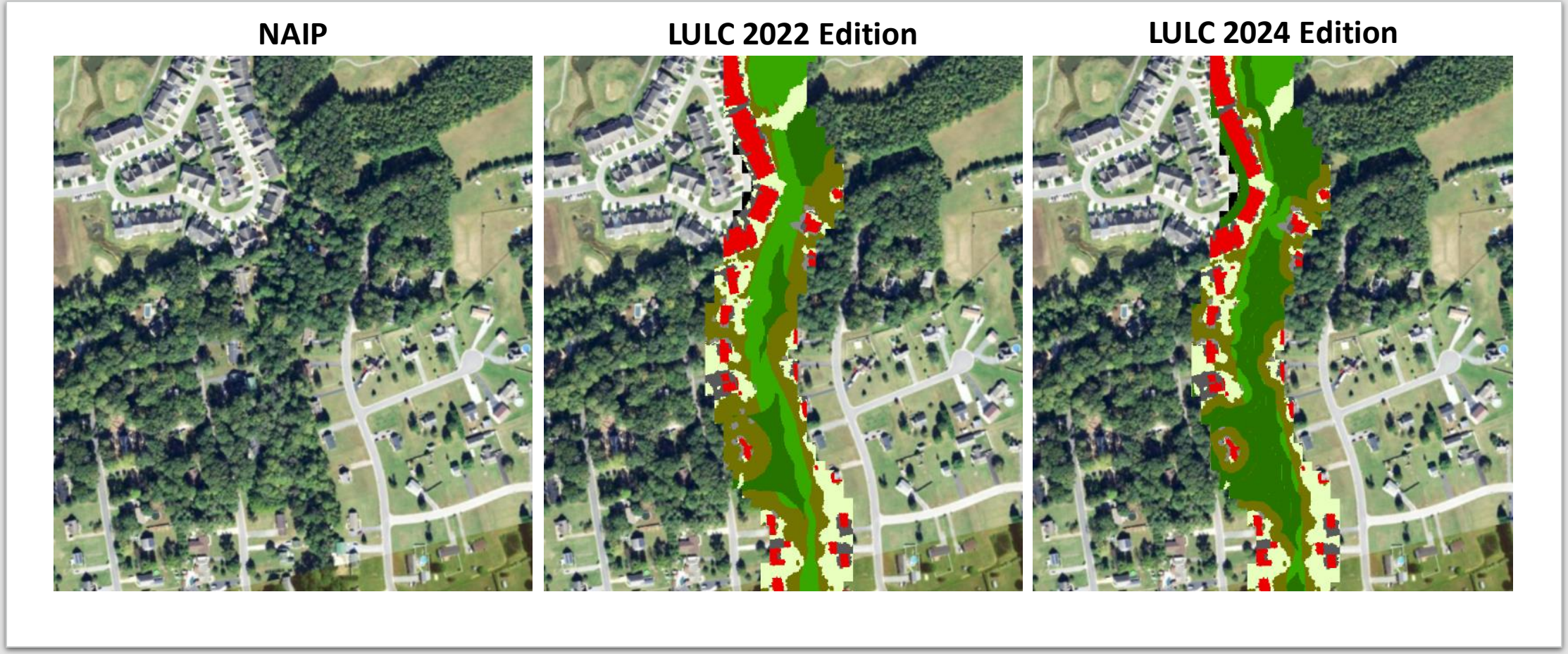
NAIP

LULC 2022 Edition

Tree Canopy, Other

Tree Canopy over Turf Grass

Tree Canopy in the Riparian Zone



NAIP

Stream Networks

NHD 1:100k Network

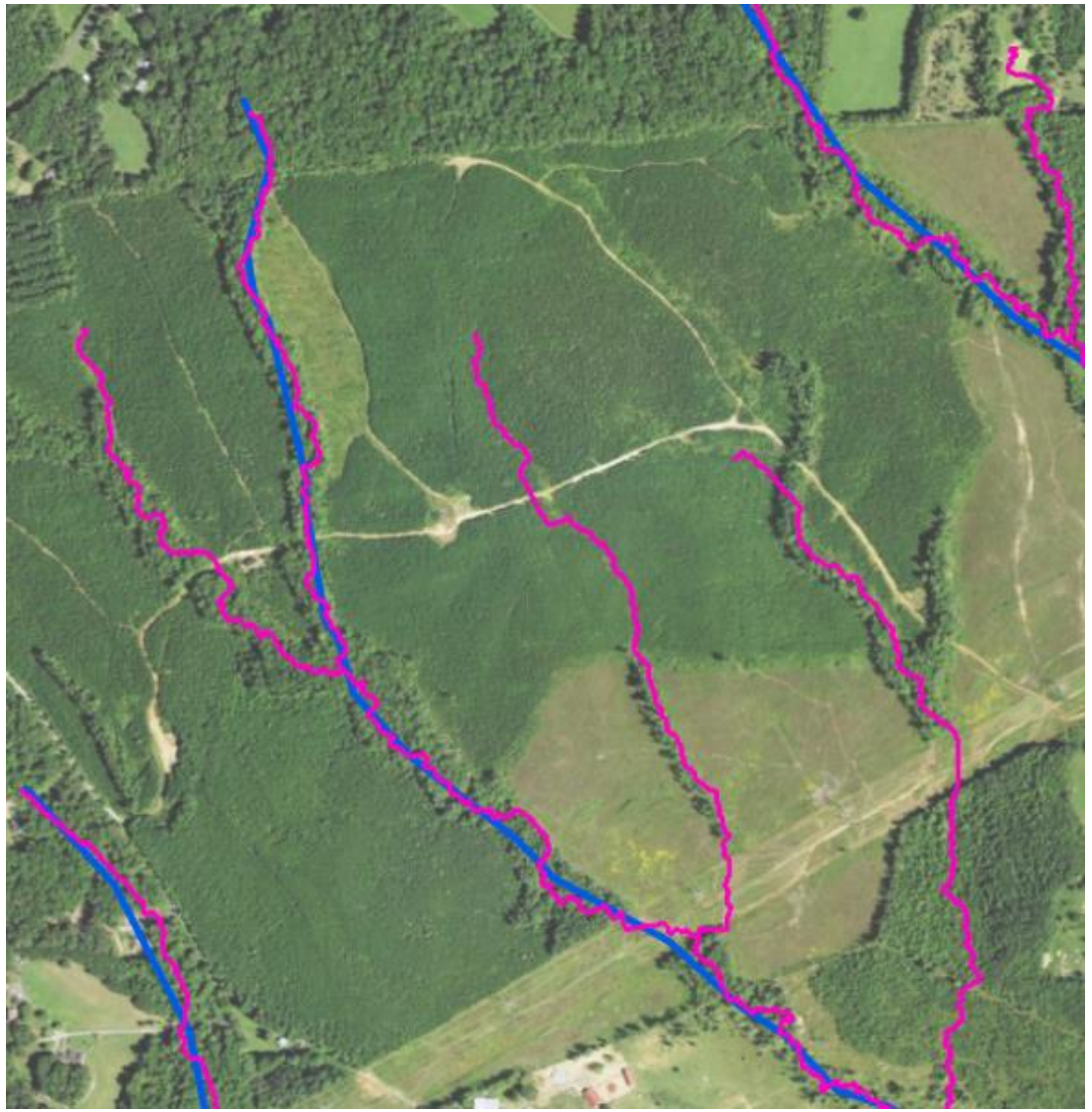
FACET 1:24k Network

Stream Density: Capturing Lower Order Streams

Stream Density: Channel Features and Streams

NAIP

Stream Networks



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Stream Density: Channel Features and Streams

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Stream Networks

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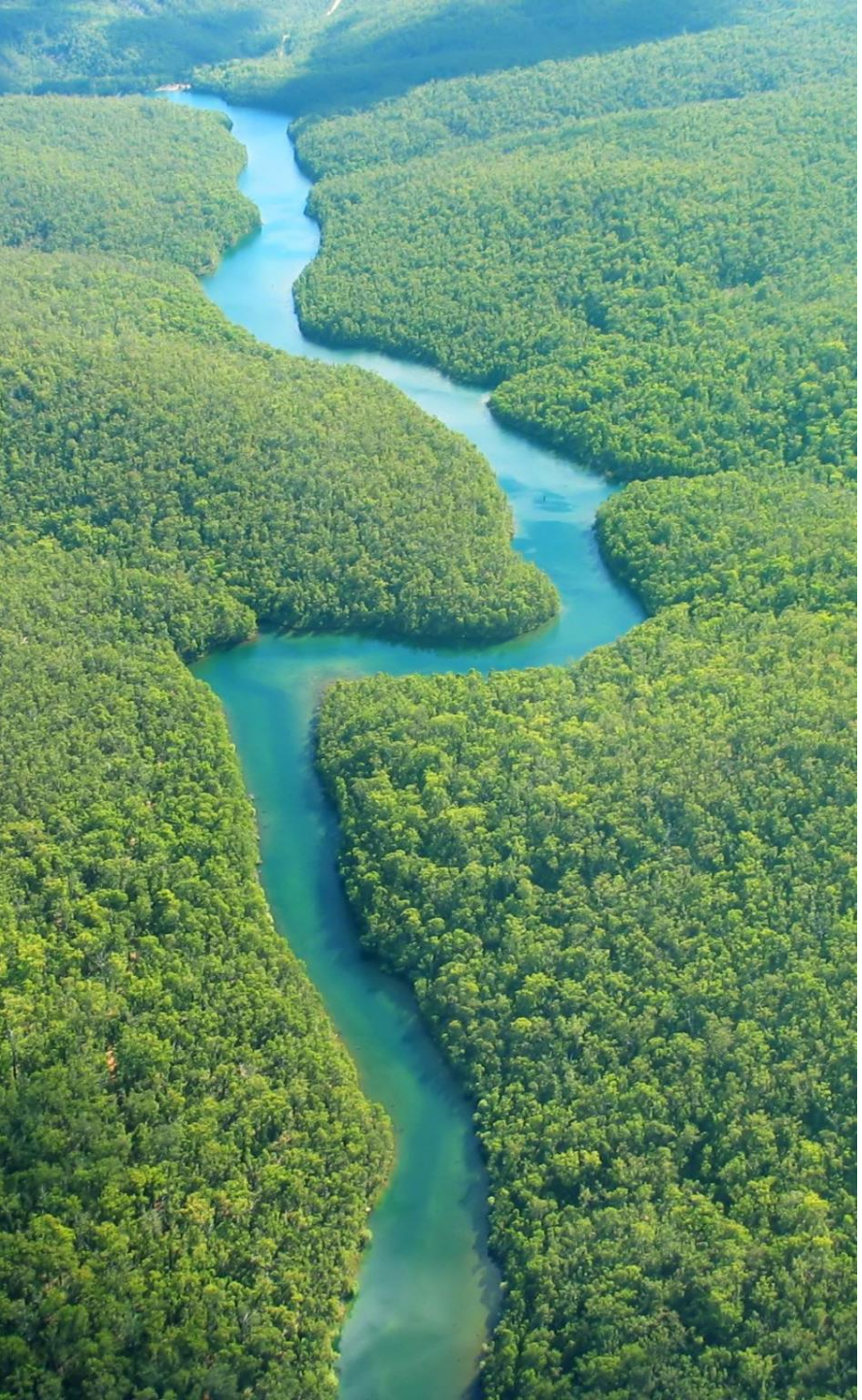

Discussion

Any concerns with this approach?

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Beyond the RFB indicator

- Additional analyses/visualizations to inform decision-making:
  - Riparian forest coverage and change at a finer scale
    - What scale(s) are most useful? County? Catchment? What buffer widths?
    - What change to evaluate? Just change to/from developed classes?
  - Riparian planting opportunities
    - What scale(s) are most useful? Catchment?
    - Riparian planting prioritizations
    - What overlays would help guide prioritization?
- What is the best way to present these analyses/visualizations? Should they get added to the next iteration of State of Chesapeake Forests 2.0?