Modeling Resource Land Loss

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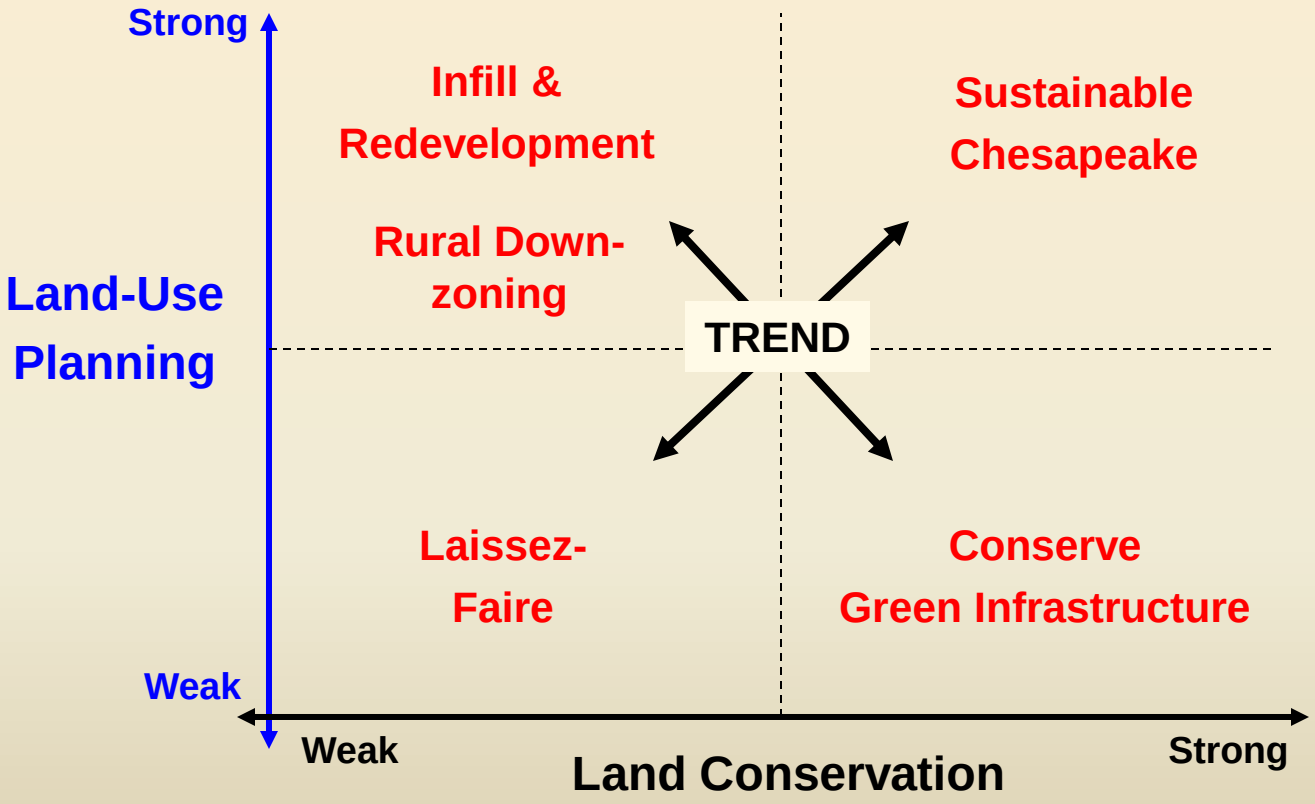
Chesapeake Bay Alternative Future Development Scenarios



USGS

Baseline (Business As Usual) Scenario

- Extrapolation of current trends

USGS

Infill Scenario

- Infill = development within the existing built and sewered landscape.

- Estimated using the % of multi-unit residential building permits constructed between 2008 – 2012.

- Modeled assuming a 50% increase in the % of multi-unit residential building permits.

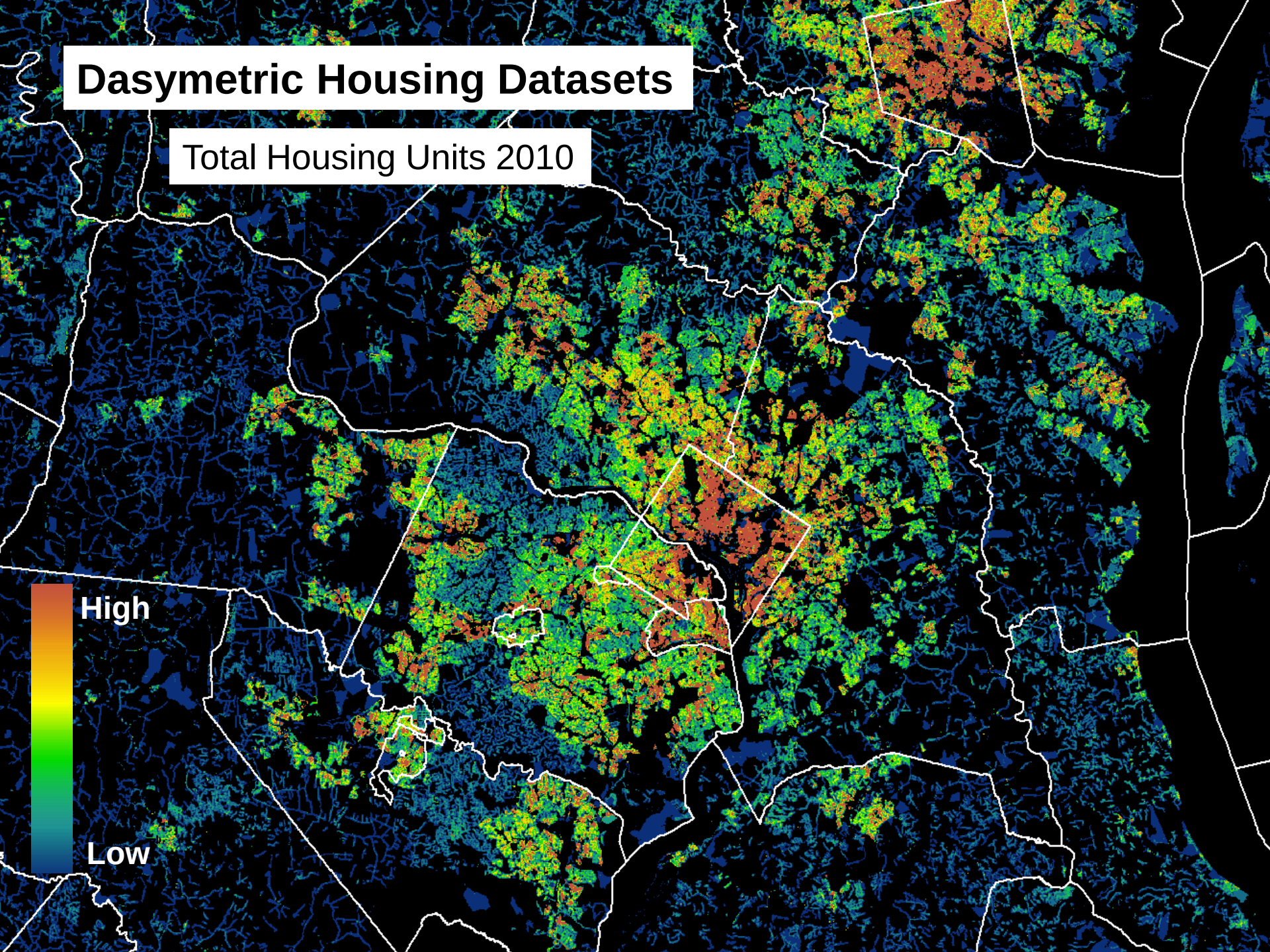
Land Conservation Scenario

- All of Maryland's Green Infrastructure is conserved.

- All contiguous forest/wetland tracts greater than 100 ha are conserved.

- Implemented by adjusting the proportions of forest and farmland in each county and modeling segment that are vulnerable to development.

USGS

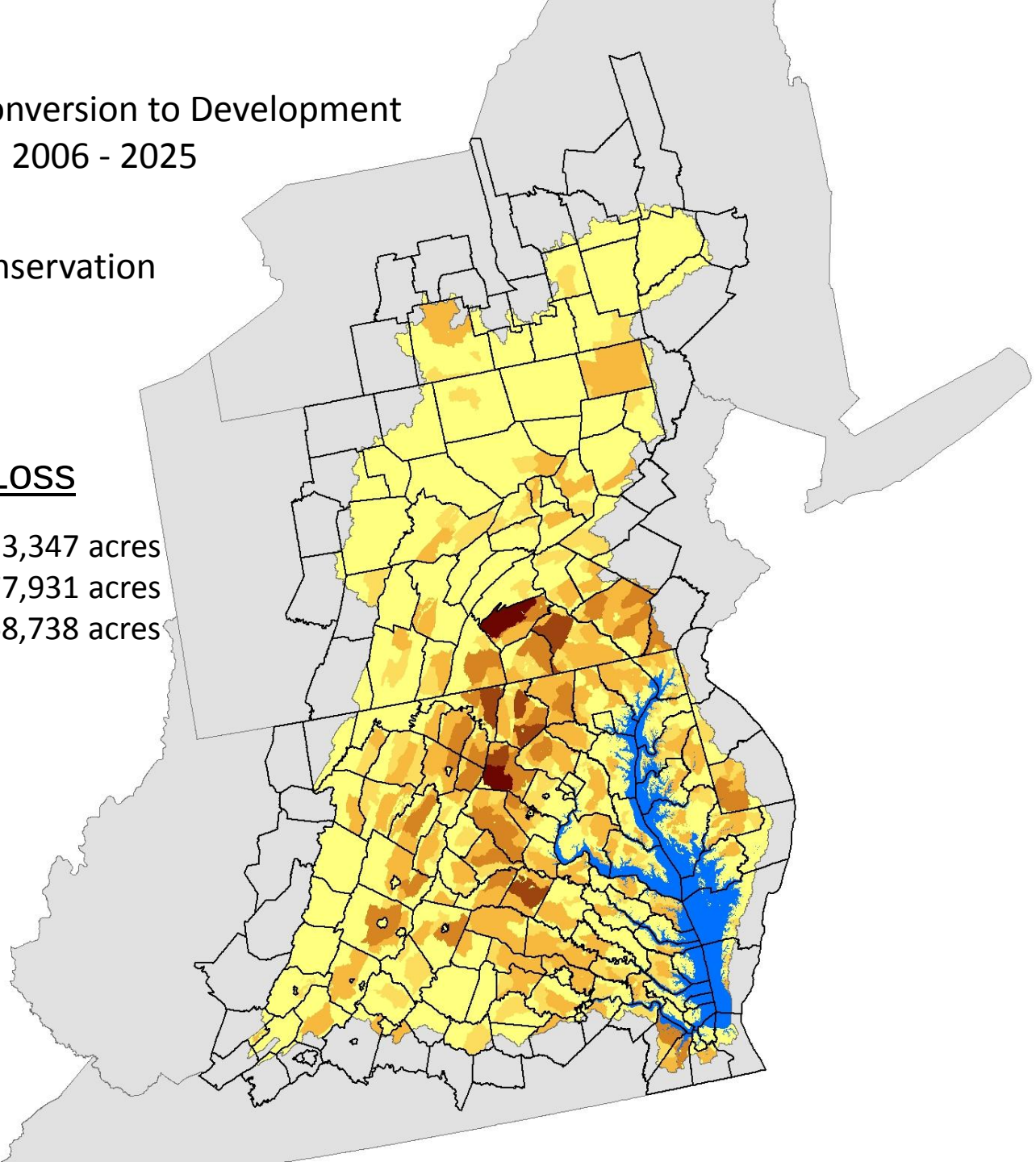

Dasymetric Housing Datasets
Total Housing Units 2010
High
Low

Farmland Conversion to Development
2006 - 2025

Forest Conservation

Farmland Loss

Baseline: - 433,347 acres
Infill: - 377,931 acres
Conservation: - 468,738 acres

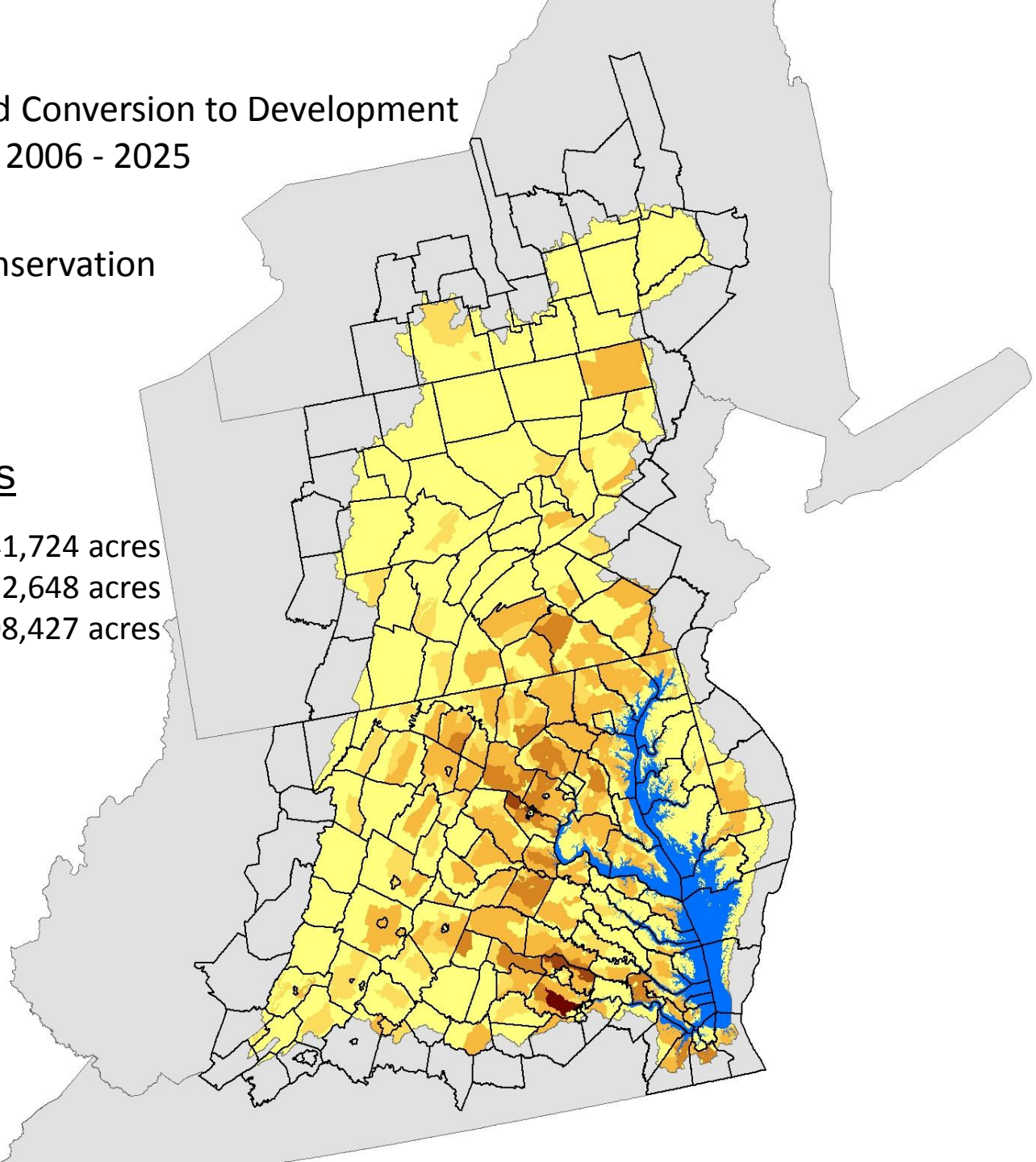


Forest & Wetland Conversion to Development
2006 - 2025

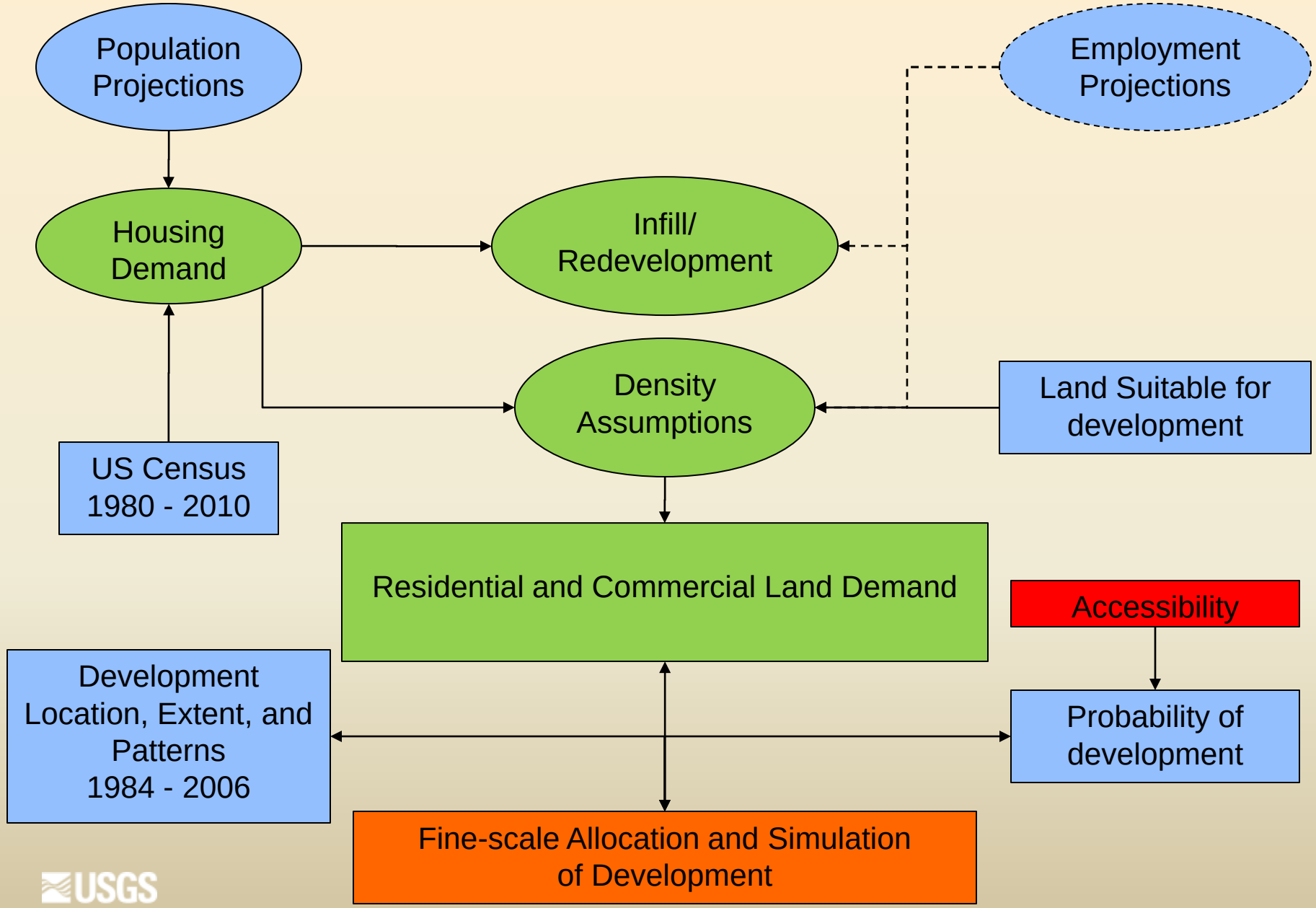
Forest Conservation

Forest Loss

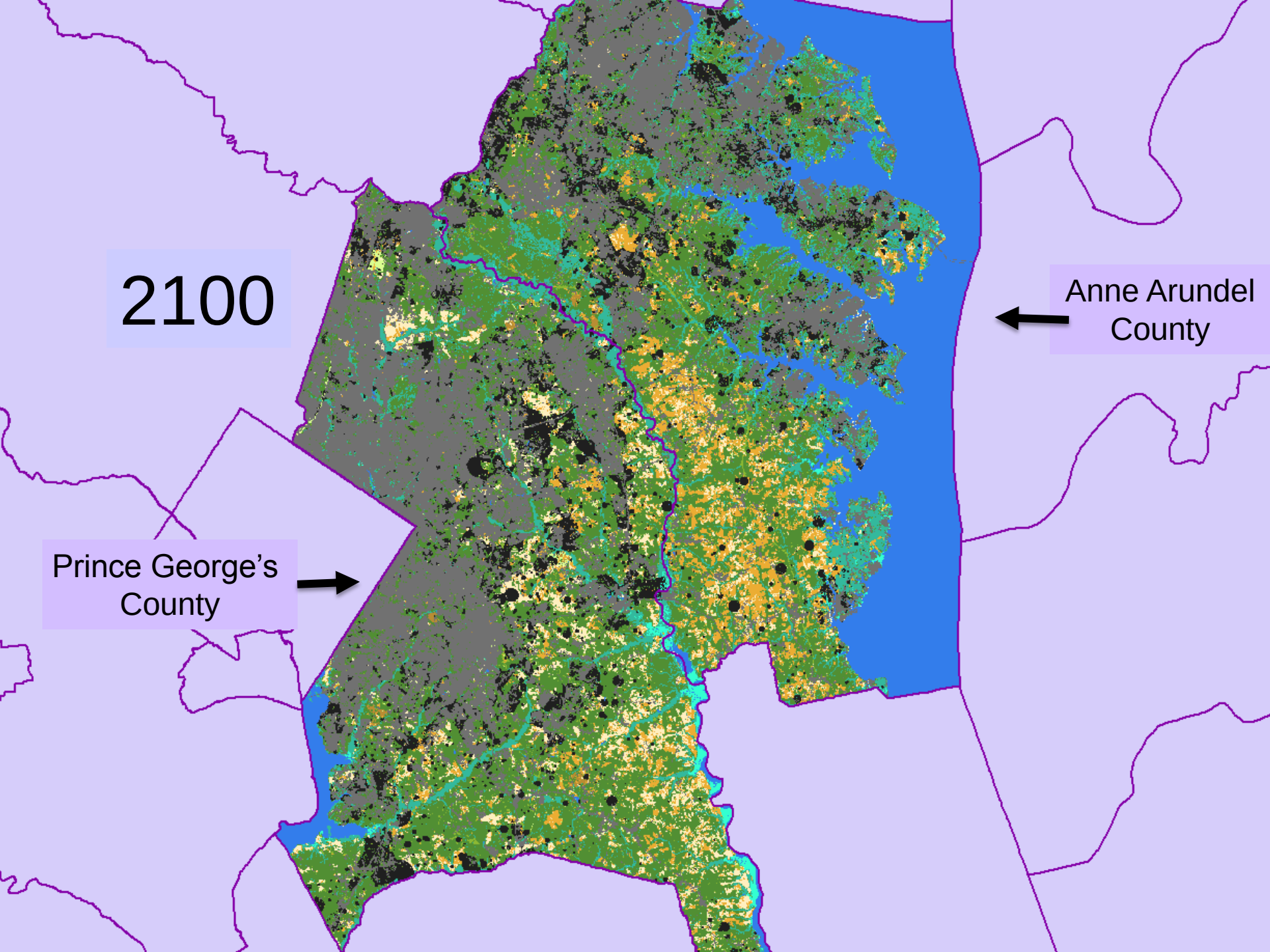
Baseline: - 441,724 acres
Infill: - 352,648 acres
Conservation: - 408,427 acres

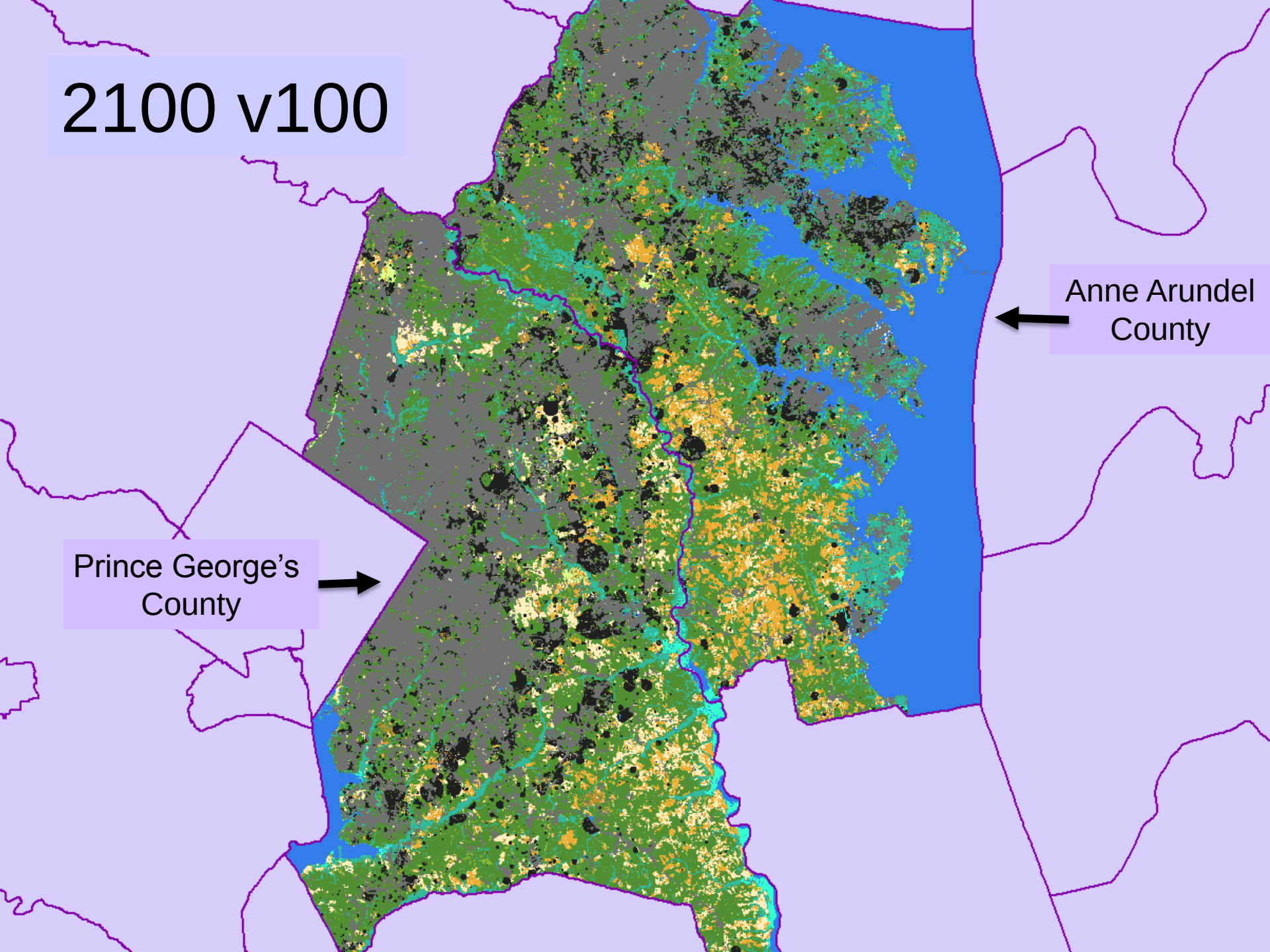


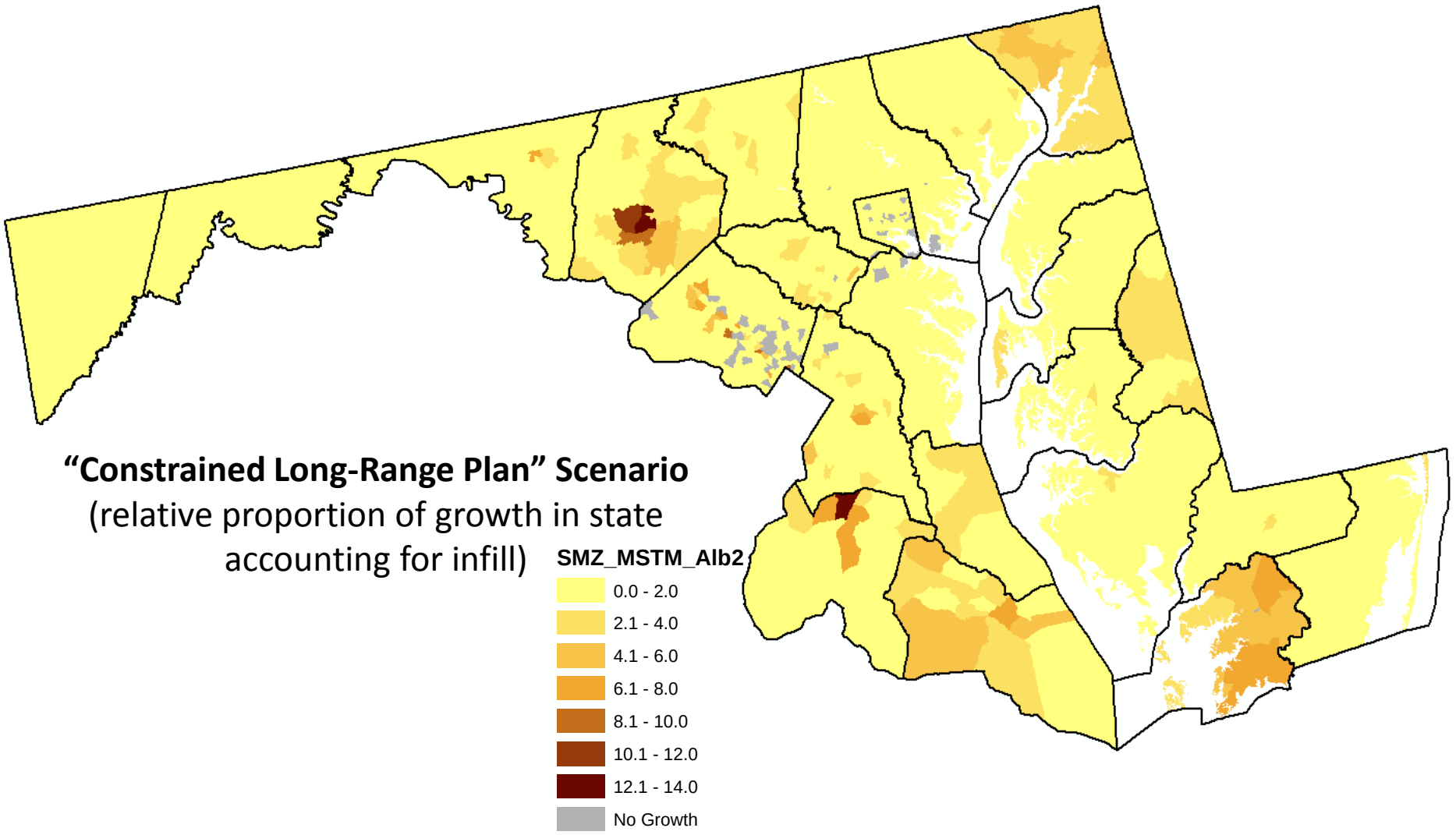
Chesapeake Bay Land Change Model v3a



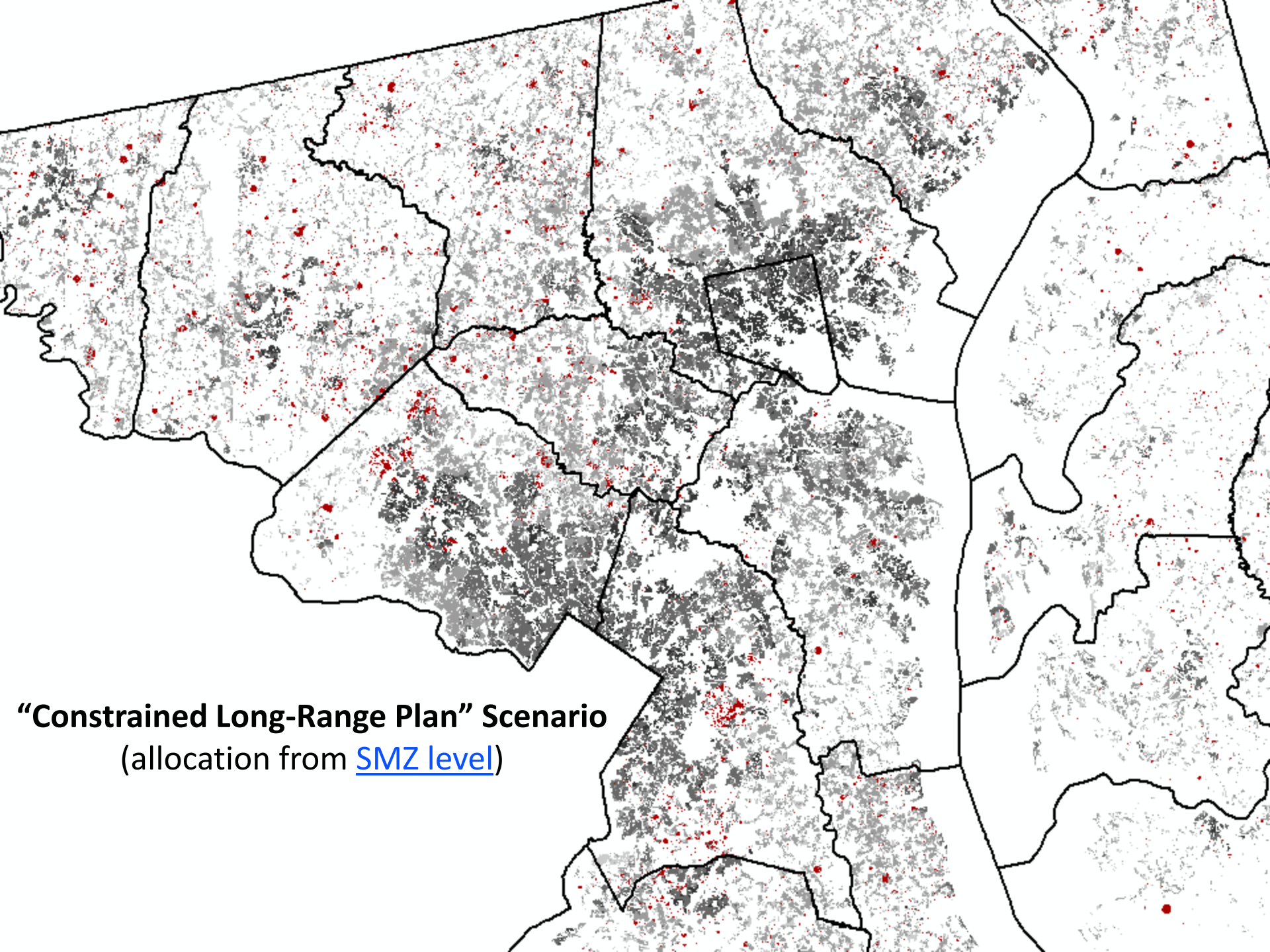
USGS


2100
Anne Arundel County
Prince George's County

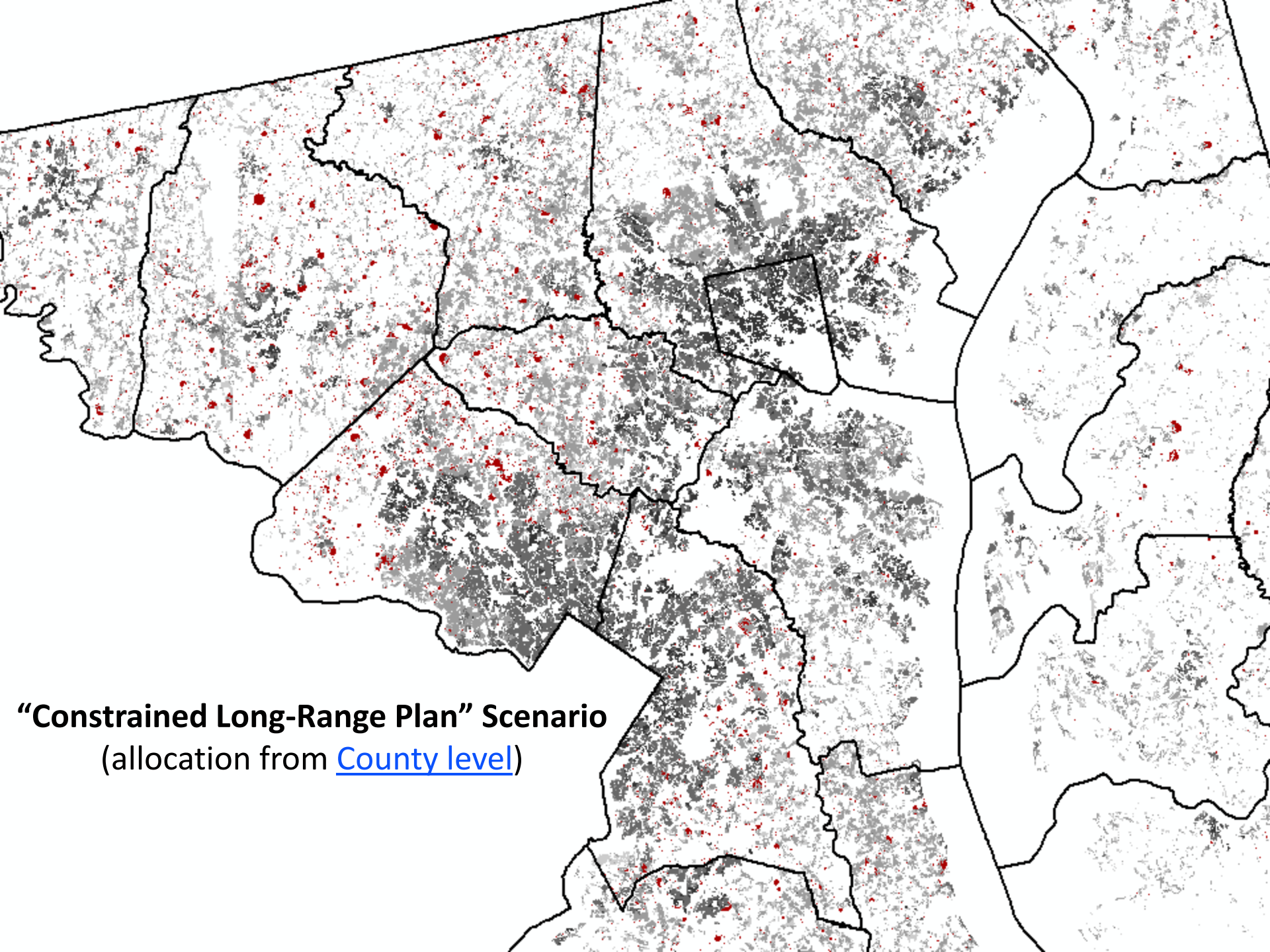

2100 v100
Anne Arundel County
Prince George's County



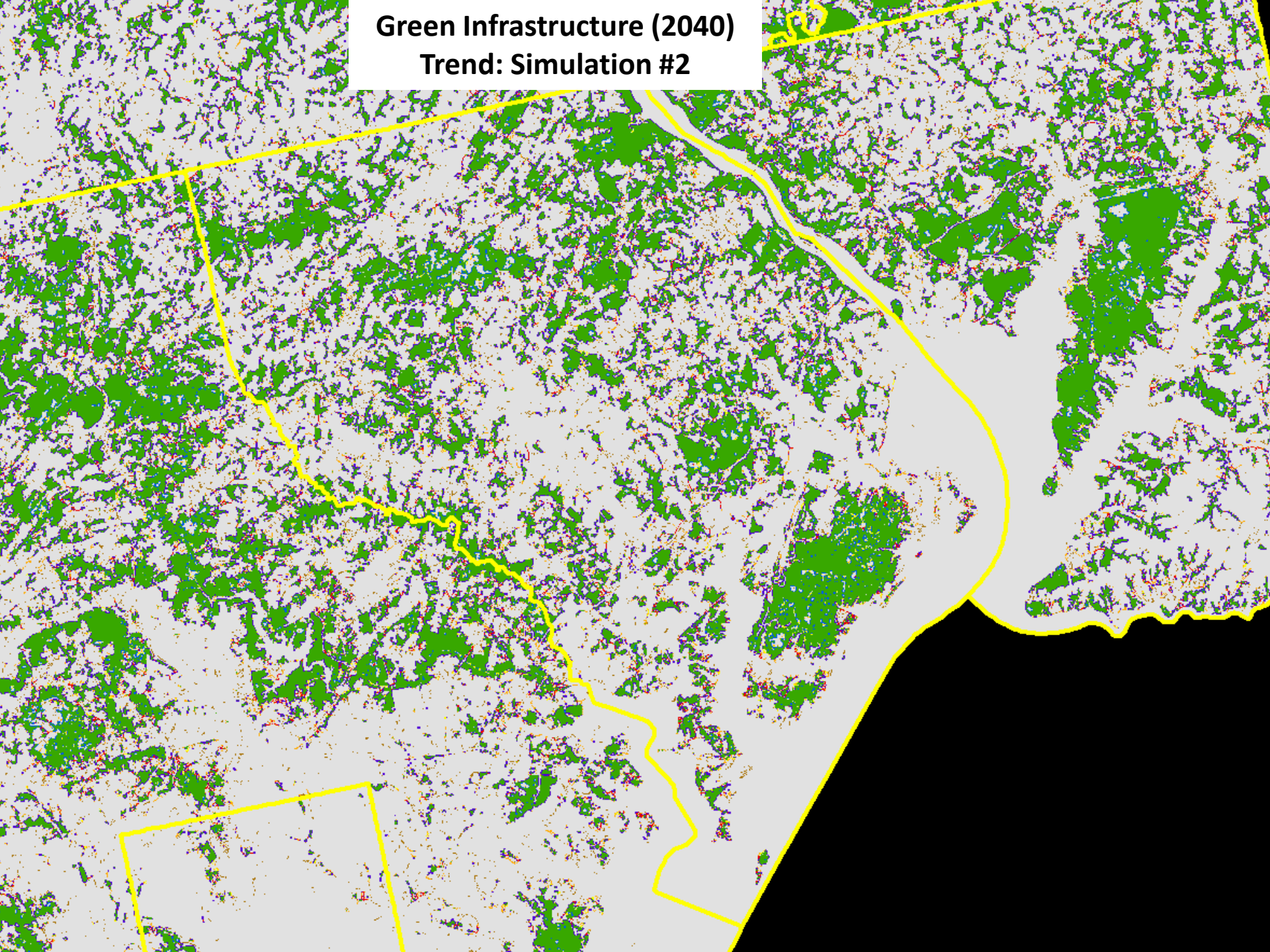
Values represent thousandths (e.g., 14 = 1.4% of growth in Maryland)



“Constrained Long-Range Plan” Scenario
(allocation from SMZ level)



“Constrained Long-Range Plan” Scenario
(allocation from County level)


Green Infrastructure (2040)
Trend: Simulation #2

Change in Core Forest Extent 2006 - 2040