

FORECASTING IN MARYLAND

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September 16, 2013



MDP's GROWTH MODEL

- Been in existence since 1990s
- Several significant enhancements over the years
- Important tool for state policy and legislative implementation
- Used for local technical assistance
- Creates ability to analyze impacts to water quality, transportation, and fiscal impact.



Policy

-Growth Print
- Ag. Print
- Green Print

Data Input

Parcels

Local
ZoningProtected
Lands

Land Use

Sewer

Land Use Model

Growth
Simulation
Model

Scenarios

-Trends
- Smart Growth

Statewide Impact Analysis

Land Use
Holding Capacity

Transportation
VMT
Green House Gas

Land Preservation
Fragmentation
Ag. Land Tracking

Water Quality
Nutrient Loading
Stormwater Runoff

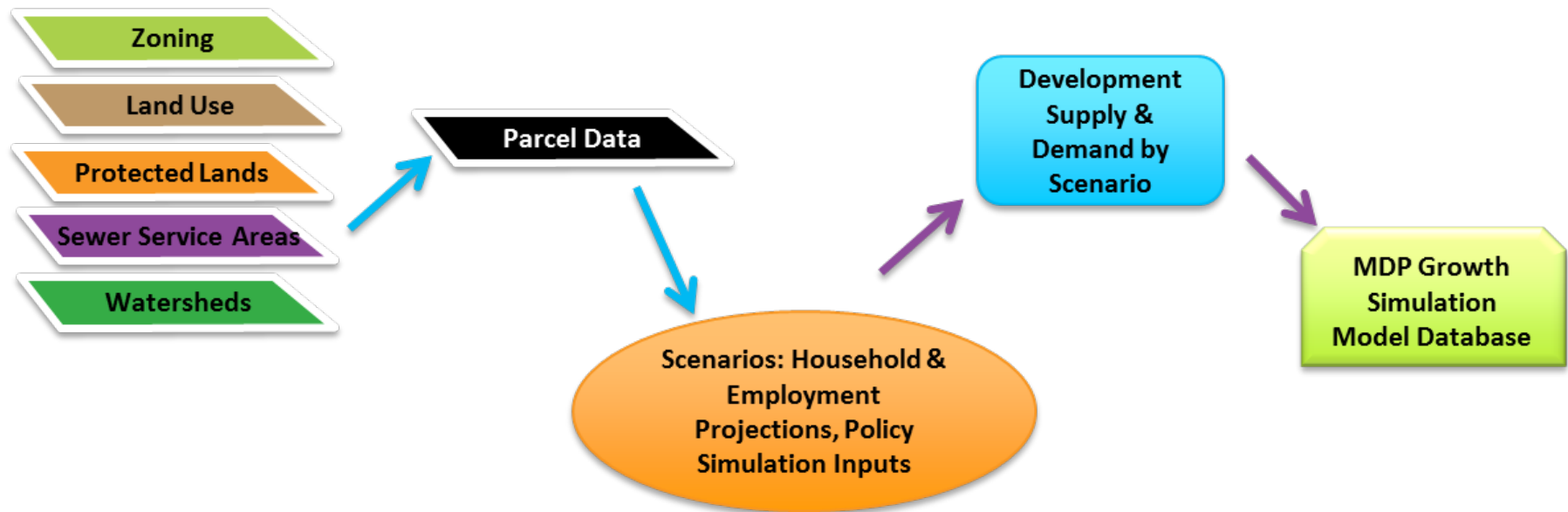
Housing
Affordability

Sustainable

MDP

MDP GROWTH MODEL

MDP Growth Simulation Model



MDP'S GROWTH MODEL

- Estimates land use change using population, household, and employment projections.
- Estimates development capacity based on local programs and policies.
- COG projections or a proportion of recent growth for non-COG jurisdictions by watershed are used to determine future growth allocation.



MDP'S GROWTH MODEL:

- Incorporates detailed local data and information
- Is scalable
- Is customizable
- Is not an off-the-shelf software package
- Considers a 25-30 year planning horizon
- Does not consider all site constraints or infrastructure constraints



RELATIONSHIP WITH LOCAL GOVERNMENTS

- Relies on local government partnerships for some data (i.e. zoning, sewer service).
- Many of MDP's analysis assumptions are customized for local governments (i.e. realized density yields).
- Analysis is strengthened with local govt. input and ground-truthing.

GROWTH MODEL OUTPUT



Sustain^{able} ____ Attain^{able}

Pennsylvania



Maryland Department of Planning

New Jersey

Delaware

Virginia

District of
Columbia

Potential New Developed Acres




**2035 Current
Policies
Scenario**




**404,000
Acres**

**2035 Smart
Growth
Scenario**

**105,000
Acres**

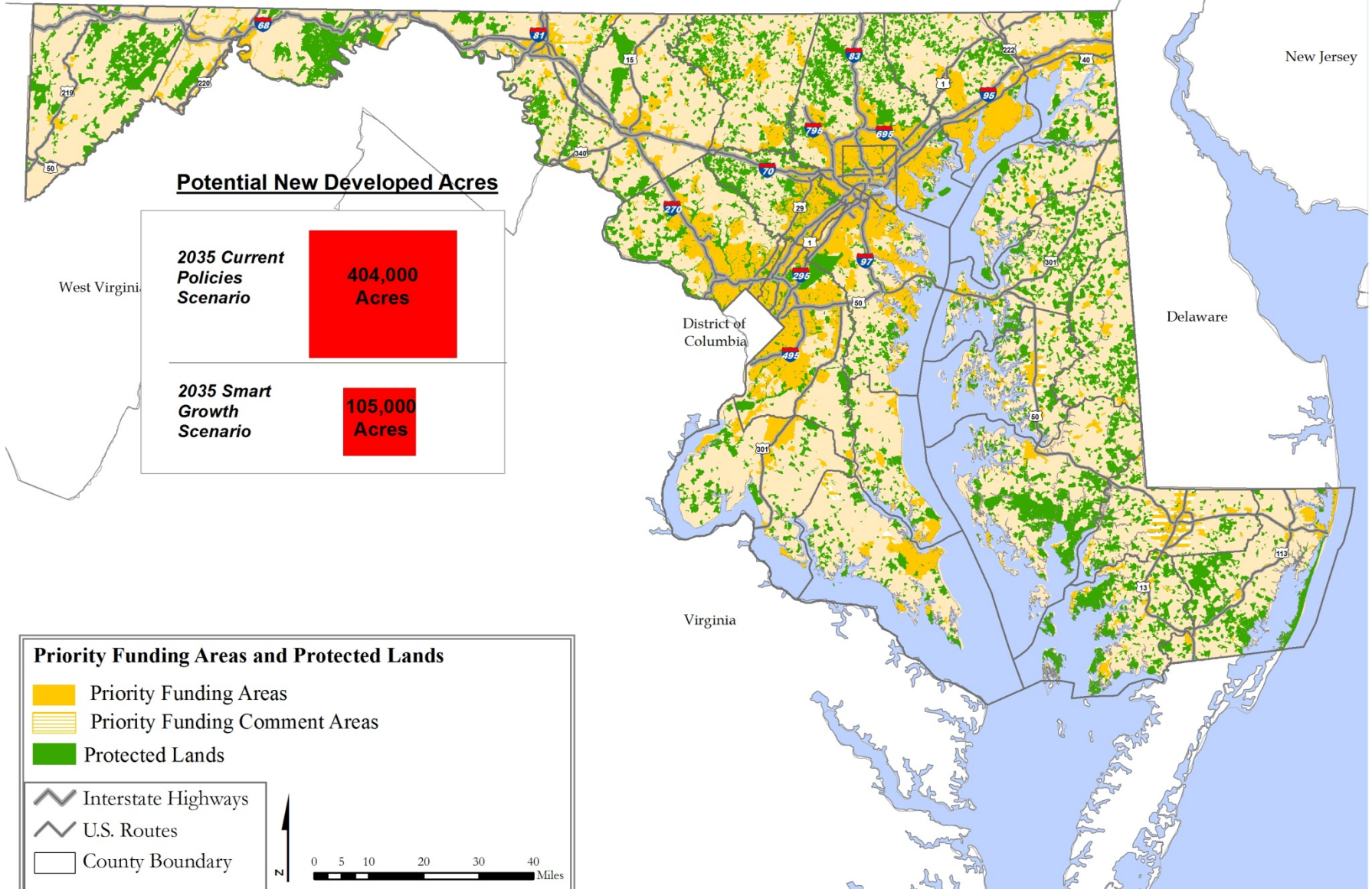
Priority Funding Areas and Protected Lands

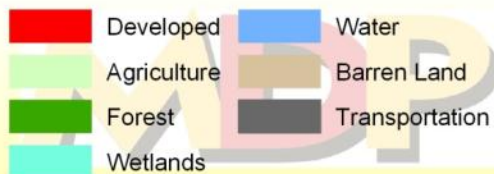
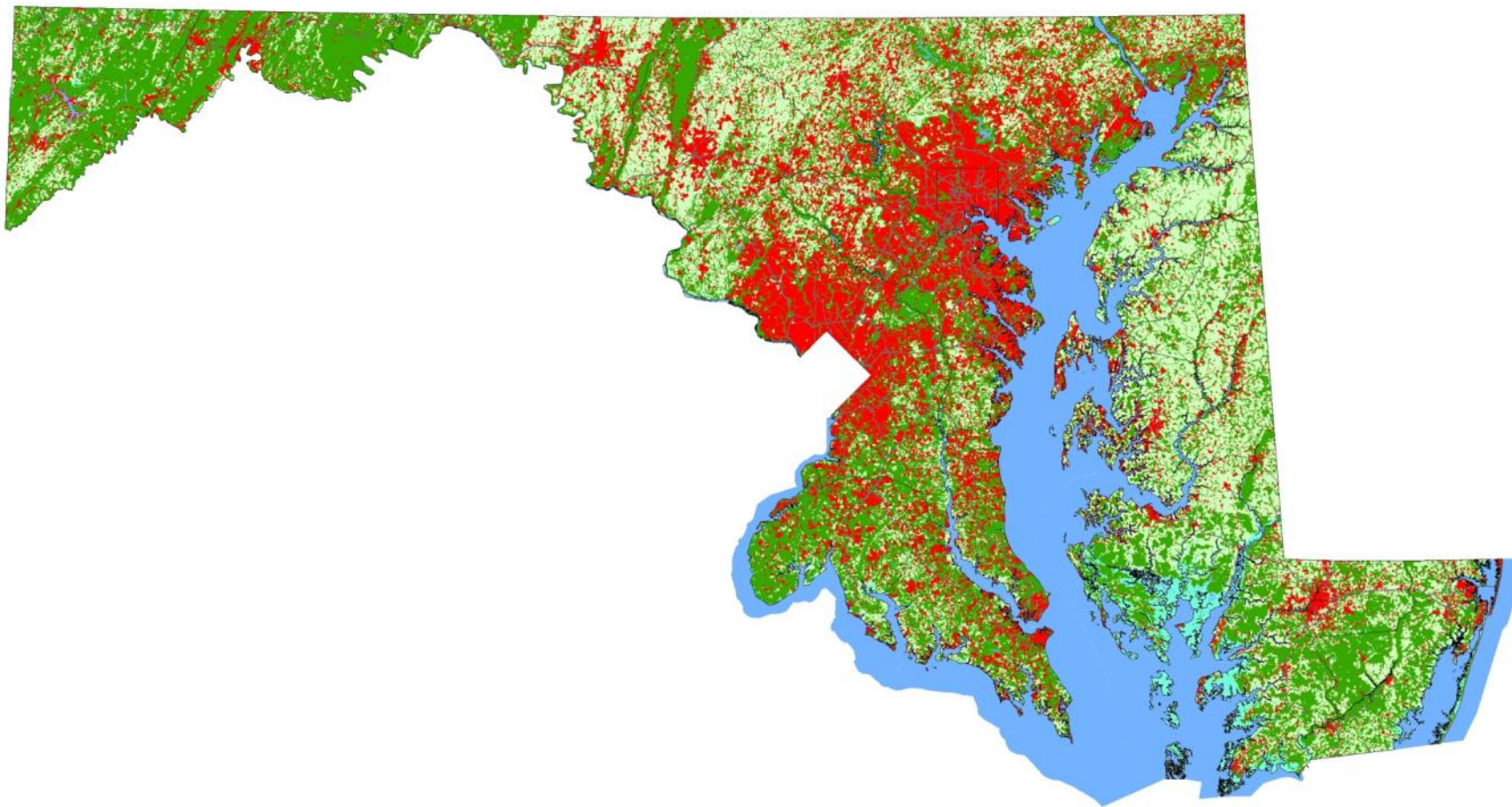
-  Priority Funding Areas
-  Priority Funding Comment Areas
-  Protected Lands

-  Interstate Highways
-  U.S. Routes
-  County Boundary



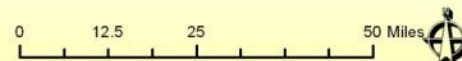
0 5 10 20 30 40 Miles

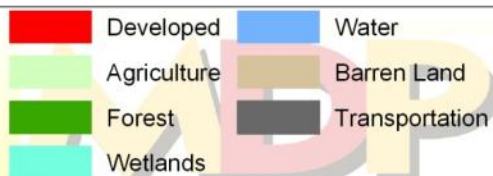
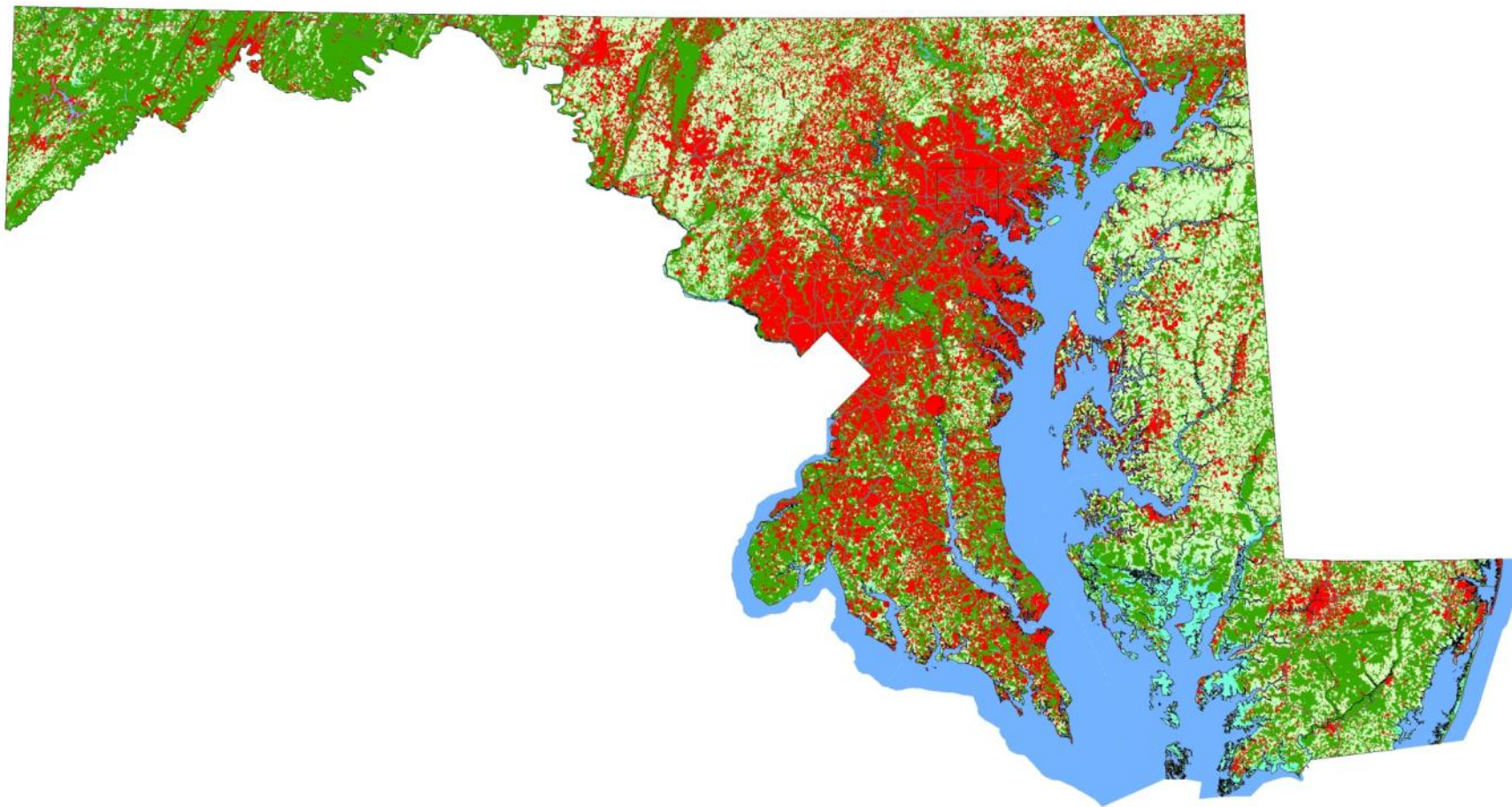




2010 State of Maryland Land Use/ Land Cover

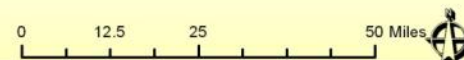
Maryland Department of Planning
Land Use Planning and Analysis Division
Map Created April 2011

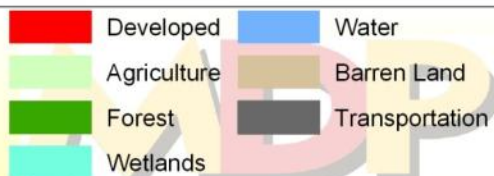
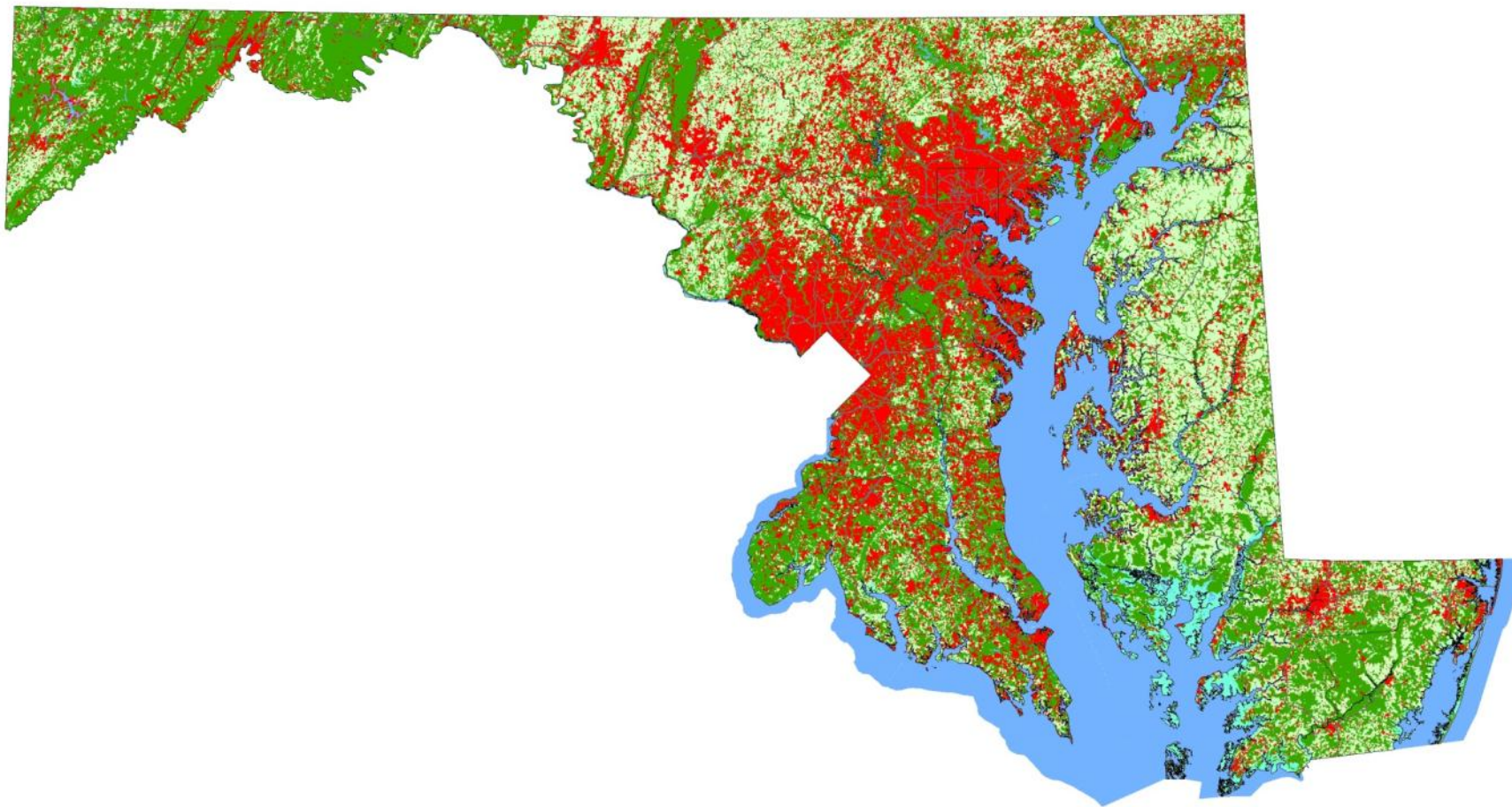




State of Maryland
Development, 2035
Current Trends Scenario

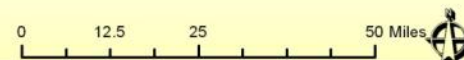
Maryland Department of Planning
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Map Created April 2011



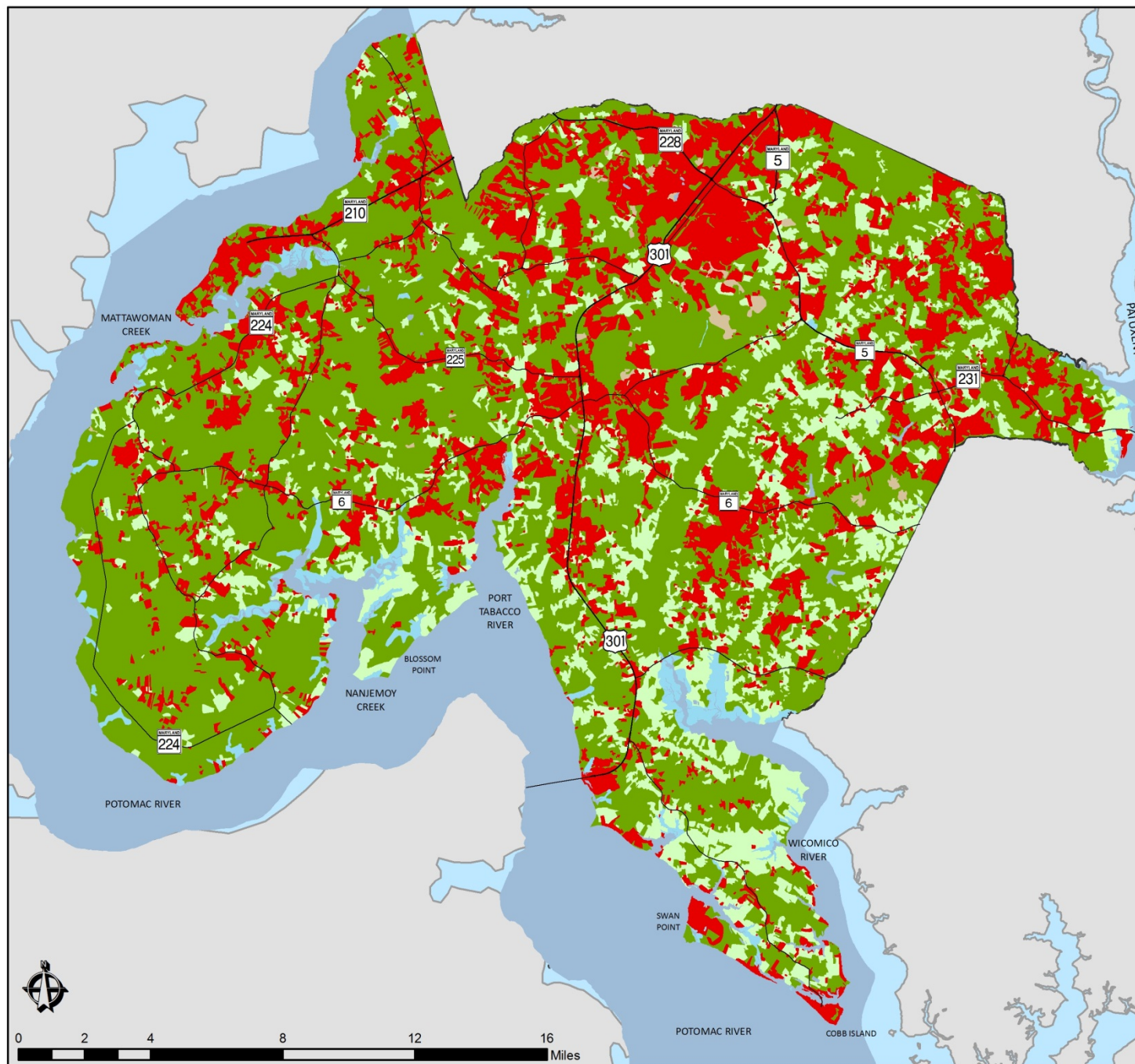


State of Maryland Development, 2035 Smart Growth Scenario

Maryland Department of Planning
Land Use Planning and Analysis Division
Map Created April 2011



Charles County: Land Use Land Cover 2010

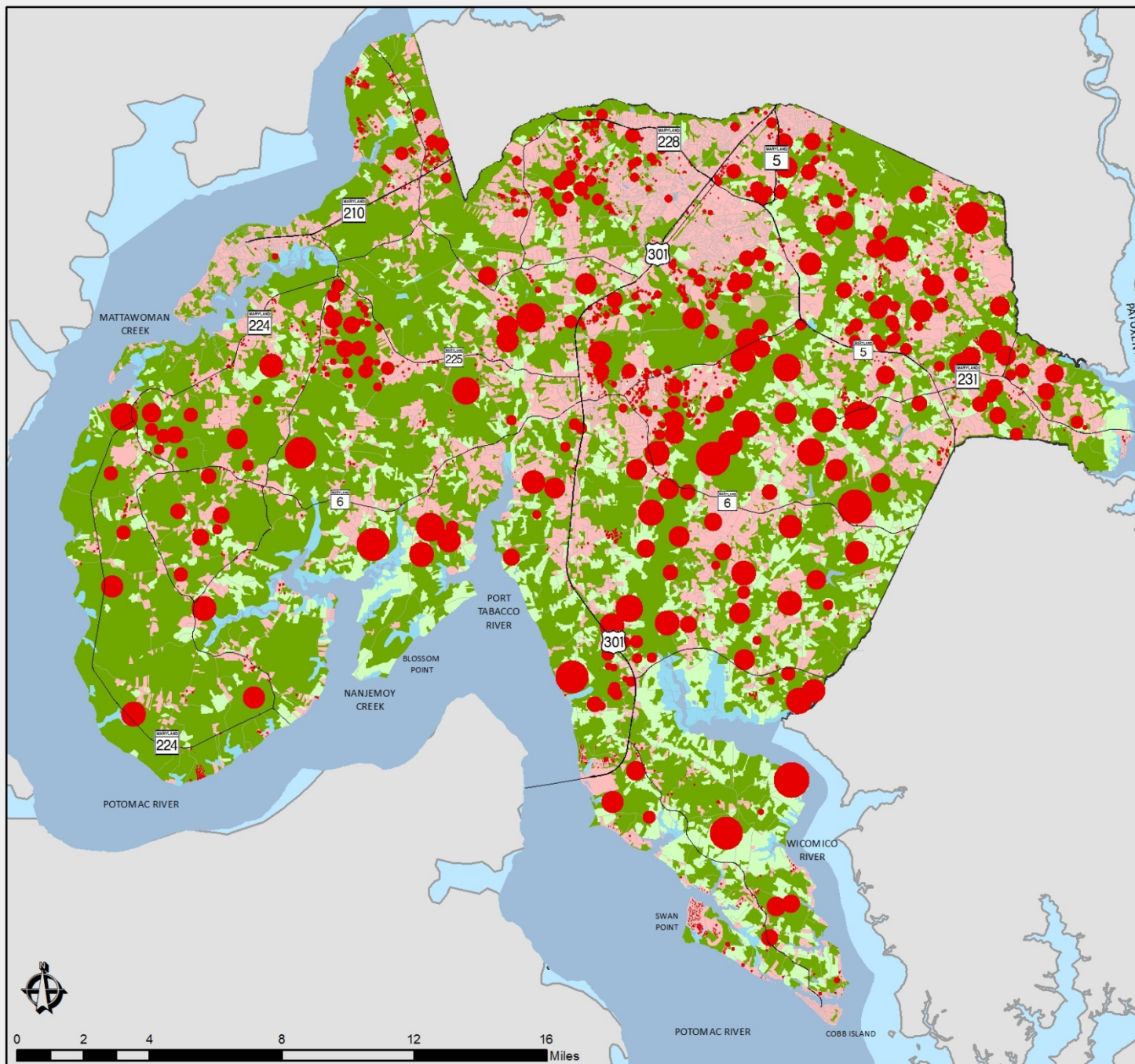


Charles County: Current Trends Scenario

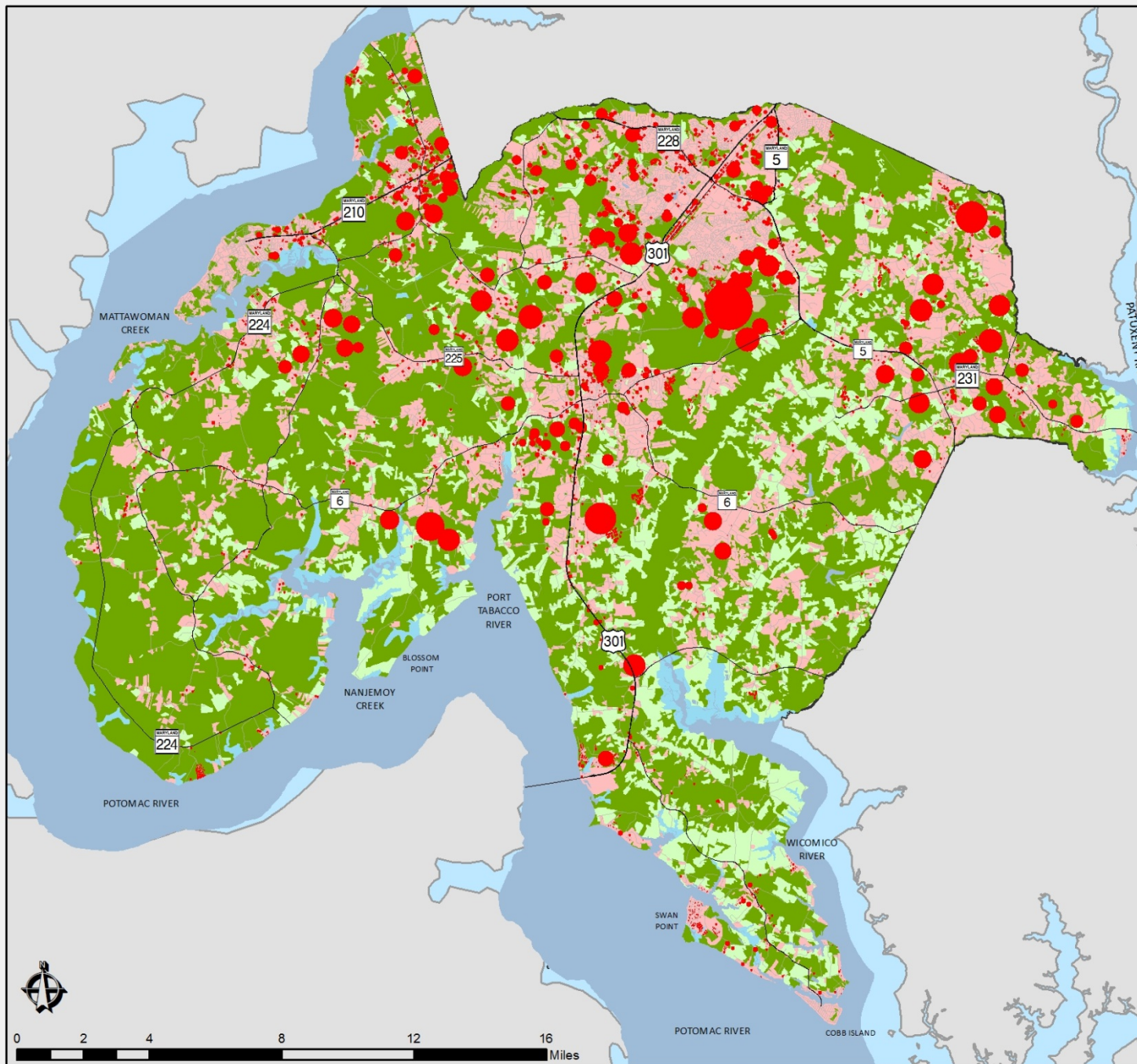
Legend

- Major Roads
- Centerlines
- Developed (2010)
- Agriculture
- Forest
- Water
- Wetlands
- Barren Land
- Transportation

Under the proposed comprehensive plan, a pattern of sprawl development would continue in Charles County.



Smarter Growth Scenario



Potential New Developed Acres, 2010-2040 by Scenario

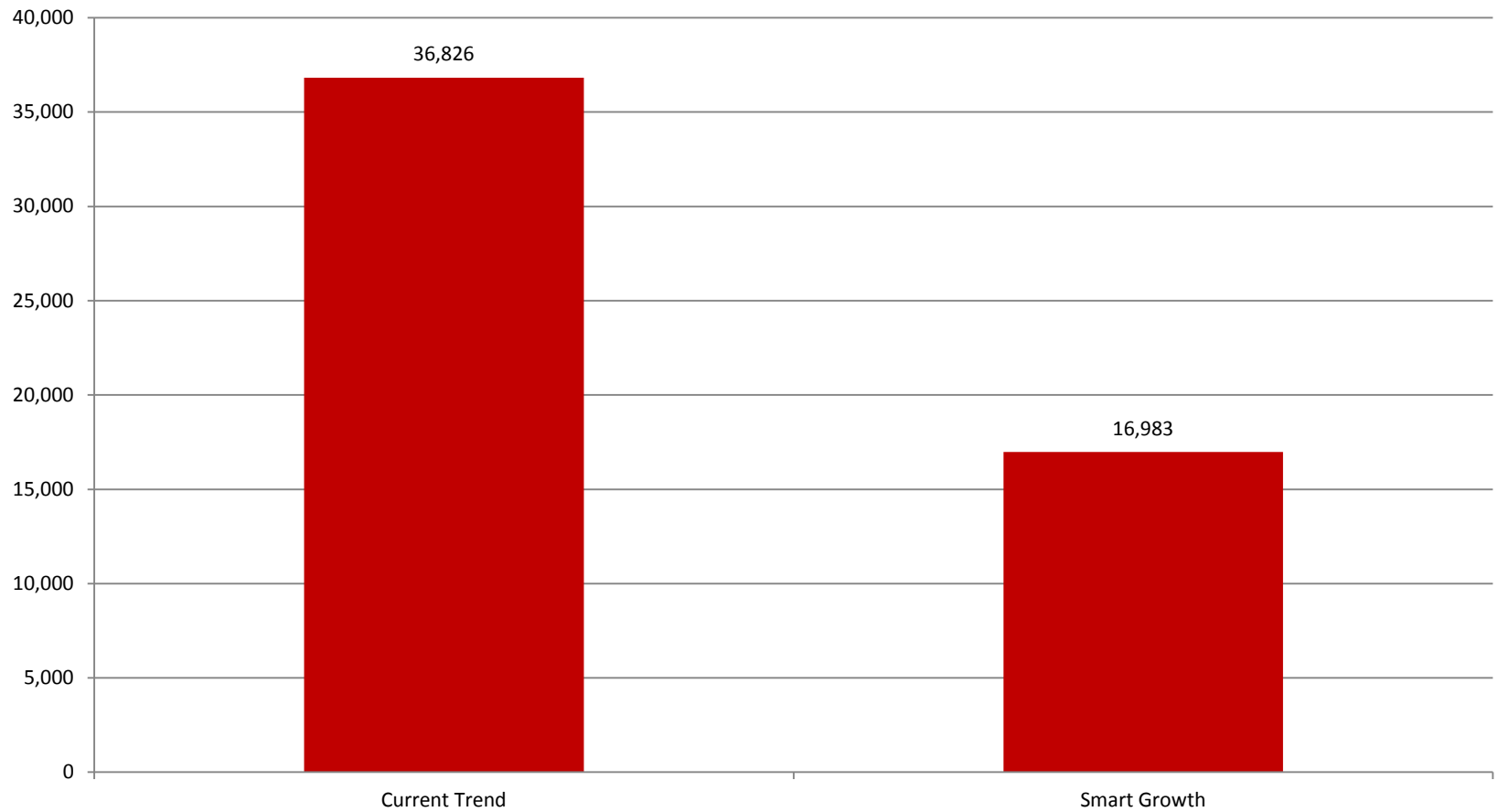
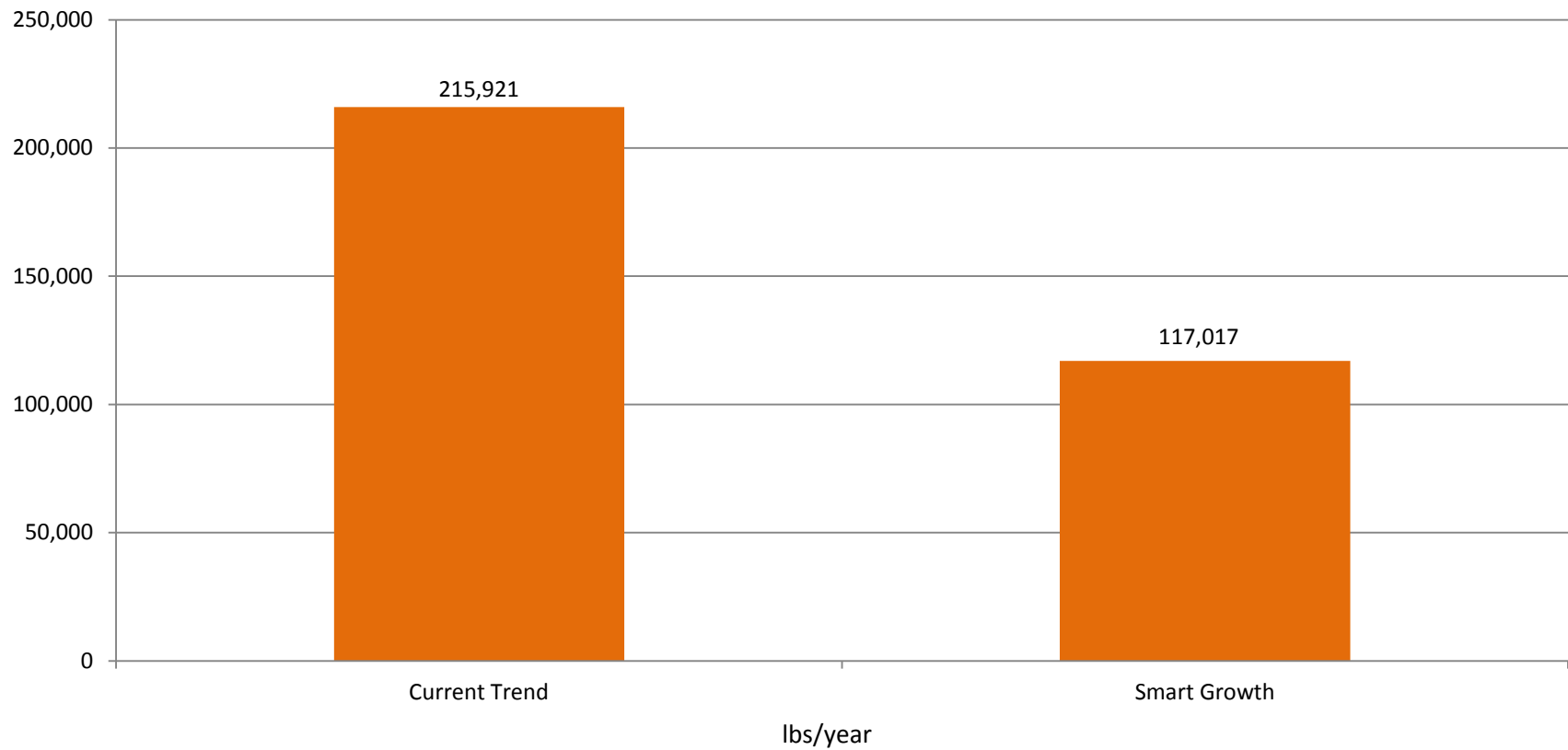


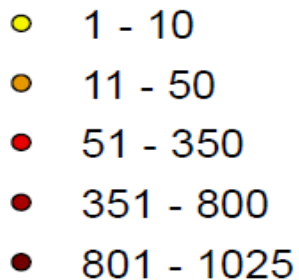
Chart 7: New Non-Point Source Nitrogen Loading from Development, 2010 – 2040

Legend - NHC

- 1 - 10
- 11 - 50
- 51 - 350
- 351 - 800
- 801 - 1025

0 0.1 0.2 0.4 0.6 0.8 Miles

- 1 - 10
- 11 - 50
- 51 - 350
- 351 - 800
- 801 - 1025



A scale bar with markings at 0, 0.1, 0.2, 0.4, 0.6, and 0.8 miles. The bar is black with white rectangular segments at the 0.1, 0.2, and 0.4 mile marks.

NEXT STEPS

- Incorporate parcel polygon data
- Improve process for allocation of growth to parcels
- Incorporate redevelopment
- Incorporate impact of the septic law



QUESTIONS?



Sustain^{able} ____ Attain^{able}