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Overview
DRAFT 2020 Forest Action Plan
November 2020

Forest Action Plan Timeline and Goals



TIMELINE

- Forest Action Plan started in 2010 (Assessment and Strategy)
- Updated every 5 years
- Listening Sessions 2019
- Public Comment Draft November 2020
- Final Plan to USFS December 2020

GOALS

- Roadmap for investing federal, state, and other resources for forestry
- Required in 2014 and 2018 Farm Bills
- Links to state Forest Action Plan required for US Forest Service grant funding (~15% of budget)
- Helps big-picture planning
- Basis for further collaboration

Information in Maryland's Forest Action Plan

The **State Forest Resource Assessment** contains:

- 1. **Conditions and Trends** of Maryland's forest resources.
- 2. A vision for **Desired Future Conditions** for Maryland's forests and the services they provide.
- 3. **Threats and Opportunities**
- 4. **Priority Forest Landscapes and Areas**

The **Forest Resource Strategy** has:

- 1. A **Long Term Strategy** (~5 year) for addressing priority threats and opportunities, especially in priority forest landscapes and areas
- 2. **Timeline and Funding**
- 3. **Partner and Stakeholder Involvement**
- 4. **Multi-state Issues**
- 5. **Measures for Tracking Process**, and revising the Strategy accordingly.

Information in Maryland's Forest Action Plan

The Forest Legacy Program Assessment of Need :

- Application for inclusion in the Forest Legacy Program
- Update on new threats to forests and new partnerships
- Expands old Forest Legacy Areas

Maryland was awarded a Forest Legacy grant in 2018, adding 130 acres of working forest easements on 2 parcels on Elk Neck State Park in Cecil County

The State Forest Action Plans also references

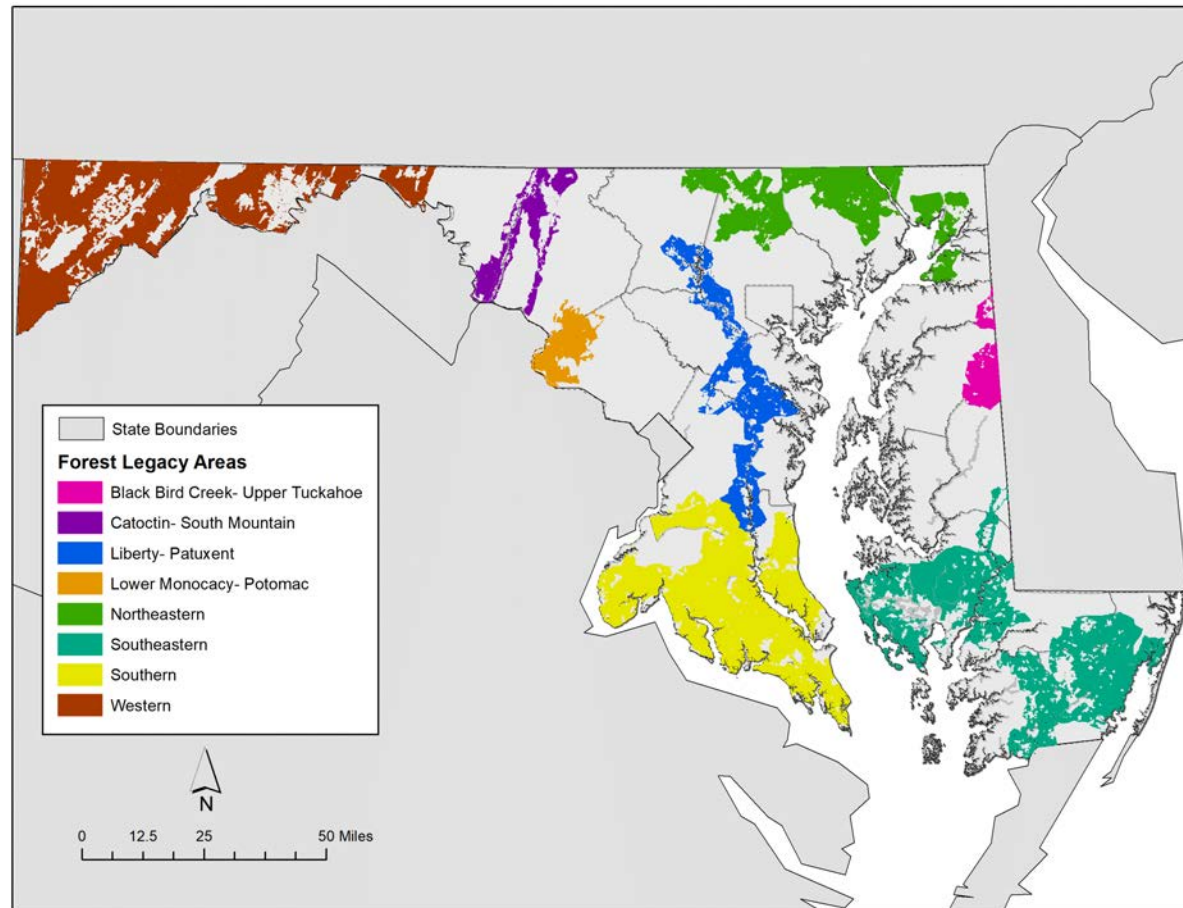
- The State Wildlife Action Plan
- Community Wildfire Protection Plans



Anadromous fish spawning area management priorities. Green is "high priority." (Photo by MD DNR Fisheries Service)

Forest Legacy Areas (FLA)

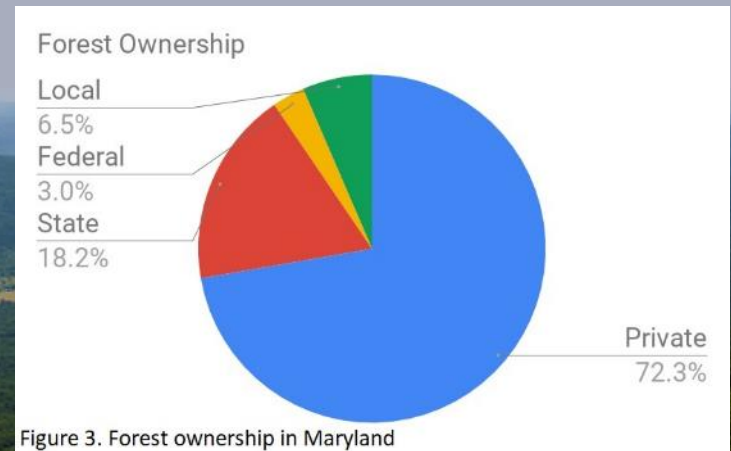
The Assessment of Need identified 2,337,413 acres of FLA, a 3% increase from the previous AON



Maryland Forest Assessment

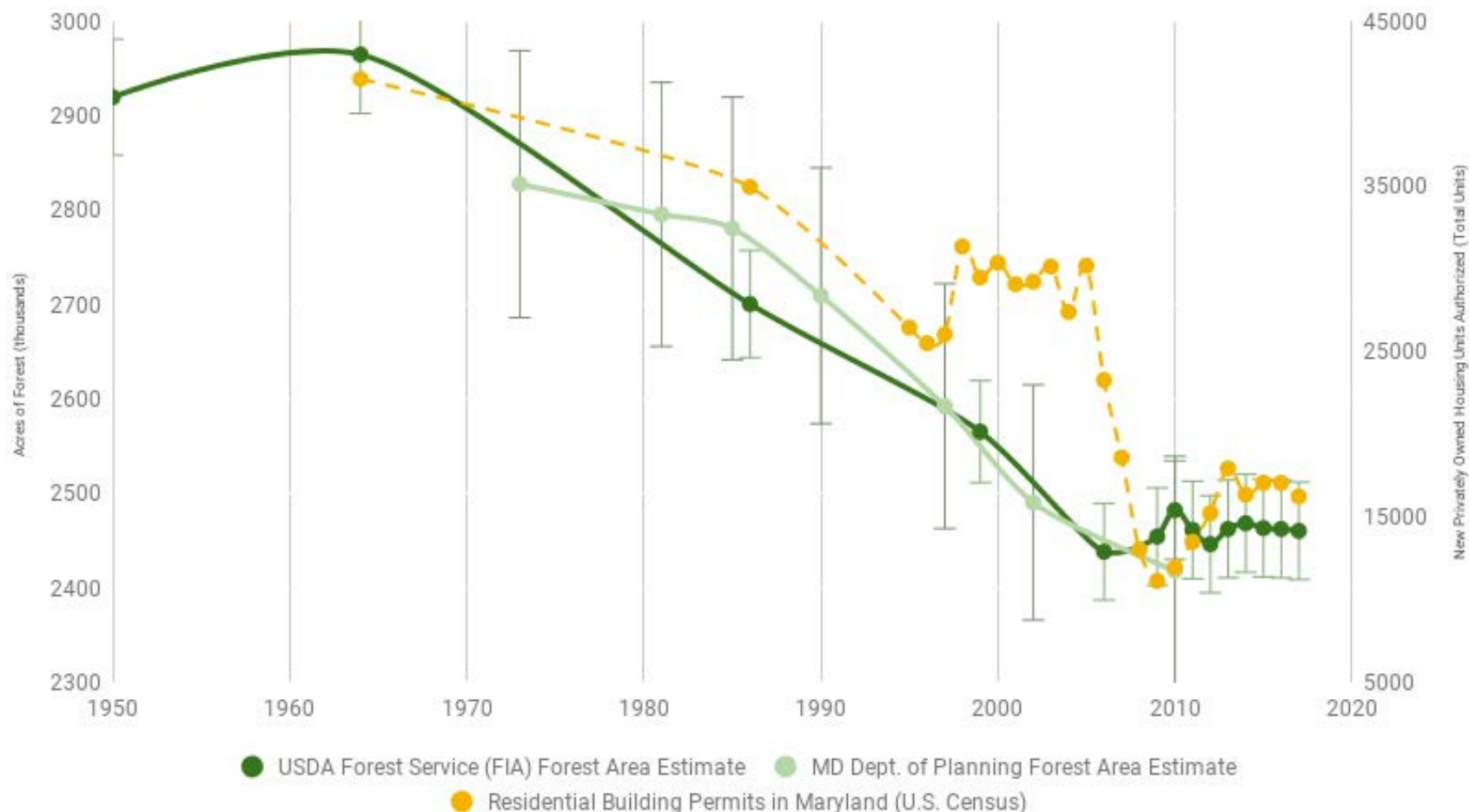
2017 MD forest is estimated by the USFS at 2,460,000 acres

- 39% forest cover
- Almost 50% tree canopy, including patches of trees < 1 acre
- ~76% of Maryland Forests are privately owned.
- Most common forest type is Oak-Hickory.
- Lost about 320k to 370k acres (gross) of forest since 1970 (about the size of Worcester Co MD), while population has grown from 3.9 to 6.1 million

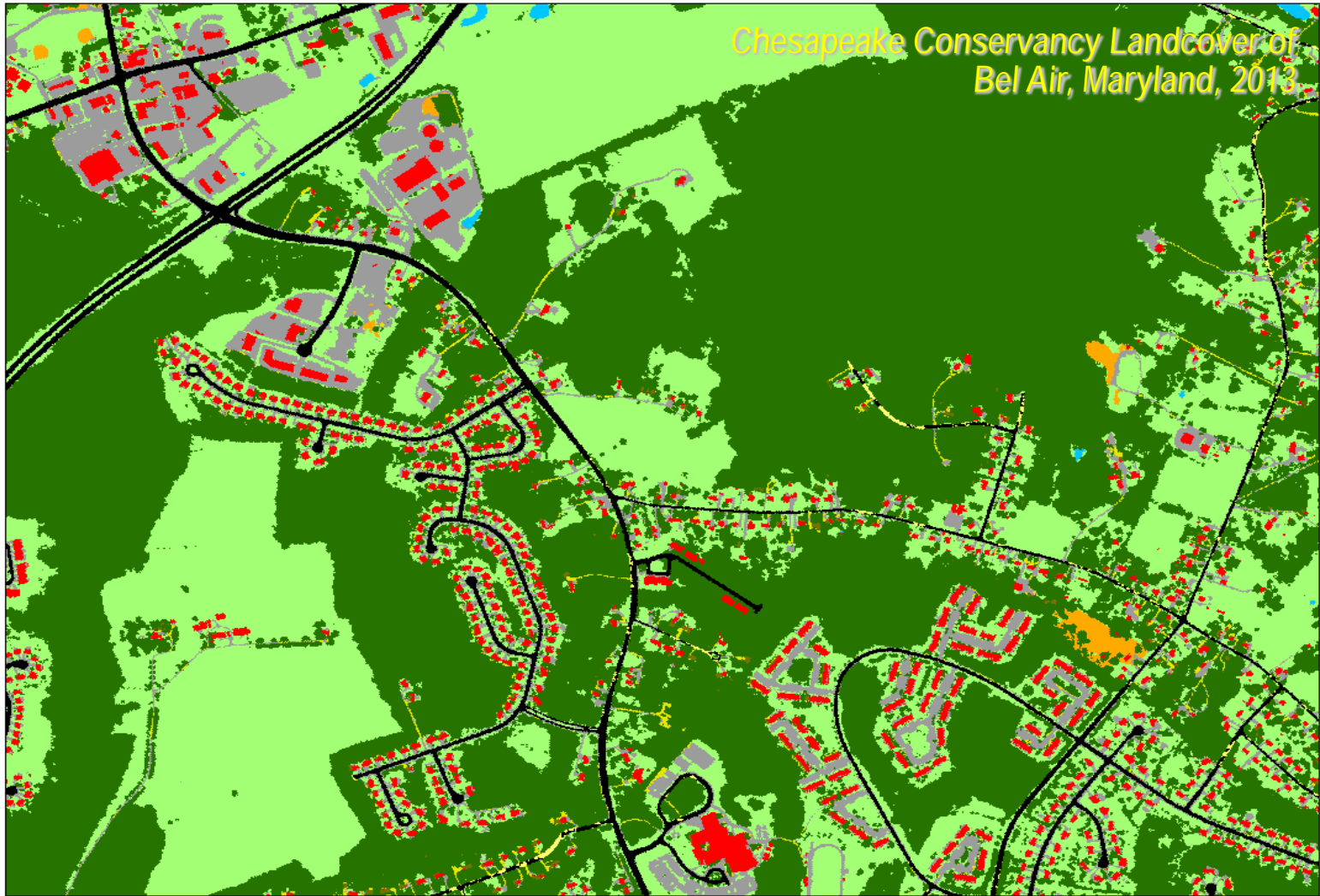


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FOREST COVER IN MARYLAND IN ACRES COMPARED WITH ISSUED PRIVATE HOUSING BUILDING PERMITS BY YEAR



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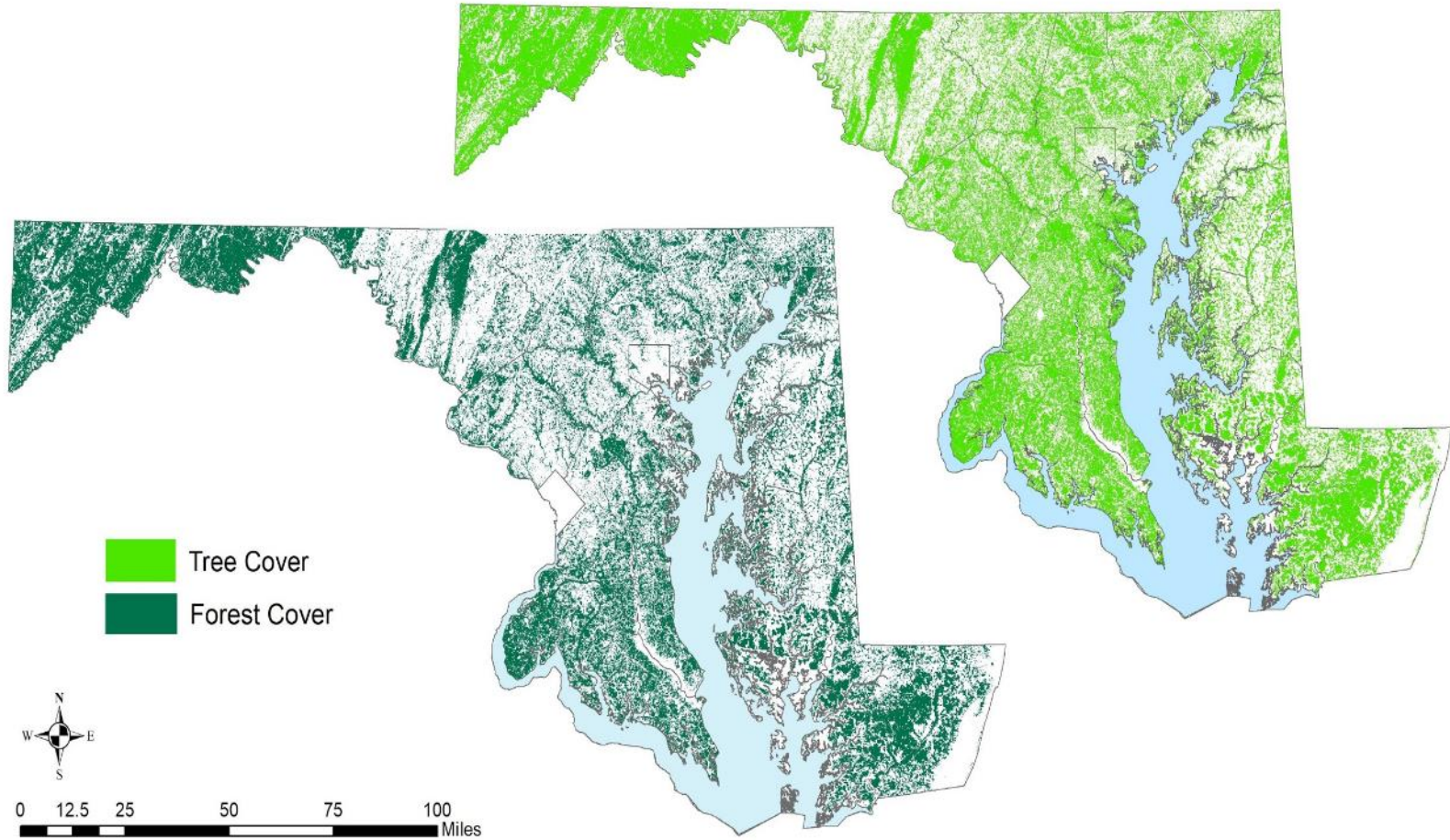
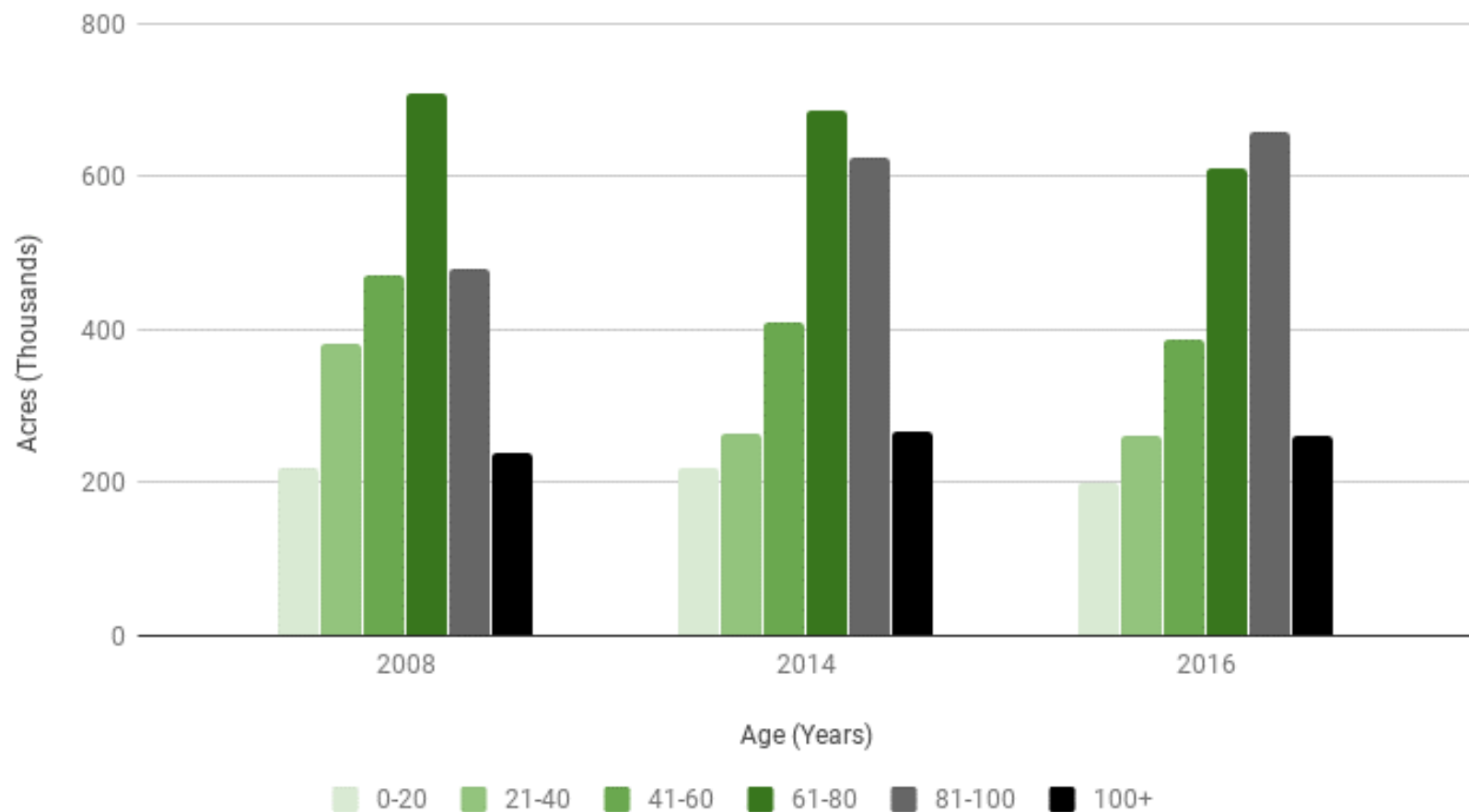


Figure 1. Maryland's tree canopy cover (top) and forest cover (bottom) from Chesapeake Conservancy's 2013 high resolution land cover data

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Trends show aging forests, with 80-100 years old the largest category

FIGURE 3: FOREST AGE CLASSES BY SURVEY PERIOD



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Growth exceeds removals
Harvests are declining and natural mortality is increasing

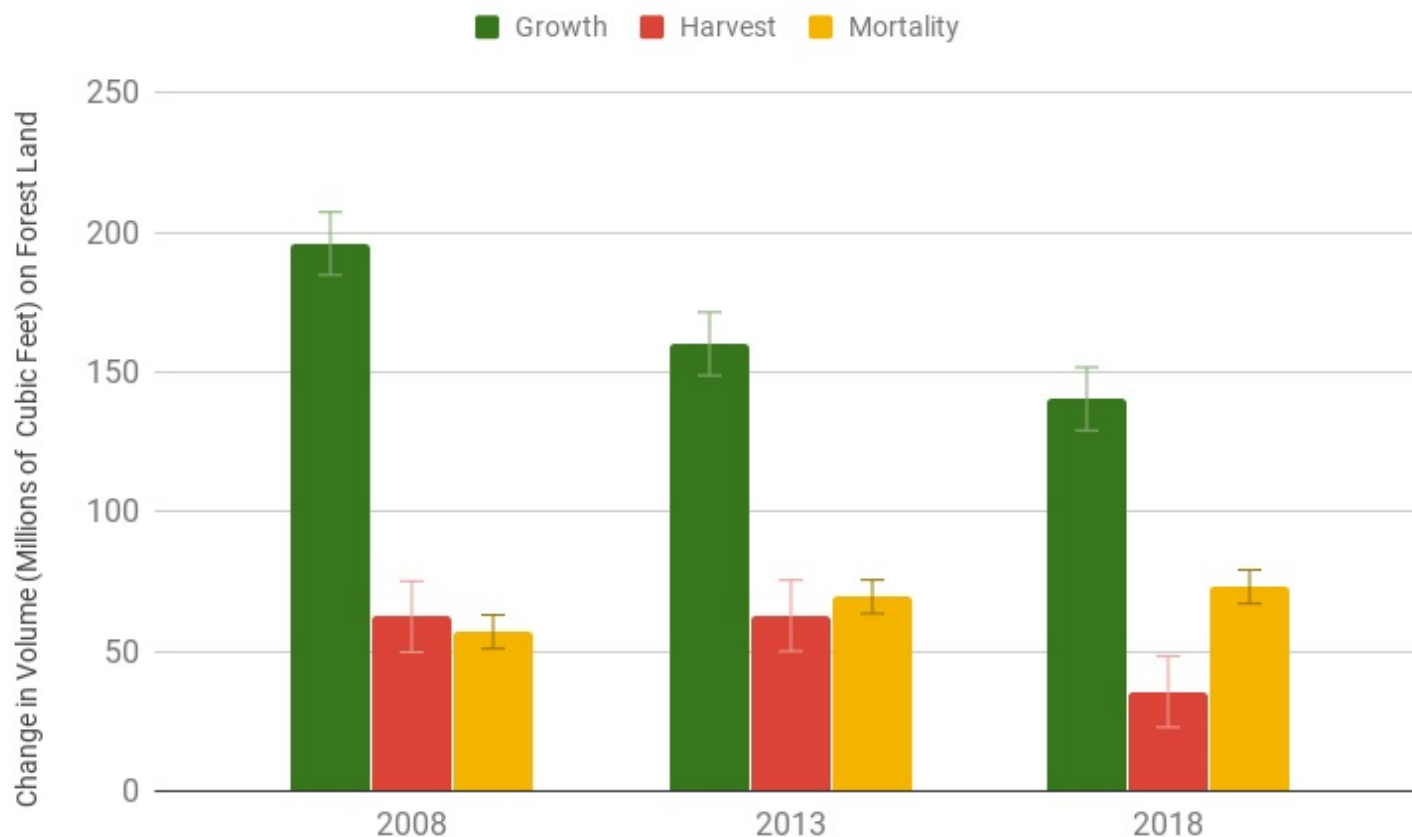


Figure 10. Annual growth rate, harvest, and mortality over time on forest land

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- 1.6 million acres of lands protected from development in MD, over half on State lands
- 40% of public land is reserved from harvesting, >50% of State Forests reserved
- Timberland available for harvesting declining faster than overall forestland



Figure 5. Area of public land in Maryland by reserve from timber harvest status and ownership



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Threats to Maryland's Forests



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Maryland's forests are threatened by...
development

- Maryland's population is expected to increase by over 10%, between 2020 and 2040, to nearly 6.9 million people



Maryland's forests are threatened by...
insects and diseases, invasive plants

Major pest and pathogens are:

- Gypsy Moth (5 acres defoliated in 2017)
- Variable oakleaf caterpillars (5,700 acres defoliated in 2017)
- Ash rust (defoliated 2,500 acres in 2017)
- Southern pine beetle (populations low, little damage, mostly near salt-stressed area)
- Emerald ash borer (Causing extensive ash mortality state-wide).
- Thousand Cankers Disease (tiny northeastern portion of Maryland is quarantined, just expanded to Balt. City and S. Balt. Co. Carrier—Walnut twig beetle).
- Hemlock wooly Adelgid (Actively being treated in Western MD and northern counties)
- Beech Bark Disease (150K acres infested in Garrett County)
- Bacterial Leaf Scorch (State-wide)
- Saltwater Intrusion (13,096 acres impacted)



Imminent Threats:

- Sirex wood wasp (Not present, but potential very damaging)
- Spotted lanternfly (detected in Cecil County, current infestation around Philadelphia)



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Maryland's forests are threatened by...

deer

"...abundance now poses threats to natural forest ecosystems and to other wildlife species" – Maryland Deer management Plan



Photo: Don Outen (Baltimore Co. DEPS)



- US Park Service study found that deer browse particularly altered the composition of bird species in forest stands, while altering the stands themselves.
- It concluded that, if unchecked, excessive, preferential deer browse would alter Oak-Hickory and Bottomland forest types by directing successional regeneration toward cherry/ash/hackberry dominated stands

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Maryland's forests are threatened by...

Fire ...and lack of fire

Maryland Forest Service responds to an average of 325 wildfires that burn more than 3,200 acres annually. Native forest types such as oak-hickory are declining and thin-barked species are increasing. Prescribed fire is used to restore historically fire-dependent forests.

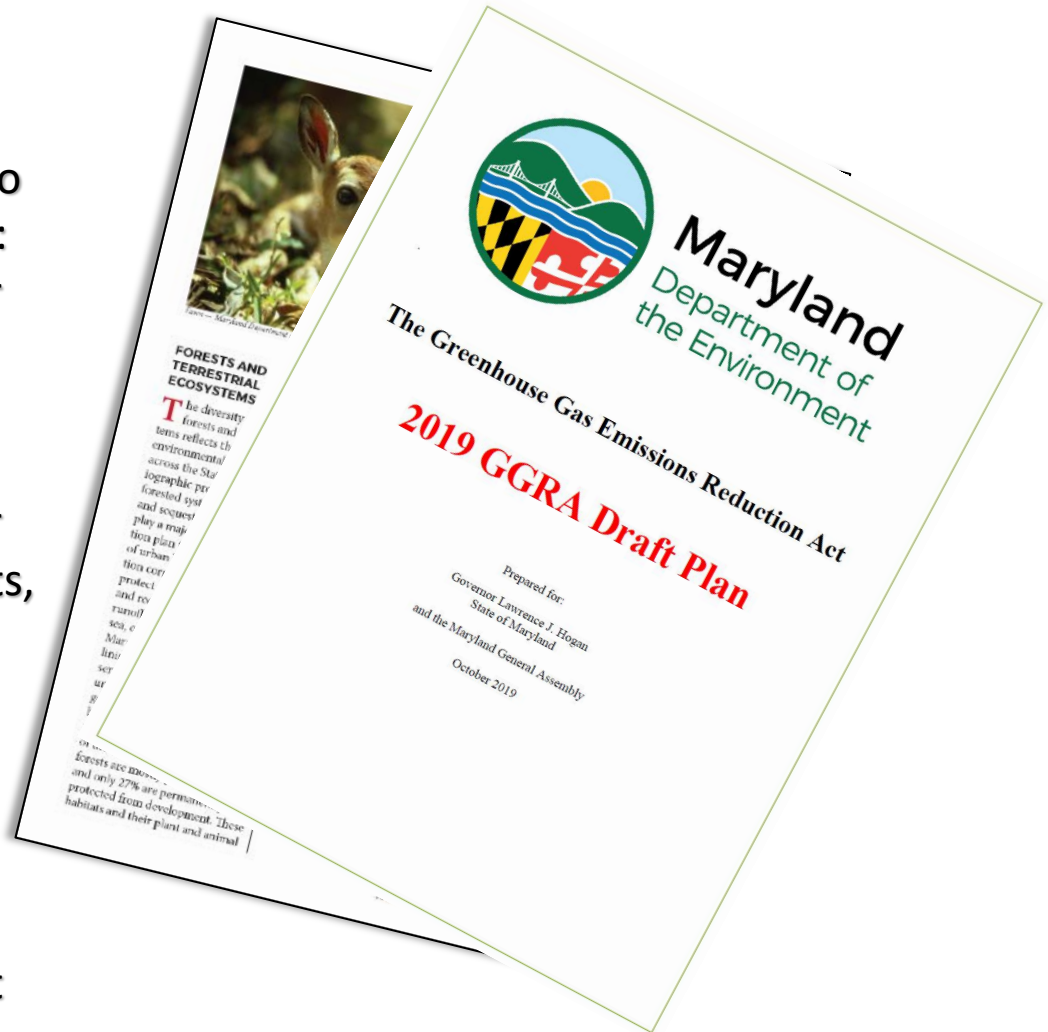


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Maryland's forests are threatened by...

climate change

- Climate change has the potential to amplify other threats to the forest:
 - more favorable conditions for wildfire,
 - altering native plant communities,
 - more favorable conditions for invasive plants (vines!), insects, and diseases.
- Forests affected by
 - greater droughts
 - periods of extreme weather (e.g. ice/frost damaging in recent years)
 - Intense rainfall, flooding, root saturation





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Maryland's Forest Industry



Maryland Forest Product Industry Facts 2015- \$3.5 Billion industry in MD

1. Most Common Species Harvested
 - Red/White Oak
 - Poplar
 - Cherry
 - Maple
 - Pine
2. Products Sold in 2018
 - Lumber
 - Logs
 - Piling
 - Posts
 - Rail ties
 - Firewood
 - Mulch
3. Wood Consumption (Self-reported 2017)
 - 141 million board feet
 - 26 sawmills reported
 - Mills traveled no more than 75 miles to procure standing timber.



Markets for Forest Management

- Loss of Markets
 - Verso closed the Luke paper mill
 - Direct job and services loss
 - Loss of market for low-value wood needed to practice timber stand improvement
 - Port of Baltimore stopped fumigating export logs
 - Natural gas is replacing wood fuel at prison complex, 1/3 of the market for low grade wood on the Shore
 - Three of largest remaining sawmills closed in last 6 months
- Market Opportunities: Maryland is a national leader in preserving forests, but not forestry infrastructure.
 - Strategic Plan with Maryland Forests Association (MFA) and Association of Forest Industries (AFI)
 - Pursue wood as fuel, converting oil-heated buildings in need of furnace replacement



New Programs since 2010

- Urban
 - Lawn to Woodland
 - Arborist Training and Continuing Education Crediting Program
- Fire
 - Expanded Federal Excess property programs for wildfire control (DNR and Volunteer Fire Companies)
- Health
 - Expanded emerald ash borer response
 - Forest Health Team
- Stewardship
 - Healthy Forests, Healthy Waters-CB Trust Fund, ACB, & Forestry Bds
 - Landscape-scale plans in watersheds



STRATEGY

Goal I. Grow Forests, Habitats, Markets, and Jobs

Objective I.A. Keep Forests as Forests

Objective I.B. Manage for Resilient Forest Landscapes, Habitats, and Partnerships

Objective I.C. Invest in Forest Management for a Renewable Rural Economy

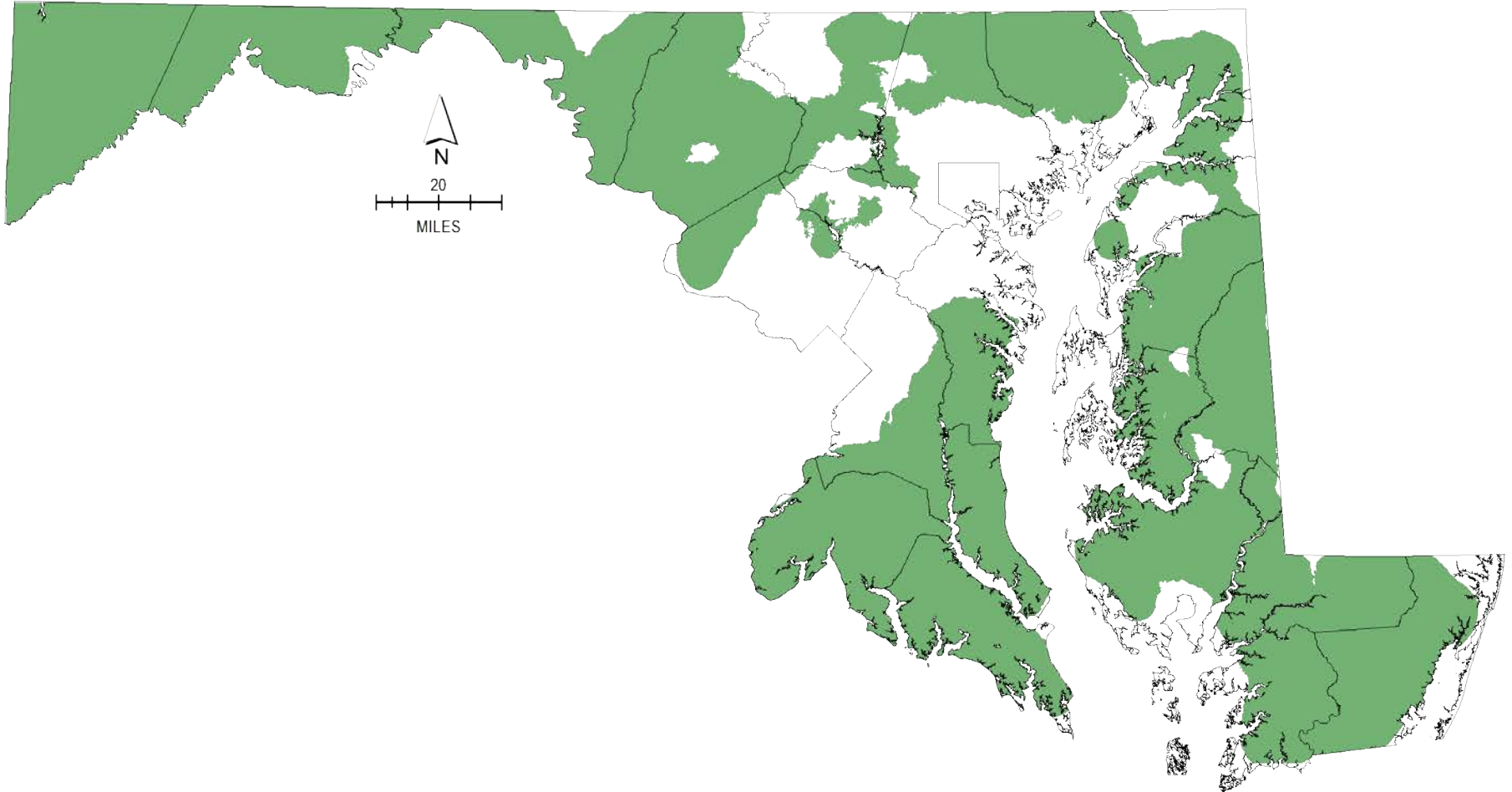
Objective I.D. Demonstrate Sustainable Forest Management on Public Lands

Example tactics:

- Economic Adjustment Strategy for Forest Products Sector
- Dual Sustainable Forest Certification on State Forests
- Forest stewardship assistance to landowners in priority woodlands
- Expand Forest Legacy and other working forest easements



Conserve Working Forests Priority Area



Goal II. Manage Forest Health and Fire

Objective II.A. Provide Emergency Response to natural resource threats.

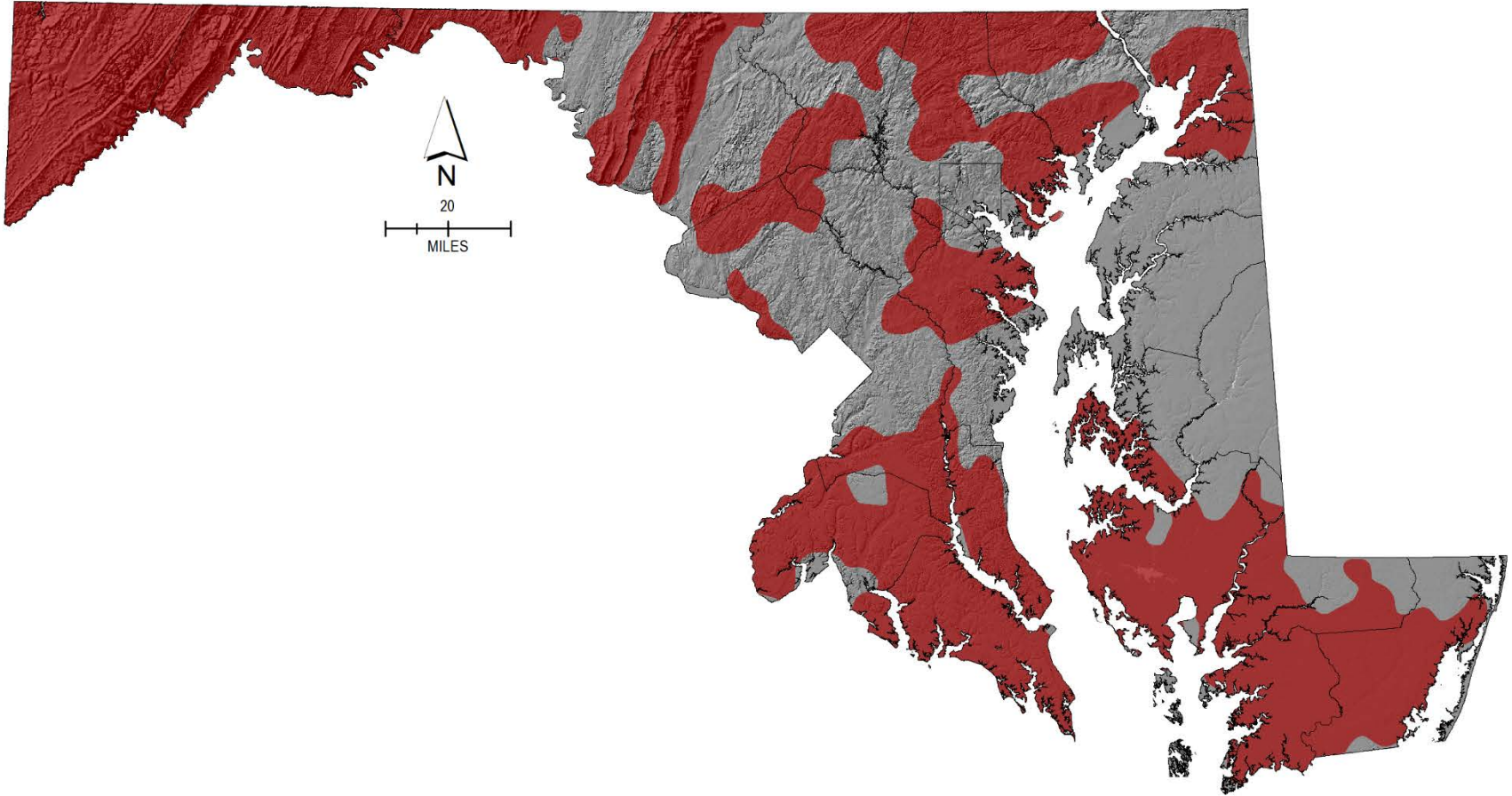
Objective II.B. Develop approaches to reduce threats from long-term stressors to forests

Example tactics:

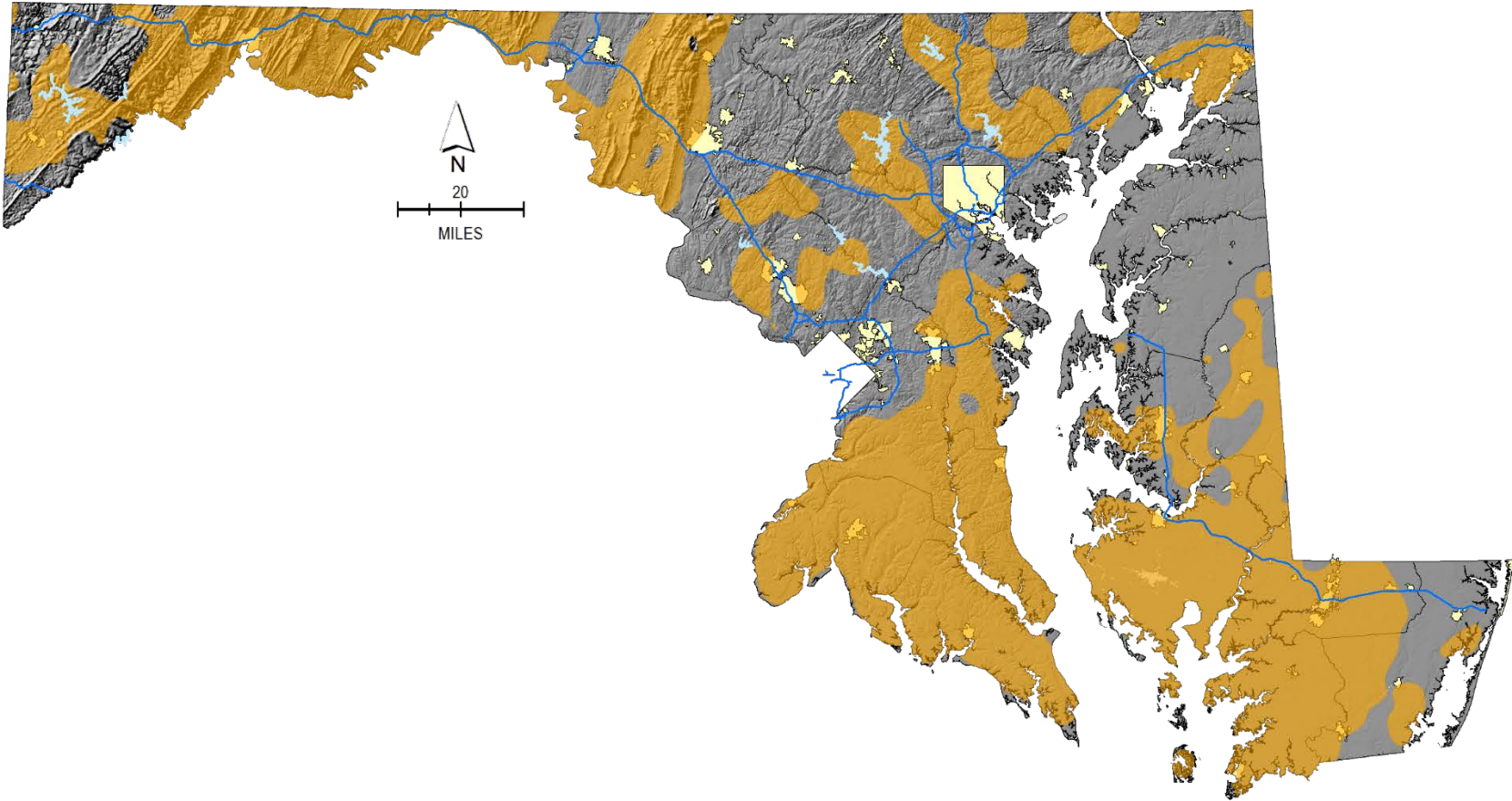
- Provide wildfire response training, including new employee fire response task book
- Assist landowners and land managers with invasive species control



Protecting Forest from Harm: Forest Health Priority Area



Protecting Forest from Harm: Fire Priority Area





Maryland Goal III. Provide Clean Water

Objective III.A. Revitalize the Chesapeake Bay and other priority waters

Objective III.B. Manage Forests for High-Quality Drinking Water

Objective III.C. Advance use of forest harvesting best management practices

Example actions:

- Expand public-NGO partnerships for more tree planting funding options for more riparian forest buffers towards 70% goal (currently 57%)
- Develop conservation financing strategies for forest conservation
- Provide on-site field monitoring for forest harvesting site reviews



Maryland Goal IV. Create Healthy, Livable Communities with Trees and Forests

Objective IV.A. Connect people to trees and forests for healthy lifestyles

Objective IV.B. Support Livable Green Communities

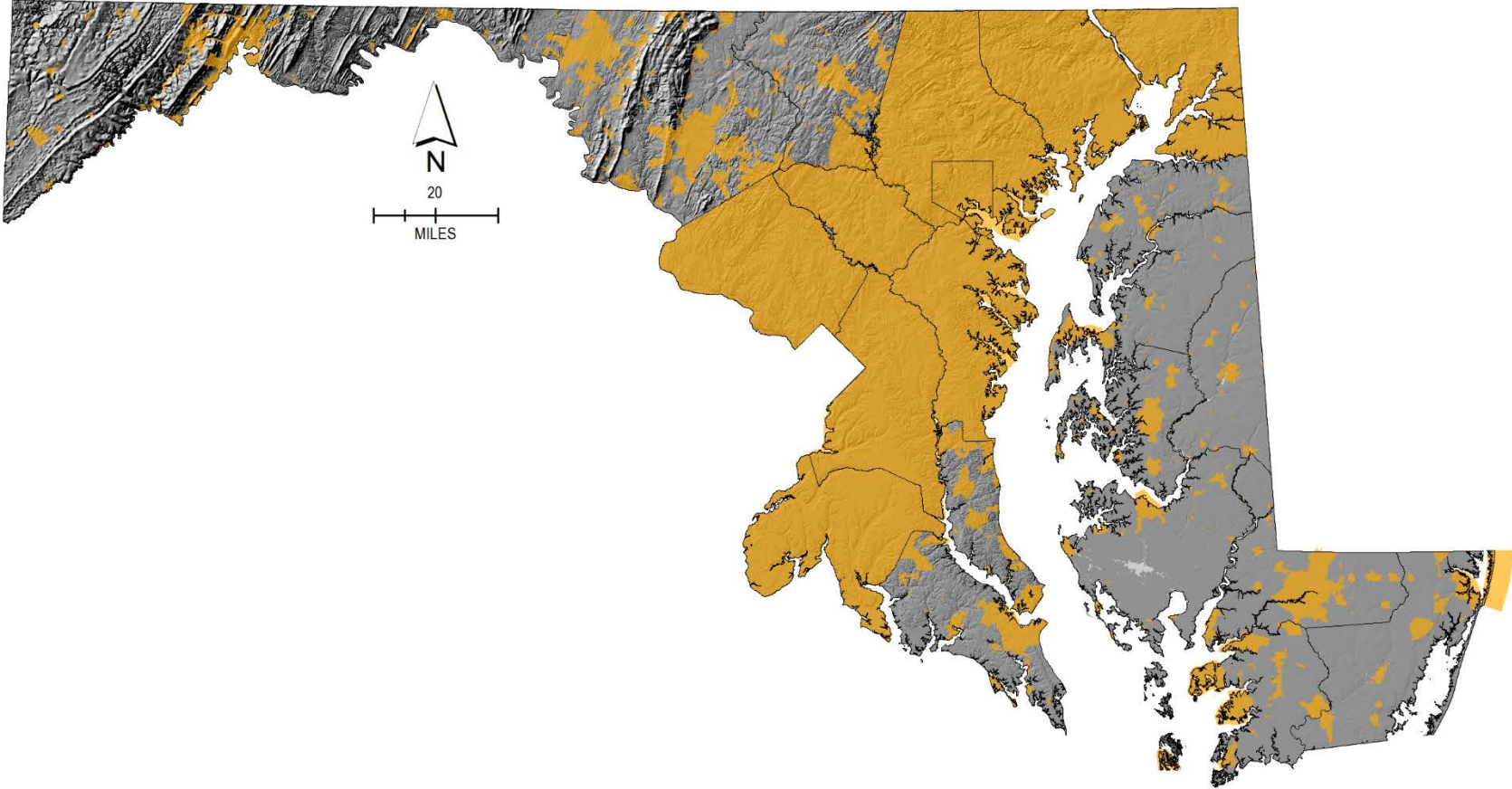
Objective IV.C. Improve health and survival of urban forests

Example tactics:

- Develop projects with health care facilities for Tree Campus-Health Care recognition
- Expand tree canopy by 2400 acres by 2025
- Provide youth programs that build natural resources career ladder
- Expand forestry information on social media



Trees and Forests Providing Benefits to Society Priority Area



Maryland Goal V. Respond to Changing Weather Patterns

Objective V.A. Plant and Care for Trees and Forests to Mitigate for Climate Change

Objective V.B. Innovate forest management for climate-adapted future forests

Objective V.C. Diversify forests and develop markets to optimize carbon sequestration and long-term carbon storage

Example tactics:

- Track spectrum of tree planting programs (single tree to acres) for MD Greenhouse Gas Reduction Act
- Model carbon consequences of forest management practices
- Support planting design and post-planting care to improve survival and growth
- Expand woody biomass as an on-demand complement to other variable production renewable energy such as solar and wind

