

Impacts of Salt Water Intrusion on Pine Systems

Matthew Hurd
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Maryland Forest Service
Marsh Resilience Summit
February 6, 2019

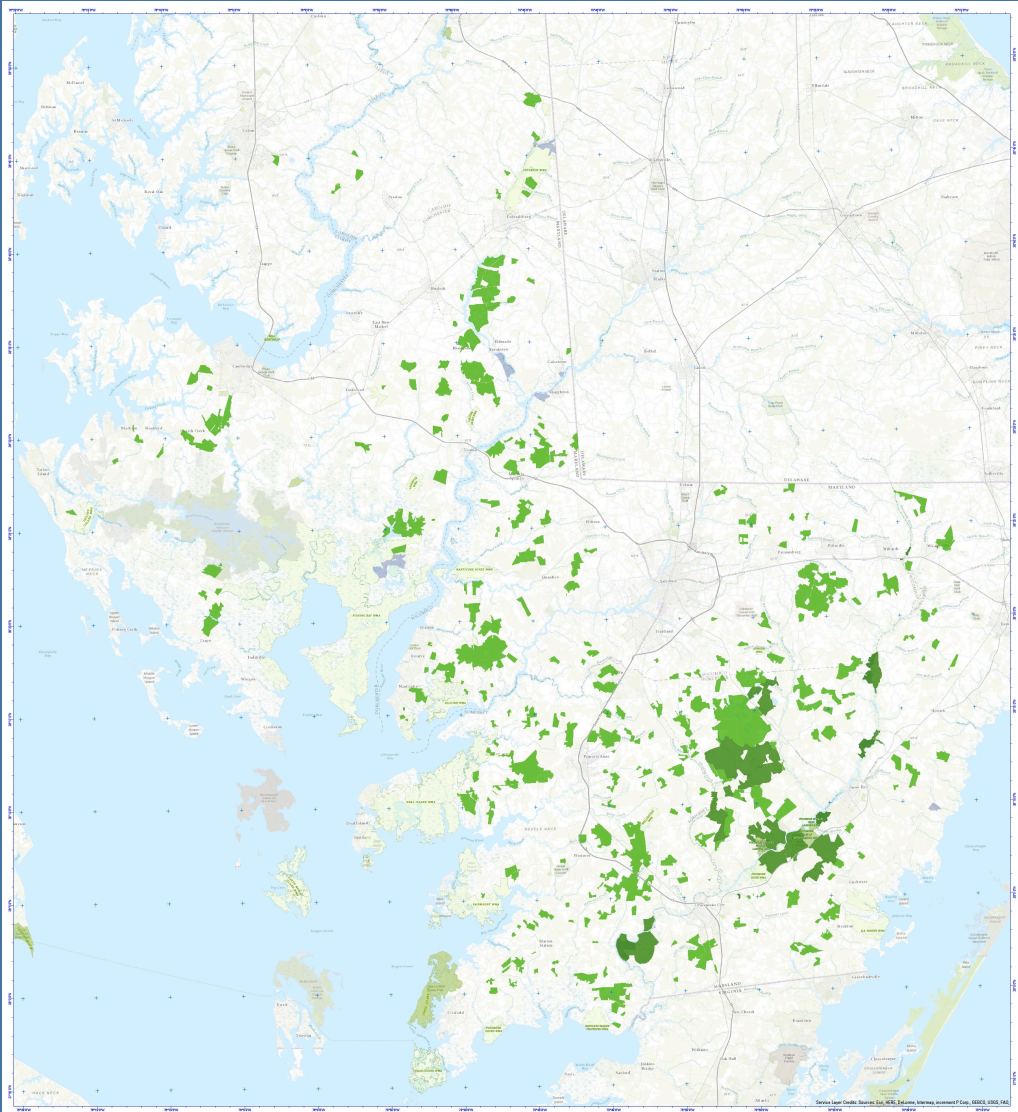


Maryland Forest Service





Mission Statement

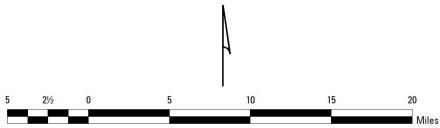
To Restore, Manage, and Protect Maryland's Trees, Forests, and Forested Ecosystems to Sustain Our Natural Resources and Connect People to the Land.



Eastern Shore of Maryland

Chesapeake Forest Pocomoke State Forest

-  Chesapeake Forest
-  Pocomoke State Forest





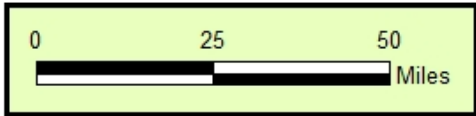
Salt Intrusion on Forests

- Where's the Salt Coming From?
- Sea Level Rise, Groundwater
- Tidal Surge, Weather Events
- Salt Spray

Maryland Department of Agriculture
2018 Saltwater Intrusion Damaged Areas
Forest Pest Management Section

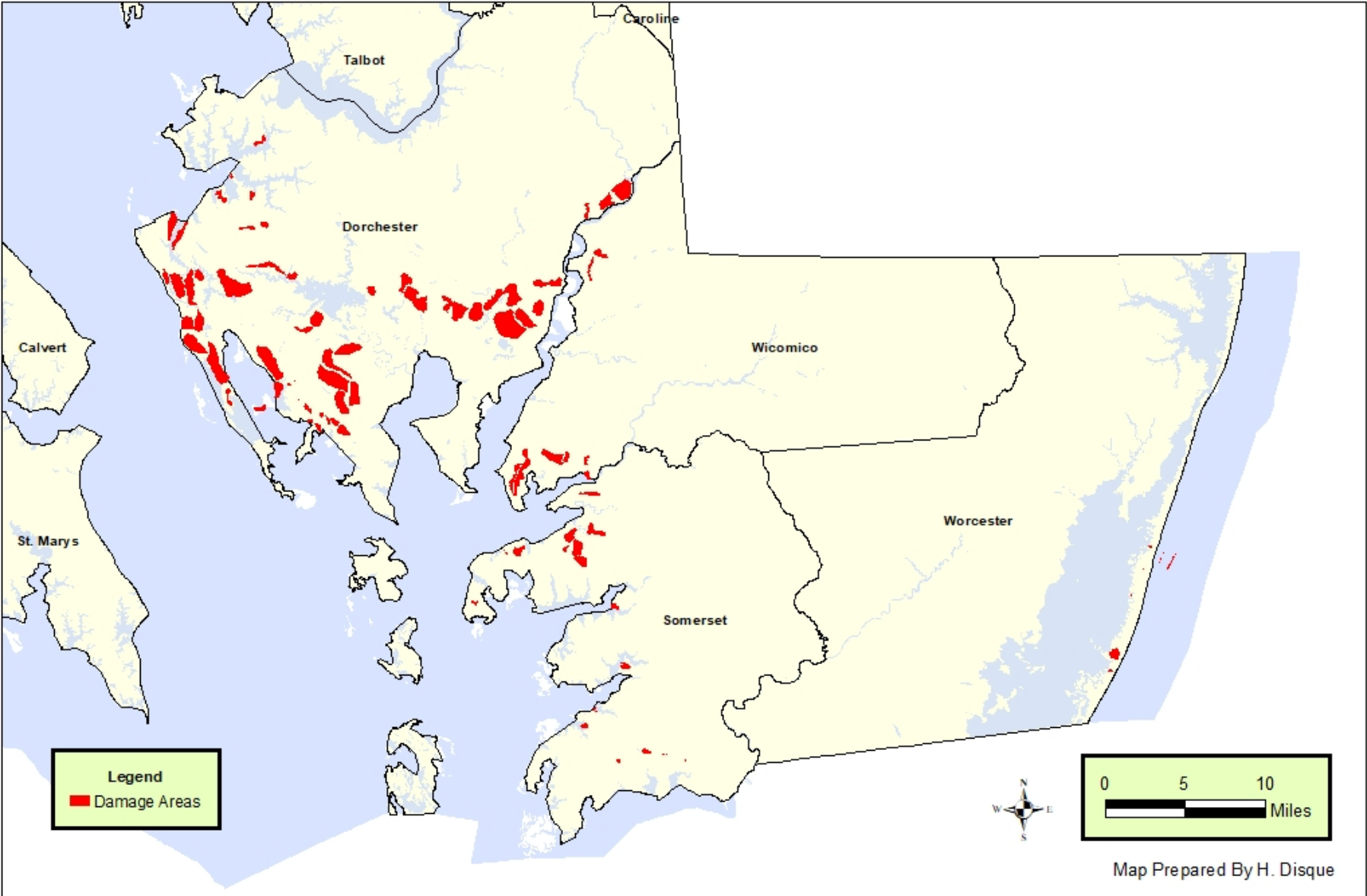


Legend
■ Damage Areas



Map Prepared By H. Disque

Maryland Department of Agriculture
2018 Saltwater Intrusion Damaged Areas
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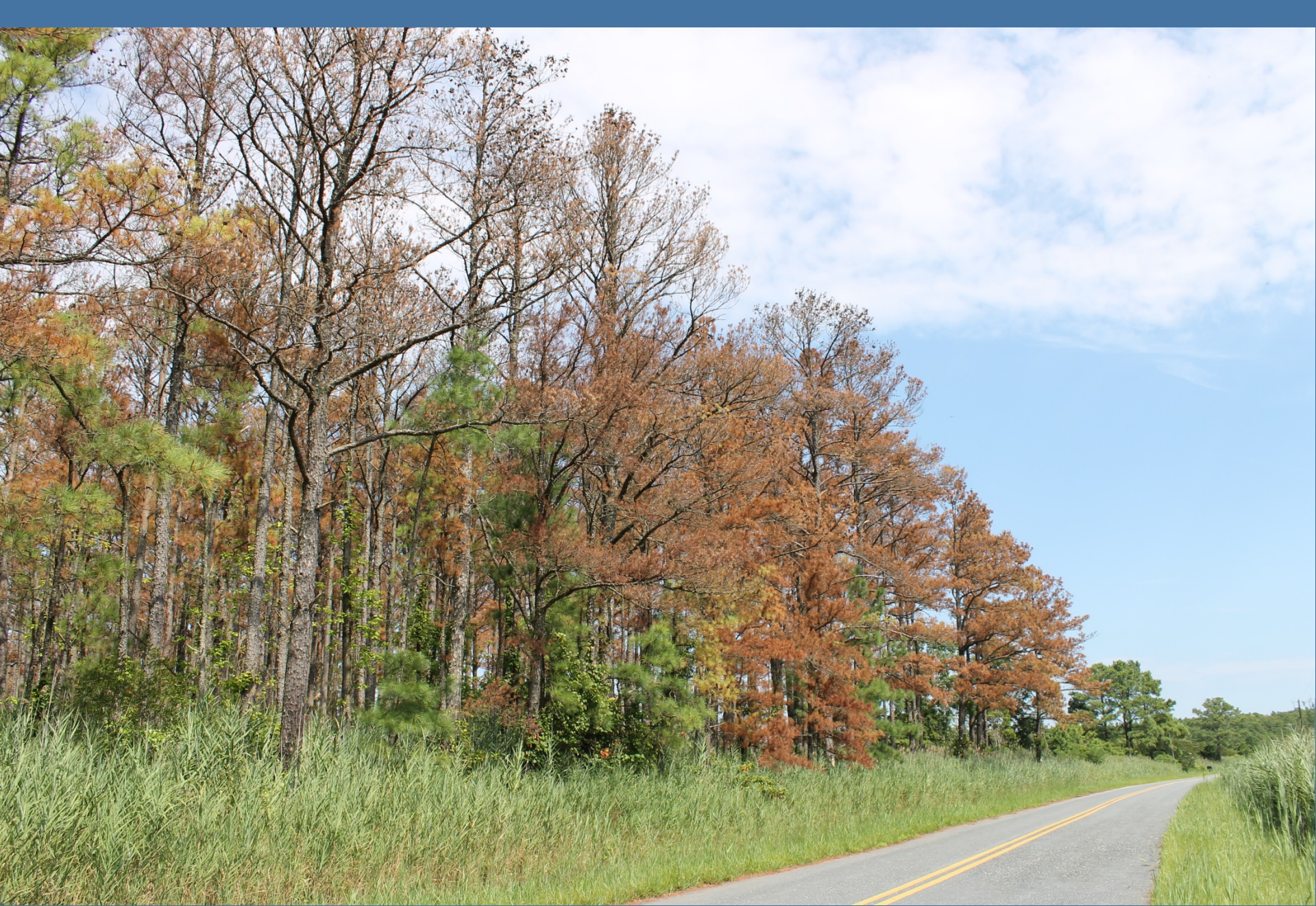
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Issues to Address

➤ Stress Induced Problems.



Heather Disque
Forest Pest Management, MDA

Issues to Address

- Stress Induced Problems.
- Harvesting to control spread or increase forest health.

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- Stress Induced Problems.
- Harvesting to control spread or increase forest health.
- Merchantable species tolerant to soil salt or salt spray.

Salt Tolerant Species

Merchantable/Wildlife

- Oaks
- Baldcypress
- Blackgum
- Persimmon
- Sycamore
- Black Locust
- Ash (if there's any left)

Non-Merchantable/Wildlife

- Sweetbay Magnolia
- Bayberry
- Hackberry
- Wax Myrtle
- Smooth/Hazel Alder
- Marsh Elder
- Red Chokeberry

Private Industry

- Find new forest products
- Find adaptive or new ways to harvest
 - Cable Harvesting
 - Barge/Boat Harvesting
 - Helicopter Harvesting
 - Low Ground Pressure Harvesting



Oregon OSHA – Oregon.gov



Columbia Helicopters - <http://www.colheli.com/>

Impacts

- Property Values
- Forest Migration
- No Net Forest Loss – 40% Forest Tree Canopy

Where Do We Go From Here?

- Continued Research – We have the land!!!
- Partnership with Private Industry
- Landowner Outreach – Public Perception of Buffers

Any Questions?

Matthew Hurd

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