

# Burning Wood for Electricity is Not a Climate Solution



**Southern Environmental  
Law Center**

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# Burning Wood for Electricity

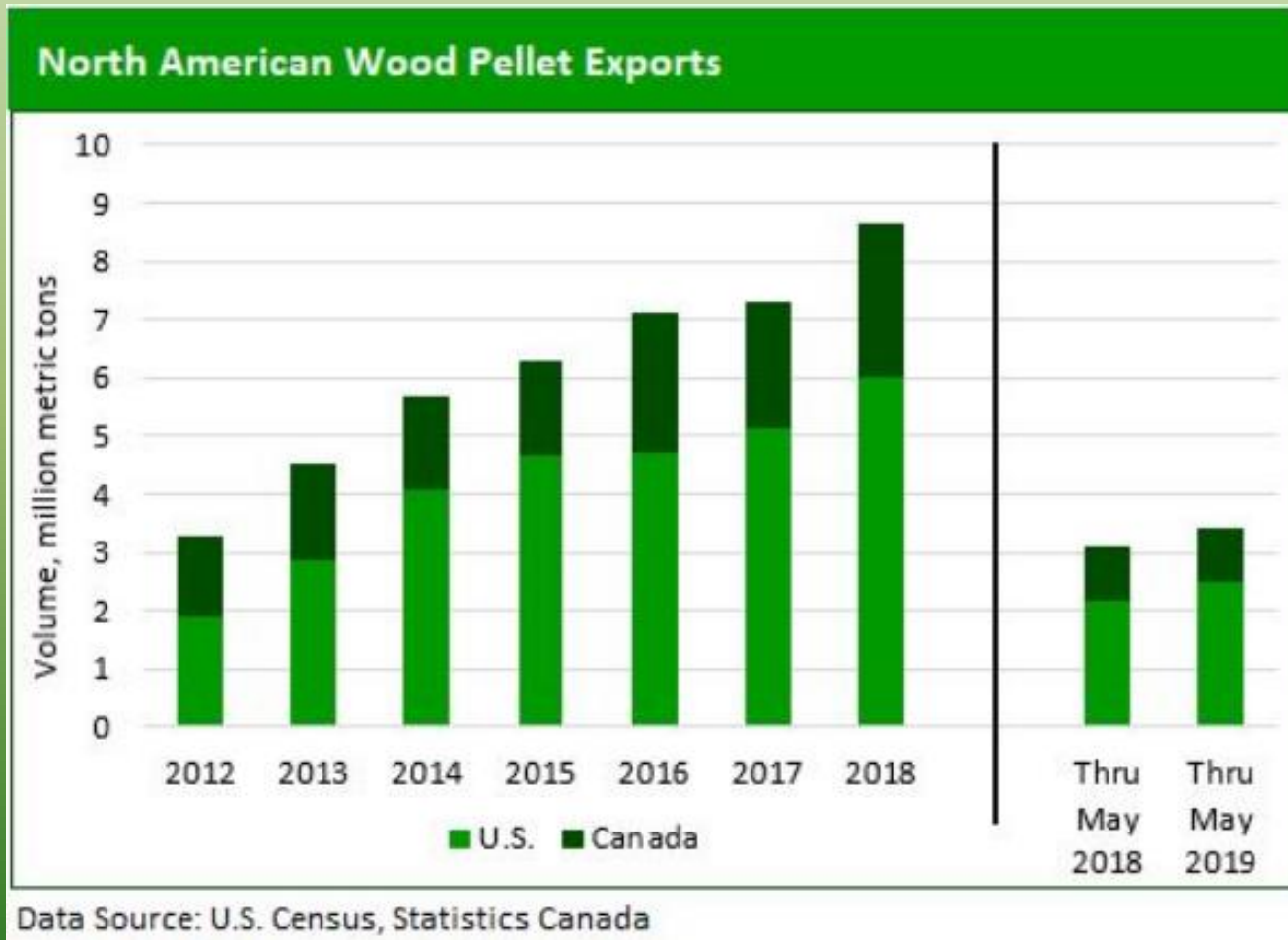


- **WOOD PELLET INDUSTRY**
- **CARBON IMPACTS**
- **SOURCING PRACTICES**
- **“SUSTAINABLE” SOURCING**
- **IMPACTS TO LOCAL COMMUNITIES**

# What is “biomass”?



# Industry Expansion



# Historical Perspective



- UN Framework Convention on Climate Change (UNFCCC)
  - Forestry carbon accounting rules
- EU Renewable Energy Directive (RED & REDII)
  - 32% renewables by 2030
- UK Climate Change Act
  - 80% carbon reduction by 2050

# Carbon Impacts



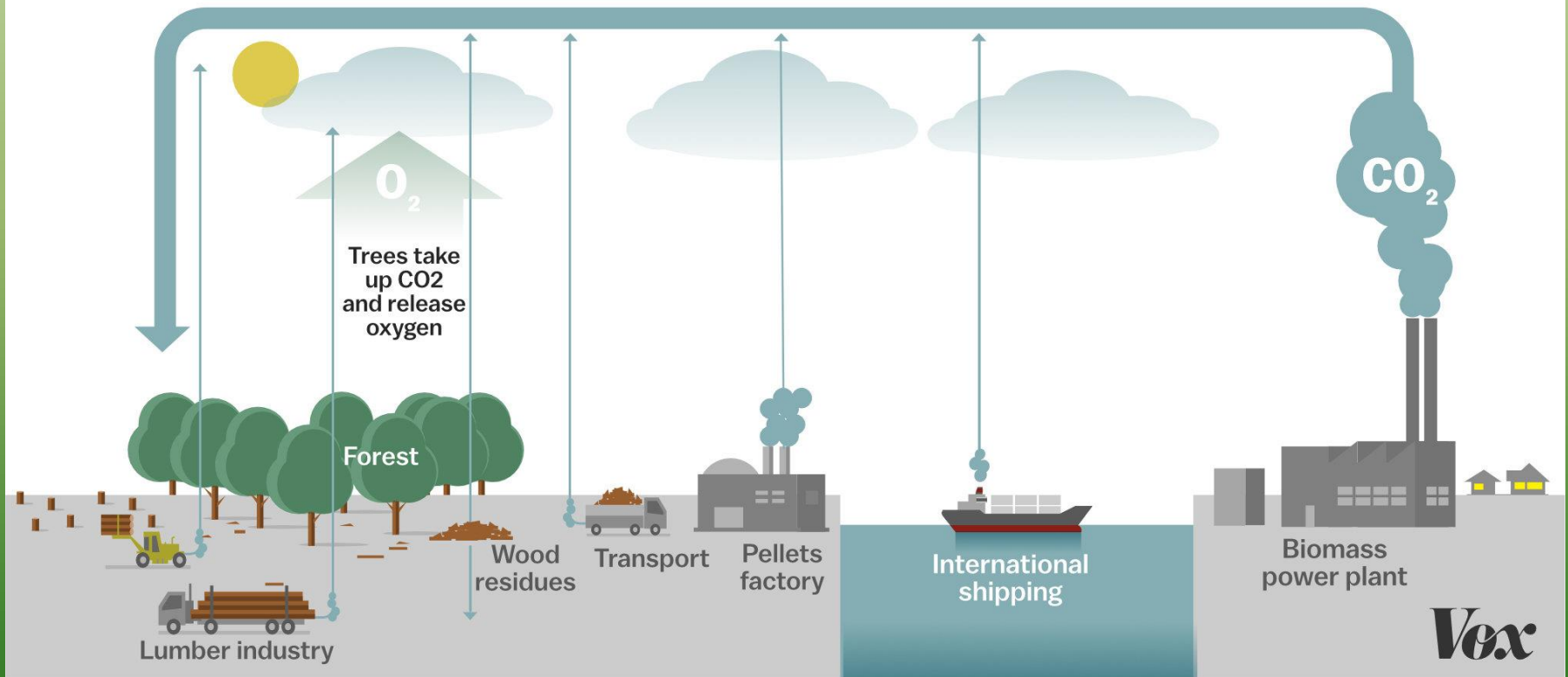
In 2018, Drax Power emitted 13 million tons of CO<sub>2</sub> solely from the combustion of biomass.



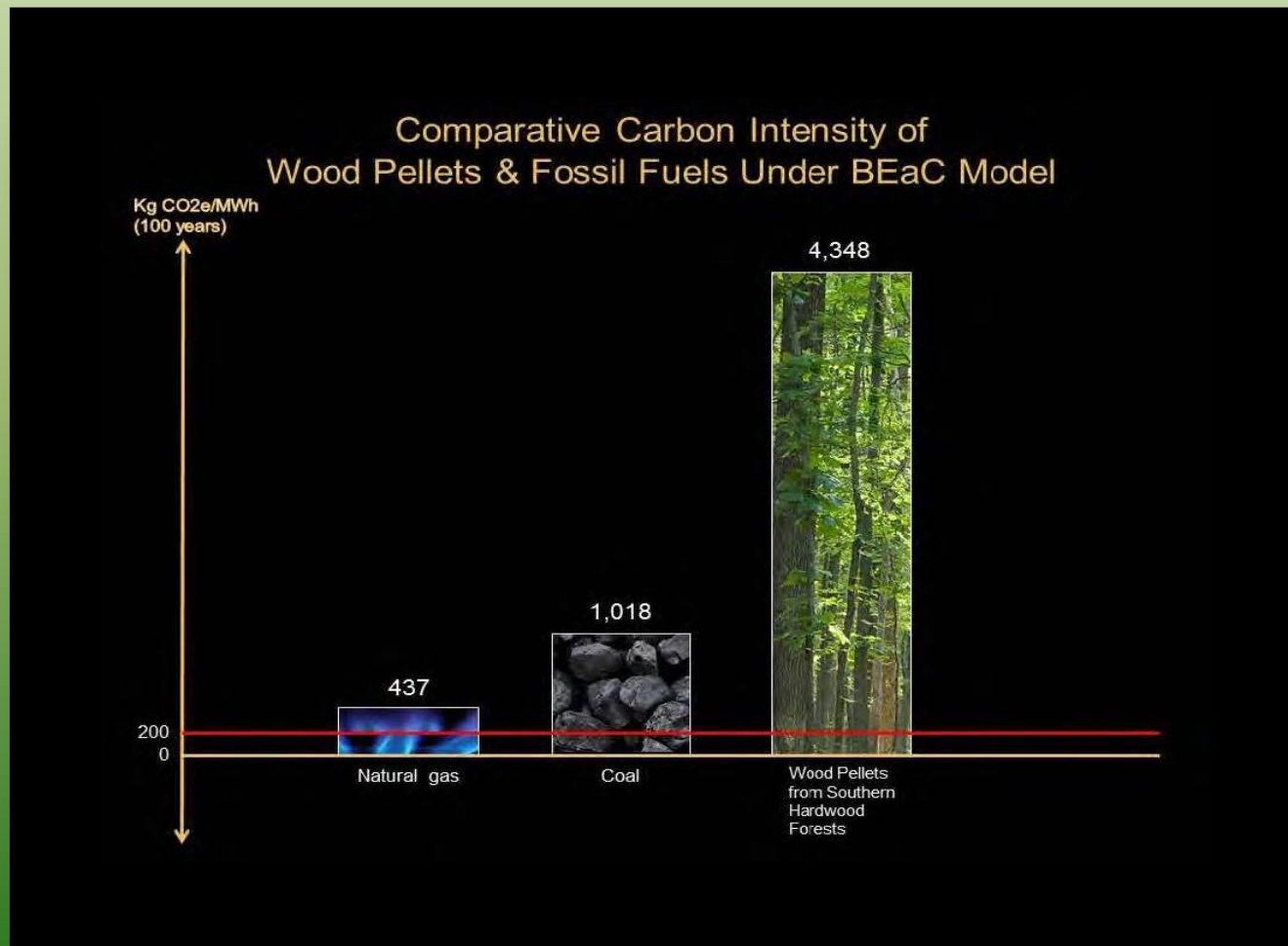
# The “Carbon Neutral” Myth



## The cycle of biomass energy



# Carbon Impacts - Hardwood Trees





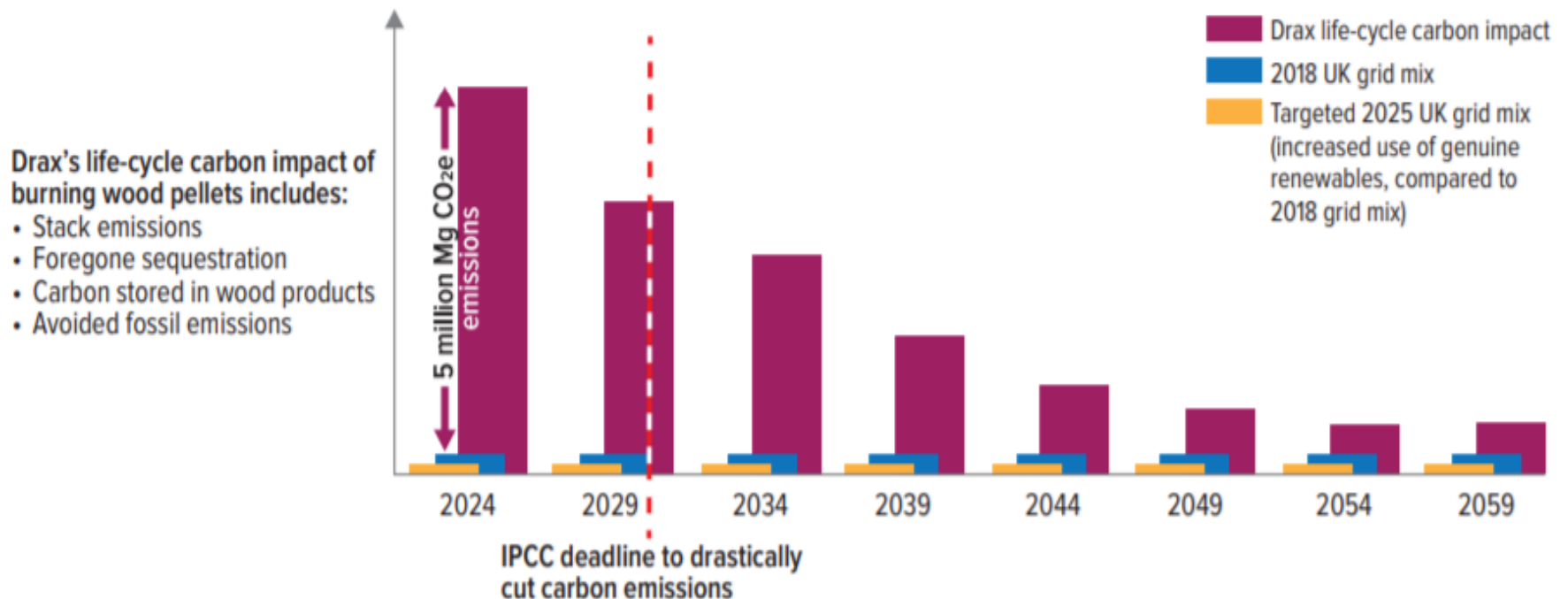
# Carbon Impacts – Softwood Thinnings



Thinning and final clear cut of pine plantation that supplied wood to Drax's Amite, Mississippi facility (2018).

# Carbon Impacts – Softwood Thinnings

The carbon impact of burning wood pellets from Drax's three U.S. mills is worse than the emissions from the UK electricity grid mix until beyond 2059, well past the deadline needed to address climate change.



# Sourcing Practices



# Enviva Wood Pellets



- **NC/VA Mills**
  - 5 operating
  - 1 proposed
- **Other Southeast Mills**
  - 3 operating (FL & MS)
  - 4 proposed (VA, MS, SC, AL)





# Reliance on Whole Trees



Enviva's Ahoskie, NC mill



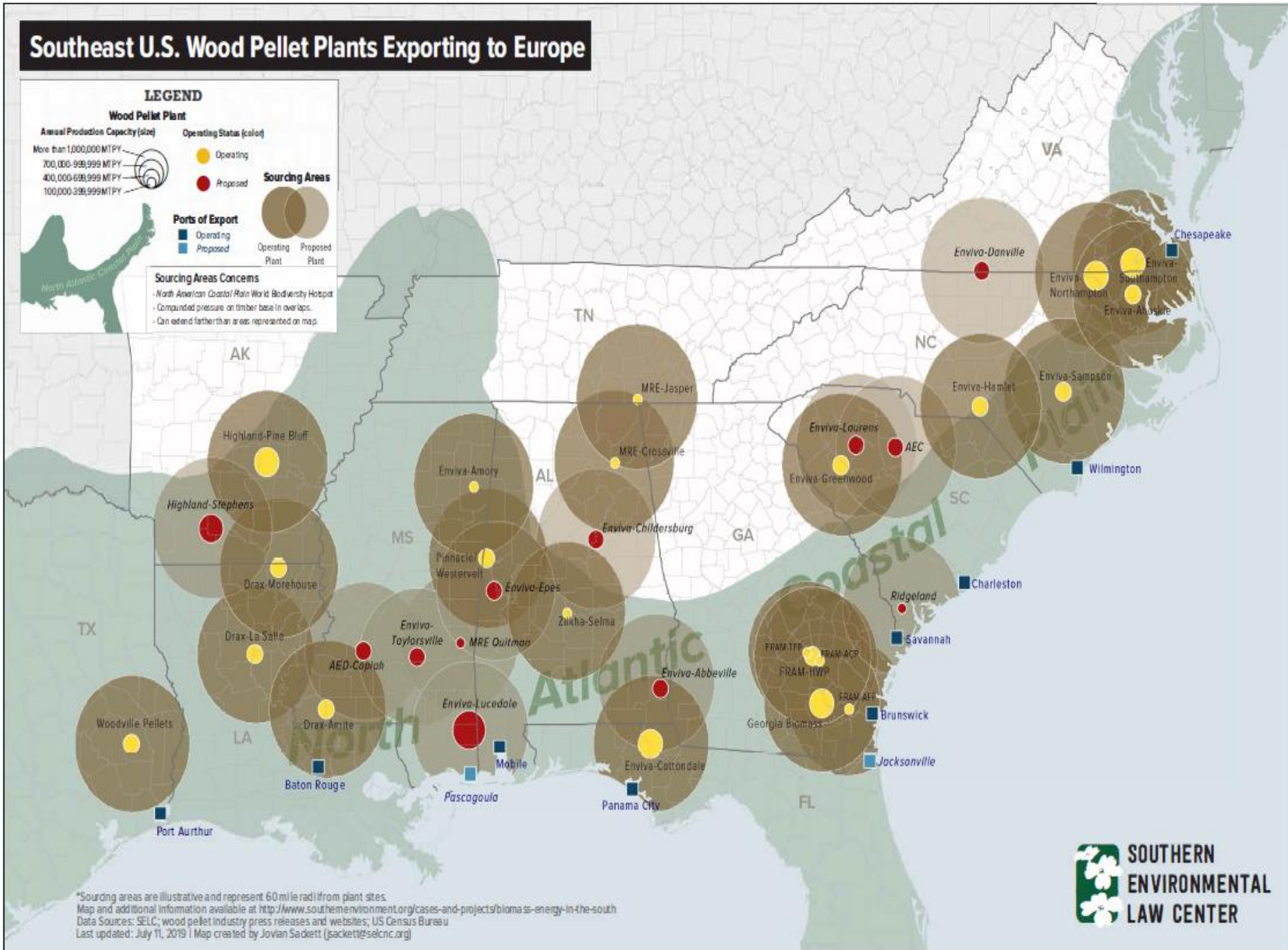
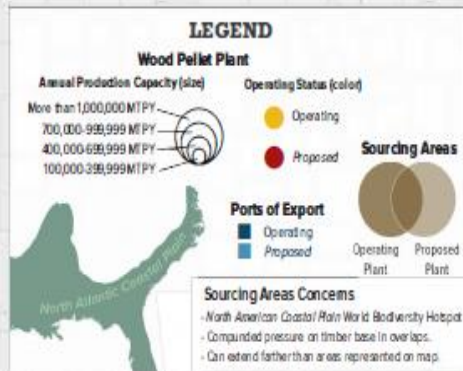
Enviva's Northampton, NC mill

# Clearcut Bottomland Hardwoods





# Southeast U.S. Wood Pellet Plants Exporting to Europe

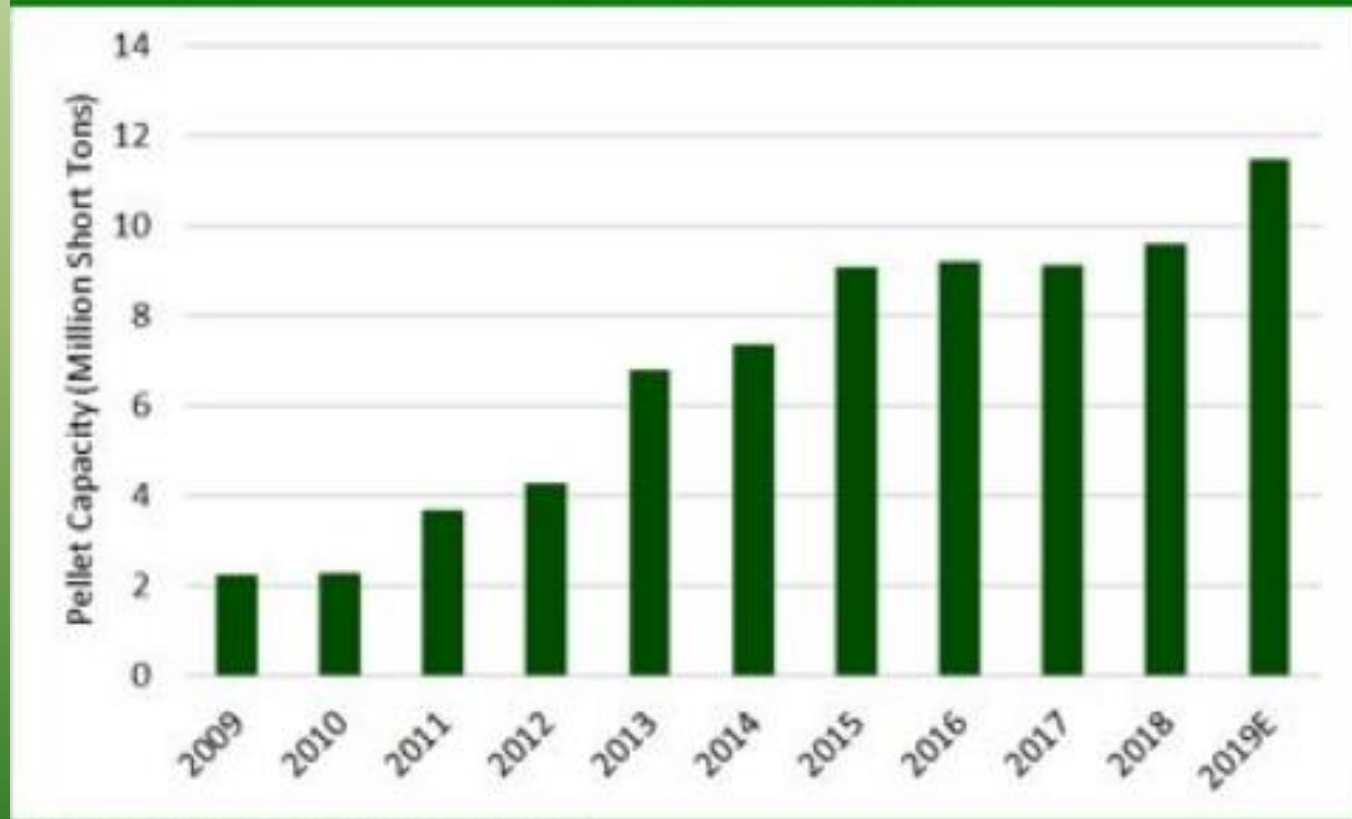


\*Sourcing areas are illustrative and represent 60 mile radii from plant sites.  
 Map and additional information available at <http://www.southernenvironment.org/cases-and-projects/biomass-energy-in-the-south>  
 Data Sources: SELC; wood pellet industry press releases and websites; US Census Bureau  
 Last updated: July 11, 2019 | Map created by Jovian Sackett (jsackett@selcnc.org)

# Production Capacity



## U.S. South Wood Pellet Capacity, 2009-2019



Data source: Forisk Consulting



# “Sustainable” Sourcing



Loblolly Pine Plantation (USDA)

# UK Sustainability Criteria

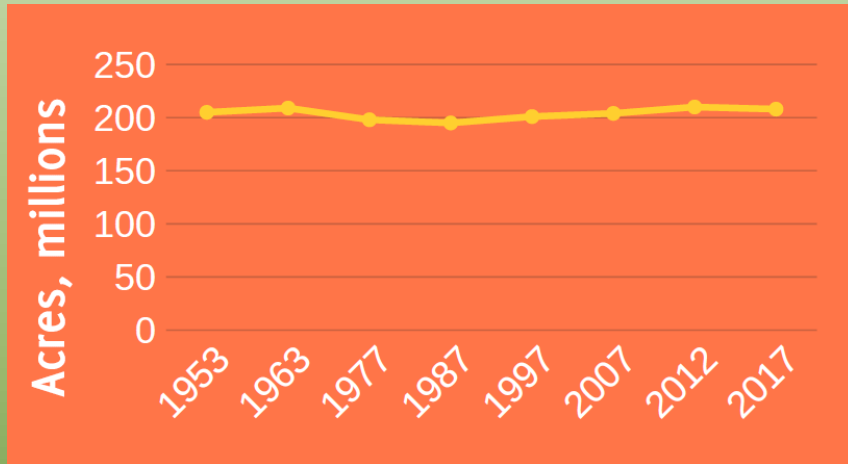
## GHG Criteria:

- 60% reduction in GHGs, relative to fossil fuels
- NO: smokestack, carbon stock changes, foregone sequestration emissions

## Land Use Criteria:

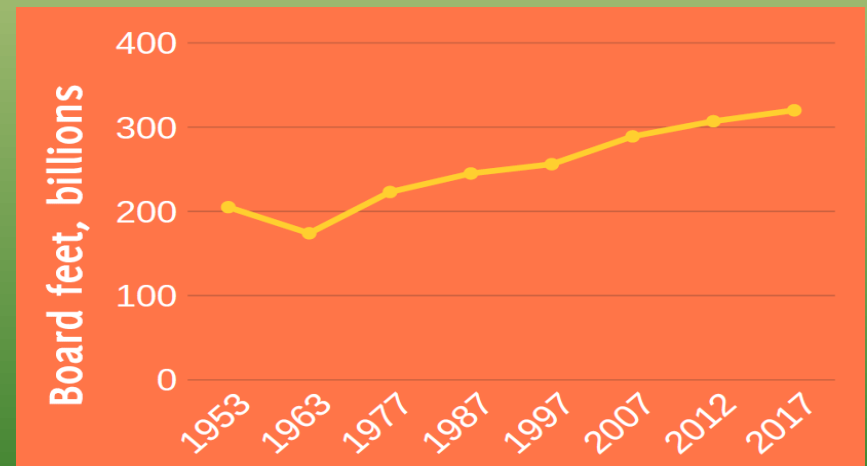
- 70% materials from sustainable sources
- NO: sourcing area or feedstock restrictions

# Acres of Forests vs. Number of Trees



While acres of forests are stagnant or declining . . .

. . . the number of useable or marketable trees for timber is growing.



Graph: Dogwood Alliance

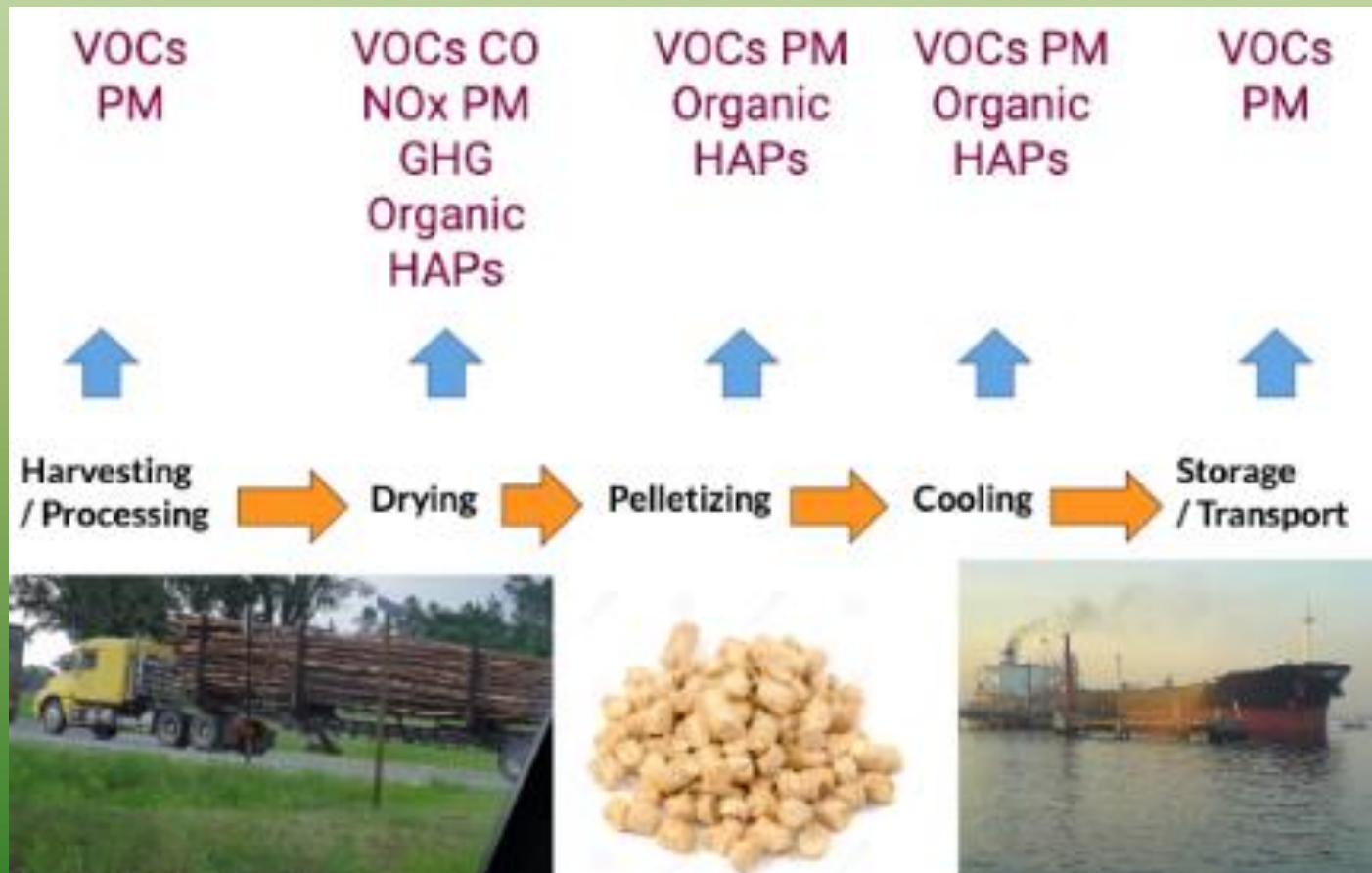
Underlying Data: Oswalt et al (2019), US Forest Service

# Impacts to Local Communities



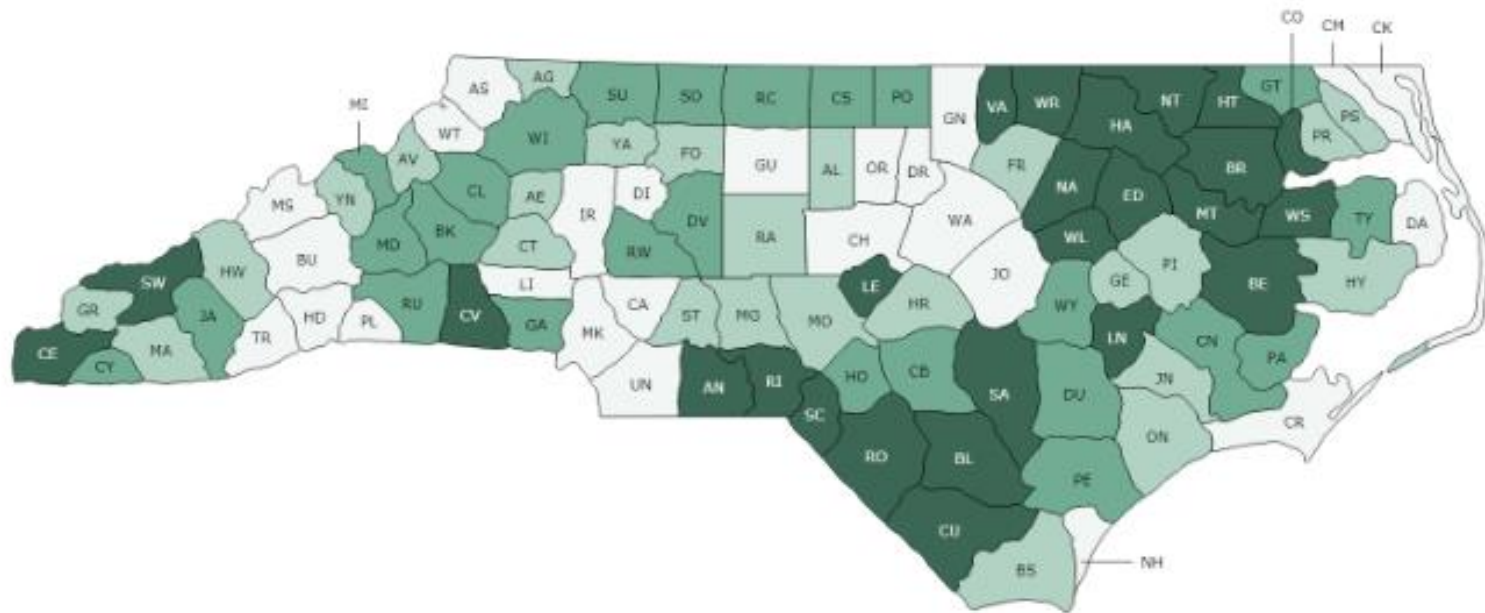
Enviva Northampton Public Hearing Aug. 20, 2019 (Dogwood Alliance)

# Local Air Pollution



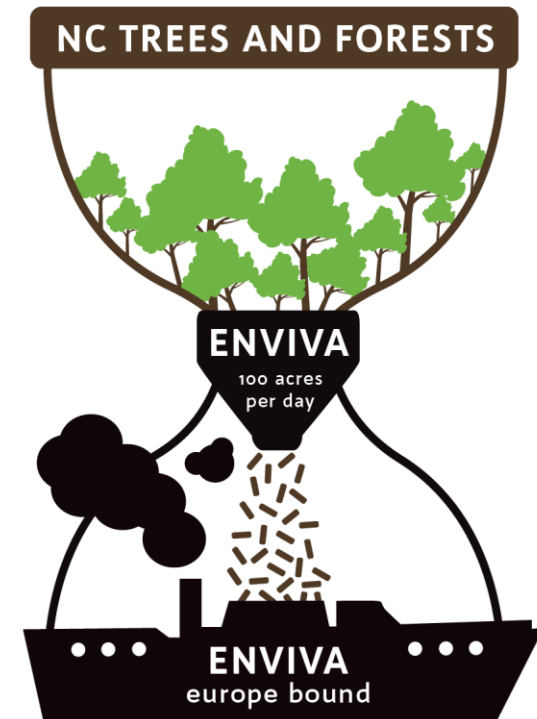


# Community Health Outcomes

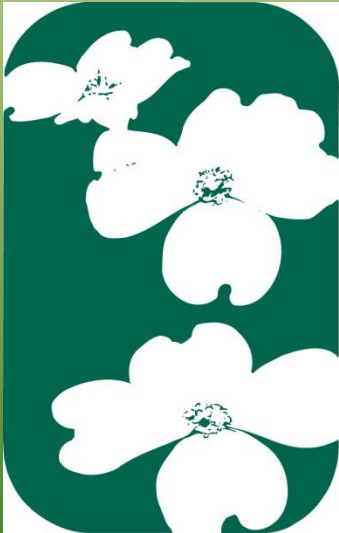


Rank 1-25   Rank 26-50   Rank 51-75   Rank 76-100

# Concluding Thoughts



# Questions?



## Southern Environmental Law Center

For more information:

[www.southernenvironment.org](http://www.southernenvironment.org)