

# Incorporating coastal wetlands into state climate planning



# Blue Carbon 101



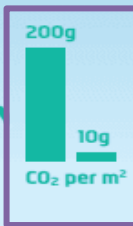
## Coastal wetlands: nature-based solutions for storing carbon

Healthy wetlands have a crucial role to play in the fight against global warming. They capture carbon, storing it first in their biomass and then in their sediments – and they do it at a rate 10–20 times greater than temperate or boreal forests. But when wetlands are destroyed, not only do they stop absorbing carbon, but they also release their stores back into the atmosphere, increasing greenhouse gases.



### Coastal wetlands

Sequester 100-200g CO<sub>2</sub> per m<sup>2</sup> per year



### Forests

Sequester <10g CO<sub>2</sub> per m<sup>2</sup> per year



### Restored coastal marshes

Restoring 1 hectare of saltmarsh helps sequester 1,000-2,000kg of CO<sub>2</sub> annually



### Peat bogs

Peat bogs store 30% of all terrestrial carbon while only covering 3% of the globe  
Peat bogs store twice as much carbon as all forests combined

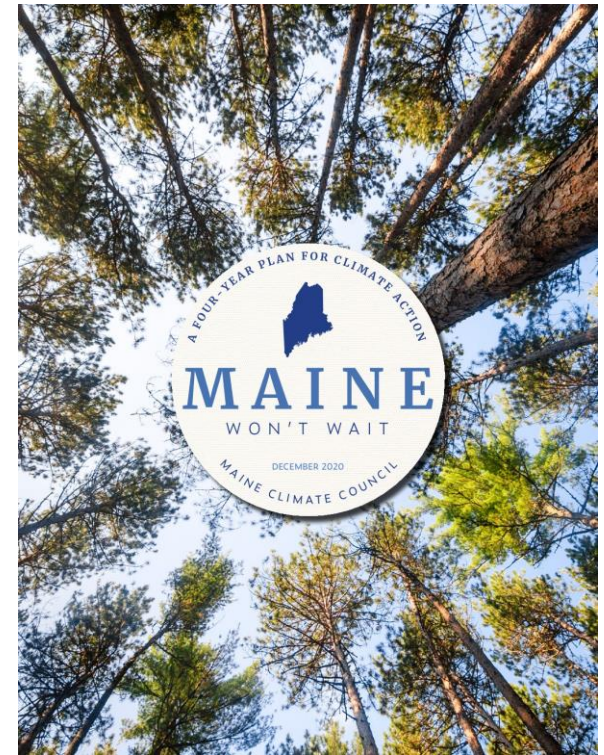
### The carbon sequestration process

- Wetland plants take up carbon via photosynthesis
- Plants build biomass
- Biomass accumulates in the soil as organic matter
- Carbon sequestered in soil



# Why engage in climate policy venues?

- High policy priority in certain states
- Can unlock significant amounts of public funding
- Plans are often tracked and updated, helping with accountability & durability
- Few peer NGOs engage at the necessary science & technical level

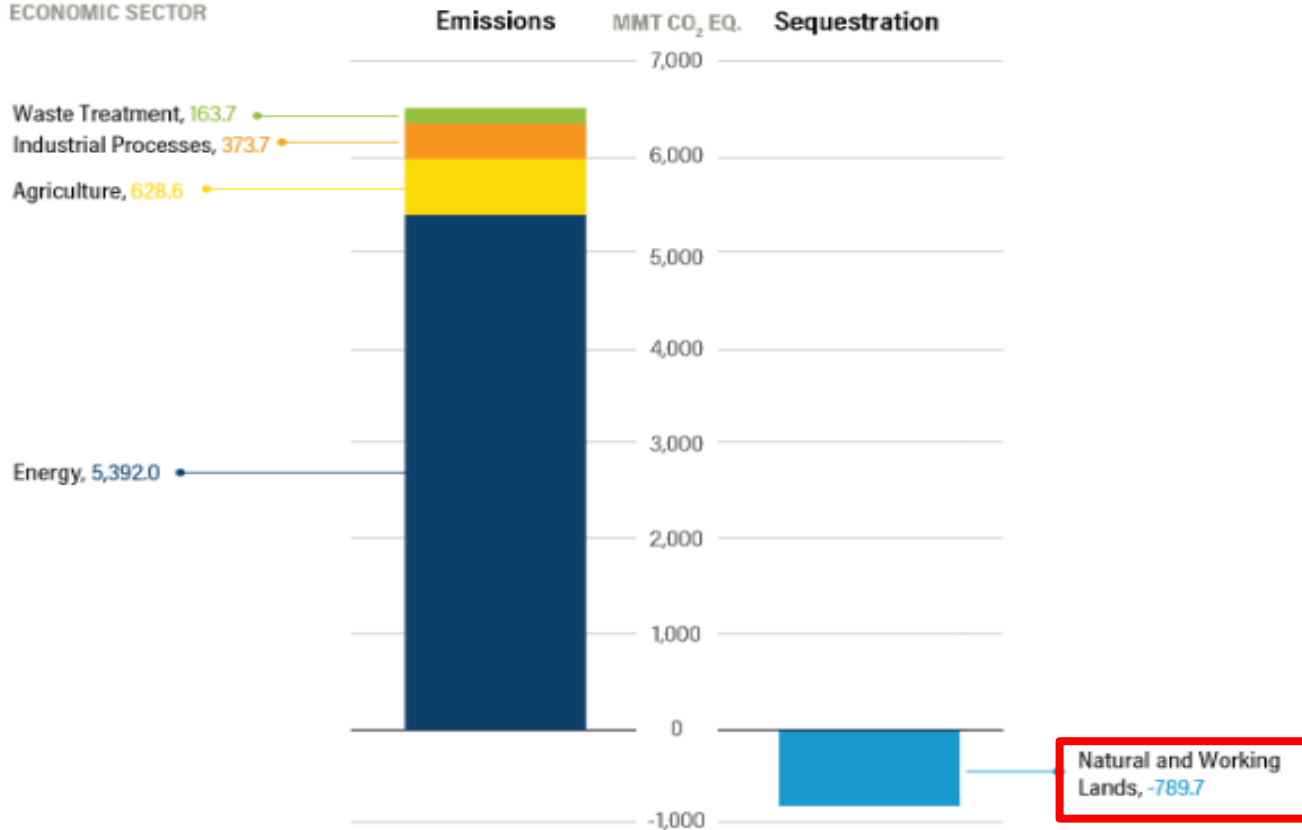


# Addressing sources and sinks

Natural and Working Lands Remove 12% of Gross U.S. GHG Emissions (2019)

## US Totals

ECONOMIC SECTOR



Source: EPA, 2021

 WORLD RESOURCES INSTITUTE

# Natural and Working Lands Plans



Land management: farms, ranches, grasslands, forests, wetlands, submerged lands



Reduce emissions (e.g., restore degraded landscapes, improve ag practices)

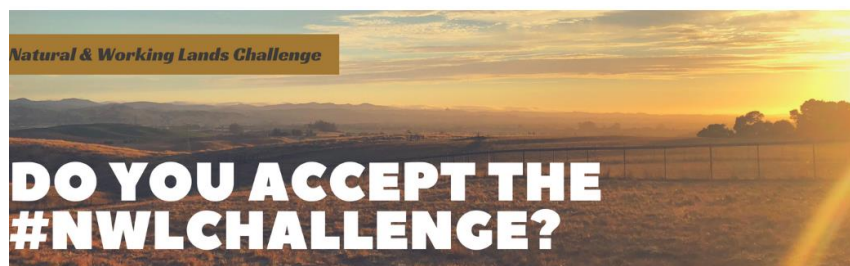


Avoid emissions (protect existing carbon sinks)



Expand carbon sinks (restoration)

# State NWL Actions



- NWLs sequester ~ 714 MMT carbon a year, equivalent to ~12% of the U.S.'s annual GHG emissions
- New policy arena
  - US Climate Alliance (gov-led climate coalition) “NWL Challenge”
- Mostly blue & some purple states e.g., CA, OR, WA, MT, CO, MN, MI, LA, ME, MA, CT, NY, NJ, MD, NC
- Somewhat less politically controversial than other mitigation sectors, lots of co-benefits

# GHG Inventories: Typical Elements

- Carbon assessment
  - Basic estimates of existing carbon stocks
  - More sophisticated - GHG inventory of emissions (bad) and removals (good)
- Inventories help inform management strategies to reduce emissions & enhance removals
- Specific targets and pathways
- Progress tracked over time



# Blue Carbon in NWL Plans



Natural & Working Lands Proposal  
2021

- Policy lever to advance protection & restoration of tidal wetlands, seagrass
- Not very crowded space & most groups focusing on forests & ag
- OR, CA, NC, NJ
- Policy outcomes: measurable targets for conservation/restoration as part of climate plans, funding

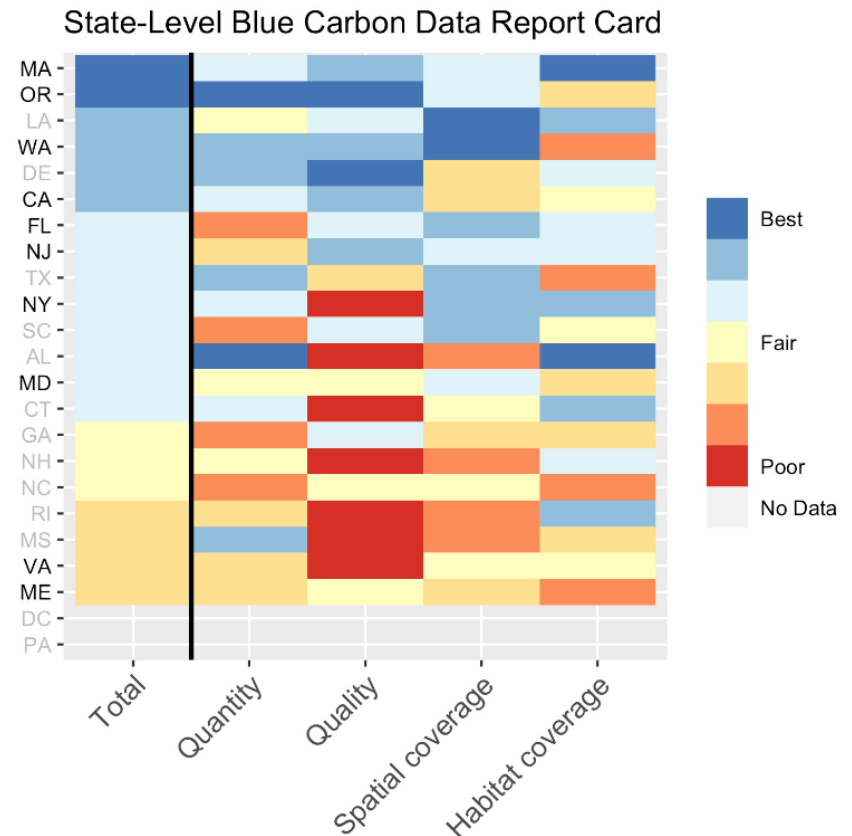


# California 2022 Climate Change Plan

- **Forests & Grasslands:** *At least 2.3 million acres treated statewide annually in forests, shrublands/chaparral, and grasslands... No land conversion of forests, shrublands/chaparral, or grasslands.*
- **Ag:** Implement climate smart practices for annual and perennial crops on *~80,000 acres annually*. Land easements/ conservation on annual crops at *~5,500 acres annually*. Increase organic agriculture to *20% of all cultivated acres by 2045 (~65,000 acres annually)*.
- **Developed lands:** *Increase urban forestry investment by 200% above current levels and utilize tree watering that is 30% less sensitive to drought. Establish defensible space that accounts for property boundaries.*
- **Wetlands:** *Restore 60,000 acres of Delta wetlands.*
- **Deserts:** *Land conversion at 50% of the Reference Scenario land conversion rate.*

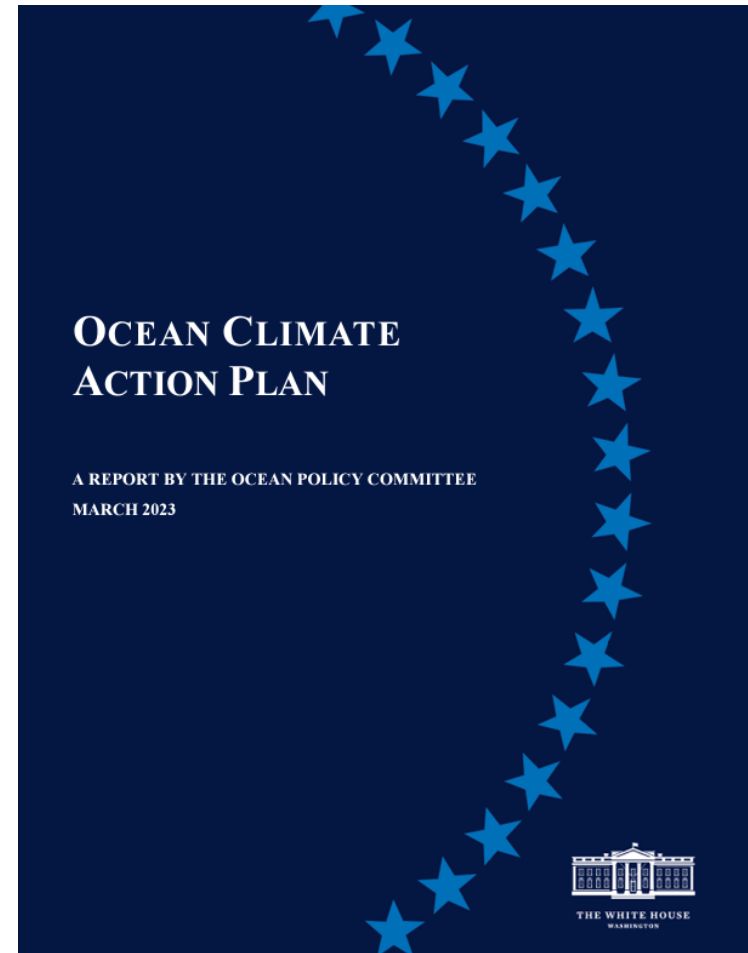
# How does Pew work with states?

- Convening
- Support for science products
- Bring in technical expertise
- Policy advocacy
- Support for states
  - Blue Carbon Network



# Federal priorities

- State work can reinforce and advance national efforts
  - Ocean Climate Action Plan
  - BIL & IRA investment opportunities
- Federal agency coordination and leadership would support state blue carbon action





# Questions?

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Join the [Blue Carbon Network!](#)