First, Stop Climate Change

Panel: Climate Change in the Mid Atlantic

MARYLAND LAND CONSERVATION CONFERENCE

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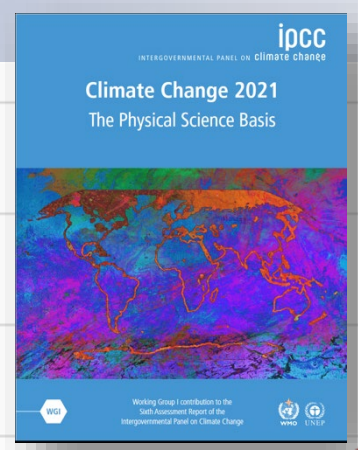
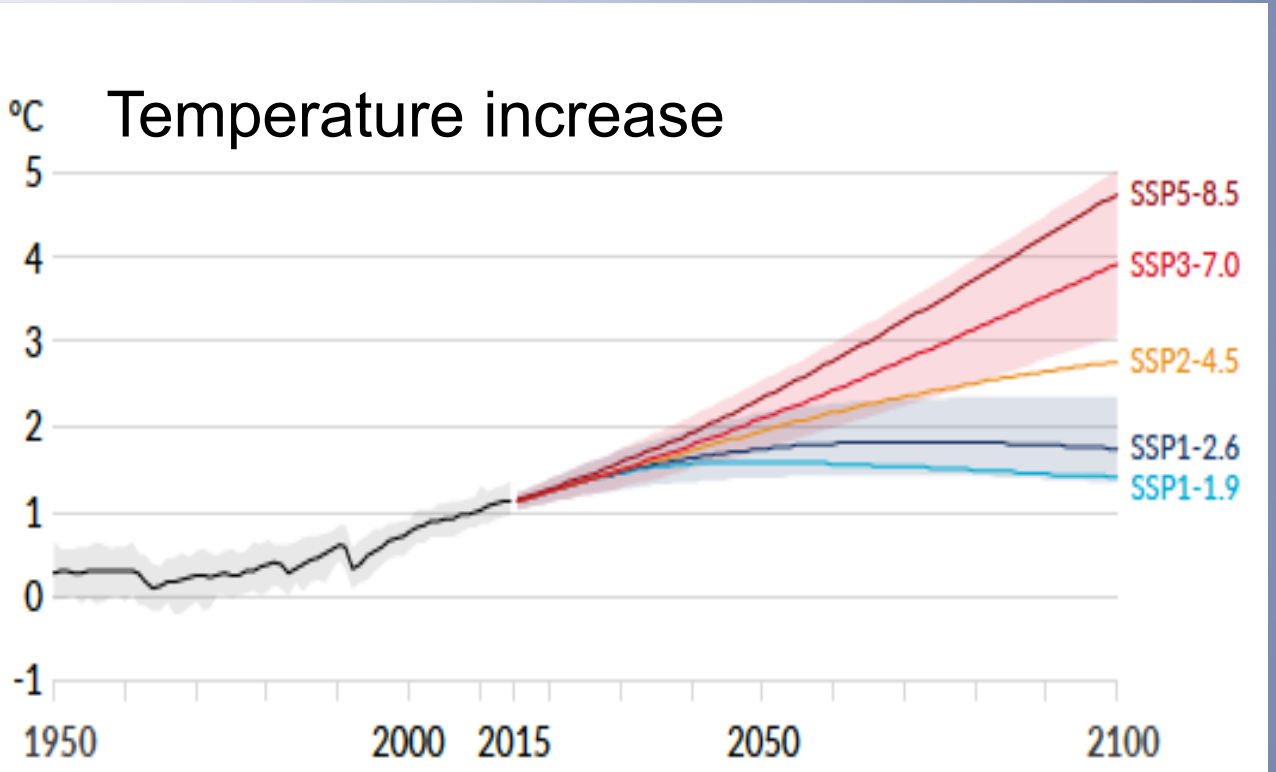
FOREVER
MARYLAND

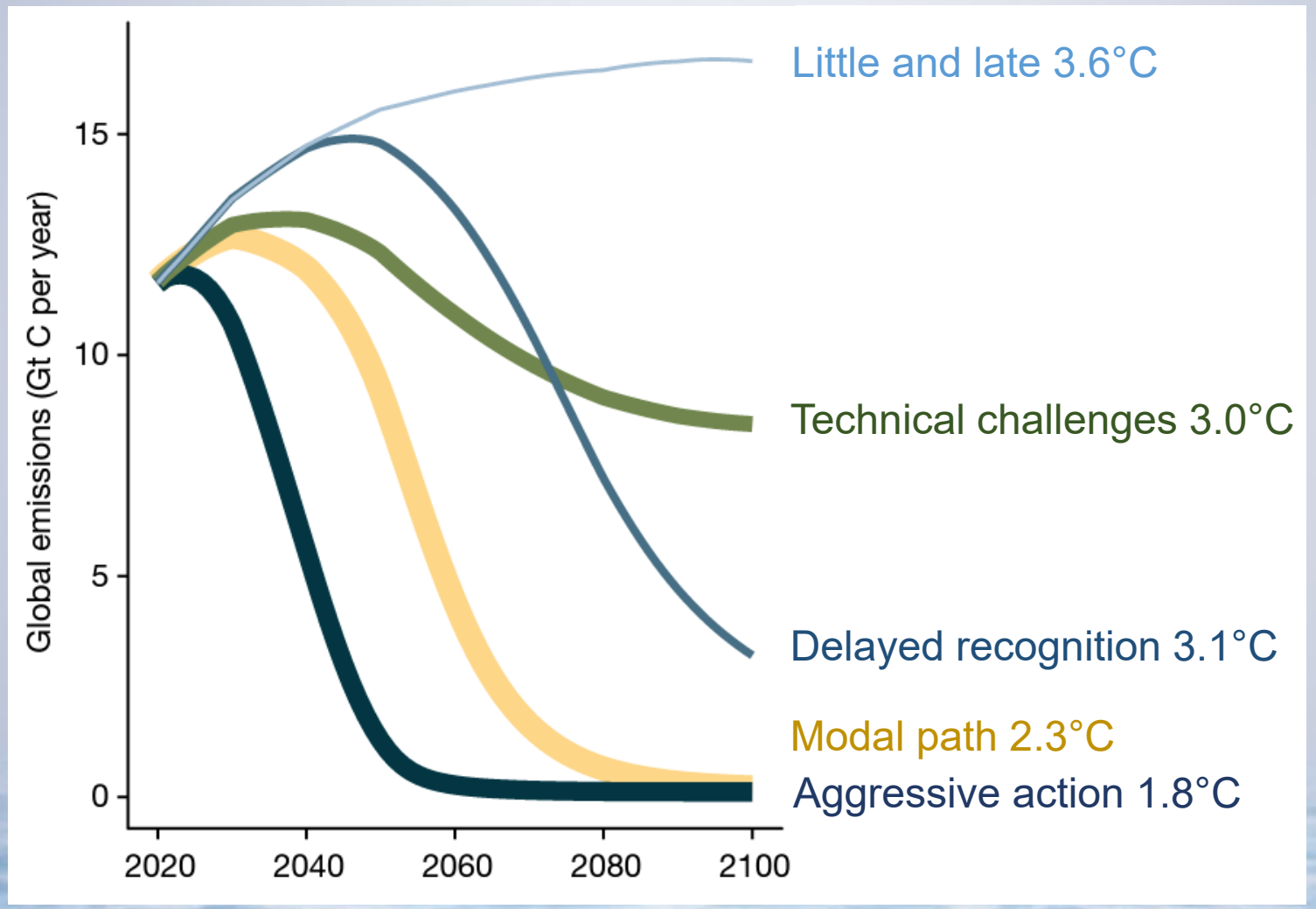
IPCC Emission Pathways & Warming





IPCC. *Climate Change 2021: The Physical Science Basis*

Coupling climate and social systems



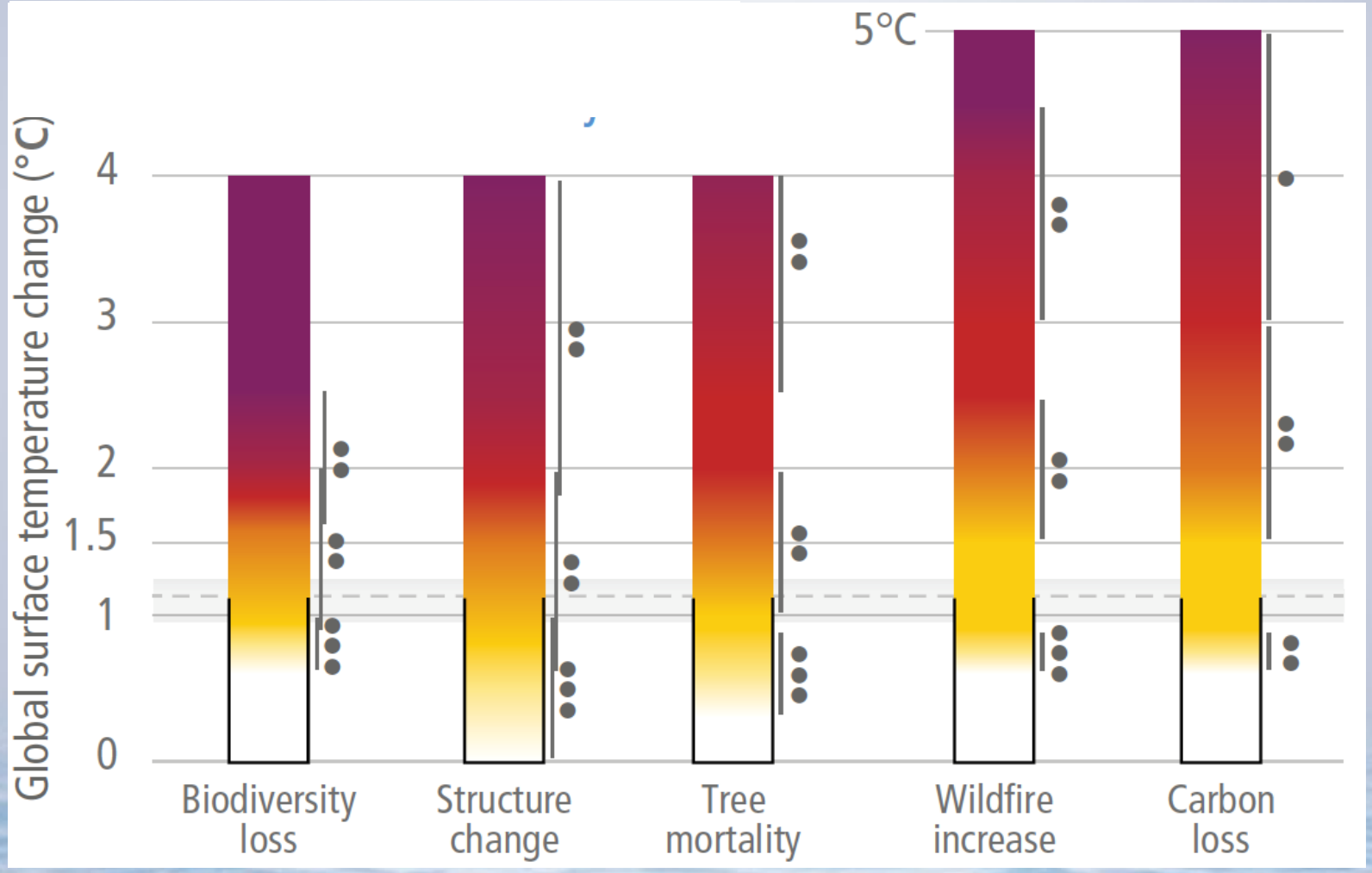
Most extreme IPCC emission pathways implausible

Range of likely outcomes from <2°C to >3°C

Delay has a major effect on degree of warming

Moore, et al. 2022. *Nature* 603: 103

Impacts & Risks to Terrestrial Ecosystems

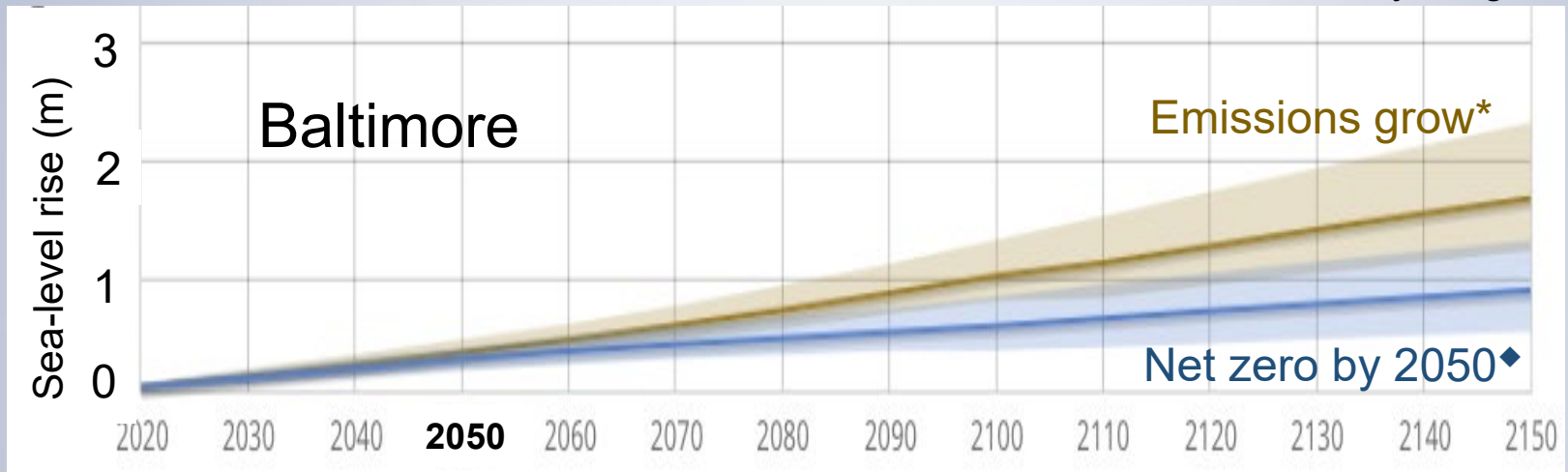


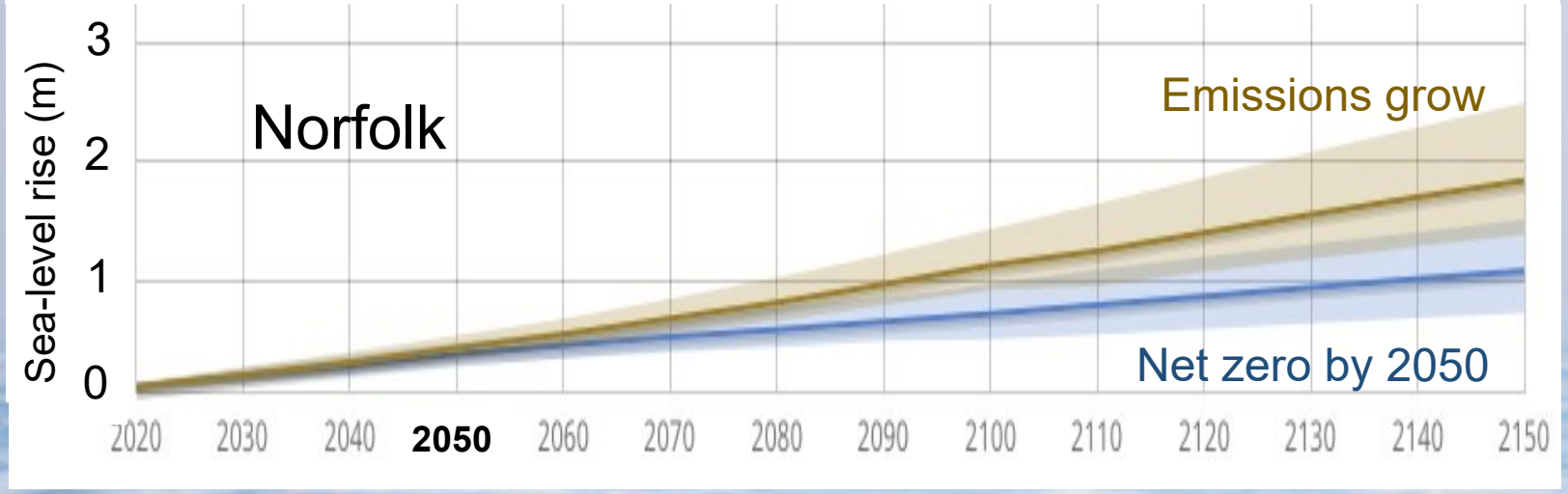
- Impacts are already apparent
- Begin to significantly worsen >1.5°C
- Biodiversity loss becomes severe >2°C

IPCC. *Climate Change 2022: Impacts, Adaptation and Vulnerability*

Sea-Level Rise Depends on Emissions

Mean and likely ranges





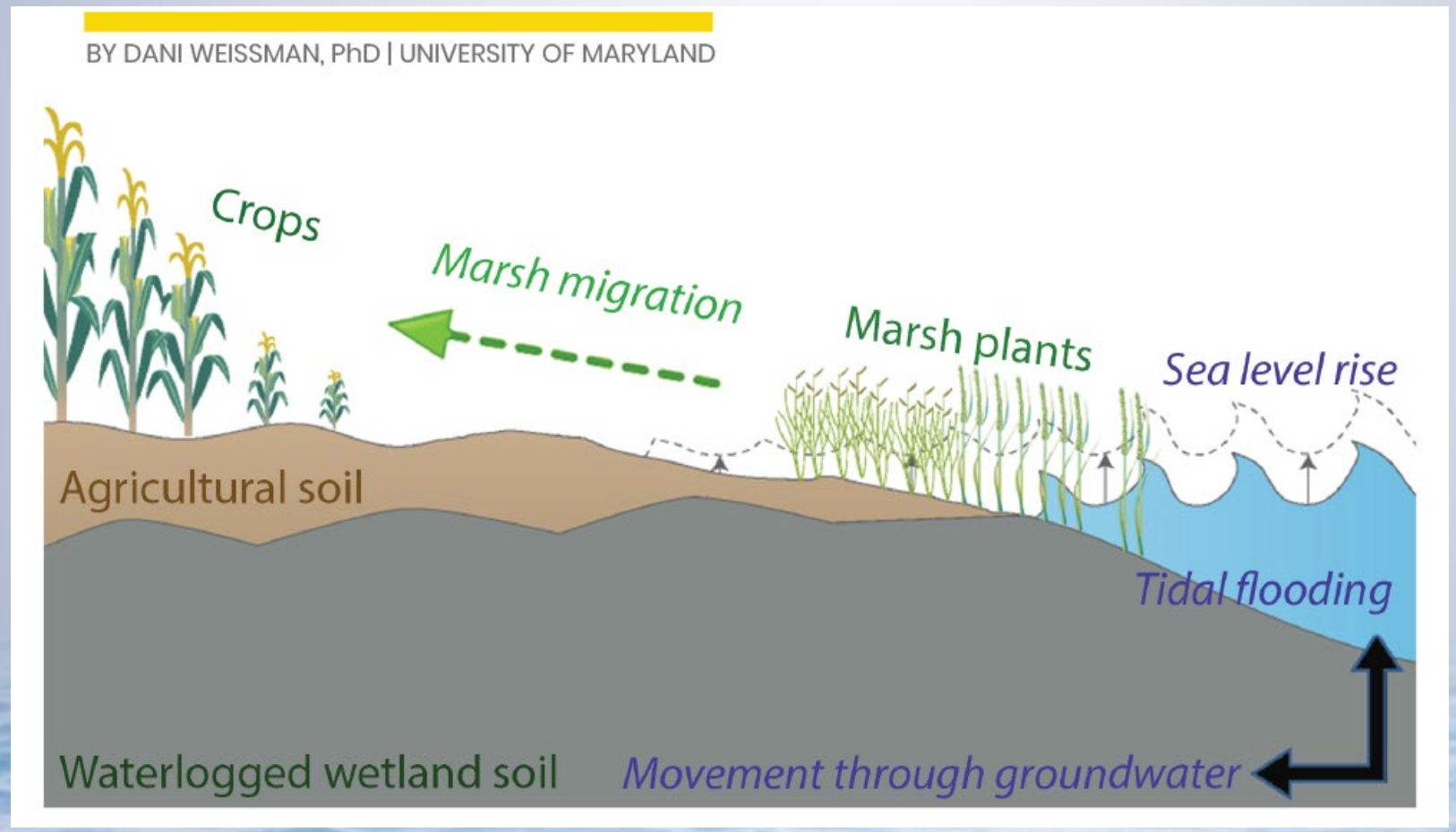
Sea level 100 years from now determined by success in emissions reductions in next 30 years.

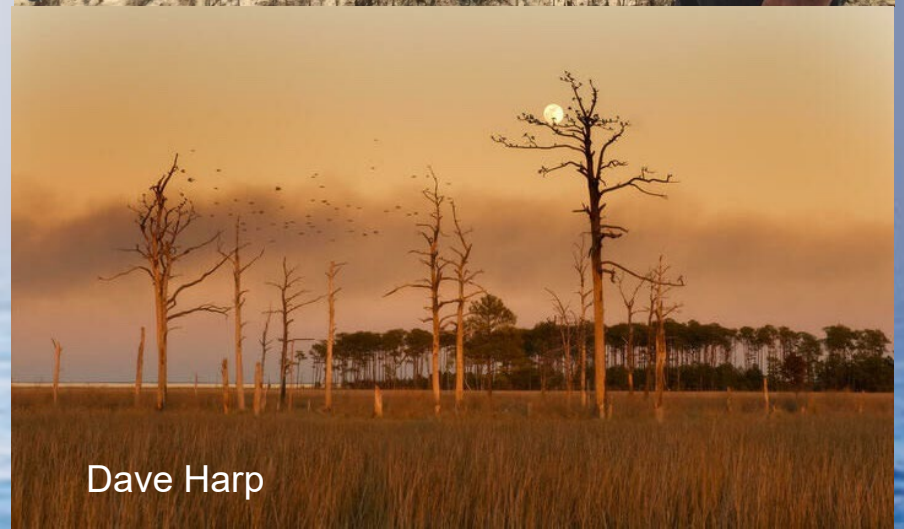
If emissions continue to grow polar ice sheets could more rapidly deteriorate.

* SSP 3-7.0
◆ SSP 1-1.9

https://sealevel.nasa.gov/ipcc-ar6-sea-level-projection-tool

Sea-level Rise & Coastal Transgression





Maryland Addresses Climate Change

Greenhouse Emissions Reduction Act of 2016

Maryland
Department of the Environment

The Greenhouse Gas Emissions Reduction Act

2030 GGRA Plan

Prepared for:

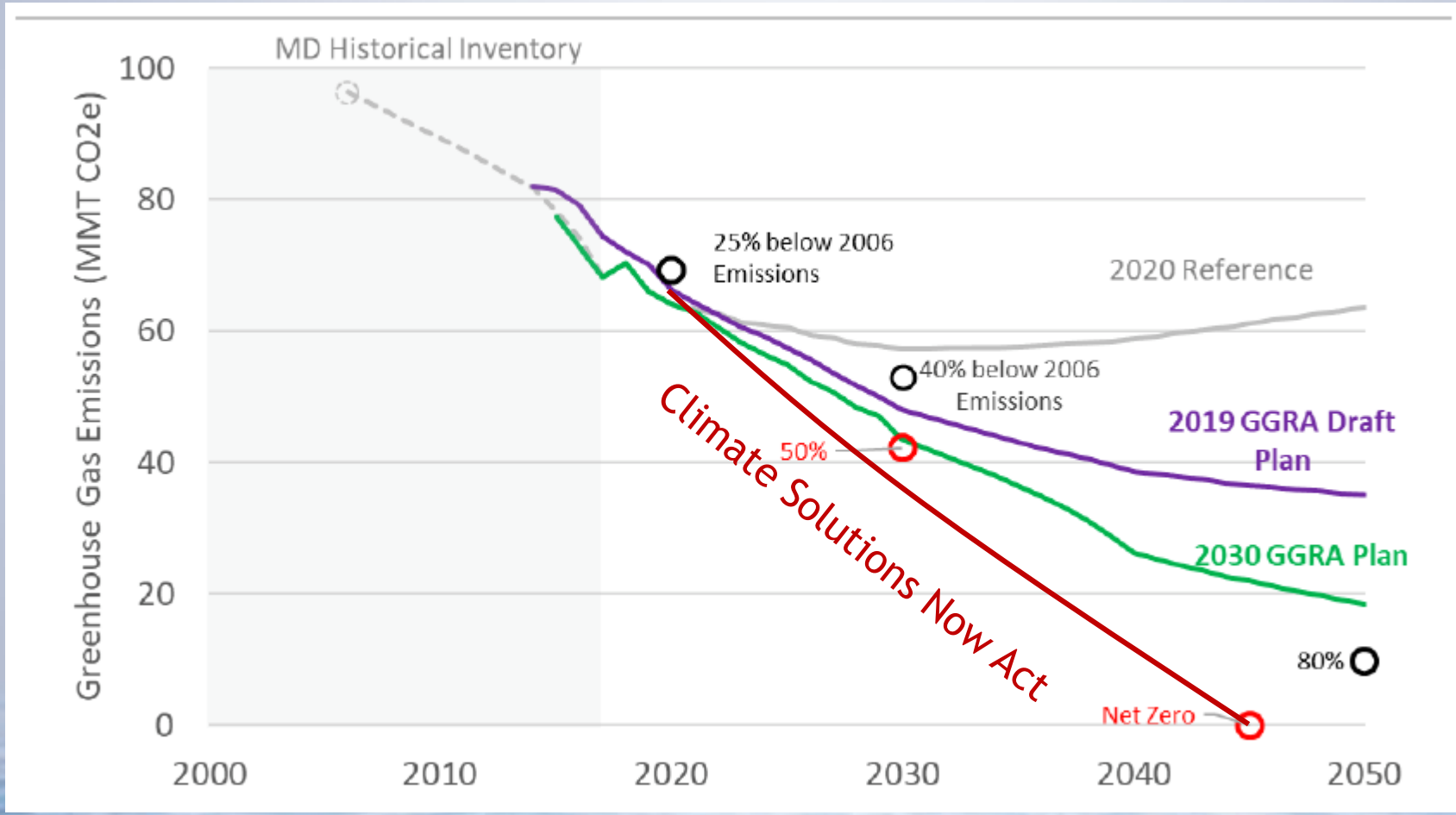
Governor Larry J. Hogan
State of Maryland

and the Maryland General Assembly

February 19, 2021

Climate Solutions Now Act of 2022

Maryland GGRA Plan & 2022 CSNA



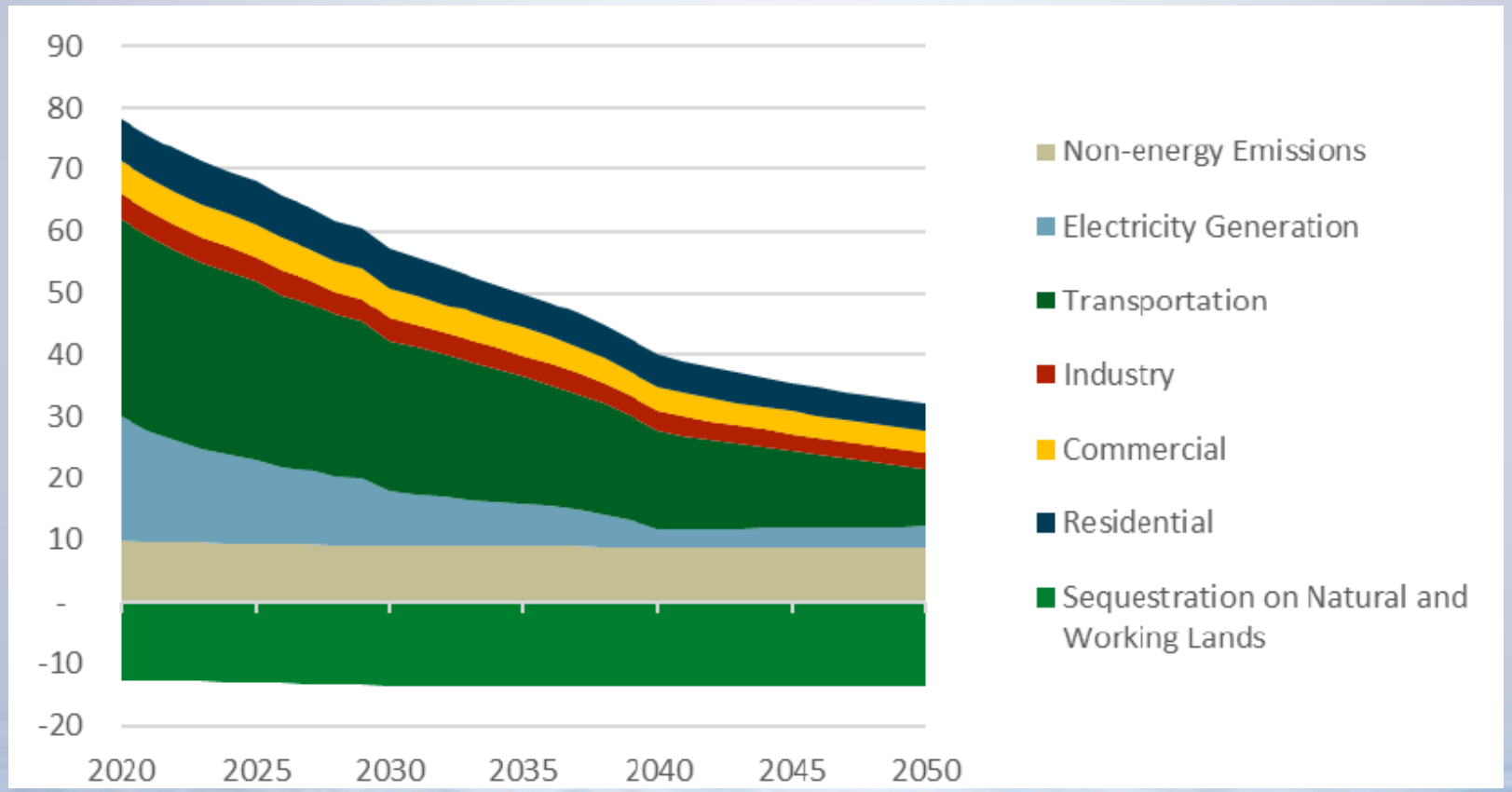
GGRA 40% reduction by 2030

CSNA 60% by 2031, Net Zero by 2045

Near-term actions needed to achieve 2045 goal

2030 GGRA Plan, Maryland Department of the Environment

Emission Projections by Sector



Reduction mainly comes from electricity generation

Little reduction transportation, RCI, & non-energy emissions by 2030

Very small increases in sequestration on natural & working lands

2030 GGRA Plan, Maryland Department of the Environment

Thanks for your attention!

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