# Veterans Letter on Watershed Agreement Integration with GHG emissions reductions

CBP Scientific and Technical Advisory Committee

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## "Bay Veterans"

- August 22 letter to members of the Chesapeake Bay Program
   Executive Council on recommitting to & revising the 2014 Bay
   Watershed Agreement
- 37 signatories
- 19 former agency heads from PA, MD, VA, DE, DC
- 3 former assistant/deputy administrators of EPA, NOAA
- Former CEOs of CBF, ACB, CBC, CRC
- 6 prominent scientific research leaders



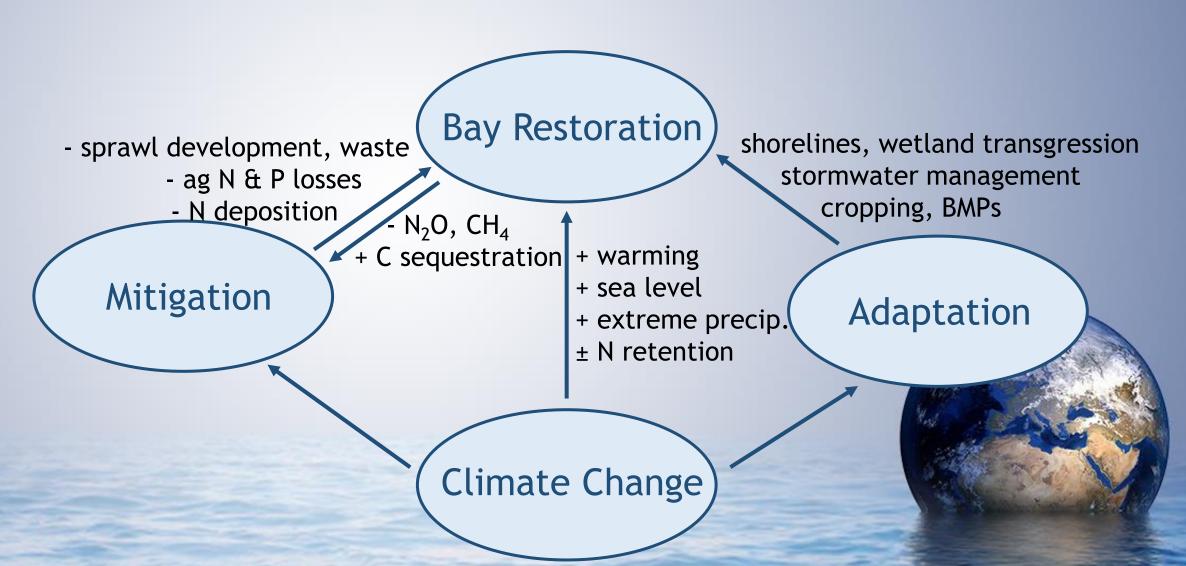
#### Two novel recommendations

- 3. Charge PSC to include in the amended Agreement the integration of appropriate Bay and watershed-related goals with federal, state and local actions to reduce greenhouse gas emissions.
- 5. Direct the partnership to commission a technical evaluation of options for non-point pollution reduction that could achieve at least the Phase III WIPs outcome within another decade.

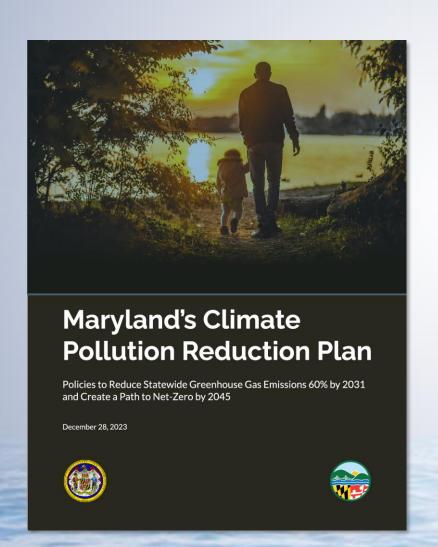
## Climate Resiliency goal & outcomes

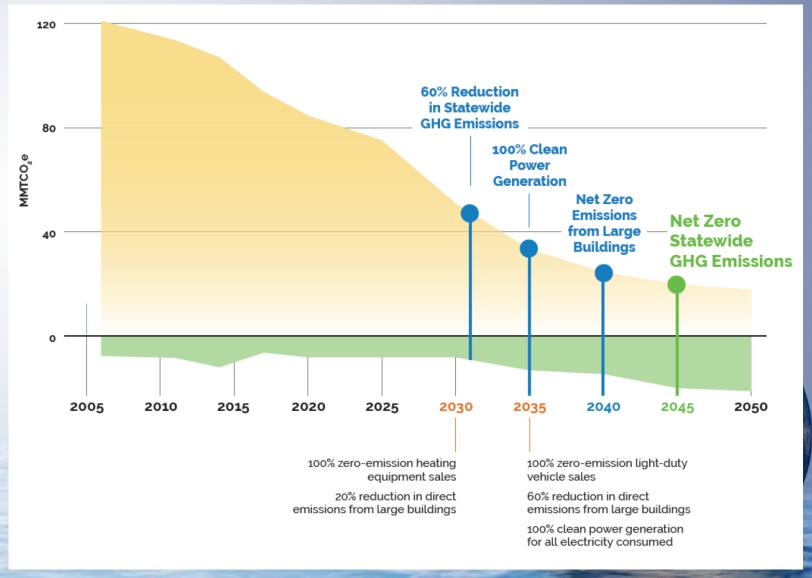
- GOAL: Increase resiliency of CB watershed, including its living resources, habitats, public infrastructure and communities, to withstand adverse impacts from changing environmental conditions.
  - Monitoring & assessment outcome: continually monitor & assess trends of likely impacts of changing climate & sea level conditions on CB ecosystem, including the effectiveness of restoration & protection policies, programs and projects.
  - Adaptation outcome: continually pursue, design & construct restoration & protection projects to enhance resiliency of Bay and aquatic ecosystems from impacts of coastal erosion, coastal flooding, more intense & frequent storms and sea-level rise.

## Integration with GHG reductions



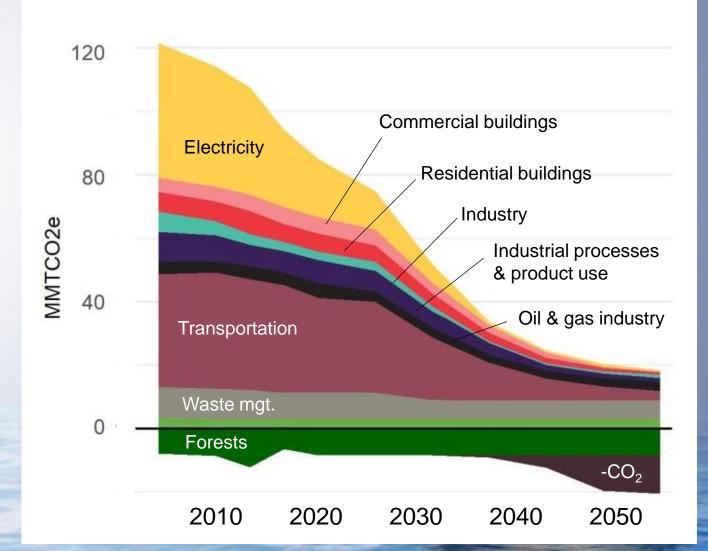
#### Maryland's Climate Pollution Reduction Plan





## **Emission reductions by sector**

- Electricity most reductions thus far
- 100% clean power by 2035
- Transportation, buildings & industry
  - requires electrification
- Requires increase in forest sequestration & other negative emissions >2040

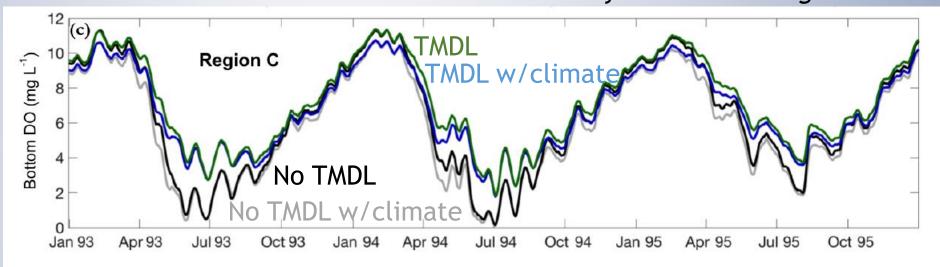


# Climate mitigation & adaptation creates opportunities for reducing nutrient pollution

- Moving away from fossil fuel combustion in power generation
   & transportation further reduces nitrogen deposition.
- Reducing GHG emissions from agriculture, especially N<sub>2</sub>O and CH<sub>4</sub>, can create co-benefits in water pollution reduction.
- Limiting sprawl development and reducing urban stormwater flooding can limit & control NPS pollution.
- As sea-level rise inundates land, new wetlands can be managed as nutrient sinks.

## Achieving restoration key to resilience

Irby et al. 2018 Biogeosciences



- Climate change, particularly warming, makes achieving water quality criteria more difficult, but not impossible.
- Achieving load reductions & water quality as soon as possible will make Bay more resilient.

# Reducing GHG emissions moving forward

- Emissions reductions in US will continue, question is how much and when
- Durable effects of Inflation Reduction Act & Bipartisan Infrastructure Act investments and national policies
- Strong state and local leadership within the Bay states
- Revised Bay Watershed Agreement wouldn't commit to GHG emissions reductions
- But commit to finding Bay restoration opportunities from reducing GHG emissions and enhancing sinks

#### The Ask of STAC

- Immediately: In the STAC report to the Executive Council, endorse Veterans recommendation 3:
  - Charge PSC to include in the amended Agreement the integration of appropriate Bay and watershed-related goals with federal, state and local actions to reduce net greenhouse gas emissions.
- Over the next year: Hold discussions and workshops to inform the development of Goal and Outcomes related to Climate Change that include resilience, and also opportunities afforded by reductions of emissions and enhancement of sinks.