

Commission Talk:
Recommendations for Climate Action

A webinar discussion with Commission Members

December 15, 2022 - Based on the 2022 MCCC Annual Report

www.mde.Maryland.gov/MCCC

Dr. Suzanne Dorsey

MDE's Deputy Secretary

*Chair of the Maryland Commission on
Climate Change*

Previous Experience

- MDE Assistant Secretary
- Executive Director of the Harry R. Hughes Center for Agro-Ecology at the University of Maryland
- Executive Director of the Bald Head Island Conservancy and Smith Island Land Trust
- Commissioner of the North Carolina Division of Coastal Management
- Professor at the University of North Carolina at Wilmington and Salem College



Speakers



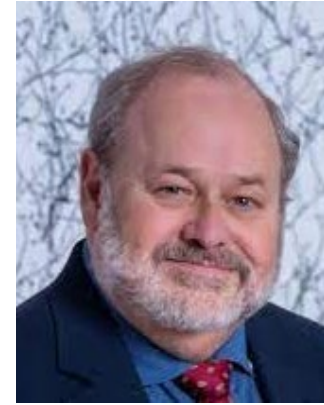
Charmaine
Brown



Peter
Goodwin, PhD



Christine
Conn



Michael
Powell, Esq.



Amy
Lambert



Delegate
Dana Stein



Chris
Hoagland



CLIMATE JUSTICE

Charmaine Brown

Climate Justice Team

- Who does this recommendation benefit?
- Who is burdened by this recommendation and how does it impact the most vulnerable people?
- Who was involved in the recommendation?
- What or who might be missing?
- What data and knowledge did we validate and with whom?
- Were key stakeholders involved?

**EMBEDDING CJ HELPS TO
ENSURE CONSISTENT
APPLICATION OF EQUITY
LENS ACROSS WORKING
GROUPS**





SCIENCE AND TECHNOLOGY WORKING GROUP (STWG)

Peter Goodwin, PhD

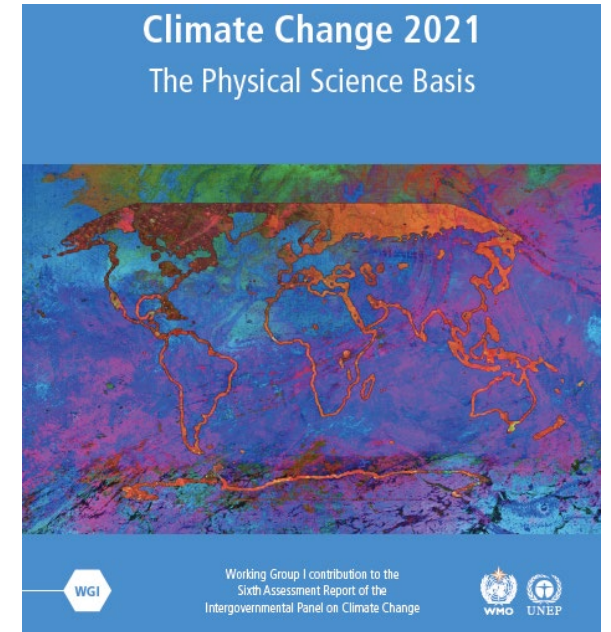
The Role of the Science and Technical Working Group

- Track state-of-the science and emerging innovations
- Science support for MDE or MCCC
- Conduct specific workshops or reviews as requested by agencies or MCCC
- Assist agencies in bridging across synergistic programs
- Assist promotion of Maryland's Climate leadership in innovation and climate justice

- The United Nations Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report 2021-23

It is unequivocal that human influence has warmed the atmosphere, ocean, and land. Widespread and rapid changes have occurred.

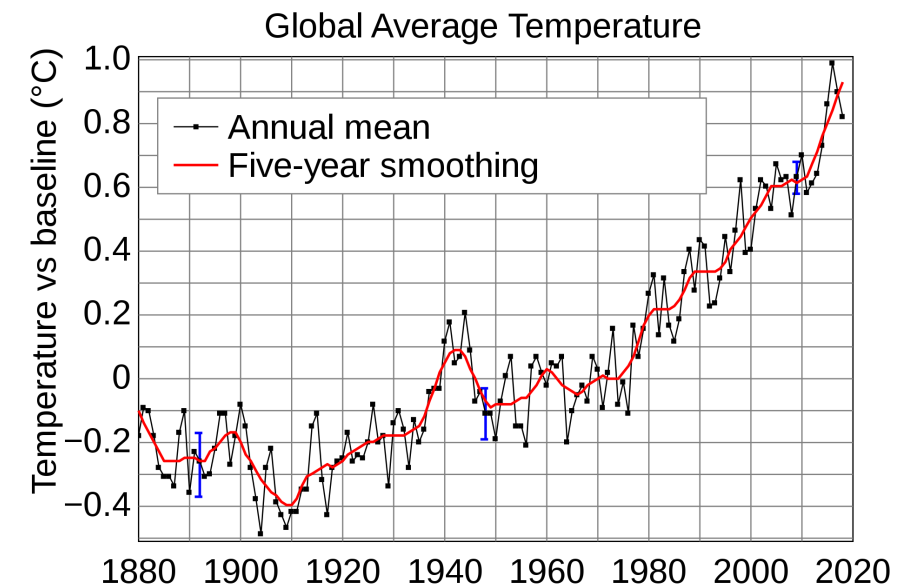
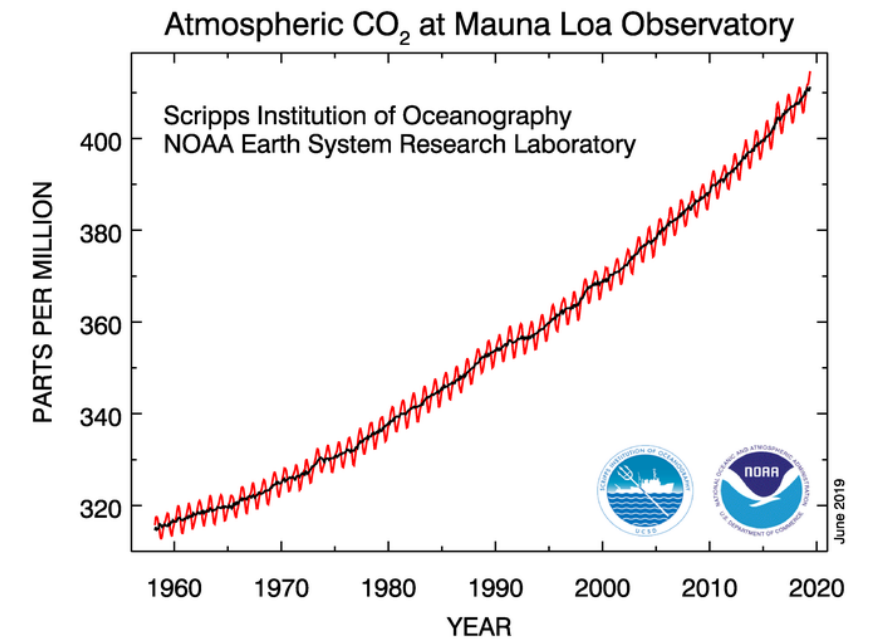
- Continued global warming is projected to further intensify the global water cycle



2020 (Covid) 6% reduction in GHG emissions

2021 5+% increase in GHG emissions

- On this trajectory of observed emissions, a 2.7°C increase in temperature can be expected by 2100.
- The IPCC and the Global Carbon Project predict the 1.5°C threshold will be surpassed in the 2030s at the 2021 rate of emissions.
- **Time for action is now.**



Maryland can expect continuing severe impacts of climate change, including:

- Extreme precipitation
- Flooding
- Heat waves
- Increasing costs of weather and climate related disasters.
- Accelerated increase in sea levels
- Air quality

STWG Recommendations for 2023

- Review and build agency capacity to address Maryland's Climate Response*
- Create a Climate Change Response Accelerator*

Address Critical Scientific and Engineering Knowledge Gaps

- Build the modeling and assessment capacity in Maryland
- Guide Maryland's Ocean and Coastal Acidification Plan
- Monitor air quality - particularly point sources of methane *
- Enhance public health adaptation to threats of climate change *
- Establish common hydrologic methodology for stormwater and flood design *

* *Significant EJ components*



ADAPTATION AND RESILIENCE WORKING GROUP (ARWG)

Christine Conn

*Chair, Secretary Jeannie
Haddaway-Riccio, MD DNR*

Our 10 Year Roadmap to Resilience

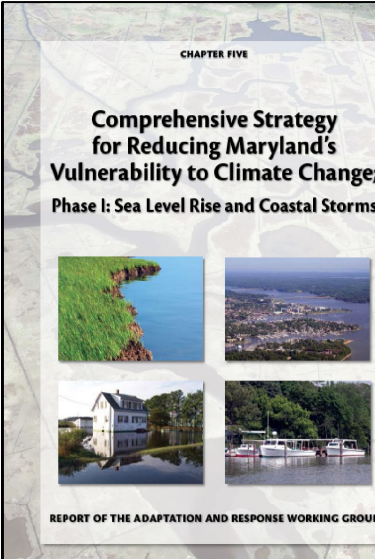
The ARWG should collaboratively develop Maryland's Next Generation Adaptation Plan

- Establish priorities and set agency specific deliverables
- Develop an on-line tracking system
- Complete the plan within 1 year (October 2023)

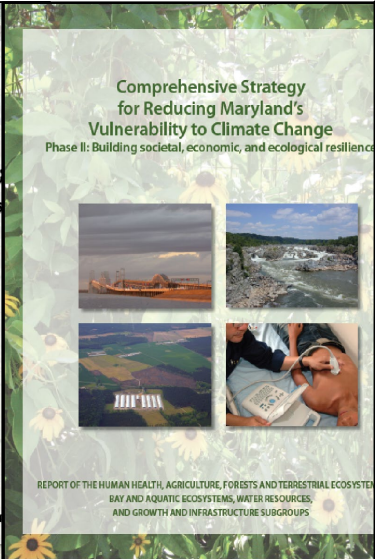
Maryland coastal adaptation progress is **good/fair**



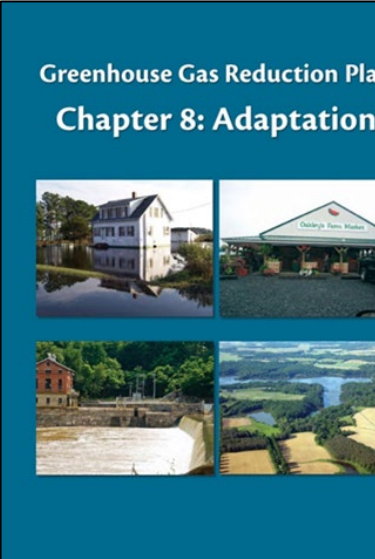
Adaptation Planning



2008



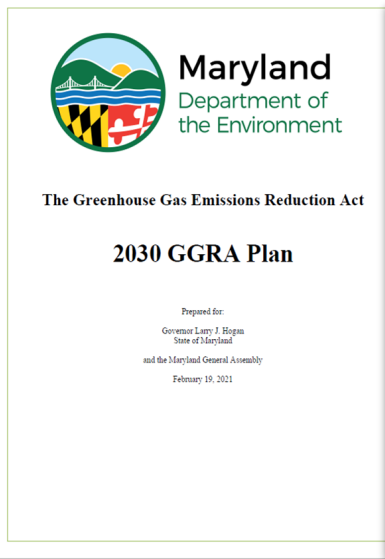
2011



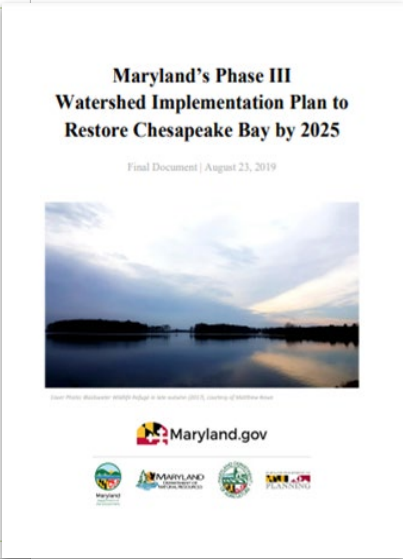
2012



2015



2020



2021

Next Generation Adaptation Framework

2018 Progress Evaluation

- *Outcome: Progress was mixed and many key players were no longer aware of the Climate Adaptation Strategies*

2019 Options for Re-Invigorating the Strategy are Assessed

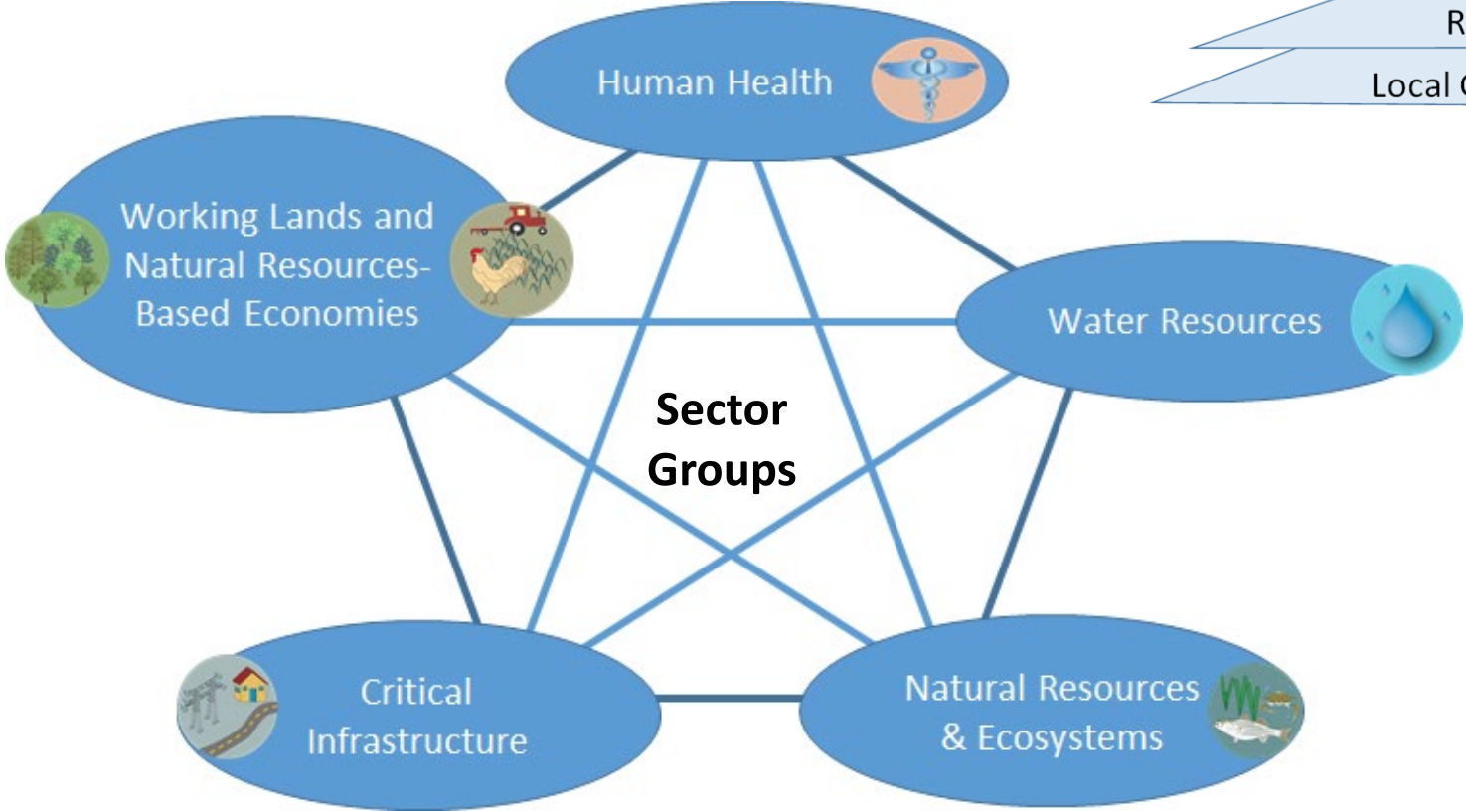
- *Outcome: Climate Commission directed the Adaptation Workgroup to “develop a framework for guiding and prioritizing action over the next 10 years, specifically in vulnerable and under-served communities.” – 2019 MCCC Annual Report*

2020-2021 Climate Adaptation Framework Development



Adaptation Framework

Overarching Focus Areas



Recommendations: Focus Area Strategies

Diversity and Inclusion

- *Improve decision-making processes for funding programs to prioritize investment in underserved and overburdened.*

Local Government

- *The ARWG provides a web-based toolkit of capacity-building tools, resources, grant opportunities, training, etc. to assist local partners.*

Climate Jobs and Training

- *Determine the potential for job losses resulting from direct climate impacts and identify corresponding jobs and training needs.*

Alignment with Mitigation and Bay Restoration is Key to our Success!

Nature Based Strategies are a Win-Win!

- Forest buffers
- Healthy soils
- Urban tree canopy
- Wetland restoration
- Current and future coastal marsh restoration
- Living shorelines



Accelerating Progress

- Maryland Trees Commission Plan
 - *2021 Tree Solutions Now Act of 2021*
 - *5 Million trees by 2030*
 - *Carbon Markets*
- Advancing investments in Blue and Green Infrastructure
 - *2022 Conservation Finance Act*
 - *Pay for Success procurement*
 - *Public/Private partnerships*
 - *Innovations in financing*



Next Steps

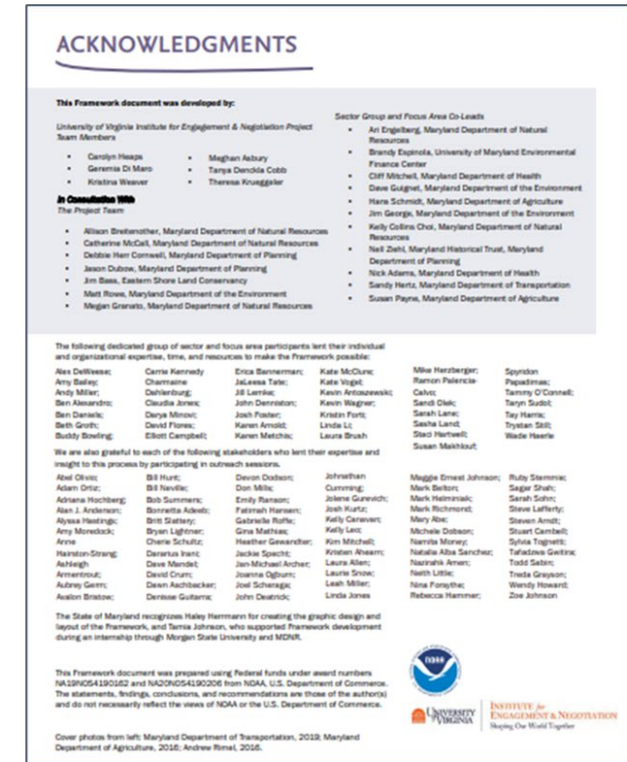
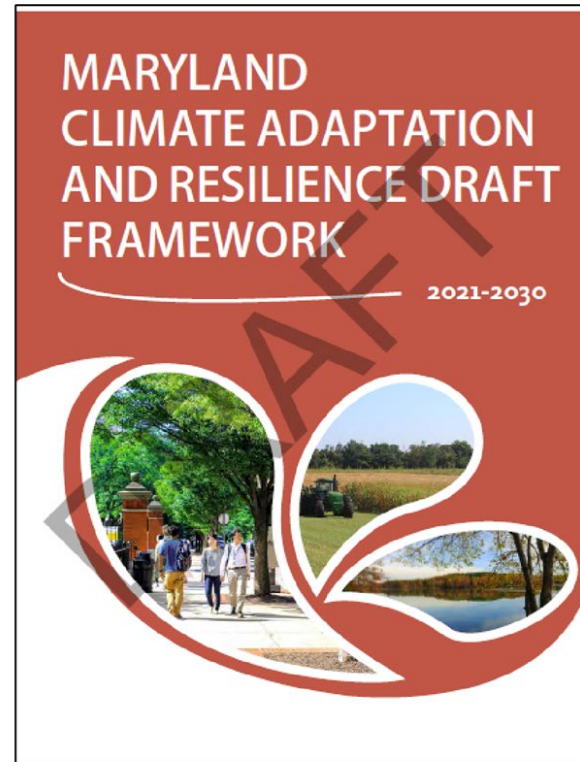
Forming Focus Area and Sector workgroups now

- Progress
- Needs
- Priorities
- Metrics

Your Participation is Welcome

https://docs.google.com/forms/d/e/1FAIpQLSe0LetkVj9Rs4jKiIO_HxD_IHVG6IFgjHqcO3vVu7HHfrXH-g/viewform

Or Christine.Conn@Maryland.gov



<https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Documents/MD%20Climate%20Adaptation%20and%20Resilience%20Framework%20Recommendations.pdf>



GREENHOUSE GAS MITIGATION WORKING GROUP (MWG)

Michael Powell, Esq.

Policy Recommendations - Topic Areas



- **Transportation** - passenger vehicles, trucks, buses, transit, commuter programs ZEV purchase and infrastructure incentives, fuel standard, TOD



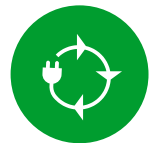
- **Clean Power Generation** - increase pace of solar development, equitable benefits from EmPOWER and DHCD



- **Decarbonize Buildings** - Adjust EmPOWER, incentivize all electric, managed transition, space and heat equipment



- **Capture and Utilize Methane** - cement manufacturers and landfills



- **Thermal Energy REC program** - decarbonize buildings, sustainable forests



Rapidly accelerate the transition to zero-emissions vehicles

- Aspirational target of 75% of Light Duty Vehicles to be ZEV and plug-in hybrids by 2030
- Adopt Advanced Clean Cars II by end of 2022
 - *(20% by 2026, ramping to 100% by 2035)*
- MCEC to arrange for low-interest loans to lower monthly costs of ZEV ownership to less than monthly cost of internal combustion vehicle
- Adopt Advanced Clean Truck Rule and offer incentives
- MDE to propose regulations for a Low Carbon Fuel Standard
- Provide funds to help purchasers and owners of existing multi-dwelling buildings to install EV charging equipment.



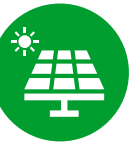
Modify the State's thermal renewable energy credit program

- Develop a renewable thermal energy program to facilitate the decarbonization of the building sector by allowing various clean heating solutions to compete for renewable energy credits for decarbonization of heating fuel supplies, reducing methane leaks, improve energy efficiency etc.
- Incentivize the development of forest product industries that support support forest management and maximize long term carbon sequestration



Increase support for alternative transportation to reduce vehicle miles traveled and Metropolitan Planning Organizations' efforts to reduce on-road GHG emissions

- Increase % of federal funds to be used for transit, bike and pedestrian infrastructure and TOD programs
- Make major changes to MD Commuter Choice program to increase number of employers participating in the program to at least 500 by 2024
- Augment rail and bus mass transit by providing funds and support for micro transit services
- Require recertification of TOD areas



Construct more clean power generation in-state, especially solar power

- Take actions to increase the pace of solar power development
 - Require counties to designate adequate sites for solar energy development
 - Make community solar program permanent and improve financing of low and moderate income solar projects
 - Increase incentives for solar - including state tax credits and SREC multipliers on preferred sites (rooftops, parking lots, brownfields, abandoned properties etc.)
 - increased limits on net metering, long-term contracts, etc.
- Increase emphasis on equitable benefits via EmPOWER and DHCD programs with specific goals and accountability for meeting the goals.



Rapidly accelerate building decarbonization

- Adjust EmPOWER program to work better to achieving GHG reductions including addressing PSC recommendations
- Incentivize all electric new construction pathway in the 2024 International Energy Conservation Code
- Require PSC to manage a structured and just transition to meet GHG reduction goals
- PSC should align gas line extension policy with broadening electrification of new construction and declining gas sales
- Authorize MDE to develop a zero-emissions standard for space and water heating equipment




Modify the State's Thermal Renewable Energy Credit Program

- New renewable thermal energy program to facilitate the decarbonization of the building sector
- Forest product industry development and incentives to support forest management and maximize long term carbon sequestration

Capture and utilize methane from waste management and CO₂ from cement manufacturing

- Appoint Task Force to assess feasibility reducing GHG from cement manufacturers through carbon capture and the use of hydrogen
- Provide matching funds to local governments to capture methane from landfills and WWTP - and use on site where feasible



EDUCATION, COMMUNICATION, AND OUTREACH WORKING GROUP (ECO)

Amy Lambert

Awareness and Education

- Use short, plain (non-scientific and brief) language in bill titles, goals, and names of commissions, task forces, and working groups
- Adequately fund a statewide climate awareness campaign managed by ECO, that will include an interactive website to aggregate resources