

Maryland Department of Environment: Update on Resiliency and Adaptation to Climate Change and Extreme Weather

Presentation to the
Maryland Commission on Climate Change

April 24, 2018

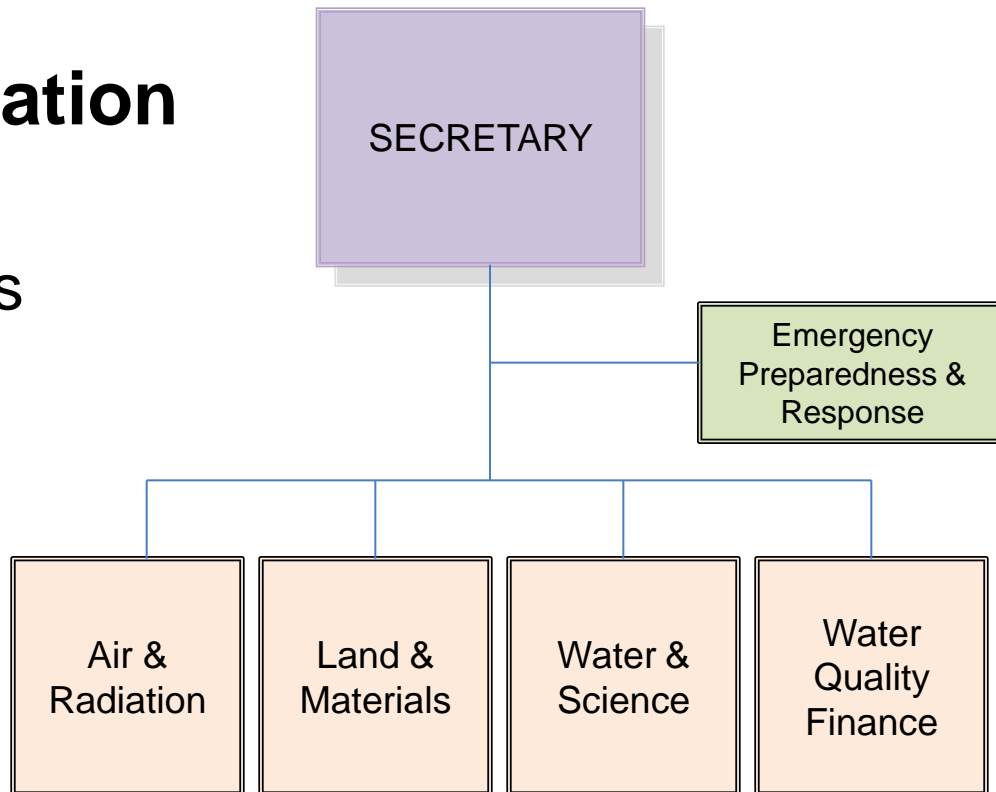
Presented by Lee Currey
Director, Water and Science Administration
Maryland Department of Environment
Lee.Currey@maryland.gov





Resiliency and Adaptation Agency-wide:

- Base Program Functions
- Emerging Directions



Emergency Response Division

- Preparedness
 - Training & Capacity
 - Continuity of Operations & Communications Plan
- Response
- Recovery



Water Quality Finance

- Water Infrastructure Resiliency
 - BRF and State Revolving Funds use Coast Smart Checklist:
- Funds are Eligible for Adaptation Projects:
 - Water Supply
 - Wastewater
 - Water Reuse
 - Wetlands and Shoreline
 - Green Stormwater Infrastructure



Land & Materials

- Plan for proper management and recycling of debris from extreme weather events
- Incorporate risk of inundation into landfill and other solid waste facility designs



Maryland
Department of
the Environment

Water & Science

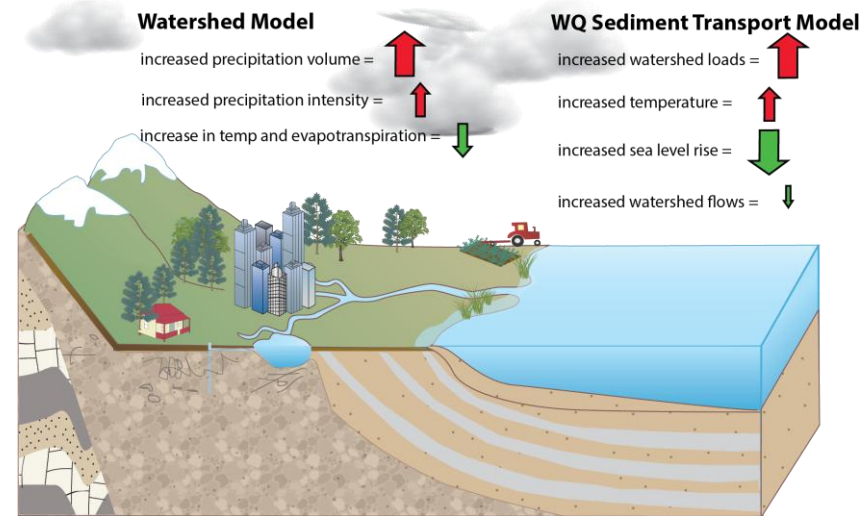
- Large Scale Integrated Water Planning
- Water Supply
- Wastewater
- Urban Stormwater Runoff
- Dam Safety
- Wetlands and Waterways
- WQ Standards and Protection



Maryland
Department of
the Environment

Large Scale Integrated Water Planning

- Chesapeake Bay WIP:
 - Strategy due 2019
 - Climate Commitments 2022
- County Water & Sewer Plan Review:
 - Climate Adaptation Policy Coordination & Implementation



Maryland
Department of
the Environment

Water Supply

- Planning & Appropriations
 - Sustainable Sources
 - Adequate Storage & Backups
 - Demand & Drought Management
 - Water Reuse
- Safe Drinking Water:
 - Source Protection
 - Water Treatment
 - Guidance to Supply Operators



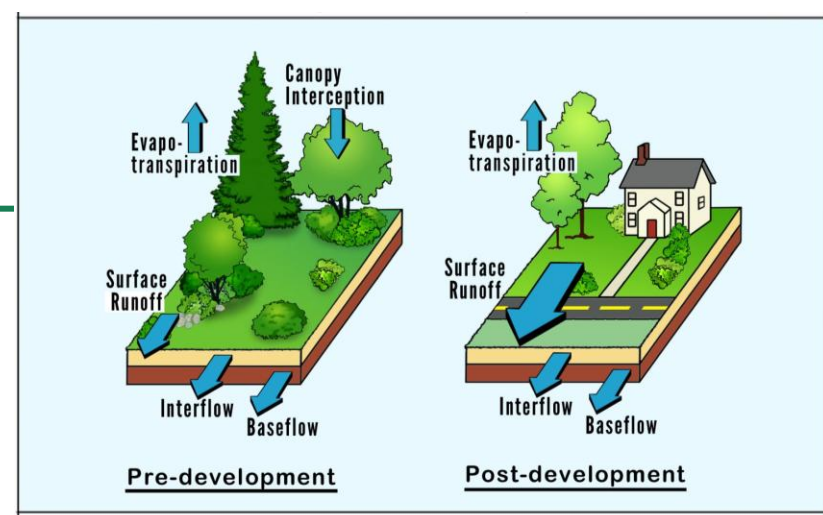
Wastewater Permitting

- Reuse of Treated Effluent:
 - Ecosystem Resilience
 - Water Supply Demand Reduction
- SSO & Other Infrastructure:
 - Maintenance Supports Resilience
- Future Directions:
 - Adapt Permits to Water Quality Criteria Changes



Urban Stormwater Runoff

- Stormwater Management:
 - Mimic Natural Land Hydrology
 - Micro Climate Resilience via Trees
 - Stream Channel Protection
- Erosion & Sediment Control:
 - Preserve Uncompacted Top Soil
 - Protect Streams & Downstream Waters



Dam Safety

- Resilience Functions of Dams:
 - Flood Control
 - Water Supply Storage
- Infrastructure Resilience:
 - Dam Inspections & Maintenance
 - Adapt to New Rainfall Predictions
- Emergency Preparedness:
 - Required by HB125 in 2017

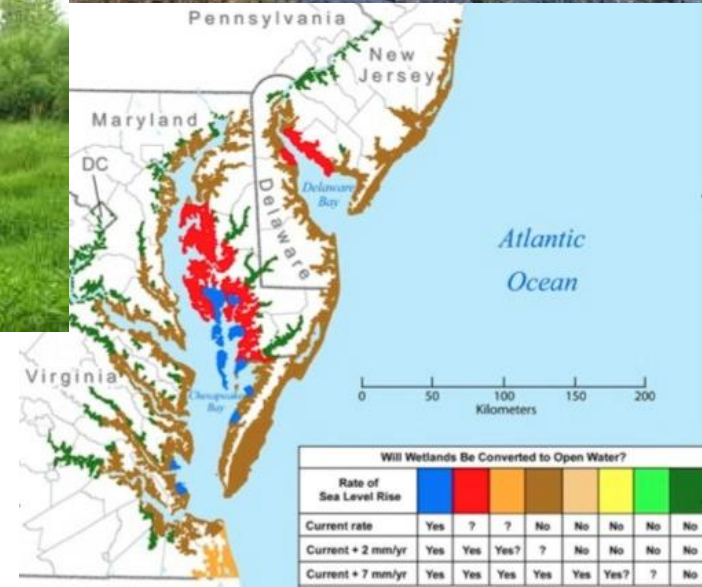


Wetlands & Waterways

- Environmental & Infrastructure Resilience:

- Tidal Wetlands
- Living Shorelines
- Non-tidal Wetlands
- Stream Channels
- Buffer Areas

- Floodplain Management



Assessments & Standards

- Protecting High Quality Waters:
 - Increased buffers
- Shellfish Harvesting Areas
 - Conditionally Approved Areas
 - Adapting to Warming Trends
- Beaches & Water Contact
- Harmful Algal Blooms



Questions?



Presenter: Lee.Currey@Maryland.gov (410) 537-3567



Maryland
Department of
the Environment