

## Chesapeake Bay Watershed Agreement

### Issue: Climate Change

**Updated April 10, 2014 (for PSC meeting discussion)**

IRC recommendations for PSC are highlighted in yellow below.

### Current Language

The term "climate change" is not used anywhere in the draft Agreement. It is addressed more generally as "changing environmental conditions" in three different sections (see italics language below.)

- Preamble: "Much progress has been made, but there is more to do especially in the face of continued challenges such as changes in population, loss of farm and forest lands and *changing environmental conditions*."
- Principles: "The Partners will: anticipate changing conditions, including long-term trends in sea level, temperature, precipitation, land use and other variables."
- Management Strategy Development and Implementation: "Management strategies may address multiple outcomes if deemed appropriate. Goal Implementation Teams will re-evaluate biennially and update them as necessary, *with attention to changing environmental and economic conditions. Policy changes to address these conditions and minimize obstacles to achieve the outcome may be identified.*"

### Options

1. Replace "changing environmental conditions" with "climate change" and add a new climate change goal with corresponding outcomes.
2. Replace "changing environmental conditions" with "climate change" and add climate change related outcome under existing goals.
3. Replace "changing environmental conditions" with "climate change" and within Development and Implementation section of Agreement, call for development of climate change adaptation and resiliency management strategies for specific goals (i.e., sustainable fisheries, vital habitats, water quality, healthy watershed, land conservation, public access and environmental literacy).

### Partner Comments

#### • Maryland

- The State of Maryland strongly supports the thorough integration of climate change into the Agreement.
- Maryland proposed specific language to be added within the Preamble, Vision, and the following Goals and Outcomes: Sustainable Fisheries, Vital Habitat, Water Quality, Healthy Watershed, Land Conservation, and Environmental Literacy. Additionally or alternatively, Maryland is proposing that a new, stand-alone Goal and outcomes for "Climate Resiliency" be added to the Agreement. "Climate Resiliency Outcome: Assess the impact of climate change on achieving and sustaining the vital habitat restoration outcome targets for wetland, black duck, stream health, brook trout, fish passage, SAV, forest buffers and tree canopy."
- **Climate Resiliency**: Changing environmental and climate conditions will have multiple and complex effects on the Chesapeake Bay. Rising sea levels and changes in precipitation patterns may make restoration more difficult to achieve, and increasing air and water temperatures may affect the integrity of healthy waters and watersheds. Building resiliency to these impacts now will ensure healthy and resilient Bay ecosystems and communities in the future.

**Goal:** Increase the resiliency of the Chesapeake Bay watershed, including its habitats, public infrastructure and human communities to withstand adverse impacts from climate change.

**Resilient Restoration Outcome:** Implement effective Bay restoration in the face of sea

	<p>level rise and changing environmental and climate conditions.</p> <p><b>Coastal Habitat Assessment Outcome:</b> Identify and assess risks to key tidal and coastal habitats from potential impacts of changing climate conditions and rising sea levels.</p> <p><b>Watershed Assessment Outcome:</b> Identify and assess risks to state---identified healthy waters and watersheds and key watershed habitats from potential impacts of climate and land change.</p> <p><b>Capacity Building Outcome:</b> Develop communication and decision---support products to increase knowledge and capacity to plan for and implement projects that build community and ecosystem resilience.</p> <p><b>Monitoring and Assessment Outcome:</b> Support monitoring activities to deliver routine and sustained climate science, information products and services.</p>
• <b>Virginia</b>	<ul style="list-style-type: none"> <li>- Principles: Monitor and where possible anticipate changing conditions, including long-term trends in sea level, temperature, precipitation, land use and other variables and their possible effect coastal shorelines and wetland, land based best management practices and existing stormwater and wastewater infrastructure.</li> </ul>
• <b>Citizens Advisory Committee</b>	<ul style="list-style-type: none"> <li>- Climate change is not openly recognized in the Agreement, but is referred to using the euphemism “changing environmental conditions” or “changing system”. Regardless of your belief of the causes of climate change, science is showing that it is occurring. We understand that climate change is a sensitive political issue and this caused it to be downplayed in the Agreement. However, we believe that an Agreement that seeks to guide restoration for more than the next decade should openly recognize the need to adapt to climate change. Integrating climate change into all the Management Strategies will hopefully yield implementation practices that look to the future of changing conditions. As your citizen advisors we believe climate change will be a determining factor of whether we are successful in meeting our goals.</li> <li>- There are several emerging threats to sustained Bay restoration progress that we believe must be addressed in the preamble, operational commitments or in the management strategies to accompany the Agreement. We recommend language in the Agreement be modified to include new stresses facing the Bay restoration from such concerns as changing climate and sea level conditions.</li> </ul>
• <b>Scientific and Technical Advisory Committee</b>	<ul style="list-style-type: none"> <li>- The two principal drivers of Chesapeake Bay system conditions, human use and climate, are constantly changing. As a result, management goals, outcomes, and strategies will need to evolve in response. In the face of this reality, and given the inherent uncertainty in the performance of most of our management efforts, it is our opinion that targeting sustained improvement in critical conditions is a more attainable and realistic objective than arbitrary fixed targets. This approach has the benefit of making accountability for effectiveness and continuous improvement a constant program focus instead of a periodic concern.</li> <li>- Management Strategies: Develop and apply a systematic, iterative process to evaluate the performance characteristics of the primary practices and controls, including responses to climate change</li> </ul>
• <b>Fish &amp; Wildlife Services</b>	<ul style="list-style-type: none"> <li>- Climate change needs to be considered in the new Agreement both for direct effects on the watershed and for interactions with contaminants, urbanization, and nutrient loading.</li> </ul>
• <b>Department of the Interior</b>	<ul style="list-style-type: none"> <li>- The Agreement should have a goal for climate change and outcomes for addressing the issue</li> </ul>

and be patterned after the climate objective in the EO Strategy:

"Minimize the vulnerability of the Chesapeake bay watershed, including its habitats, public infrastructure and human communities, to adverse impacts from climate change."

- **NOAA**

- The current draft only refers to "changing environmental conditions" and does not refer to the many aspects of climate change the Chesapeake region faces. Addressing climate change was a significant part of the Executive Order 13508 Strategy with clear commitments from federal agencies. The current draft Agreement inadequately recognizes climate change and its implications for communities and achieving protection and restoration objectives.

- **Chesapeake Bay Foundation**

- The Agreement should contain language explicitly recognizing the effects of climate change on restoration efforts. Specifically, we suggest that the fourth paragraph on page 2 replace "changing environmental conditions" with "global climate change."

- **Sierra Club of MD & VA - +1330 Constituents**

- Climate impacts are considerably more complex than is implied by the terms "sea level rise, rising temperatures, and increased precipitation." Climate change encompasses a wide range of stressors that will increasingly determine the fate of our aquatic eco-systems. We need: extensive adaptation research; implementation of adaptation strategies; and dedicated leadership at the Chesapeake Bay Program to integrate climate concerns into the agency's work. These goals need to be explicitly articulated in the Chesapeake Bay Agreement.

- **The Nature Conservancy**

- We believe that the challenges posed by climate change are of such a magnitude that they warrant greater emphasis in the Agreement. For example, the Vital Habitats section of the Agreement should include an outcome ensuring that the effects of climate change on the Bay's living resources are documented and that strategies for adapting to climate change are developed.

- **Alliance for the Chesapeake Bay**

- The Agreement should contain language that clearly recognizes that climate change will affect our decisions about restoration actions and the success of our efforts in the future. Language related to management strategies should include consideration of climate change effects and the need for adaptation planning.

- **NRDC, VA League of Conservation Voters, PennFuture, NWF, et al**

- A climate adaptation goal might read as follows: Climate Adaptation Goal: Expand the implementation of climate adaptation practices that center on ecological transitions to ensure that rivers and stream and the Chesapeake Bay continue to maintain biological functioning as environmental conditions change.

- **Rep. John Sarbanes**

- As the most daunting challenge of our time, climate change must be addressed in the final agreement

## **Background**

- Addressing the impacts of climate change in the Bay watershed was a major charge of EO 13508 – Chesapeake Bay Protection and Restoration and was a key element in the EO Strategy issued by the Federal Leadership Committee in 2010.
- In the current draft Agreement, it was decided that "climate change" should not be included as a goal or outcome. Instead, adapting to "changing environmental conditions" will be included as a

cross-cutting issue to be addressed in the Management Strategies for outcomes because it is a factor influencing the Partnership's ability to meet goals and outcomes. It is also referenced in the Preamble and Principles sections.

- Significant public comment was received for inclusion of climate change in the Agreement.