

Although there is much to praise in the current draft of the Chesapeake Bay Watershed Agreement I do have a few suggestions, the first of which I believe is EXTREMELY important and hopefully will not be dismissed out of hand simply as a result of ingrained prejudicial thinking.

LAND USE

The land use section (Land Conservation) of the new agreement is too narrowly drafted, focusing only on conservation. In doing so, either by happenstance or design, the agreement continues to ignore the excess nutrients resulting from high density development, population and population growth.

Although it is widely recognized that the Chesapeake Bay cannot effectively process excess nutrients and it's widely known that households are a predominant source of nitrogen, Chesapeake Bay watershed efforts avoid the obvious: **that existing technologies are inadequate to accommodate the nutrients from unlimited population**. Obscured by apparent disinterest of some of the most unlikely organizations who proclaim sincere concern for the health of the Chesapeake Bay, this omission has hampered measurable progress towards improving the Bay's health. If population is unaddressed and allowed to grow unchecked, it will lead to unmanageable costs and ultimately the irreversible demise of the Chesapeake Bay.

In this light, I urge the following:

1. That the Chesapeake Bay watershed agreement be broadened to include a land use section, which would examine land uses beyond conservation and to more effectively identify and address the detrimental effects of high population and high density development.
2. Strengthen the land use goal to **enhance water quality**, as opposed to simply "maintaining" it!
3. Develop metrics for understanding the rates of pollution from the various land uses, on a per acre basis.
4. Assist State and local governments to better understand and manage population density in a fashion that enhances water quality.
5. Rephrase "Protected Lands Outcome: By 2025, protect an additional two million acres of lands throughout the watershed currently identified as high-conservation priorities at the federal, state or local level, including 225,000 acres of wetlands and 695,000 acres of forest land of highest value for maintaining water quality." to read "Protected Lands Outcome: By 2025, protect an additional two million acres of lands throughout the watershed currently identified as high-conservation priorities at the federal, state or local level, including 225,000 acres of wetlands and 695,000 acres of forest land **most effectively for enhancing** water quality."

Rationales

As previously indicated, the Chesapeake Bay Watershed Agreement and subsequent environmental efforts often turn a blind eye to the excess nutrients resulting from high density development, population and population growth. In doing so, we have rendered ourselves to a treadmill of simply treating a vast array of recurrent symptoms, pointing the finger at the wrong people and not addressing the major underlying problem at all. To make matters worse, this problem has been almost entirely masked by systematic institutional disingenuousness, widely held misconceptions and highly effective branding, exemplified by the terms: *Smart Growth* and *Sprawl*.

We must recognize that the negative environmental impacts are caused by total excess nutrients and should not be masked simply by referencing them on a per capita or per household basis. In doing so, we have allowed ourselves to be steered to believe that the promotion of ever increasing higher densities and the higher levels of pollution that accompany them are “*smart*”! Conversely, we have labeled the least polluting form of development with the negative connotation of “*sprawl*”. In doing so with relentless vigor and substantial funding, we have unjustly stigmatized the concept of cluster development, which yields both free open space and one of the lowest levels of nutrients of all!

It is my belief that the Chesapeake Bay watershed, no longer has the luxury to ignore and even advocate high density, high polluting development strategies under the pretense of being “*Smart*” or “*Sustainable*”. Certainly the environmental community would be quick to recognize and admonish a farmer who developed a feed process in which each cow individually produced manure containing 50% less nitrogen, if he were to increase his herd size by 10 fold producing a 500% increase in total nitrogen. This same vigilance has to be applied to nutrients produced by human populations, regardless of their political clout. I sincerely hope that these recommendations and reasoning will call attention to this important issue and possibly initiate dialog and meaningful change with regard to the automatic acceptance of incremental population growth within the Chesapeake Bay’s watershed.

Secondly, the rationale for tweaking the language of which lands to conserve stems from the belief that the proposed language “*highest value*” conflicts with the second principle, “*least possible cost*”, of the Watershed Agreement. In practice, I have often observed the pursuit of the “highest value” land actually inflates the cost. For better or worse, our efforts to improve the health of the Chesapeake Bay are constrained by real world limitations, including fiscal limitations. As such, I believe that considerations should be broaden beyond “*highest value*” to a more rounded and thoughtful consideration.

As an example, are we better off protecting 100 acres of the “*highest value*” land or would we be better served to protect 300 acres of a “*lesser value*” land for the same price? The language currently proposed for the Watershed Agreement does not promote consideration and analysis in this fashion and should be changed, accordingly.

VITAL HABITATS

1. Broaden the indicator of tidal marsh health beyond the single species of the American Black Duck; possibly to include all puddle ducks that winter in the Chesapeake Bay watershed.

Rationale

All tidal marshes do not contain the same flora. The American Black Duck is much more tolerant of tidal marshes located in areas of higher salinity, generally found in close proximity of the main stem of the Chesapeake Bay.

The concern that I have is that one of the primary degradations of the Chesapeake Bay's tidal marshes is the conversion of flora as a result of ever increasing saltwater intrusion. This occurrence has already seriously degraded part of the marshes found in Blackwater Wildlife Refuge. We need to expect acceleration of this phenomenon with the anticipated rise of sea level.

With the American Black Duck's tolerance for high salinity marshes, it is certainly possible that an increase in their numbers may unfortunately signify nothing more than a clear indication of a significant degradation of the "sweet" (more fresh water) tidal marshes to higher salinity marshes. This makes the use of their species exclusively, a very poor choice as an indicator of overall tidal marsh health.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David E. Cadell". The signature is stylized with a large, looped "D" and "C".

David E. Cadell

Possible wording:

Goals and Outcomes:

Land Use and Conservation

The landscapes around the Bay and its tributaries are ecologically, culturally, historically and recreationally valuable to the people and communities of the region. Stimulating, renewing and expanding commitments to conserve priority lands for use and enjoyment is an integral part of furthering the watershed's identity and spirit.

Goal: Develop the watershed and conserve landscapes treasured by citizens in a manner to enhance water quality and habitat; sustain working forests, farms and maritime communities; and conserve lands of cultural, indigenous and community value.

Protected Lands Outcome: By 2025, protect an additional two million acres of lands throughout the watershed currently identified as high-conservation priorities at the federal, state or local level, including 225,000 acres of wetlands and 695,000 acres of forest land most effective for enhancing water quality. (2010 baseline year)

Land Use Methods and Metrics Development Outcome: By 2015, develop a Chesapeake Bay watershed-wide methodology and metrics for 1) measuring the rate of land conversions of agricultural and forest lands, and for measuring the extent and rate of change in impervious surface coverage, and 2) estimating the rate pollution for the various land uses on a per acre basis.

Land Use Options Evaluation Outcome: By 2017, evaluate policy options and identify potential incentives, resources and other tools that could assist local government in their efforts to better manage and, when possible, reduce the rate of consumption of agricultural and forest lands, and rate of pollutants entering surface and groundwater.