Chesapeake Bay Watershed Agreement
Issue: **Land Use - Impervious Surface**
Updated April 10, 2014 (for PSC meeting discussion)
IRC recommendations for PSC are highlighted in yellow below.

Current Language

Land Use Methods and Metrics Development Outcome: By 2015, develop a Chesapeake Bay watershed-wide methodology and metrics for measuring the rate of land conversions of agricultural and forest lands, and for measuring the extent and rate of change in impervious surface coverage.
Land Use Options Evaluation Outcome: By 2017, evaluate policy options and identify potential incentives, resources and other tools that could assist local governments in their efforts to better manage and, when possible, reduce the rate of consumption of agricultural and forest lands, and rate of conversion of porous landscape to impervious surface.

Options

1. Amend the Methods/Metrics Outcome to include a commitment to quantify and communicate the potential impacts [of land use conversion] to water quality and costs to communities.
2. Amend the Evaluation Outcome to work with local governments to evaluate policy options to strategically manage and reduce the rate of conversion and develop a 2025 reduction goal.
3. Both 1 and 2.
4. Status quo.

***See attachment below for specific language.**

Partner Comments

Virginia: ***Land Use Options Evaluation Outcome:*** By 2017, with the direct involvement of local governments or their representatives evaluate policy options and identify potential incentives, resources and other tools that could assist local governments in their efforts to reduce the rate of consumption of agricultural and forest lands, and rate of conversion of porous landscape to impervious surface.

STAC: Outcome: Continual improvement in the knowledge of land conversion and the associated impacts throughout the watershed

STAC: o Develop and disseminate a uniform set of land use and land cover definitions and hierarchical classification schemes.
o Develop and implement a protocol for monitoring the rate of land conversions between) land use and land cover classifications, (by 2015
o Develop and disseminate a consistent definition for impervious surface coverage and apply the definition to measure change over time.
o Develop and implement a protocol for monitoring and reporting the potential impacts of land conversion and impervious surface change on water quality and habitat service) capacity (by 2017
o Develop outreach programs to inform stakeholders about land conversion changes and potential consequences
o Develop and promulgate guidance on options for managing land conversions
o Systematically, assess the level of knowledge and understanding of land conversion and associated

impacts in stakeholder groups to determine effectiveness of the monitoring and outreach programs

Stakeholder Comments

SOLS/LSR: Land Conservation: We support the research and evaluation provided for in the Land Conservation goal, however after the 2017 evaluation of policy options, potential incentives, resources and other tools that could assist local governments, **the outcomes do not follow through with a commitment to making every effort at following the evaluation with action.**

We support adding a final outcome of:

Land Use Options Implementation Outcome: By 2019, make every effort to implement policy options and potential incentive programs to support minimizing new impervious surfaces.

Joe Davis: Why doesn't this document address groundwater withdrawals in the Southern Bay, which is responsible for at least 50% of the collective impact of sea level rise? While the issue of climate change may be responsible for some of the perceived rise and is still being debated, it is a fact that **unchecked development and increased impervious surfaces that prevent groundwater recharge can be specifically addressed.**

Potomac Conservancy: In conjunction with our partners at the Chesapeake Bay Foundation, the Conservancy supports a 2014 Agreement goal of reducing the average farm and forest land conversion rate to 40% by 2025. We maintain that the preservation of forest land and farm land is superior and far more cost-effective to having to retrofit increased impervious surface from subdivision and other forms of development in the future.

Stormwater Workgroup of the Choose Clean Water Coalition: Clean water and a clean, healthy environment overall are critical to attracting people and jobs to any region, including our own. Well-designed, compact and walkable communities linked by transit – key components of smart growth – will meet the growing market demand for this type of development, while reducing traffic-congestion, reducing infrastructure costs and the local tax burden for public services, and providing the basis for healthy and stable local economies. Combining smart growth with much improved stormwater management will help our region become more sustainable, competitive and attractive even as we add millions of people over the coming decades.

Cons Pa, Va League of Cons Voters, Potomac Cons, Va Cons Network, Potomac Riverkeeper, PennFuture, Rock Creek Cons, Md Cons Council, James River Assn, Nat'l Parks Cons Assn, Friends of the Rappahannock, NRCD, NWF, Ridgway Hall, SELC, Sierra Club Pa Ch., VASWCD, 70+ Individuals:

> The Final Agreement Should Address Polluted Runoff: The draft Agreement fails to mention polluted runoff, let alone set outcomes for reducing it. An outcome related to reducing polluted runoff would fit either within the "Water Quality" or "Land Conservation" goals. (double post - see Water Quality Goal)

Tatiana Marquez: In the 2000 Agreement different essential issues are tackled as how to control development in order to prevent sprawl, LID developments, land use planning, tax incentives for sustainable developments, rehabilitation of brownfields, urban storm water retrofits, transportation and

clean vehicle technologies. None of these are in the present agreements. They should be included with a specific outcome.
What happened with this tool (was mentioned in the 2000 Agreement): "develop analytical tools that will allow local governments and communities to conduct watershed-based assessment of the impacts of growth, development and transportation decisions?" If it was developed it should be used in the present agreement as a way to establish new outcomes for the future years.

Rupert Rossetti: The Land Use Methods and Metrics outcome is a real disappointment. We seem to be putting in place a system to measure the continued loss of agricultural and forest lands, rather than establishing a goal to stop or reverse the loss. This may not be the case, but it is certainly how the statement comes across. If we are happy to lose more of our natural and cultivated lands, has the tipping point been established, and if so, what is it? If not, how long will we continue to measure the extent and rate of loss before taking action?

American Rivers: Land Use Methods and Metrics Development and Land Use Options Evaluation are both woefully inadequate outcomes but could serve as a first step toward addressing activities on land that are critical to achieving clean-up of the Bay watershed. these outcomes do nothing to ensure current innovation and endorsed technologies, such as green infrastructure, are widely implemented through policy improvements. Both outcomes should be redrafted to ensure states and localities get beyond the first step in addressing the role of land protection and restoration for clean water and a healthy Bay.

American Rivers: Land Conservation outcomes must do more than address the rate of conversion of porous landscapes to imperviousness. The outcomes must work to **increase the rate of restoring impervious land or replacing natural function** of existing impervious surfaces through restoration of impervious or disturbed land cover and retrofitting land uses that impact water quality.

Pennsylvania Campaign for Clean Water Stormwater Workgroup: the Land Conservation outcomes and Healthy Watersheds outcome are insufficient. Two of the three **Land Conservation** outcomes provide **tools without proactively pointing those tools directly at conservation.** Measuring natural land that is lost or disturbed and assessing local policy options may be helpful but is **insufficient and ignores the innovative and effective practices already known to reduce sprawl, preserve farmland and prevent forest fragmentation.** Land conservation must go hand-in-hand with restoration of landscapes or retrofitting land uses that impact water quality, notably land cover that is impervious or where runoff is disturbed.

Ann's Backyard Forest, Ltd.: Research to establish changes in permeable surface area with shifts in land use are exciting to consider. While easily accomplished with satellite imagery and computer image processing, a priori goals need to be fully developed. Use of such research could be of far-reaching benefit for planners and researchers. Planners could use a good modeling program to estimate the impact of land use in conjunction with precipitation ranges to consider community water needs. Researchers could use to model ecological effect as land use shifts. Particularly gifted researchers could use the model to estimate runoff and pollutant loads scaled by topography and plant coverage and type.
An outline of land use types, important to ecologists and planners, is necessary. Categories of use with subcategories of ranges are a first step. Consider developing a complete, interactive model along the lines of the National Tree Benefits Calculator.

American Farmland Trust: AFT finds the Land Use Options Evaluation Outcome to be inadequate and unsatisfactory. While the search for better tools, incentives, etc. that can assist jurisdictions is laudable and important, this goal leaves the region managing the rate of conversion forever, only reducing the rate of conversion "when possible." We strongly recommend that this goal be revised. **At a minimum it should read "strategically manage and reduce" the rate of conversion.**

HRSD: The Land Use Options Evaluation Outcome does not provide for the ability to measure if the policy option evaluation has been realized. The **meaning of "evaluate" is unknown**. The language could be changed to "**By 2017 identify policy options, potential incentives**..." to better define the outcome.

Eastern Shore Land Conservancy: Bay watershed states should target funds for fee simple or easement purchase of sensitive lands, especially those bordering the Bay and its tributaries. Under the Land Use Options Evaluation Outcome, should we "manage" the rate of conversion for lands? ESLC believes that the language in this outcome should be written stronger to provide adequate protection for the remaining undeveloped land. Instead of being written to say "**assist local governments in their efforts to better manage and, when possible, reduce the rate of consumption**…" it should say "**in their efforts to better strategically manage and reduce the rate of consumption**."

Background

- Last year the IRC had considered a land use outcomes calling for a reduction in the rate of per capita land consumption and x% reduction in impervious surface change.
- Several partners objected to including outcomes committing to reductions, because of the role that local governments play in land use decisions.
- Nonetheless, the partners agreed that land use was an important issue to be included in the agreement and that the outcomes should instead focus on the measurement and evaluation of land use change.
- After much negotiation, the current two outcomes were developed.
- Several stakeholders and members of the public have commented that these outcomes are inadequate and will not result in action to reduce the rate or mitigate the impacts of land use change.

Current Language	Suggested Language for Consideration
Land Use Methods and Metrics Development Outcome: By 2015, develop a Chesapeake Bay watershed-wide methodology and metrics for measuring the rate of land conversions of agricultural and forest lands, and for measuring the extent and rate of change in impervious surface coverage.	***Land Use Methods and Metrics Development Outcome***: By 2015, develop a Chesapeake Bay watershed-wide methodology and County-level metrics for characterizing the rate of farmland, forest, and wetland conversion, measuring the extent and rate of change in impervious surface coverage and quantifying the potential impacts of land conversion to water quality, healthy watersheds, and communities. Launch a public awareness campaign to share this information with local governments, elected officials, and stakeholders.
Land Use Options Evaluation Outcome: By 2017, evaluate policy options and identify potential incentives, resources and other tools that could assist local governments in their efforts to better manage and, when possible, reduce the rate of consumption of agricultural and forest lands, and rate of conversion of porous landscape to impervious surface.	***Land Use Options Evaluation Outcome:*** By 2017, with the direct involvement of local governments or their representatives, evaluate policy options, incentives, and planning tools that could assist local governments in their efforts to strategically track, manage, and reduce the rate of consumption of agricultural lands, forests and wetlands, and the rate of conversion of porous landscapes to impervious surfaces, and develop an outcome for achieving those reductions by 2025.