

Outcome: Protected Lands

Principles for Phase III Watershed Implementation Plans

Growing the Green Infrastructure of Protected Lands for Local Economies, Human Health/Well Being, and Reduced Reliance on the Built Infrastructure

The values found in Chesapeake Bay landscapes (including innumerable cultural, historic, and heritage assets, prime working forests and farmlands, important habitats for a host of wildlife and other species, open spaces for active and passive recreation, including water borne activities) have generated a century plus of efforts by governments at all levels, non-profit organizations, private landowners, and more recently by for profit companies to conserve and restore them for the benefit of current and future generations.

They are collectively our "Green Infrastructure" and are viewed as increasingly essential to maintaining and growing various local economies; restoring the human health and social fabric of communities; ensuring the survival of wildlife and other species critical to the future of all living things; providing buffers and pathways for rising sea levels and storm inundation; providing a "platform" to achieve TMDL nutrient and sediment reduction goals in certain areas of the watershed; and providing opportunities for offsets to future growth and development (and their attendant built infrastructure costs) in certain areas of the watershed.

There are 41 million acres of land in the watershed. The 2014 Chesapeake Bay Watershed Agreement established a goal of permanently protecting an additional 2 million acres of land by 2025 over the 7.8 million acres preserved as of 2010. As of the end of 2016, approximately 1 million additional acres had been preserved, thus increasing the total acres preserved to 8.8 million. The members of the Chesapeake Conservation Partnership have collectively met a little over 50% of the goal with eight years available to conserve the balance of the acres needed (995,423 acres). Approximately 11% of the total acres in the watershed (or 4.73 million acres) are "developed" (i.e. in residential, commercial, and industrial uses and public works of all types).

There are many economic assessments of: how property values of residential developments are enhanced by adjoining or nearby parks, trails, and other open spaces; the economic benefits generated by the outdoor recreation industry to states across the country; the economic benefits of preserving working farmlands and forestlands to regional, state and local economies; how preserving historic, cultural, and heritage sites and landscapes is a critical foundation of local tourism economies; the growing body of science demonstrating the many links between maintaining or restoring human health and well-being with the regularity of spending time in nature; and the availability of private capital markets allocating capital for environmental restoration often in tandem with acquiring interests in lands or using already preserved lands for restoration with attendant economic benefits to local economies (these activities are part of the what is referred to as the "restoration economy").



Almost nine million acres are permanently protected in the Chesapeake watershed, including significant forest lands and farm lands along the Susquehanna. Photo: Nicholas Tonelli



Conservation efforts date back to the mid-19th century resulting in tremendous public resources like the 186 mile long Chesapeake and Ohio Canal National Historical Park on the Potomac River. Photo: Chris Spielmann

Finally, there are several recent developments which if successfully implemented, will provide additional resources and means to further the conservation of certain lands in the watershed. First, given the Bay Program's recent approval of projected growth and development scenarios around the watershed, the program is now perfecting for the first time a set of new BMPs with estimated load reductions for the retention of high quality forest and agricultural lands--as well as another set for growth management. These new BMPs will be available for localities projected to experience future growth and development to consider in preparing their Phase III WIPS.

Second, the Healthy Watersheds and Stewardship GITS have jointly funded a grant solicitation seeking contractors to develop a financial model to attract private capital to underwrite the retention of certain high quality forests and agricultural lands.

Best Management Practices with Protected Lands in Mind

The Chesapeake Conservation Partnership has developed maps depicting the most valued forests, agricultural lands, habitats, and heritage areas within the Bay Watershed. The Partnership is perfecting a composite of the "most valued" lands within these four mapping categories. Please see the link to these maps in the section below on "Tools and Resources".

The table below depicts the many co-benefits associated with Tetra Tech's Protected Lands Study of the Quantification of BMP Impacts on the Chesapeake Bay Program Management Strategies. Scores with values of >3.0 indicate significant Co-Benefits associated with this BMP.

Using these maps for land conservation actions going forward, in particular the "composite" when available in several months will serve as a rich resource for states and counties seeking to target conservation actions with multiple co-benefits."

Best Management Practice	Protected Lands	Additional Co-Benefits						
		Habitat Biodiversity	Black Ducks	Brook Trout	Wetlands	Land Use Methods and Metrics	Fish Habitat	Flood Mitigation
Agricultural Forest Buffer	3.5	4	3.5	4.5	3.5	4	4.5	3.5
Forest Conservation	5	5	1.5	4	2.5	3.5	4	3.5
Urban Forest Buffers	3.5	5	3	5	3.5	4	4	3.5
Urban Growth Reduction	5	4.5	2.5	4	1	5	3	3
Urban Shoreline Management	4.5	4	3.5	1.5	4.5	2.5	4.5	1
Wet Ponds	3.5	3.5	2.5	1	4.5	2	1	3
Wetland Restoration	3.5	3	4.5	1.5	5	4	3.5	1
Wetlands	4	3	3.5	3	5	2	2	3.5

Guiding Principles for Phase III Watershed Implementation Plan

WIP Development

1. Review the Bay Program's projected Growth and Development Scenarios to determine where impacts are projected to occur.
2. Review the CCP's maps including the "composite" map to determine where "most valued" lands are projected for Growth and Development, or other target areas previously identified by local or state as important to conserve (see link to CCP maps under section below on Tools and Resources).
3. Review the set of new BMPs (retention of forest and ag lands and growth management) to determine if any of the non-acquisition BMPs can be scheduled for adoption and inclusion in local WIPs.
4. Consult partners (elected officials, state and federal agency representatives, land trusts, and others) in the development of WIP strategies. If land conservation is one of the BMPs pursued, perform a preliminary assessment of potential landowner interest.

WIP Implementation

1. If land conservation is one of the BMPs selected for inclusion in a local WIP, conduct an outreach effort through an appropriate third party to confirm an initial level of landowner interest.
2. Focus on areas for land conservation which reflect many of the co-benefits shown above.
3. Take advantage of the growing number of resources and entities available for implementing land acquisition (and in some cases, restoration) of lands identified in local WIPs.
4. Coordinate any land conservation BMPs with other BMPs accomplished via local land use policy BMPs so that the overall projected load reductions are maximized.

Tools and Resources

- Chesapeake Conservation Partnership Website: <https://chesapeakeconservation.org>.
- Chesapeake Conservation Partnership Maps: <https://landscape.org/chesapeake/Priorities>
- Conservation Land-Use Policy Tool Kit / Webinar and Healthy Watersheds Forestry TMDL Forest Retention Study: both can be found on " Maintain Healthy Watersheds Team page at: https://www.chesapeakebay.net/who/group/maintaining_healthy_watersheds_goal_implementation_team
- "Chesapeake: A Network of Conservation Across 64,000 Square Miles" Jonathan L. Doherty and Suzanne E. Copping, *The George Wright Forum* Vol. 33, No. 2 (2016), pp. 185-198 <http://www.georgewright.org/332doherty.pdf>
- Outdoor recreation economy generates \$887B in consumer spending annually and supports 7.6M in jobs. See state by state data. <http://oia.outdoorindustry.org/e/51282/7-outdoor-rec-economy-resource/8hcywd/493072607>
- Report by Forest Trends summarizing the \$8.2 B in private investment raised and committed in the last decade for a variety of renewable, sustainable, environmental restoration, and conservation projects and another \$3.2 B raised and planned to be committed over the next 2 to 3 years: <https://foresttrends.org>
- Private Capital for Working Lands (Farms and Forests) Conservation: A Market Development Framework. The Conservation Finance Network: www.conservationfinancenetwork.org
- Economic Benefits of Parks-- State and National Surveys of Parks and Other Natural Assets: www.conservationtools.org/guides/98-economic-benefits-of-parks
- BBC Earth-How nature is good for our health and happiness. www.bbc.com/earth/2016.../4020-how-nature-is-good-for-our-health-and-happiness
- Call to the Wild: This is Your Brain on Nature. National Geographic. <https://nationalgeographic.com/magazine/2016/call-to-wild/>

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