SEQUESTERING CARBON THROUGH OUR NATURAL RESOURCES

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EXECUTIVE SUMMARY

An Intergovernmental Panel on Climate Change special report emphasized the role that the land and water sector can and must play as part of the comprehensive strategy to tackle climate change.[1] Virginia can sequester atmospheric carbon in our forests, soils, and wetlands, not only to meet our climate obligations but also to enhance Virginia's air and water quality. Furthermore, increasing carbon content in our soils makes them more productive and drought resistant for Virginia's farmers. By setting targets and adopting policies to encourage sequestration, while reducing barriers and creating incentives to carbon markets, we can help meet climate and water quality goals while spurring economic development around the Commonwealth.

CHALLENGE

Sequestering atmospheric carbon is a necessary component of the climate solution, yet Virginia continues to see significant losses across natural resource sectors. Despite obligations in the Watershed Implementation Plan[2] and in statute for 'no net loss', wetlands continue to disappear from year to year. Virginia's Coastal Resilience Master Plan projects that 49% of existing coastal wetlands will disappear by 2060 and 89% by 2080.[3] Similarly, forest canopy across the Commonwealth continues to disappear at a staggering rate with over 189,000 acres between 2014 and 2018 in our Chesapeake Bay watershed alone (see INCREASING INVESTMENT IN TREES, page 43).

In recognition of the need to accelerate sequestration efforts, the General Assembly passed SB 1374 in 2021, creating a task force to study carbon sequestration through forests, soil, and wetlands. The resultant report provided to the General Assembly summarized the opportunity saying, *"by capturing and storing carbon, communities can help offset emissions and mitigate the effects of climate change such as increased severe weather, wildfires, dangerous heatwaves, sea level rise, and diminished air and water quality."*[4]

Unfortunately, challenges presented by the pandemic and the change in administration prevented the workgroup from fully addressing its charge. Key items remain unaddressed, such as exploring the feasibility and efficacy of short- and long-term sequestration targets for Virginia's natural and working lands, and developing policy recommendations for state land and marine resource use. Resolving these issues is a necessary step in helping Virginia further our sequestration efforts as well as ensuring Virginia is primed to take advantage of funding opportunities from the federal government and private sector.

SOLUTION

Growing recognition of carbon sequestration as a necessary component of our climate change response has driven an increase in the value of carbon trading credits and new incentive programs. These opportunities can help Virginia to meet our existing natural resource objectives while simultaneously drawing down atmospheric carbon – but only if we are primed to take advantage. Continuing the work of the carbon sequestration workgroup is needed to prepare the Commonwealth to be a leader in this space.

We must first establish a baseline for sequestration in the Commonwealth and develop achievable targets for increasing sequestration in the coming years. Using the best available science, Virginia should set natural resource sector goals to help shape sequestration policy moving forward. Additionally, each agency should assess their assets and develop a plan to increase carbon sequestration on Virginia's land and waters that supports our sequestration targets.

One of the carbon sequestration workgroup recommendations was, "*increasing support for existing programs with carbon sequestration co-benefits.*"[5] Programs such as Virginia's Agricultural Cost Share program, Conservation Reserve Enhancement Program, Urban and Community Forestry grant program, Virginia Pollinator Smart Program, and many other initiatives include the co-benefit of sequestering carbon. Ensuring robust funding for these programs is essential, but agencies should also look for ways to further encourage and increase sequestration within their respective programs.

The Virginia Phase III Watershed Implementation Plan (WIP) highlights the need for the Healthy Watershed Forest Project as a key strategy for achieving our water quality goals through accelerating the pace of forest land retention and restoration.[6]

Finally, carbon markets are difficult to navigate, which means farmers and landowners require technical assistance accessing the financial incentives available to increase carbon in their soils and forests. Virginia should assist farmers/landowners with accessing markets.

POLICY RECOMMENDATIONS

Virginia agencies should create an inventory of their assets current carbon sequestration value and provide that information to DEQ to serve as part of Virginia's carbon inventory.

Virginia should develop and adopt carbon sequestration targets for the Commonwealth's forests, wetlands, and agricultural lands based upon the best available science.

Virginia agencies should develop recommendations to increase long term carbon sequestration within existing programs.

Tools and resources should be developed to help landowners and agricultural producers access carbon markets.