



Virginia Coastal Zone Management Program Semi-Annual Success Story ("Section C")  
October 2020

***Assessing Economic Values of Land Conservation***



**THE PROBLEM:** Protecting an area of high ecological value while managing rapid development in the surrounding watershed is an ongoing challenge throughout Virginia’s Coastal Zone. One particular obstacle to achieving this balanced outcome is the perceived conflict between the conservation of lands and loss of property tax revenue to local governments generated by development for agricultural, residential, or commercial use. With this in mind, CZM sought to evaluate how conserving land in the Lower Chickahominy River Watershed (LCRW) would affect expenditures by local governments in the region and to find ways to leverage the natural resources of the watershed to promote sustainable economic growth. The LCRW in particular was an excellent case study as it has a high ecological value, as shown in the GIS-based Coastal Virginia Ecological Value Assessment (VEVA) (Figure 1), but continues to face increasing development pressure from the adjacent fast-growing localities of James City County and New Kent County and contains prime agricultural land in Charles City County (Figure 2).

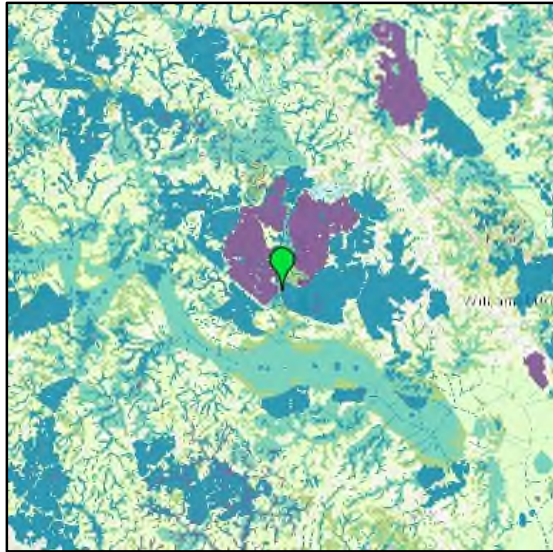


Figure 1. Areas within the Lower Chickahominy River Watershed ranked as Outstanding (purple) and Very High (dark blue) by Coastal VEVA



Figure 2. Lower Chickahominy River Watershed (shaded) and three-county study area (light green)

**THE FIX:** In order to evaluate the perceived conflict between land conservation and local tax revenues, CZM contracted with George Mason University's Center for Regional Analysis (GMU) in 2018-19 to conduct an economic study of the LCRW region. GMU had previously completed a CZM-funded economic analysis of land conservation on Virginia's Eastern Shore in 2016-17, which demonstrated that acquisition of lands for conservation purposes did not cost local governments money due to the decreased maintenance costs associated with the upkeep of conserved public lands compared to private lands. However, since the mainly rural nature of the Eastern Shore differs significantly from the fast-developing James City and New Kent Counties, it was determined that a second study specifically assessing the LCRW was necessary to inform planning and policy next steps. A few highlights from the report, completed in June of 2020 are listed below:

- Economic activity associated with businesses that directly benefit from the environmental gains of land conservation in the LCRW totaled more than \$8 million in 2018, which boosted gross regional product in the three-county area by about \$4.4 million and supported over 100 jobs.
- In a limited review of one riverside property development, almost \$100 million in private property would be directly impacted by water quality improvements associated with conservation practices in the study area. This suggested that land conservation in the LCRW could potentially benefit private property owners by millions of dollars in property values.
- For every \$1.00 spent in Charles City County annually to provide public services to support land with conservation easements, revenues to Charles City County were estimated to be \$1.28. In James City County, for every \$1.00 spent annually in the provision of public services to support land with conservation easements, revenues to James City County were estimated to be \$1.53. For every \$1.00 spent in New Kent County annually to provide public services to support land with conservation easements, revenues to New Kent County were estimated to be \$1.21 (Table 1 below).

Table 1 - 6: Net Fiscal Impact – Conservation Easements Counties of Charles City, James City and New Kent, Virginia Fiscal Year End 2017		
Jurisdiction		Findings
<b>Charles City County</b>		
	Revenues \$	1.28
	Expenditures \$	1.00
<b>James City County</b>		
	Revenues \$	1.53
	Expenditures \$	1.00
<b>New Kent County</b>		
	Revenues \$	1.21
	Expenditures \$	1.00
Source: The Center for Regional Analysis, Schar School of Policy and Government, George Mason University; Urban Analytics, Inc.		

**THE IMPACT:** The findings of the study indicated not only that lands with conservation easements did not place a fiscal burden on any of the three counties, but also provided baseline data with which local governments, state agencies, and private sector stakeholders can more effectively plan land use strategies, especially those directly related to preserving natural areas. The study was shared with stakeholders who had been part of current five-year LCRW Section 309 Strategy planning process and is currently posted on PlanRVA's website (link below). Furthermore, at a July 22, 2020 Tribal-Local Government Workshop, all three counties and the three tribes, having reviewed this report, expressed interest in working together to promote land conservation and ecotourism in the region.

A third study by GMU funded by CZM from 2019 to 2020 featured a quantitative and qualitative approach to identify specific industry opportunities for economic growth and business development that meet the conservation mandates of the LCRW plan. The results of the analysis provided clear evidence of the potential for "green" industries to become an important cluster of industries that will enhance the regional economy and provide economic justification for the continued protection of natural resources in the watershed. The report also offered an actionable framework from which the economic development authorities in each of the counties can choose specific industry targets of opportunity that best fit within their overall economic development strategies and conservation goals. The findings of the latest study were presented by Dr. Terry Clower of GMU at the August 18, 2020 Lower Chickahominy Stakeholder Summit and the project team will look to collaborate with local government and tribal staff to implement the suggested framework going forward.

The project team is currently drafting a memorandum of understanding (MOU) to create a Lower Chickahominy Watershed Partnership among the tribes, local governments, and state entities to collaborate on future policies directed towards promoting sustainable economic growth, which relies on healthy coastal resources as well as protecting and conserving cultural and coastal resources. The findings of both GMU studies in the LCRW are likely to be referenced in this process as well as in future planning efforts beyond the current five-year CZM Strategy.

#### **MORE INFORMATION:**

PlanRVA's website: <https://planrva.org/environment/lower-chickahominy/>

April 2018 CZM Section C Success Story on E. Shore Land Conservation Economics:

(<https://www.deq.virginia.gov/Portals/0/DEQ/CoastalZoneManagement/Section%20C%20Report%20for%20Oct%202017%20-%20March%202018%20Economics%20of%20Land%20Conservation.pdf?ver=2019-02-15-143050-377>)

**PARTNERS:**

The Virginia Coastal Zone Management Program continues to work with several partners on the overall five-year Section 309 Strategy for the LCRW:

- PlanRVA
- George Mason University
- University of Virginia's Institute for Engagement & Negotiation
- Chickahominy Tribe
- Chickahominy Indians Eastern Division
- Pamunkey Tribe
- Charles City County
- James City County
- New Kent County

**CONTACT:** Jeff Flood, Coastal Planner, Virginia CZM Program. (804) 698-4151 or [jefferson.flood@deq.virginia.gov](mailto:jefferson.flood@deq.virginia.gov)