Natural Resources Conservation on the Delmarva Peninsula

Economic Impact 2024









Summary

This report quantifies the economic impacts generated by the Delmarva Peninsula's natural resources, underscoring the vital role land conservation plays in sustaining the Eastern Shore's economic stability. The Delmarva Peninsula's diverse ecosystems support essential industries—such as forestry, agriculture, fishing, and tourism—that form the backbone of the region's economy and heritage. From bird watching to boating, camping, and ecological restoration, these low-impact activities directly depend on preserved landscapes and healthy, thriving ecosystems.

Investing in conservation is not only a commitment to environmental health but a strategic economic choice. Eastern Shore Land Conservancy (ESLC) and the Delmarva Restoration and Conservation Network (DRCN) commissioned SAGE Policy Group to complete a comprehensive impact study assessing the economic contribution of Delmarva's natural resources. The findings underscore the region's natural resources as a driver of jobs, income, and tax revenue, sustaining local communities.

Natural resources-related activities on the Delmarva Peninsula support more than \$2.6 billion in annual labor income, more than \$8.1 billion in annual economic activity, and more than 74,000 jobs. Of those jobs, 1,897 are in environmental and natural resource-related fields. The economic activity supports more than \$700 million in annual tax revenues for the State of Delaware, the State of Maryland, and the Commonwealth of Virginia. State and local government tax revenues in Maryland are augmented by more than \$455 million each year due to the Delmarva Peninsula's natural resources. The Eastern Shore's natural beauty and biodiversity not only draw millions of visitors annually but also fuel a thriving tourism and recreation sector, creating lasting economic benefits while preserving the region's unique heritage for future generations.

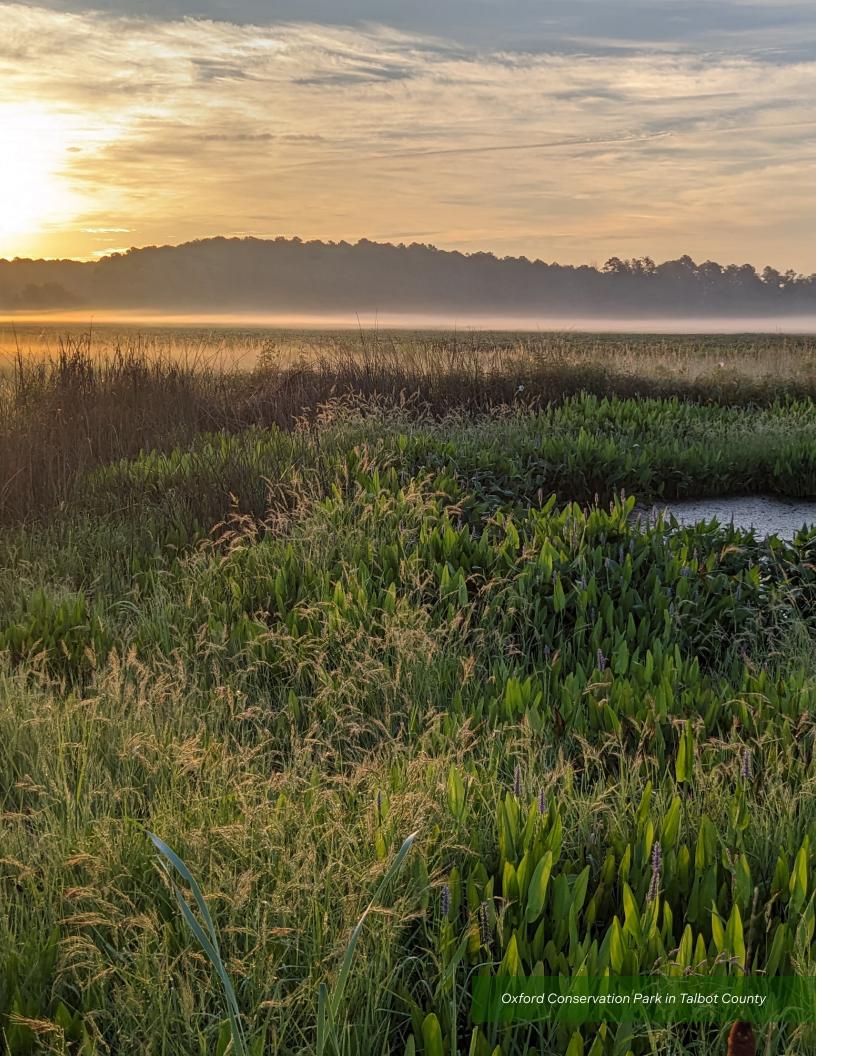


"The shift toward an ecological mindset has been transformative, bringing significant benefits to both local businesses and Tilghman Island as a whole."

- Bob Zuber Black Walnut Point Inn







Fiscal Impact

The following data was provided by The Sage Policy Group, the U.S. Bureau of Labor Statistics, and the U.S. Census Bureau.

State and local government tax revenues in Maryland are augmented by

more than \$455 million

each year due to the Peninsula's natural resources.

State of Delaware revenues and local government collections are bolstered by

more than \$230 million/annum.

Commonwealth of Virginia revenue augmentation exceeds

\$22 million/annum.

Maryland's State tax revenues are augmented by more than

\$300 million each year due to the Peninsula's natural resources,

while Delaware's State tax revenues are bolstered by nearly

\$180 million per annum.

Commonwealth-level tax revenues in Virginia exceed

\$12 million per annum.

Economic activity supported by natural resources generates approximately

\$15 million

in annual income tax revenues for local governments on Maryland's portion of the Peninsula.

Sales taxes related to natural resources-related activities support approximately

\$230 million

in annual revenues to Maryland State government, where the tax rate is 6%.

Maryland has a real property tax of 0.1120% and significantly higher local rates. Property taxes related to natural resource activities generate

\$13 million

in state revenues and

\$126 million

in local revenues annually.

Overall, Maryland's state tax revenues are boosted by more than

\$300 million each year

due to natural resources on the Eastern Shore.



ECONOMIC IMPACTS OF NATURAL RESOURCES-RELATED ACTIVITIES

	Jobs	Labor Income (Millions \$2024)	Economic Output (Millions \$2024)
Direct Effects	29,832	\$960.2	\$2,832.8
Secondary Effects	8,830	\$415.0	\$1,520.6
TOTAL	38,662	\$1,375.1	\$4,353.4
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Maryland

Dela	ware	Labor Income (Millions \$2024)	Economic Output (Millions \$2024)
Direct Effects	24,974	\$829.1	\$2,139.5
Secondary Effects	7,860	\$346.0	\$1,363.8
TOTAL	32,834	\$1,185.1	\$3,503.3

Virginia		Labor Income (Millions \$2024)	Economic Output (Millions \$2024)	
Direct Effects	2,045	\$57.6	\$189.9	
Secondary Effects	562	\$20.5	\$89.5	
TOTAL	2,608	\$78.2	\$279.5	







Black Walnut Point Inn Demonstrates the Role Business Owners Play in Environmental Conservation

The Black Walnut Point Inn is a private property on the southernmost tip of Tilghman Island in Talbot County in the Chesapeake Bay. This protected haven on Maryland's Eastern Shore offers visitors an unparalleled opportunity to connect with nature, where breathtaking sunrises and sunsets showcase the thriving ecosystems that define this unique landscape.

Managed by innkeepers Bob Zuber and Tracy Staples-Wilson, The Black Walnut Point Inn is known across the Eastern Shore as a welcoming retreat and conservation site. Nestled on the scenic Chesapeake Bay, Black Walnut Point provides protected habitat for oyster reefs, ospreys, kingfishers, pawpaws, walnut trees, and many diverse ecosystems and species native to the Delmarva Peninsula.



"Everything that swims or flies comes by here at some point, because we are in the middle of the Chesapeake Bay," Zuber said. "Most people who visit us here, they're just amazed at how quiet, peaceful, and beautiful it is."

The inn is situated at the tip of a 58-acre bird sanctuary, owned by the State of Maryland and protected as part of the U.S. Naval Research Laboratory (NRL) and Black Walnut Point Natural Resource Management Area (NRMA). The property's protected habitat includes coastal marshes, woodlands, and bird nesting areas.

In addition to weddings, the bed and breakfast draws guests seeking a peaceful retreat, perfect for birdwatching and observing seasonal migrations. The Black Walnut Point NRMA is home to over 230 bird species, including 15 resident bald eagles—one of the greatest conservation successes in North America. Each spring, migrating songbirds bring mornings alive as they return to their summer breeding grounds on the Delmarva Peninsula.

Environmental journalist Laura Tangley is a frequent guest at the inn, where she observes migrating monarch butterflies. The protected land of the Black Walnut Point Natural Resources Management Area (NRMA) is essential for supporting both native and migratory species, offering habitat for wildlife.

Zuber and Staples are dedicated to conserving the local environment, focusing on planting and sustaining native trees, shrubs, and plant species to nurture the area's ecosystems. The inn takes

its name from the Maryland-native black walnut tree, Juglans nigra, which once flourished in an orchard on the property. Black walnut trees are vital to the ecosystem, serving as host plants for over 100 species of butterflies and moths and providing a valuable food source for squirrels and birds. Though fewer trees remain today, the black walnut continues to be a cherished presence on the grounds.

The inn offers guests the opportunity to engage with the natural environment through low-impact activities like recreational fishing, boating, and bird watching. Because the property is on the tip of the island, the grounds are also one of the premiere sites on the Eastern Shore to enjoy sunsets and sunrises. Guests can witness the full journey of the sun from the comfort of a bench outside their cabins.

The Black Walnut Point Inn stands as a prime example of sustainable eco-tourism and land conservation, benefiting both the local economy and environment of Tilghman Island and the broader Eastern Shore.











Economic Impact Breakout

The natural resources of the Delmarva Peninsula fuel a dynamic economy across Delaware, Maryland, and Virginia, making a substantial impact on employment, income, and overall revenue.

With over 74,000 jobs supported by resource-based industries, the Delmarva Peninsula generates more than \$2.6 billion annually in labor income, covering all forms of compensation across multiple sectors. Altogether, natural resources contribute around \$8.1 billion in economic activity each year across this thirteen-county region. Approximately 54% of economic activity occurs in the nine Maryland counties on the Delmarva Peninsula.

Of these jobs, approximately 57,000 are directly tied to natural resources or supported by tourism linked to these resources. An additional 17,000 jobs are sustained through secondary effects—heightened consumer spending and business transactions arising from direct employment in these fields.

With over 43,900 jobs, the majority of employment supported by natural resources are in the leisure and hospitality sectors. These roles include food service and lodging in parks and National Wildlife Refuges including Prime Hook, Blackwater, Bombay Hook, and Chincoteague. Natural resources conservation supports at least one secondary job in 168 different sectors of work. From servers at waterfront restaurants to shoreline restoration technicians, the Peninsula's land plays a vital role in driving the local economy.

Job Sectors



43,909 Leisure & Hospitality



15,633 Trade & Transportation



8,816Professional & Business



1,897Natural Resources



1,869Education & Healthcare



1,981 Other

TOTAL 74,104



Annual, Ongoing	Jobs	Labor Income (Millions 2024)	Economic Output (Millions 2024)		
	Delmarva Peninsula				
Direct effects	56,852	\$1,846.9M	\$5,162.2M		
Indirect effects	9,624	\$428.9M	\$1,696.5M		
Induced effects	7,629	\$362.5M	\$1,277.4M		
Total	74,104	\$2,638.4M	\$8,136.1M		

State and local government tax revenues in Maryland are augmented by more than \$455 million each year due to the Peninsula's natural resources.

FISCAL IMPACTS OF NATURAL RESOURCES-RELATED ACTIVITIES

	Income Tax	Sales Tax	Property Tax	Corporate Profits	Other	Total
	Maryland (Millions 2024)					
State Governmen	\$29.7M	\$230.5M	\$13.3M	\$8.5M	\$18.2M	\$300.2M
Local Governmen	\$15.2M	_	\$125.5M	_	\$14.9M	\$155.7M







Environmental Restoration Projects

Conservation and restoration projects play a critical role in protecting and revitalizing land and natural resources across the Delmarva Peninsula, including Maryland's Eastern Shore. These efforts are vital to protecting the Shore for future generations while providing economic benefits.

While tourism is a primary driver of economic activity on the Eastern Shore, other natural resources-related activities including forestry, hunting, fishing, the operation of nature parks, wildlife watching, boating, conservation, and ecological restoration, also make significant economic contributions. There are also economic benefits from the ecosystem services provided by natural resources, including water filtration, carbon sequestration, and flood mitigation. Restoration efforts on the Eastern Shore encompass a range of projects including living shoreline restoration, oyster reef restoration, wetland restoration, meadow and grassland restoration, riparian buffer establishment, reforestation, and stream stabilization.

Restoration projects are not only environmental investments but powerful economic drivers. These efforts create jobs, stimulate local economies, and generate sustainable, long-term benefits across industries. For example, a restoration project in Maryland would/is expected to support an estimated 139 jobs throughout the state over the duration of the project. A project with an investment of roughly \$12 million would generate nearly \$8 million in worker compensation and nearly \$22 million in economic output. The environmental improvements including the development of a living shoreline, wetland restoration, and stormwater improvements at the site would also lead to expanded annual, ongoing economic activity due to increased visitation and business activity.

Similarly, an \$18.5 million resilience investment in barrier island elevation on Virginia's Eastern Shore would create over 200 jobs, with more than 90% concentrated in Accomack and Northampton Counties. This project would generate \$9.3 million in worker compensation and nearly \$30 million in economic output, delivering \$1.61 in economic activity for every dollar invested while conserving dunes, marshes, wetlands, and other critical habitats.

Overall, restoration projects benefit key industries by rebuilding and supporting the natural resources that these industries rely on.

Environmental Health Shapes the Eastern Shore Fishing Industry

Preserving the Chesapeake Bay's natural resources is vital to sustaining the Eastern Shore's economy, culture, and way of life. Eastern Shore Land Conservancy plays a critical role in protecting these resources, which are the backbone of local industries and communities.

Charter fishing is a cornerstone of the local economy and heritage, driving revenue through tourism, job creation, and the support of local businesses. However, environmental challenges pose a serious threat, jeopardizing the area's economy, cultural traditions, and overall well-being.

Captain Johnny Motovidlak, operator of the charter boat the Dawn Marie and a lifelong resident of the Eastern Shore, has witnessed firsthand the challenges affecting the Chesapeake Bay, such as low dissolved oxygen levels and the decline of underwater grasses.



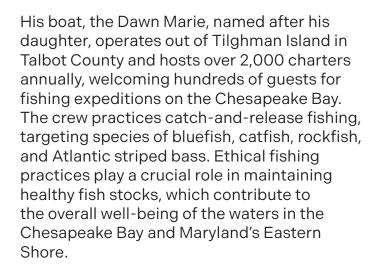
"Conservation is very important. There's a lot to be done to clean up the bay—something needs to be done," said Motovidlak, who has over five decades of experience as a captain and has been fishing the waters around Tilghman Island since childhood.

Healthy fisheries are a reflection of a healthy bay. Growing up in the region, Motovidlak has seen the vital role aquatic plants play in maintaining a healthy ecosystem—maintaining nutrients, preventing erosion, and providing crucial habitats for underwater wildlife. These plants help stabilize shorelines and wetlands, which in turn supports the charter fishing industry by preserving water quality and fish populations.

However, development and expansion of infrastructure have led to a shift in the bay's water quality, habitat, and fish population, underscoring the need for increased awareness and conservation efforts.

A report from Environment Maryland Research and Policy Center titled "Watermen Blues," revealed that pollution contributed to the loss of over 100,000 acres of the Chesapeake Bay's underwater grasses. Additionally, pollution fuels algae blooms, which block sunlight and hinder the growth of vital aquatic plants.

"There's so much runoff from development—fertilizers, pesticides—it all needs to be addressed. Something has to be done," Motovidlak explained.



Charter fishing also plays a role in drawing visitors to the coastal communities, with tourists eager to fish the Bay's abundant waters. This influx of visitors supports local hotels, restaurants, and shops, boosting the hospitality and retail sectors. The Delmarva Peninsula's resources are essential to Maryland's economy, generating approximately \$8.1 billion in economic activity annually and supporting around 74,000 jobs.

Locals working in fishing-related professions, like Motovidlak, and his son, who is a clam fisherman, power the local economy. For generations, the abundant waters of the Chesapeake Bay have supported the livelihoods of watermen. Now, trends indicate a shift, with many watermen leaving the industry due to declining fish populations and stricter regulations, placing a strain on the fishing industry.

Motovidlak emphasizes the critical need for conservation, noting, "Without it, it's going to be very hard for people in this area to make a living on the Chesapeake Bay. We're just not seeing young people going to work on the water."

Environmental conservation is essential for the long-term viability of shore-based industries like commercial and charter fishing. To restore both the fishing industry and the livelihoods of the watermen who depend on it, the health of the bay must be prioritized.







Preserving Priceless Eastern Shore Real Estate through Conservation

Properties along Maryland's Eastern Shore are deeply connected to the land's authenticity—whether it's a farm property, a waterfront property, a wildlife haven, or a home in a historic district brimming with character. These features create a sense of place that suburban sprawl cannot replicate.

The environmental benefits of land shape real estate and home buying trends. Areas rich in natural resources, like the Shore, attract property owners, driving up property values and other economic advantages of environmental sustainability. Maryland has a property tax of 0.1120% with local rates generating \$13 million and \$126 million in property tax revenues related to natural resources-supported activities on the Delmarva Peninsula each year.

Conservation efforts protect the unique landscape, ensuring the Shore's identity as a soughtafter destination for both residents and tourists.

Taylor Properties is an independent brokerage that prioritizes ethical land practices, ensuring sustainable development while respecting the region's natural and cultural heritage. Its local agents recognize and uphold the value of the land they represent.

Lona Sue Todd, a third-generation realtor with Taylor Properties, is deeply committed to preserving the unique landscape of Maryland's Eastern Shore.



"Through the Eastern Shore Land Conservancy, we can save the Shore for future generations. It's above and beyond—an amazing program," Todd said about the programs offered by ESLC. "I'll support them until the day I go; this is my home."





Raised on a farm in Queen Anne's County, where she still lives, Todd has deep family roots in the region. Her grandfather was a farmer, and she grew up surrounded by the land and waterways that define the Eastern Shore. Before beginning her real estate career, Todd worked for over 20 years on the water with Grab-A-Crab Charters.

She points to a dramatic difference between her childhood experiences on the Shore and the experiences available to her children. For example, swimming advisories due to algae and other pollutants often restrict her family's ability to enjoy the water activities that Todd and previous generations didn't think vice about.

These experiences instilled in her a respect for the landscape and a commitment to its preservation. She actively supports Eastern Shore Land Conservancy's efforts, which have preserved over 26,000 acres of farmland and conserved more than 67,000 acres through easements, preserves, and land transfers and acquisitions.

Todd is recognized for her deep knowledge of the local landscape, serving as a listing and selling agent across all nine counties of the Eastern Shore. The nine Maryland jurisdictions on the Peninsula and the municipalities within them collect more than \$155 million in annual tax revenues, with the majority of those revenues taking the form of property taxes.

Specializing in waterfront properties and farms, Todd combines her real estate expertise with advocacy for conservation easements. These easements are voluntary, legally binding agreements between landowners and a trust, such as Eastern Shore Land Conservancy. They restrict development on properties, protecting them from future encroachment while maintaining the character of the land. By promoting these agreements, Todd helps landowners safeguard their individual properties from future development, cumulatively preserving the natural beauty and agricultural heritage of the Eastern Shore.

For Todd, the value of land isn't solely determined by its development potential. She believes that conserved land is equally, if not more, valuable than developed properties, which might sell for a higher price on the market. The true profit of land conservation lies in its lasting benefit for future generations.

"I love it here, I can't imagine life anywhere else," Todd said.



About



ABOUT ESLC

Eastern Shore Land Conservancy is one of Maryland's oldest land trusts dedicated to conserving the unique landscapes of the Eastern Shore. The mission of the organization is to conserve, steward, and advocate for the unique rural landscape of Maryland's Eastern Shore through strategic conservation easements, enhanced stewardship, effective advocacy, and land transfers and acquisitions.

ESLC supports this vital region, helping to conserve more than 67,000 acres across Caroline, Cecil, Dorchester, Kent, Queen Anne's, and Talbot counties. Established in 1990, ESLC was born out of a shared vision to preserve land and protect the region's rich agricultural heritage. Through innovative, evidence-based conservation approaches, ESLC fosters connections among people, land, water, and wildlife, ensuring that conservation efforts are both impactful and enduring for future generations.



ABOUT DRCN

The Delmarva Restoration and Conservation Network (DRCN) is a landscape-scale conservation collaborative rising to address these challenges

on the Delmarva Peninsula. DRCN's mission is to restore and conserve Delmarva's landscapes, waterways, and shorelines that are special to its people, fundamental to its economy, and vital for its native fish, wildlife, and plants.

Formed in 2017, the DRCN is a collaborative of local, state, and federal government agencies and nongovernment organizations. Together, they work with private and public landowners to identify the most important places to protect and restore land, while obtaining support and funding for voluntary restoration and conservation.

DRCN has led a variety of projects to tackle environmental challenges on the Delmarva Peninsula. The organization created and implemented a Strategic Restoration and Conservation Action Plan that focuses on habitat preservation, climate resilience, and sustainable landscapes, laying the foundation for long-term environmental protection. Additionally, DRCN spearheads restoration initiatives such as the Marshes for Tomorrow program, which received over \$1 million in funding from the U.S. Fish and Wildlife Service. This large-scale salt marsh restoration effort is designed to mitigate the impacts of climate change on Delmarva's vital marsh ecosystems.











Appendix Terms and Definitions

EMPLOYMENT

As defined by IMPLAN, a job that lasts twelve months equals one job, two jobs that last six months equal one job, three jobs that last four months equal one job, etc. Based on this, job-years represents a useful term. For instance, an endeavor that supports 200 jobs for a six-month period would be considered to support 100 jobs measured in job-years. Note that IMPLAN jobs are not quite the same thing as full-time equivalents (FTEs). Each of IMPLAN's 536 unique industries has a different conversion rate between jobs and FTEs, although for almost every industry one job is equal to less than one FTE.

OUTPUT (BUSINESS ACTIVITY, ECONOMIC ACTIVITY)

Output equals the value of industry production or service provision. It might be easier to conceptualize this as total business sales or economic activity. For retail industries, it is the gross margin (not gross sales). For manufacturing, output is the quantity of total sales plus/minus the change in inventories. For the service sector, output is directly equal to sales. This is summarized by the following equation:

Output = (Manufacturing sales +/- change in inventories) + (service sector sales) + (gross margin for wholesale and retail trade)

LABOR INCOME

Labor income is comprised of wages, benefits, and proprietor income (money accruing to owners of businesses).

Labor Income = all forms of employee compensation (wages/benefits) + proprietor income

DIRECT EFFECTS

Direct effects are impacts tightly aligned with the endeavor under consideration. In this instance, direct effects are produced by activity driven by natural resources-related spending.

INDIRECT EFFECTS

Indirect effects stem from business-to-business spending activity within the study area that occurs as a result of the direct effects. These can also be considered broader supply chain effects. This is a form of secondary effect.

INDUCED EFFECTS

Induced effects relate to household spending that occurs due to expanded levels of labor/household income. This is also a form of secondary effect.



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