

MARYLAND DEPARTMENT OF
NATURAL RESOURCES

2012-2013

ANNUAL REPORT



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VISION In a sustainable Maryland, we recognize that the health of our society and our economy are dependent on the health of our environment. Therefore, we choose to act both collectively and individually to preserve, protect, restore, and enhance our environment for this and future generations.

MISSION The Department of Natural Resources leads Maryland in securing a sustainable future for our environment, society and economy by preserving, protecting, restoring and enhancing the State's natural resources.

OBJECTIVES

- Healthy Terrestrial & Aquatic Ecosystems
- Efficient Use of Energy & Resources
- Citizen Stewardship, Outdoor Recreation, & Opportunities to Take Action
- Vibrant Communities & Neighborhoods
- Long-Term Economic Prosperity
- Professional Commitment



Martin O'Malley
Governor



Joe Gill
Secretary

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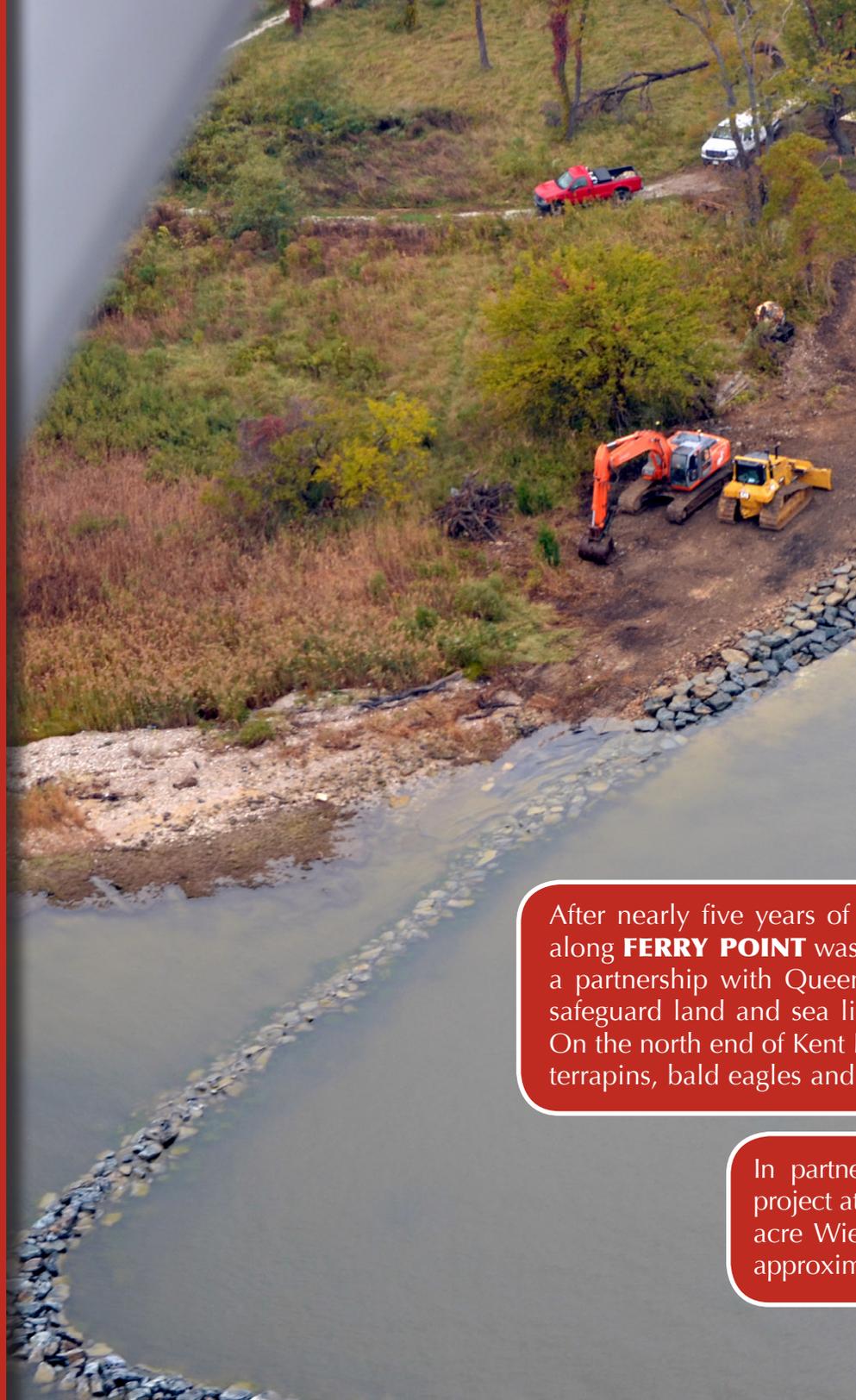
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3 RESTORING OUR WATERWAYS



THE CHESAPEAKE & ATLANTIC COASTAL BAYS TRUST FUND has directed more than \$190 million to water quality and watershed restoration and protection since its inception in 2008. Projects at the State and local level have supported 467 jobs, restored 313 acres of wetlands and 1,180 acres of forests, planted 773,698 acres of cover crops, and engaged 13,000 students through related projects — preventing more than 2 million pounds of nitrogen from entering the Chesapeake Bay.

4 TRANSFORMING OUR SHORELINES

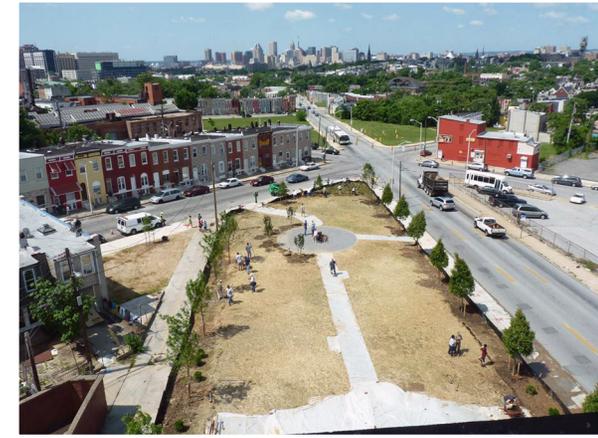


After nearly five years of planning and five months of construction, the deteriorating coast along **FERRY POINT** was fully transformed to a resilient and robust living shoreline. Through a partnership with Queen Anne's County, the project restored wetlands on Kent Island to safeguard land and sea life habitat, protect from extreme weather and enhance recreation. On the north end of Kent Narrows, the 41 acres of marsh provide habitat for horseshoe crabs, terrapins, bald eagles and osprey. Ferry Point also serves as an environmental education site.

In partnership with NOAA, DNR completed a living shoreline restoration project at **GRAYS CREEK NATURE PARK** in Worcester County. On the 600-acre Wiedman waterfront property, a large section of existing bulkhead — approximately 750 linear feet — was replaced with a living shoreline.

5 SERVING OUR COMMUNITIES

PROGRAM OPEN SPACE funded 202 local projects, assisting 22 Maryland counties and Baltimore. Grants for these projects totaled more than \$46.5 million for park land acquisition and recreation development for public use. Some of these projects expanded hiker/biker trail systems and recreational water access sites.



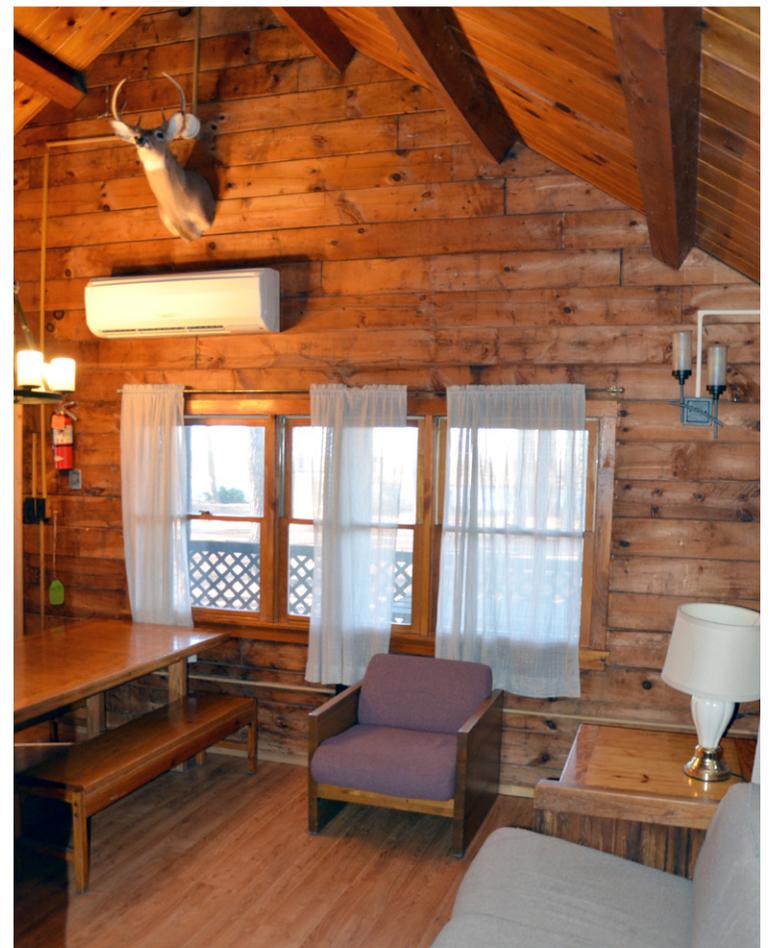
In 2013, DNR and a host of partners worked with the Parks and People Foundation to create the **BROADWAY EAST COMMUNITY PARK**, an urban green space in Baltimore City. This project uses innovative concrete in an ultra-urban setting, creating park paths and a parking lot that allow polluted rainwater runoff to flow through to the ground, keeping it out of local streams and waterways.



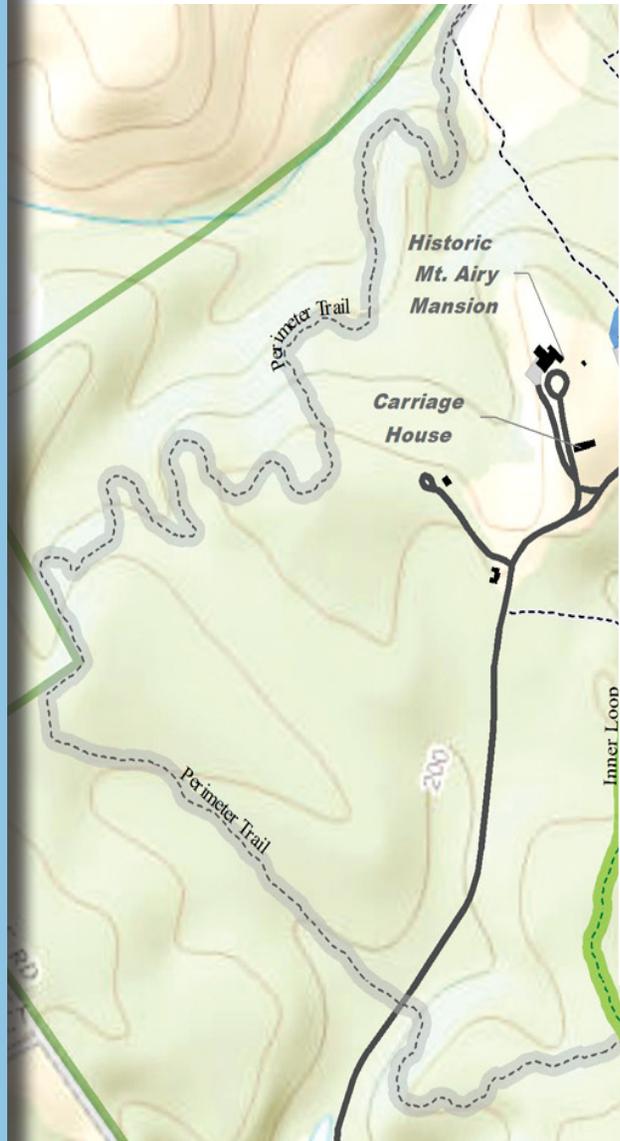
6 GREENING OUR STATE PARKS



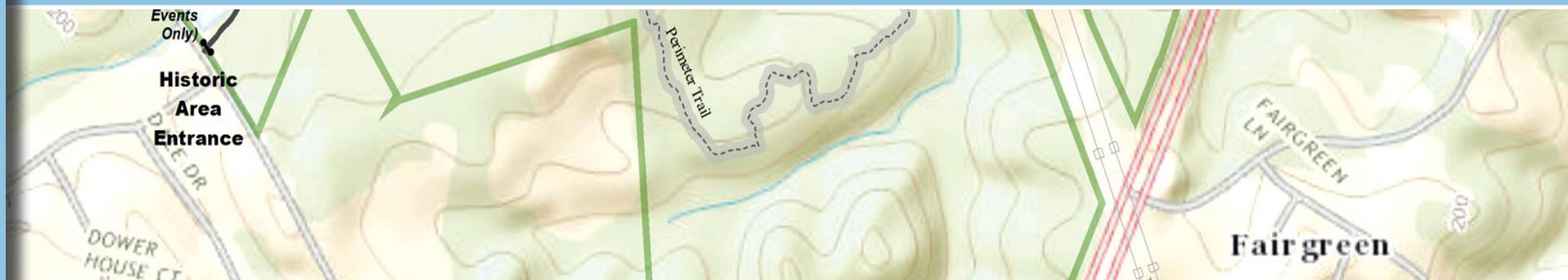
The Maryland Park Service teamed with the Maryland Energy Administration in 2012-2013 to leverage \$232,000 in grants for **EFFICIENCY UPGRADES** to outdated air conditioners and other appliances. Park personnel replaced more than 2,000 fluorescent lights with high efficiency lighting — improvements contributing to the Service's energy reduction goals and providing a showcase for 11 million visitors annually.



7 ENHANCING VISITOR SERVICES



State Park and other natural resource visitors now have more options to access **TRAIL GUIDES**. Beginning in 2013, trail guides can be viewed online, printed from home or downloaded in digital format for free. This new format provides better options for trip planning and increased safety through accurate trail conditions.



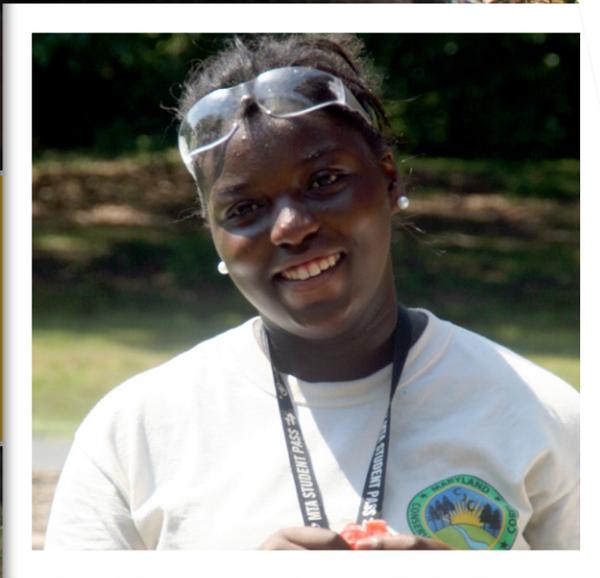
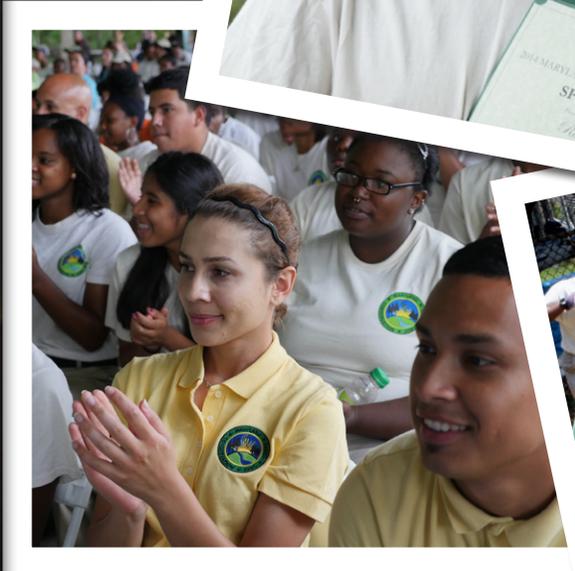
8 CONNECTING CHILDREN WITH NATURE

The **STREAM RESTORATION CHALLENGE**, a grant program aimed at engaging middle and high school students in service learning and environmental literacy activities by establishing forested stream buffers, was created in August 2012. Through 2013, working with local government representatives, watershed organizations and DNR Foresters, 2,788 students planted 45,688 trees. The projects offered more than 7,500 service learning hours and engaged students in a myriad of outdoor activities, including riparian forest hikes, invasive species removal, macro-invertebrate sampling and tree species identification.



Introduced in 2013, **EXPLORE & RESTORE YOUR SCHOOLSHED** has more than 100 schools participating across the State, and more schools are encouraged to join. Teachers use local streams and creeks as outdoor classrooms, and connect hands-on learning to disciplines beyond science, such as language arts or social studies. Students learn about water quality and the importance of healthy streams, as well as the ways their own actions can improve their local environment.

9 CONNECTING CHILDREN WITH NATURE



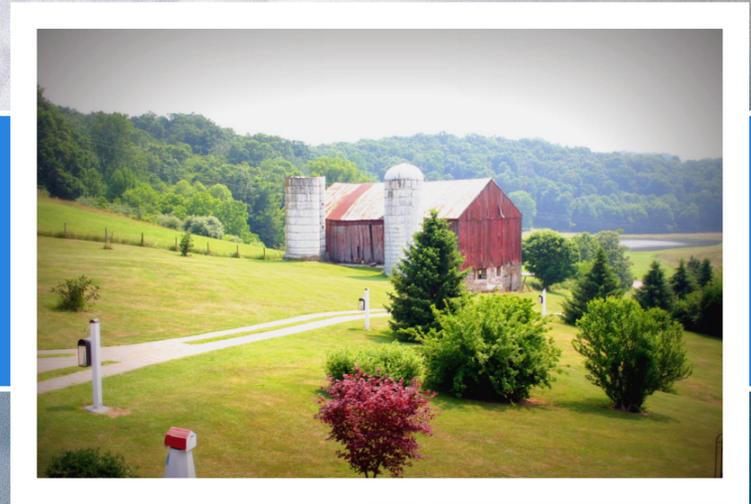
In 2012 and 2013, 544 young people graduated from the **CONSERVATION JOBS CORPS**. During the five-week summer program, young people worked in State Parks, completing natural resource and restoration projects, learning job and team-building skills, while connecting with their natural world. Mentored by the Maryland Conservation Corps members, these students learn important life skills and an appreciation for the natural world, to create the next generation of stewards.



10 PRESERVING OUR LANDSCAPE

In 2012 and 2013, DNR **PERMANENTLY PROTECTED 18,535 ACRES** of Maryland's landscape, through Program Open Space, the Rural Legacy Program, and the Conservation Reserve Enhancement Program, exceeding the BayStat goal by more than 7,000 acres.

DNR acquired a **CONSERVATION EASEMENT** on a 200-acre farm to support the First Community Connection project. The land will include an agricultural demonstration area for the public and school systems, vegetable plots for underserved community groups, community-supported agriculture, and 32 acres of field restored to forest in order to enhance existing forest interior-dwelling habitat and climate change resilience.



11 PROTECTING OUR TREE COVER

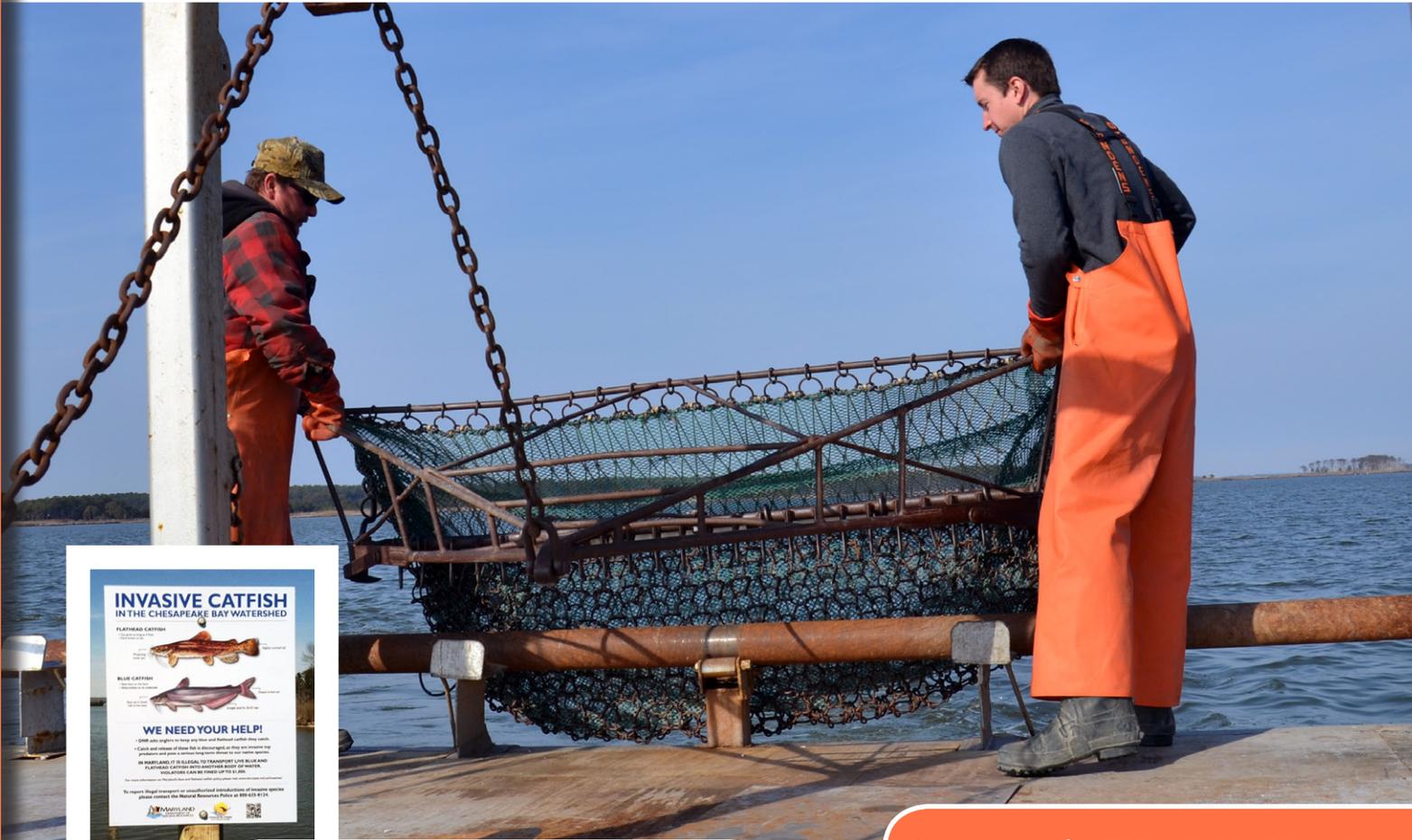


Signed in 2013, **MARYLAND'S FOREST PRESERVATION ACT OF 2013** requires the State to maintain or grow its current tree canopy of 40 percent, and provide tools and tax incentives to citizens and local governments working to increase tree cover. This first-of-its-kind legislation is part of a statewide effort to reduce greenhouse gas pollution, prevent further climate change and improve water quality in the Chesapeake Bay.

12 MANAGING OUR FISHERIES



In 2012, the Atlantic States Marine Fisheries Commission adopted a new management plan that reduces the **COAST-WIDE HARVEST OF MENHADEN** by 20 percent from recent levels. In 2013, Maryland and all states along the Atlantic Seaboard worked to implement new management for commercial menhaden fisheries to safeguard populations.



**INVASIVE CATFISH
IN THE CHESAPEAKE BAY WATERSHED**

FLATHEAD CATFISH
Micropterus dolomieu

BLUE CATFISH
Micropterus salmoides

WE NEED YOUR HELP!

- Don't buy or bring any live and Redhead catfish they catch.
- Catch and release all these fish immediately to help you reduce the problem and protect watersheds from them in our state waters.
- All Marylanders 17 or older are required to have a blue crab flathead catfish identification body or mark.
- Identification can be found at www.dnr.state.md.us.

For more information on Flathead and Blue Catfish, please contact the Natural Resources Police at 800-422-8124.

Since launching a marketing program for **INVASIVE SPECIES**, more than 500,000 pounds of blue catfish and 8,000 pounds of Northern snakehead have been sold by local wholesalers as of November 2013.

Since 2012, the **TRUE BLUE PROGRAM** has certified more than 100 restaurants, retail stores, caterers and other food service businesses that use Maryland crabmeat, which supports local economies and waterman.



13 REBUILDING OUR OYSTER POPULATION



The State of Maryland and its partners reached a milestone in 2013, celebrating progress in every area of Governor Martin O'Malley's **10-POINT RESTORATION AND AQUACULTURE DEVELOPMENT PLAN**, which was adopted in 2010. Highlights include expansion of the oyster sanctuary program, the beginning of large-scale habitat rehabilitation in Harris Creek, increased citizen involvement in oyster growing, issuance of 85 new job-creating aquaculture leases, production and planting of a record 1.25 billion oysters, integration of inmate labor in restoration efforts, enhanced law enforcement, and increased focus on managing for a sustainable and disease-resistant wild oyster fishery over the long term.



14 ASSESSING OUR RESOURCES

DNR collected data on an extensive list of water quality parameters, the health of biological communities and physical habitat from more than 100 streams in Western Maryland, specifically Garrett and Allegany counties. These activities led to implementation of a robust baseline monitoring program for use in the study of **MARCELLUS SHALE** natural gas development.



An independent review of the proposed 1,600 Megawatt expansion and 20-year license extension of the **CALVERT CLIFFS INDEPENDENT NUCLEAR FUEL STORAGE** installation was completed. Reviews of the 200 MW expansion of Peach Bottom nuclear facility continue. DNR's Power Plant Research Program operates as the State lead in responding to these and other nuclear issues.

The Maryland Geological Survey responded to the needs of the citizens in Garrett County with a thorough investigation of sediment in **DEEP CREEK LAKE**. Scientists collected data, including chemical analysis, sonar imagery and sediment accretion to develop management approaches to mitigate and minimize inflow to the lake.



15 MANAGING OUR WILDLIFE & HERITAGE



Hunters fared well during the 2013 **FALL DEER SEASONS** with a total harvest of more than 95,000 sika and white-tails, and the largest archery season harvest ever reported. The Wildlife & Heritage Service continues to search for innovative and effective ways to balance deer population levels across most of the State. The current approach — a rigorous antlerless harvest — allows the Department to continue to reduce the herd in an effort to balance densities with cultural and ecological



Two **NEW WILDLIFE MANAGEMENT AREAS** were acquired in 2013. The former Teter property, now part of the Warrior Mountain Wildlife Management Area, adds grassland and upland habitat in Allegany County. In Garrett County, the former Cassleman Coal Basin property is now the Cunningham Swamp Wildlife Management Area affording protection of sensitive species and habitats associated with the swamp. Together, the properties add 411 acres to the State's Western Region lands, giving DNR greater opportunities for habitat management and hunting for Maryland residents and visitors.



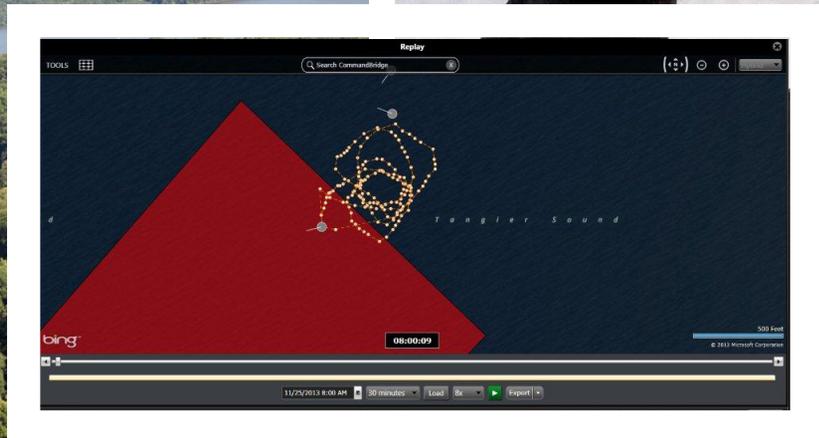
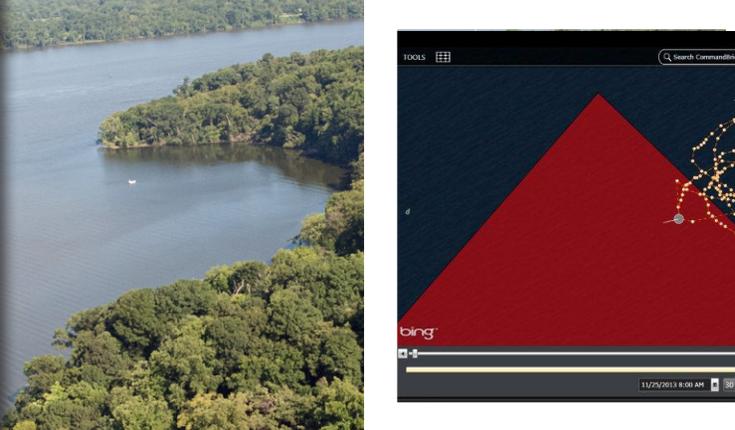
16 BATTLING INVASIVE PLANTS



In 2013, 964 acres of **PHRAGMITES** were treated on public and private land. More than 400 private landowners benefited from a cost share program designed to address this invasive wetland plant.

ENHANCING LAW ENFORCEMENT

The **MARITIME LAW ENFORCEMENT INFORMATION NETWORK** was launched in 2013. Its roots deep in homeland security, the network of radar units and cameras provide an extra set of eyes on the Chesapeake Bay. It gives patrol officers and the communications center a means to track and intercept vessels while providing a detailed digital record of maritime activity.



Of Maryland's 24 jurisdictions, 18 now have monthly **DESIGNATED DISTRICT COURT DOCKETS** to specifically address natural resources issues: fishing, hunting, boating and tree expert violations. The program is a collaborative effort of Natural Resources Police, the Office of the Attorney General and District Court Chief Judge Ben Clyburn.

18 SERVING OUR BOATERS

Between 2012 and 2013, DNR certified a dozen new **CLEAN MARINAS**, bringing the total to 152 across the State. To earn the award, the marinas must have all applicable permits and plans, and adopt a significant portion of recommendations from the Maryland Clean Marina Guidebook, which helps reduce non-point source runoff from routine activities. Each Clean Marina is a testament to the public-private partnership between DNR and the marine trades community.



Boating Services made a successful application for more than \$757,000 in funding from the U.S. Fish and Wildlife Service. **THE CLEAN VESSEL ACT** grant is used to install marine sewage pumpouts at Maryland marinas. Maryland is one of only four states to provide marinas with 100 percent grants for purchase and installation of pumpouts. An estimated 2 million gallons of vessel sewage is removed by pumpout stations statewide.



**KEEP OUR WATER CLEAN -
USE PUMPOUTS**

19 IMPROVING OUR FACILITIES



Over 2012-2013, DNR contributed more than \$1 million in **WATERWAY IMPROVEMENT FUNDS** to enhance facilities, equipment and boater access across the State. DNR's Boating Services dredged at Rock Hall in Kent County and Severn River & Saltworks Creek in Anne Arundel County to ensure the areas were accessible to boaters. Further enhancing boater access, the team renovated boat access facilities and added ADA-accessible features at Oak Creek Landing in Talbot County and West Ocean City Harbor in Worcester County. DNR procured two new vessels, the MV Gaudette and an aluminum fire/rescue boat to assist with public safety efforts by the Natural Resources Police and the Ocean City Fire Department.



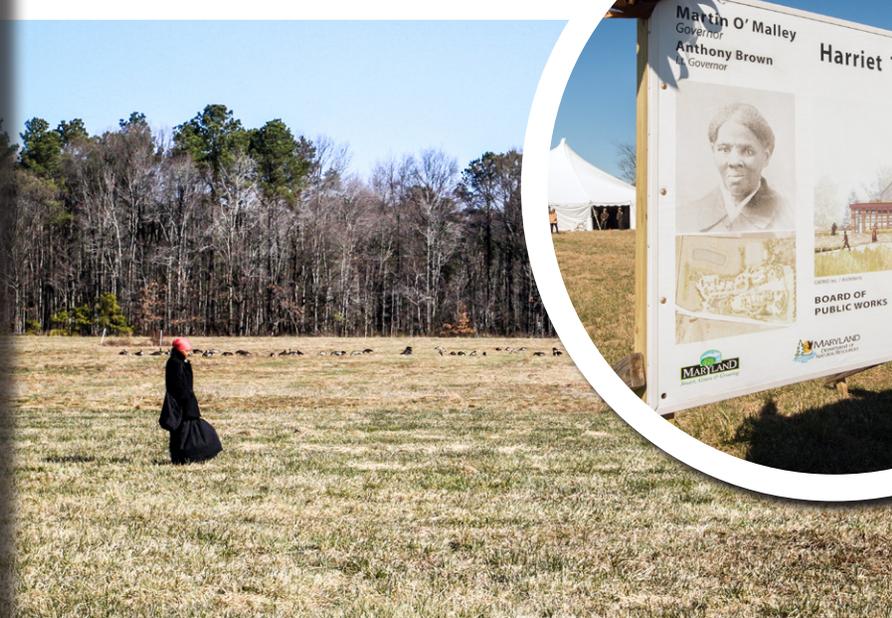
To further **PROTECT CITIZENS AND PROPERTY FROM THE IMPACTS OF CLIMATE CHANGE**, in 2013 Maryland issued new guidelines for State construction intended to guide what, where and how the State builds in areas vulnerable to coastal flooding and future sea level rise — including specific siting and design guidelines for State construction projects.



Also in 2013, Maryland released the **COASTSMART COMMUNITIES SCORECARD** to prompt discussion on risk, planning, response strategies and opportunities among local officials. The Scorecard directs officials to recommendations, tools and resources, that can help inform future project proposals to CoastSmart Communities Grants and other funding programs.



DNR also has adopted new land conservation strategies to address the impacts of climate change and increase the resilience of vulnerable coastal habitats. In 2013, the Board of Public Works approved DNR's first Coastal Resilience Easement to protect 221 +/- acres in Dorchester County along the **HARRIET TUBMAN UNDERGROUND RAILROAD NATIONAL HISTORICAL PARK AND SCENIC BI-WAY**. The easement will protect current ecological values and services while reducing vulnerability and ensuring the resiliency of these important coastal habitats.



21 RESEARCHING ALTERNATIVE ENERGY



From 2011 to 2013, DNR'S Chesapeake & Coastal Service worked with partners to advance the siting and leasing process, prepare and compile comments about potential environmental impacts, and advance State legislation supporting offshore wind development. **THE MARYLAND OFFSHORE WIND ENERGY ACT OF 2013**, created a mechanism to incentivize development of up to 500 megawatts of offshore wind capacity, at least 10 nautical miles off the coast.

22 BUDGET

	(\$ IN MILLIONS)	FY'12 ACTUAL	FY'13 ACTUAL
APPROPRIATIONS			
GENERAL FUNDS		44.6	48.2
SPECIAL FUNDS		111.2	110.6
FEDERAL FUNDS		29.3	26.1
REIMBURSABLE FUNDS		12.2	19.2
TOTAL		197.3	204.1
UNITS			
BOATING SERVICES		6.3	8.6
CAPITAL GRANTS & LOAN ADMINISTRATION		3.3	11.9
CHESAPEAKE BAY & CRITICAL AREA COMMISSION		1.8	1.9
CHESAPEAKE & COASTAL SERVICE		21.6	21.8
ENGINEERING & CONSTRUCTION		4.6	4.1
FISHERIES SERVICE		25.3	21.4
LAND ACQUISITION & PLANNING		3.9	4.8
LICENSING & REGISTRATION SERVICE		3.2	3.0
MARYLAND ENVIRONMENTAL TRUST		0.8	0.8
MARYLAND FOREST SERVICE		10.7	11.7
MARYLAND NATURAL RESOURCES POLICE		39.2	39.2
MARYLAND PARK SERVICE		36.0	34.3
OFFICE OF THE SECRETARY, ET AL		13.4	14.1
PUBLIC LANDS, POLICY & PLANNING		N/A	N/A
RESOURCE ASSESSMENT SERVICE		17.8	17.1
WATERSHED SERVICES		N/A	N/A
WILDLIFE & HERITAGE SERVICE		9.4	9.4
TOTAL		197.3	204.1
POSITIONS			
AUTHORIZED		1279.0	1293.5
CONTRACTUAL		365.6	487.8
TOTAL		1644.9	1781.31

