

# DELAWARE, MARYLAND & WEST VIRGINIA

great lakes/atlantic region • 2016 state conservation report

## DU ENHANCED HABITAT, WATER QUALITY IN MARYLAND'S CHOPTANK WATERSHED IN 2015

*DU's* Choptank Watershed Wetland Restoration Program, which improves habitat and water quality on private land, made great progress in 2015. This program restores more natural hydrology to privately owned land which was formerly used for agriculture near Choptank Watershed.

DU in 2015 completed five projects totaling 38 acres of wetland and adjacent habitat. One of those projects was on Hank Warner's property in Dorchester County. DU toured Warner's property, discussed goals for the site, and then restored seven acres of wetland impoundment areas.

"I'm a big duck hunter and a big conservationist, and this was a great experience," Warner said. "DU was very accommodating. They know what they're doing and they work with the private landowner to give them an attractive and functional project that will accomplish what is needed."

The Choptank Program is supported by Maryland Department of Natural Resources' Chesapeake and Atlantic Coastal Bays Trust Fund. These types of restorations are proven best management practices in the Choptank watershed.

For local landowners and hunters, a cleaner Choptank River is crucial. It is the collection point for water runoff from a 1,000 square mile area. DU's restored wetlands not only act as immediate habitat for wildlife but serve as buffers removing nutrients, sediments and toxins from water before it enters the river, improving its overall health.

For more information on the Choptank program, visit [www.ducks.org/maryland](http://www.ducks.org/maryland).

## DELAWARE'S MOST PRODUCTIVE WATERFOWL VENUE GETTING REFURBISHED

*DU* in 2016 will work with the Delaware Department of Natural Resources and Environmental Control to enhance a 375-acre impoundment at the Ted Harvey Conservation Area. While large numbers of waterfowl and other migratory birds use the impoundment, significant opportunities exist to enhance its habitat quality. Dikes and water control structures have become non-functional, nearly eliminating management capabilities.

The project will replace water control structures, restore a portion of dike and raise the elevation of an emergency spillway. This project will extend the lifespan of this important coastal impoundment, a habitat feature at risk of being lost along the East Coast as a result of global climate change.

This project is part of a \$1 million North American Wetland Conservation Act grant received in 2014 and is a partnership between DU and Delaware Division of Fish and Wildlife.



## MARYLAND'S DEAL ISLAND PROJECT HAS RESTORED VITAL VEGETATION

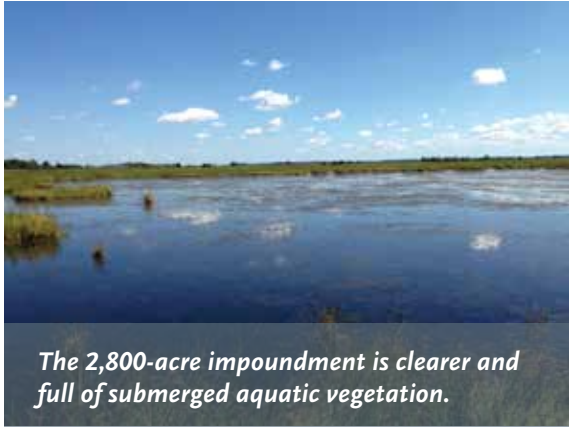
*S*ubmerged aquatic vegetation plays a crucial role in the health of a water system. The vegetation is a primary food source for ducks, provides oxygen to the water, improves water clarity and provides shelter for fish.

That's why DU in 2013 partnered with the Maryland Department of Natural Resources, Maryland Waterfowler's Association and the Chesapeake Bay National Estuarine Research Reserve to enhance a 2,800-acre impoundment on Deal Island Wildlife Management Area in Somerset County.

The brackish impoundment requires a specific mixture of brackish and freshwater to reach salt levels ideal to grow submerged aquatic vegetation.

DU assisted partners in installing four extra water control structures that allow Deal Island managers to better control water and salinity levels throughout the impoundment.

The DNR has since observed more consistent water levels, stabilized salinities and a significant resurgence of vegetation and, in turn, duck use.



*The 2,800-acre impoundment is clearer and full of submerged aquatic vegetation.*



*A close view of the important vegetation.*

*B*ombay Hook National Wildlife Refuge in central Delaware is a critical stopover for waterfowl in the Atlantic migratory flyway.

The refuge was created nearly 80 years ago in Kent County, along the western shore of the Delaware Bay. Bombay is one of several refuges between Canada and the Gulf of Mexico which serve as a migratory waterfowl sanctuary.

Ducks Unlimited and the U.S. Fish and Wildlife Service are partnering to enhance more than 500 acres of emergent wetland by replacing flap gates on at least three water control structures. The new gates will allow refuge staff to exclude tidal saltwater from three freshwater impoundments managed to benefit migratory birds. The project will also allow for more effective water draw downs, enhancing habitat quality.

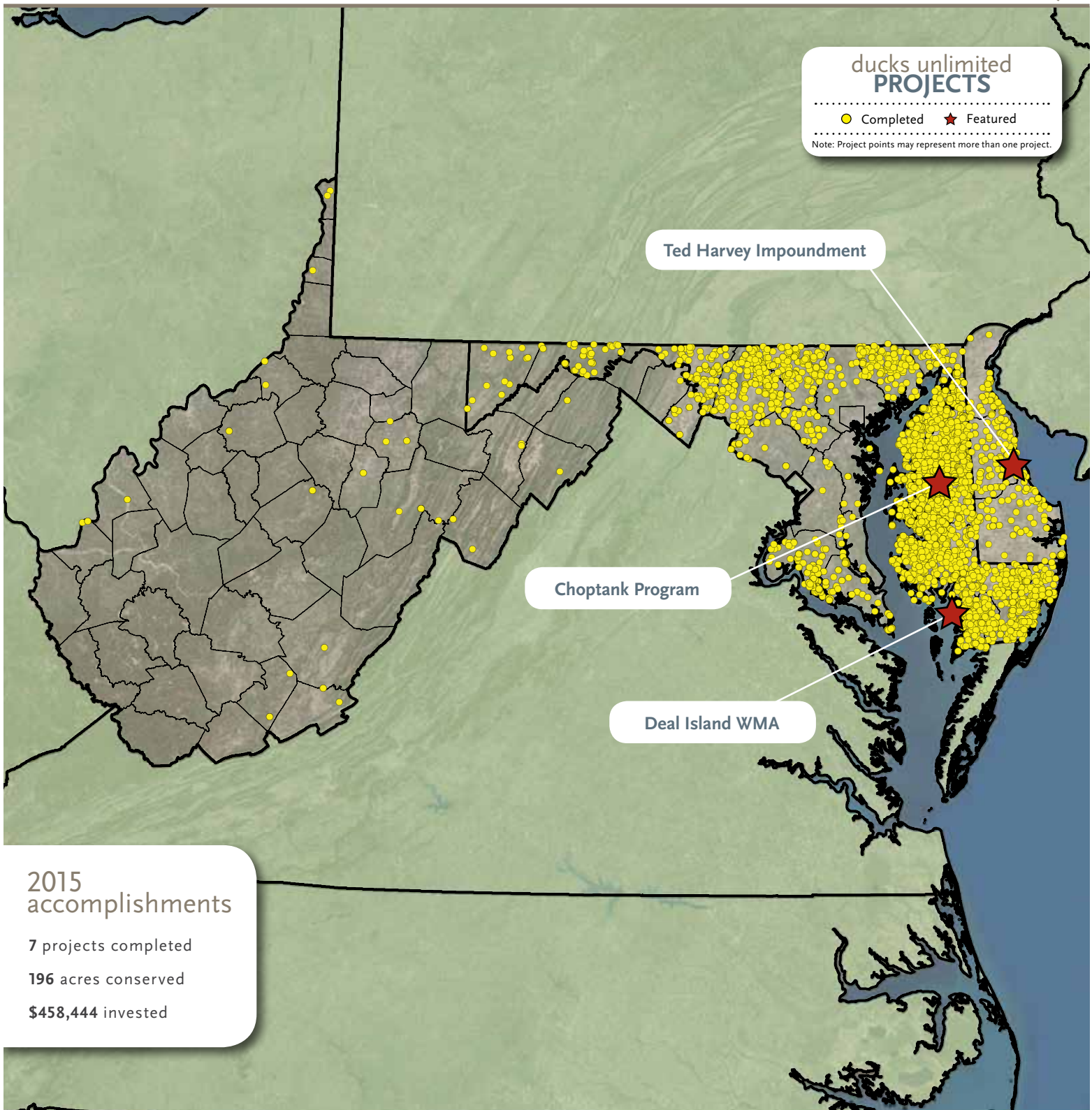
The investment will help waterfowlers and birders. Bombay Hook is known among birders as an international hot spot and is recognized as one of America's 100 Important Bird Areas by the American Bird Conservancy.

The project will be funded by a \$1 million North American Wetland Conservation Act grant awarded to DU in 2014. It is a partnership with the U.S. Fish and Wildlife Service.

## DU TO ENHANCE DELAWARE'S BOMBAY HOOK NATIONAL WILDLIFE REFUGE



*DU and USFWS staff survey water depths in an outflow channel at Bombay Hook. Improved flow will be created on this channel as part of DU's enhancement work.*



**2015 accomplishments**

7 projects completed  
 196 acres conserved  
 \$458,444 invested

**MEET YOUR NORTH ATLANTIC CONSERVATION STAFF**



*J*ake McPherson is responsible for delivering DU’s habitat conservation programs in Maryland, Delaware and West Virginia. He’s worked for Ducks Unlimited since 2011. Jake’s previous work in academia focused primarily on assisting research on the breeding and nesting ecology of Atlantic Flyway wood ducks. Jake has a bachelor’s degree in wildlife science from Virginia Tech and is pursuing a master’s degree in wildlife ecology at the University of Delaware. Jake lives in Chester, Maryland.

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## DU CONTINUES ENERGIZING STUDY ON BLACK DUCKS

*N*ext time you see a duck fly overhead, consider this: how much energy does it need to swim, dive, fly and eat?

When your job is to restore and protect habitat which provides food for migrating waterfowl, that information is pretty important. It's what DU Biologist Jake McPherson is studying now in Maryland as part of DU's science-based conservation efforts.

Maryland, Delaware and West Virginia are in DU's Completing the Cycle Initiative. This effort ensures enough healthy habitat exists to help migrating waterfowl along the Atlantic Flyway. Determining what makes habitat "healthy" is the job of DU's science and research.

However, McPherson said figuring out a duck's energy demand is a complex challenge. Researchers need to know a bird's resting metabolic rate and the energy associated with each activity a bird may engage in on a given day.

DU partnered with the University of Delaware and U.S. Geological Survey's Patuxent Wildlife Research Center to investigate these questions. Using state-of-the-art equipment to measure oxygen consumption, researchers will isolate specific behaviors and their energy demands in captive American black ducks and lesser scaup.



"The results of this study will guide DU's efforts to conserve important habitats across key migration and wintering areas in the Completing the Cycle Initiative area," McPherson said.

Additional support for this project is being provided by the Black Duck Joint Venture, Upper Mississippi River and Great Lakes Region Joint Venture, and Waterfowl Research Foundation.

## A MESSAGE FROM THE DIRECTOR

Delaware, Maryland and West Virginia are part of Ducks Unlimited's 21-state Great Lakes/Atlantic Region, a diverse landscape of habitats ranging from Prairie Potholes in the Midwest to coastal estuaries in the Atlantic Flyway.

Waterfowl know no boundaries. Because of that, conservation work done in these states in 2015 was a pivotal part of the overall wetland management strategy DU has established based on conservation science.

Ducks Unlimited had a record year of support and acres conserved. Here in the Great Lakes/Atlantic Region, DU in 2015 used private donations and public funds to invest \$27,193,473 in conservation projects. That strong support enabled our biologists and engineers to deliver focused, effective habitat conservation on 12,686 acres of wetlands.

The work contained in this report reflects Ducks Unlimited's commitment to Delaware, Maryland and West Virginia. We appreciate your support and are eager to build on this success in 2016.



David Brakhage  
GLARO Director of Operations

**Ducks Unlimited conserves, restores and manages wetlands and associated habitats for North America's waterfowl. These habitats also benefit other wildlife and people.**



**GREAT LAKES / ATLANTIC REGION**

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