



## **2011 PHRAGMITES CONTROL PROGRAM LEGISLATIVE REPORT**

Submitted by:

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## **Executive Summary**

The Maryland Department of Agriculture (MDA), U.S. Fish and Wildlife Service (USFWS), several private commercial applicators, Chesapeake Wildlife Heritage (CWH), the Natural Resources Conservation Service (NRCS) and the Maryland Department of Natural Resources (DNR) combined efforts to treat 653 acres of phragmites for 346 private landowners in the DNR Phragmites Cost Share Program area in 2011.

In addition to that total, 29 acres were treated in Maryland counties not offering the cost share program and 530 acres were treated on DNR Wildlife Management Areas. Since they are not part of the cost share program, these additional 559 acres are not included in the totals noted below.

## **MDE/DNR Private Land Cost Share Program:**

Again in 2011, DNR offered cost share opportunities to private landowners in Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester counties.

With technical support from MDA, USFWS, NRCS and CWH, approximately 653 acres of phragmites were treated on 346 sites belonging to private landowners in the DNR Phragmites Cost Share Program counties.

In 2004, NRCS offered financial assistance for the first time in Maryland to private landowners wishing to control phragmites. The Federal Wildlife Habitat Incentive Program (WHIP) offered interested landowners reimbursement for 75% of the costs incurred to control the invasive plant. Participating landowners were required to enter into a three-year contract with the NRCS. As an added incentive, DNR offered the herbicide for the control of phragmites to the landowners under contract with NRCS as part of DNR's ongoing Phragmites Control Cost Share Program.

Prior to 2002, private land spraying was limited to landowners wishing to control phragmites stands totaling three acres or more where helicopter application was feasible. A lack of truck-mounted spray equipment precluded the treatment of small stands or stands in wooded areas. In 2002, a partnership was formed between DNR's Wildlife and Heritage Service, MDA's Weed Management Division and CWH enabling control efforts to be offered to all landowners, large or small. Weed Management Division personnel in all nine counties in the Phragmites Control Cost Share Program offered their time and expertise at \$100.00/hour while the herbicide was provided by DNR as the State contribution towards the control efforts.

A news release was sent to the media in early July 2011 describing the details of the Phragmites Control Cost Share Program and the counties where the program was available (Attachment B). Over 400 landowners and individuals requesting information about phragmites control contacted DNR by November 2011. A total of 346 individuals participated in helicopter and truck-based control efforts on 653 acres at a cost to the

DNR of \$9,232.24 for an average cost of \$14.14/acre (Tables 1 & 2). As a result of the cost share program and the ability to lump acreages statewide, landowners saved about \$60.00/acre for helicopter applications and \$200.00/acre for truck applications.

**TABLE 1. Private Land Cost Share Program – Aerial Applications**

<b>County</b>	<b>No. Landowners</b>	<b>Acres Treated</b>
Caroline	1	15
Cecil	0	0
Dorchester	6	78
Kent	2	25
Queen Anne's	13	192
Somerset	0	0
Talbot	3	11
Wicomico	8	85
Worcester	3	15
<b>TOTALS</b>	<b>36</b>	<b>421</b>

**Associated Costs for Aerial Application:**

**Landowners:** \$23,576.00                      **Landowner Average Cost/Acre:** \$56.00

**DNR Cost Share\*:** \$3,738.48 (herbicide)    **DNR Average Cost/Acre:** \$8.88

\*Costs do not reflect staff salaries and miscellaneous expenses needed to complete the work.

**TABLE 2. MDA/DNR/CWH/ Cooperative Program – Truck-Based Applications**

<b>County</b>	<b>No. Landowners</b>	<b>Acres Treated</b>
Caroline	1	2
Cecil	3	3
Dorchester	75	51
Kent	24	26
Queen Anne's	93	57
Somerset	31	6
Talbot	80	85
Wicomico	0	0
Worcester	3	2
<b>TOTALS</b>	<b>310</b>	<b>232</b>

**Associated Costs for Truck-Based Application:**

**Landowner Average Cost/Acre:** \$100.00 (MDA/CWH fee)

**DNR Cost Share\*:** \$5,493.76                      **DNR Average Cost/Acre:** \$23.68

\*Costs do not reflect staff salaries and miscellaneous expenses needed to complete the work.

**DNR Technical Assistance:**

Although DNR administered the Phragmites Control Cost Share Program in all Eastern Shore counties, there were numerous requests for assistance from other counties.

Approximately 78 requests for assistance in the control of phragmites were received from Anne Arundel, Baltimore, Calvert, Garrett, Harford, Howard, Montgomery and St. Mary's counties collectively. DNR served as a clearinghouse for landowners and offered assistance with the permitting procedures, locating helicopter applicators or finding other professional applicators. In many cases, MDA's Weed Management Division personnel assisted landowners regardless of any state cost share assistance.

**Goals for 2012:**

DNR's Wildlife and Heritage Service plans to remain committed to those individuals desiring to control phragmites. However, the Department is encouraging interested landowners to apply for the federally-funded Wildlife Habitat Incentive Program (WHIP) offered by NRCS as it provides the greatest cost share opportunities to the private landowner.

**Acknowledgments:**

DNR would like to acknowledge the invaluable contributions to this program by staff with the Maryland Department of Agriculture, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service and Chesapeake Wildlife Heritage, a non-profit conservation organization and private commercial applicators.

## **Attachment A - Phragmites Biology**

Phragmites, or common reed, is a large perennial rhizomatous grass. It typically grows in marshes and swamps and is found along streams, lakes, ponds, ditches and other wetlands. Although there is some scientific evidence that *Phragmites australis* is endemic to the northeastern United States, there is also evidence that exotic and invasive genotypes have been introduced as well. Phragmites is very difficult to eradicate because it spreads through stoloniferous rhizomes that may reach 10 meters or more in length. Rhizomes can extend almost two meters below the soil surface to reach groundwater. This species can colonize almost any wet soil type, but grows best in firm mineral clays. Phragmites can tolerate moderate salinity and thrives where water levels fluctuate from 15 centimeters below the soil surface to 15 centimeters above. Killing frosts may knock the plants back temporarily but can also increase stand densities by stimulating bud development. Phragmites seeds are shed from November through January and are dispersed by the wind.

Phragmites can survive, and in fact thrive, in stagnant waters where the sediments are poorly aerated. Air spaces in the above-ground stems and rhizomes assure the underground parts of the plant have a relatively fresh supply of air. This characteristic and the species' salinity tolerance allow it to grow where few other plants can survive. The accumulation of dead plant litter within a stand acts to prevent or discourage other species from germinating and becoming established. The rhizomes and roots often form dense mats that further discourage competitors. These characteristics are what enable phragmites to spread, push other species out and form monotypic stands.

Phragmites provides little habitat value for wildlife. Occasionally, songbirds will roost in phragmites stands and muskrats will feed on the rhizomes when more favorable plants are not available. The reduction of large phragmites stands will increase plant diversity and encourage use by many species of wildlife.

Not all phragmites stands are invasive or pose a threat to the diversity of native habitats and rare species. Young stands of phragmites may or may not become problematic to the surrounding wetlands. Phragmites should only be controlled where it appears to be spreading and out-competing native wetlands plants or altering habitat for native species. While the total eradication of phragmites is often expressed as an ultimate goal, it should be noted that it has, in one form or another, been here for thousands of years and may occupy an important niche in our native wetland habitats. It is important for the Phragmites Cost Share Program to continue to prioritize its goals to target limited resources to areas with the greatest danger of losing important plant diversity.

## **Attachment B – Press Release**

### **MARYLAND DEPARTMENT OF NATURAL RESOURCES OFFERS COST SHARE OPPORTUNITIES FOR PHRAGMITES CONTROL**

In partnership with Maryland Department of Agriculture's Weed Management Division, the Department of Natural Resources' Wildlife and Heritage Service will offer both financial and technical assistance towards the control of phragmites on private lands this fall. Requests for financial assistance in the control of phragmites must be made by landowners to the Department of Natural Resources' Wildlife and Heritage Service by August 16, 2011.

Also known as "common reed", phragmites is an invasive wetland plant species that spreads rapidly by rhizomes and seed in both tidal and non-tidal wetlands. Phragmites out-competes valuable wetland plants that provide both winter food and cover for a variety of wetland dependent wildlife species. While scientific debate continues over the native origin of this plant, it is generally considered to be exotic to the Chesapeake Bay.

The 2011 Phragmites Control Cost Share Program will be offered to landowners in Dorchester, Worcester, Caroline, Somerset, Wicomico, Talbot, Kent, Queen Anne and Cecil counties. Priority will be given to individuals who own properties containing stands of phragmites that significantly threaten the preservation of valuable wildlife habitats.

**Interested landowners should contact Donald Webster (Waterfowl Habitat Manager) at (410) 221-8838 ext.103 to determine eligibility for the Program. Applicants interested in spraying in wetlands to control phragmites are responsible for obtaining necessary permits before spraying activities begin. Applications are available upon request.**