



2010 PHRAGMITES CONTROL PROGRAM LEGISLATIVE REPORT

Submitted by:

Maryland Department of Natural Resources
Wildlife and Heritage Service
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Executive Summary

The Maryland Department of the Environment (MDE), Maryland Department of Agriculture (MDA), U.S. Fish and Wildlife Service (USFWS), Natural Resource Conservation Service (NRCS), Chesapeake Wildlife Heritage (CWH) and Maryland Department of Natural Resources (DNR) combined efforts to treat 833 acres of phragmites for 316 private landowners in the MDE/DNR Cost Share Program area in 2010.

In addition to that total, 27 acres were treated in Maryland counties not offering the cost share program and 585 acres were treated on DNR Wildlife Management Areas. Since they are not part of the cost share program, these additional 612 acres are not included in the totals noted below.

The Maryland Department of the Environment was able to continue to provide the amount of chemical needed to complete this year's project.

MDE/DNR Private Land Cost Share Program

In 2010, DNR offered cost share opportunities to private landowners in Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester counties.

With financial support from MDE and technical support from MDA, USFWS, NRCS and CWH, approximately 833 acres of phragmites were treated on 316 sites belonging to private landowners in the MDE/DNR 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 area 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 2010, 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 2010. A total of 316 individuals participated in helicopter and truck-based control efforts on 833 acres at a cost to the Maryland Department of the Environment of \$20,000 for an average cost of \$24.00/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

County	No. Landowners	Acres Treated
Caroline	0	0
Cecil	0	0
Dorchester	9	148
Kent	12	96
Queen Anne's	16	172
Somerset	2	8
Talbot	10	68
Wicomico	8	143
Worcester	6	44
TOTALS	63	679

Associated Costs for Aerial Application:

Landowners: \$35,308

Landowner Average Cost/Acre: \$52.00

MDE Cost Share*: \$6,111 (herbicide)

MDE Average Cost/Acre: \$9.00

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

TABLE 2. MDA/DNR/CWH Cooperative Control Program – Truck Applications

County	No. Landowners	Acres Treated
Caroline	15	16
Cecil	0	0
Dorchester	67	21
Kent	38	24
Queen Anne's	71	35
Somerset	5	3
Talbot	34	29
Wicomico	0	0
Worcester	23	26
TOTALS	253	154

Associated Costs for Truck-Based Application:

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

MDE/DNR Cost Share: \$3,696.00 **MDE/DNR Average Cost/Acre:** \$24.00

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 54 requests for assistance in the control of phragmites were received from Baltimore City, St. Mary's, Anne Arundel, Baltimore, Calvert, Harford, Howard and Prince George'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 Control personnel assisted landowners regardless of any state cost share assistance.

Goals for 2011

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. Also, this coming year, the Maryland Department of Environment will be requiring permits for aquatic applications of approved herbicides in the Chesapeake Bay Watershed of more than 20 total acres (see Attachment C). This new requirement may impact phragmites control due to the association with aquatic sites. DNR and MDE will need to continue our partnership to find ways to comply with the new regulations while continuing to provide outstanding service to shoreline owners.

Acknowledgments

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

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, 2010.

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 2010 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.

Attachment C – MDE Permit Announcement

MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NOTICE OF TENTATIVE DETERMINATION

General Permit for Discharges from the Application of Pesticides

The Department is proposing to issue **General Discharge Permit No. 11PE (federal NPDES Permit No. MDG87)** for discharges to waters of the State from the application of (1) biological pesticides or (2) chemical pesticides that leave a residue (hereinafter collectively "pesticides"), when the pesticide application is for one of the following pesticide use patterns: mosquito and other flying insect pest control; aquatic weed and algae control; aquatic nuisance animal control; and forest canopy pest control. This general permit is for operators that apply pesticides in or near water. The permit regulates discharges from pesticides applied directly to surface waters to control pests, or applied to control pests that are present in or over, including near, surface waters.

The permit establishes narrative technology-based limitations based on minimizing excess pesticides and implementing integrated pest management practices; establishes narrative water quality based limitations; establishes narrative monitoring requirements, including visual monitoring; and requires development of a pesticide management plan, if operating over a certain threshold. Operators are also required to comply with reporting and record keeping requirements beginning no later than three months after the permit effective date.

The general permit is needed to comply with court-ordered requirements for the federal Environmental Protection Agency (EPA) and states to issue national pollutant discharge elimination system (NPDES) permits for both chemical pesticide applications that leave a residue or excess in water and all biological pesticide applications that are made in or over, including near, waters of the United States. EPA has proposed a draft NPDES pesticides general permit to be issued by EPA in states and areas where EPA is the NPDES permitting authority and for use as guidance by Maryland and other states delegated by EPA to issue NPDES permits. Maryland's proposed permit closely follows EPA's proposed pesticide general permit. However, Maryland has made some adjustments to the EPA proposed general permit which allow for transition to the new requirements and provide clarifications for use of the permit in Maryland.

The Department will hold a public hearing concerning the tentative determination on February 8, 2011 at 11:00 a.m. in the Aeris Conference Room at MDE, 1800 Washington Blvd, Baltimore, MD 21230.

Any hearing impaired person may request an interpreter at the hearing by contacting Tyrone Hill, Office of Fair Practices at (410) 537-3964 at least ten working days prior to the scheduled hearing date. TTY users should contact the Maryland Relay Service at 1 800 201-7165.

The draft permit is available on MDE's website at www.mde.state.md.us under the "Notices and Alerts" section. Any questions regarding this tentative determination, including the draft permit and fact sheet should be directed to Edward Gertler at the Maryland Department of the Environment, Water Management Administration, at egertler@mde.state.md.us, by telephone at 410-537-3323 between the hours from 8:00 a.m. to 5:00 p.m., Monday through Friday. Copies of the document may be obtained at a cost of \$ 0.36 per page.

Written comments concerning the tentative determination will also be considered in the preparation of a final determination if received by Edward Gertler at the above address, on or before **Tuesday, February 15, 2011**.

Publication Date in Maryland Register: January 3, 2011