

# PHRAGMITES CONTROL CT

Wetlands Habitat and Mosquito Management (WHAMM) Program  
2014

# Phragmites Fire



# Phragmites Herbiciding

- ❑ Imazapyr herbicide can be used in July on green Phrag growth (winter mowing is suggested first)
- ❑ Glyphosate herbicide can be used after the seed head forms.
- ❑ Do not cut the Phragmites plant down before the spraying

# Phrag Herbicide Toxicological studies

- Glyphosate and Imazapyr bind up with soil particles where microorganisms break it down to carbon dioxide, nitrogen, phosphate and hydrogen in a matter of weeks.
- When used appropriately, it has been shown to be nontoxic to invertebrates, fish, birds and animals and it does not bioaccumulate.

# Phragmites Control

- ❑ 1st year: Mow Phragmites first in winter
- ❑ 2nd year: Herbicide Phragmites throughout the marsh to achieve 80-90% control depending on herbicide used
- ❑ 2nd year: Mow where needed
- ❑ 3rd year: Herbiciding and mow where needed
- ❑ 4th year and on: Very little maintenance needed

# Freshwater for spraying

## Drift control agents

- ❑ Can not use water from the river or pond because the sediment will bind up with the Herbicide and the herbicide inactive.
- ❑ Use a clean freshwater supply for mixing
- ❑ Use Modified Vegetable Oil with Imazapyr
- ❑ Use Penetrate Acidifier Deposition and Drift Control Agent with glyphosate

## Phragmites in CT is the non-native type associated with Europe

- A study by Saltonstall from Yale found Phragmites in CT to be related to the non-native type associated with Europe and Asia. PNAS, Feb 19, 2002, Vol. 99 No.4
- This Phragmites is the dominate “M” type and spreads by vegetative growth.
- Rapid expansion resulted from human activities causing habitat disturbances or stresses such as pollution.



Phragmites height can vary depending on salinity in the area. This was over 18 feet in height.





# Phragmites can spread by rhizomes and stems



# Young Phragmites found at Lake Terramuggus in Marlborough in sandy area





# Native Phragmites in CT

- Native Phragmites is in several locations on the CT River, on Selden Island



# Phragmites spraying by the WHAMM Program crew at Fenwick in Old Saybrook





## Phragmites spraying at CT Audubon Property in Ashford





# Marsh Master at Ross Marsh





# Phragmites hand wiping at National Audubon in Sharon





# Phragmites spraying by backpack





# Phragmites spraying by canoe at National Audubon in Sharon





# Phragmites spraying by boat at Joshua Creek in Lyme





## Mowing Phragmites with the WHAMM Program Marsh Master II (low ground pressure $>1.25$ psi amphibious machine).





# Mowing cutter head on WHAMM Program Pisten Bully 100 AS Flail Mower.





# Phragmites mowing using ARGO



# Hand cutting Phragmites



# Permits

- Aquatic Permit for Phragmites control is needed if the Phragmites is in standing water (like a pond).
- Check with DEEP Pesticide Division



# Control of Invasive *Phragmites australis* in the Saugatuck River Watershed



Connecticut Department of  
ENERGY &  
ENVIRONMENTAL  
PROTECTION



TODAY (2012)



**Habitat:**  
90% *Phragmites australis*  
10% Native plants

**WILDLIFE**



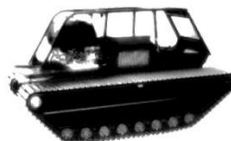
Muskrat



Deer



Red-winged Blackbird



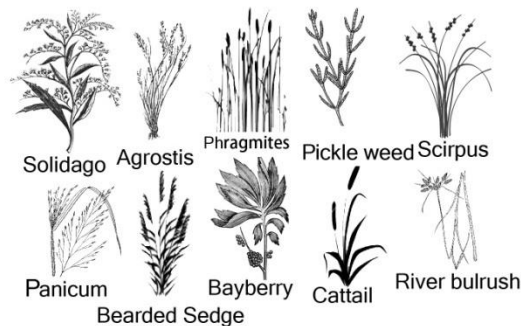
+



Low ground-pressure mowing and application  
of a short-life herbicide which is harmless  
to humans and wildlife is done by  
a licensed, DEEP-supervised  
contractor.

\*Mowing and spraying allows native  
plants seeds stored in the soil to  
thrive and create a healthy,  
diverse marsh  
environment.

TOMORROW (2013-2015)



**Habitat:**  
10% *Phragmites australis*  
90% Native plants

**WILDLIFE**



Willet



Woodcock



Seaside Sparrow



Muskrat



Egret



Rails



Saltmarsh Sparrow



Deer



Turtle



Turkey



Osprey



Heron



Red-winged Blackbird

















# CT River restoration site

