



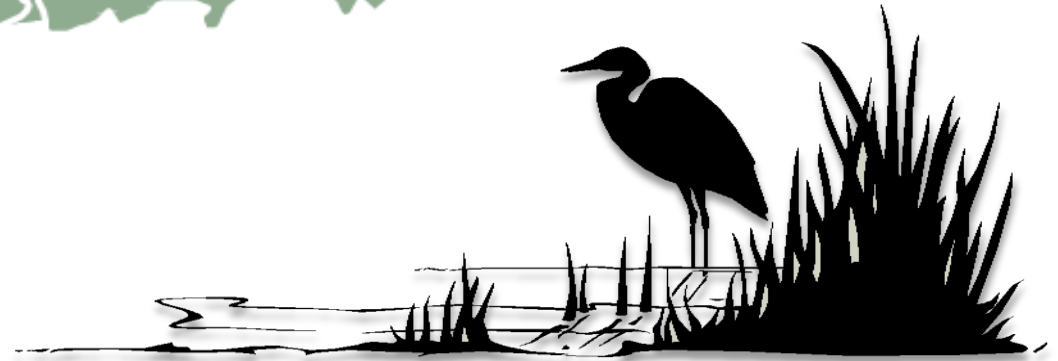
Wildlife Division

Connecticut Department of Environmental
Protection

Amey Marrella, Commissioner

www.ct.gov/dep

Part 2: Wetland Wildlife Management Activities



Presentation Objectives



- ✓ Introduce wetland wildlife enhancement and restoration concepts
- ✓ Discuss the wetland management activities conducted by the DEP Wildlife Division

Why Manage Wetland Habitats for Wildlife?



- ✓ Wetlands are one of the most biologically productive environments on earth.
- ✓ Yet, 50% of Connecticut's freshwater wetlands and 65% of the tidal wetlands have been lost since colonial times. Significant land development continues adjacent to wetlands in the modern era with additional impacts from sedimentation and non-point source pollution.
- ✓ Wetlands support a vast range of plant and animal life while providing critical habitat for waterfowl, nursery areas for fish, and a varied vegetative structure.
- ✓ Many of Connecticut's Threatened & Endangered species such as the Great egret, the Bog turtle, and the Blue-spotted salamander depend on wetlands for survival.
- ✓ The State Legislature, in a legislative finding, declared the inland wetlands and watercourses of Connecticut to be an "indispensable and irreplaceable... natural resource."



What is Enhancement and Restoration?



- Wetland enhancement is the modification and / or rehabilitation of a degraded wetland for the purpose of meeting project objectives such as wetland wildlife habitat enlargement or improvement.
- Wetland restoration is the return of a wetland to a close approximation of its original condition prior to disturbance.
- Wetland enhancement and restoration have different goals. Restoration is typically more difficult to achieve than enhancement.





DEP Partners

The CT DEP works with private, non-profit, state, and federal partners to enhance or restore wetlands degraded by human activities and provide improved wildlife habitat.

Many of the DEP partners are interested in habitat enhancement for waterfowl. Different types of animals also benefit from these efforts.



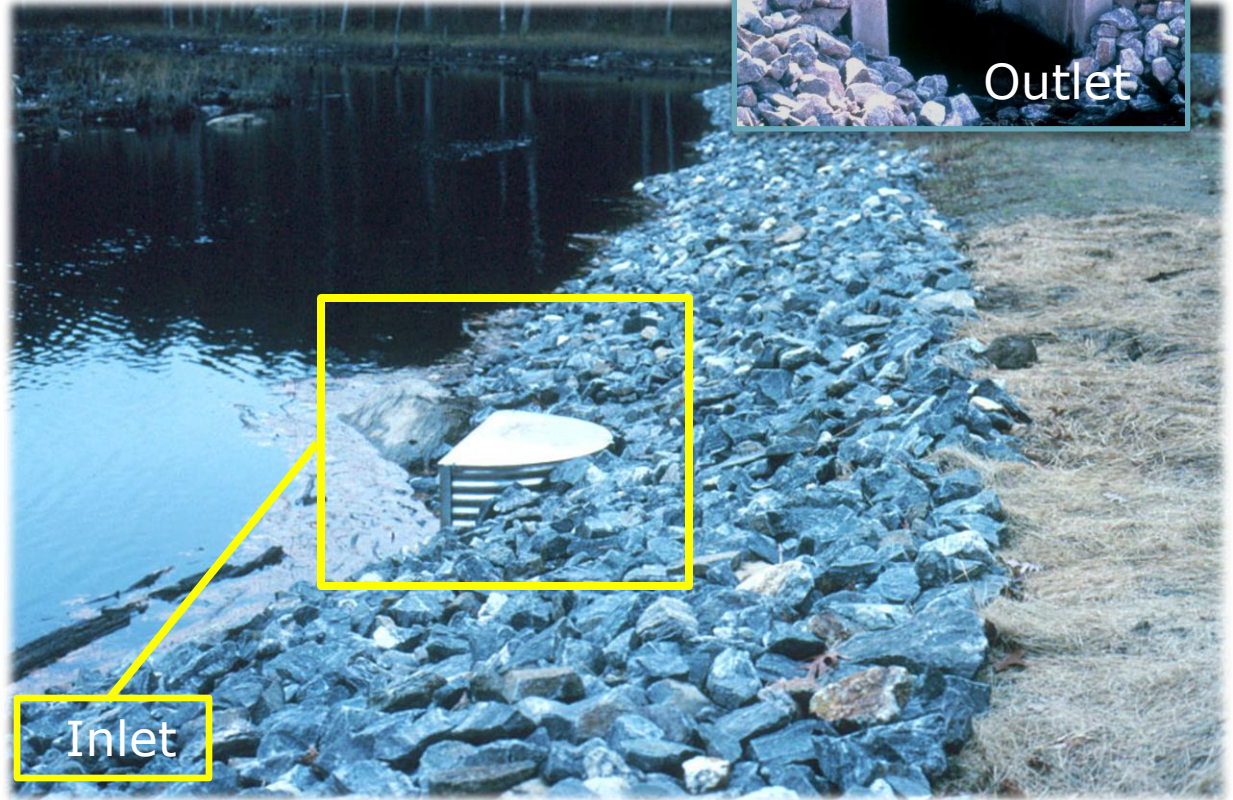
Wetland Enhancement





Water Control Structures

Early wetlands enhancement work began in the 1950s with the installation of water control structures. These structures are intended to control the elevation of impounded water and control the rate of release during storm events.





Water Control Structures: Open Water

Impoundments are intended to create shallow, open water wetlands to benefit waterfowl. The DEP Wildlife Division currently maintains approximately 75 impoundments on state lands.





Water Control Structures: Hydrology

Water control structures are critical for maintaining consistent hydrology in wetlands and preventing the incursion of emergent and invasive species. Replacement of these structures before they deteriorate is an important enhancement in the management of wetland areas.



Riser structure



Inlet



Topographic Manipulation

Adding potholes and manipulating the topography in wetlands adds habitat diversity, open water areas, and fish habitat. The appropriate permits must be acquired before beginning this work.



Wetland Restoration





DEP Wetlands Restoration Unit

The DEP has a wetlands restoration unit which possesses several pieces of specialized equipment designed to work in wetland habitats, such as this amphibious excavator.



Amphibious Excavator



Early Efforts

The State's initial effort at restoration focused on coastal salt marsh habitat. Salt marsh areas have been subject to invasion by the plant species *Phragmites australis* which commonly forms dense monocultures outcompeting other wetland plants in areas of moderate salinity.





Phragmites: Land Disturbance

The invasion of *Phragmites* has been linked to man-made disturbances which have changed the natural hydrology of wetlands. These disturbances include ditching for mosquito control, the placement of dredged material in marsh areas, and the construction of roads, railways, and other types of development.





Phragmites: Management

To control *Phragmites*, a variety of practices are being used by the DEP. Management methods may include a combination of herbicide spraying, restoring natural hydrology, dredging of filled areas, and enhancing fish access to marshes. All projects need to be reviewed by the appropriate local, state or federal agency. For more information see [the DEP library](#).





Phragmites : Mowing

Mechanical mowing of *Phragmites australis* and cattails can reduce the spatial extent and stem density of these invasive species, and allows for more plant diversity and competition.



Other Wildlife Division Management Activities





Nesting Boxes

The Wildlife Division maintains and monitors 1,500 Wood duck nesting boxes state-wide. On average 55% of the boxes are used annually.



Wood duck



Beaver

The state population of beaver is around 4,000 to 6,000 animals. Beaver can influence the landscape by building dams and lodges, and cutting trees for food. Consequently, they can be a nuisance and the Wildlife Division receives around 300 calls a year from landowners who have beaver related problems.





Beaver: Example of Impacts

Beavers can cut down trees up to 10" and girdle even larger trees. Their dams can create backwater that destroys or damages roads, septic tanks, crops and commercial timber. More than \$100 million dollars per year nationwide is spent on beaver-related damage and problems. Call the [Wildlife Division](#) for assistance.





Beaver: Habitat Controls

Methods to manage beaver and their habitat include the use of water control devices, exclusion fencing at culverts to keep beaver away from inlets, and the use of trapping.





Beaver: Trapping

Managing beaver can be complicated. Trapping is conducted during a regulated beaver trapping season and can help control populations and alleviate future conflicts. Special permits to kill beaver outside the regulated trapping are given only in the cases of public health and safety or when severe damage occurs to commercial agriculture.



Image found at NPS site: http://www.nps.gov/akso/parkwise/Students/PhotoGallery/DENA/DENA_People_and_Land/Starr/Starr%20trap%20beaver.jpg



Utilizing Best Management Practices

All projects should conform to the relevant wetlands regulations and use standard Best Management Practices during construction. Contact the DEP Wetlands Management Section, the DEP Office of Long Island Sound, the U.S. Army Corp of Engineers, or your local Inland Wetland Agency for more information.



Conclusion



Wetlands are critical and productive habitats for a wide variety of wildlife and home to many threatened and endangered species. The DEP Wildlife Division enhances, restores, and maintains many wetland areas to improve the habitat for wildlife of all kinds. Contact the [Wildlife Division](#) for more information.

Contact Information



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