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Massachusetts



The newsletter for owners of land protected by a Watershed Preservation Restriction (WPR) held by the Department of Conservation and Recreation (DCR), Division of Water Supply Protection.

Summer 2015

### Contents

- WPRs you can visit  
WPR Profile: North County Land Trust
- Beavers  
Busy Builders  
Conflict Management  
Benefits

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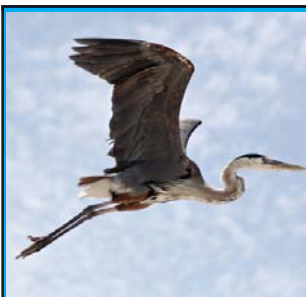
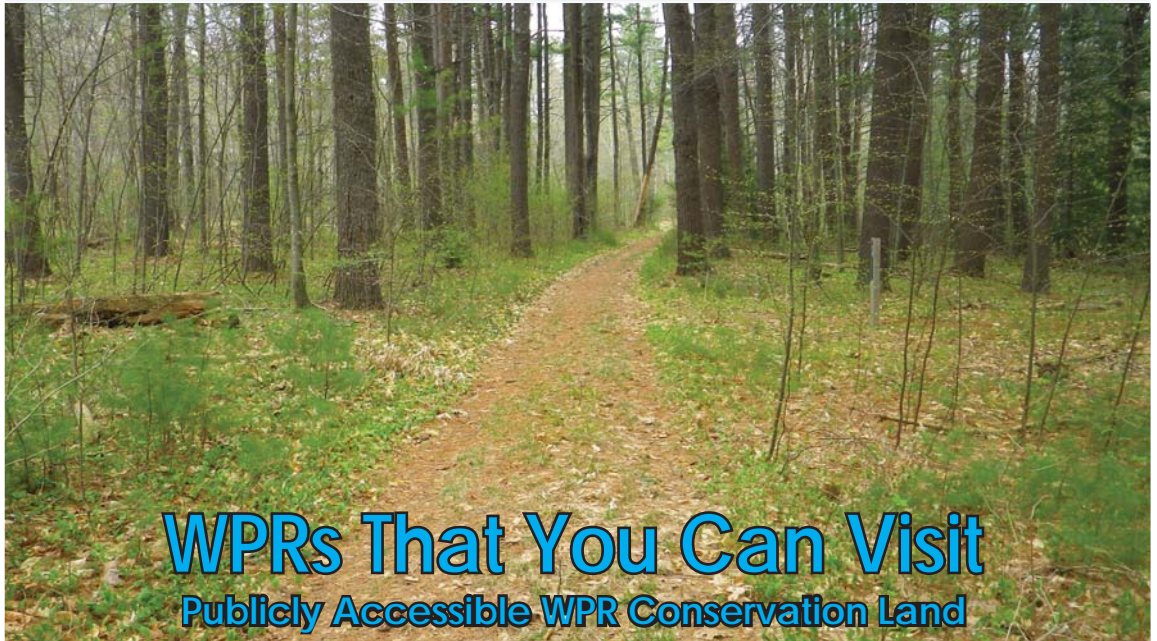


Photo: Robert Burton

Beaver Habitat  
not just for beavers  
see Page 4

# Watershed Currents



## WPRs That You Can Visit Publicly Accessible WPR Conservation Land

A trail on the Mass Audubon Eagle Lake Sanctuary.

Photo: DCR Staff

You may enjoy hiking or walking on your WPR, and recognize that your WPR, like most WPRs, either prohibits or does not encourage recreational use by the general public (though your friends and visitors are welcome to enjoy your property). Did you know, however, that there are over 660 acres of WPRs on land where visitation is encouraged?

The Division of Water Supply Protection (DWSP) often works with conservation-minded partners to preserve land. Many times, land could not be conserved without another (or many more) non-profit land trust, municipal government, or other state government agency working with DWSP. Sometimes, the end result of that partnership is that legal interest in a piece of land is shared.

DWSP has worked in this way with the towns of Hubbardston, Princeton and Sterling. We have also worked with most of the land trusts active in our region, including the Massachusetts Audubon Society, Mount Grace Land Conservation Trust, North County Land Trust, the Rutland Land Conservancy, and the White Oak Land Conservation Society.

Sometimes, the way that interest is divided means that the land trust or the municipality holds the fee interest, while DWSP holds a WPR. In these cases, the land trust or municipality still continues its usual mission of encouraging public recreation on its land, while the state provides an extra level of legal protection with a WPR. The WPR language, however, is modified from its usual template, to allow passive recreation by the general public.

I am writing this article to kick off a new series of in-depth profiles of WPRs you can visit. Other DWSP staff and I really enjoy walking all of your WPRs, and always wish that we could show everyone the beauty of each property. I can't do that with most of the WPRs, but I can do it with the WPRs that are open to the general public.

A short list is included below, and the side bar on page 3 goes more in-depth into the North County Land Trust's Underwood Road Sanctuary. Other WPRs will be profiled in future newsletter issues. The following are just some of the WPRs that I thought might be the most fun for you to visit for a fall hike. After each summary, websites are listed where you can find more information about the property, including visitation rules and trail maps. Please follow each property's rules regarding bicycles, horses, and motorized vehicles.

**Harvard Forest.** Most of Harvard Forest's land in Petersham is open to the public for passive recreation, including hiking on their well-maintained woods roads. DWSP holds two WPRs covering a 163 acre portion of Harvard Forest north of Quaker Drive and East of Route 122 that have lovely woods roads which parallel the scenic Swift River. This area connects with trails on the abutting Trustees of Reservations' Brooks Woodland Preserve. Websites: <http://harvardforest.fas.harvard.edu/trails-recreation>; [www.thetrustees.org/assets/documents/places-to-visit/trailmaps/Brooks-Woodland-Preserve-Trail-Map.pdf](http://www.thetrustees.org/assets/documents/places-to-visit/trailmaps/Brooks-Woodland-Preserve-Trail-Map.pdf).

WPRs you can visit, continued on Page 3

## Wildlife

## Busy Beavers Engineering Ecosystems

When I first started visiting WPRs, I couldn't help but be impressed with the engineering work of the beavers I discovered on many of your properties. They had gnawed through dozens of trees, built dams many meters long, and even created skid trails into the woods to drag woody materials for their next construction project. Beavers really do keep busy.

All this work can change an area dramatically as new areas become flooded, and the live trees that occupy this flood zone eventually die. When beavers move into a new site, build a dam and flood an area, they will typically stay there until they have exhausted their food supply. At this point they usually abandon the area in search of a new suitable site. The abandoned dam will eventually disintegrate, allowing the pond to drain, and the area will convert into a



This wetland on the Cramer WPR is the result of beaver activity and provides valuable habitat.

*Photo: DCR Staff*

“beaver meadow” before eventually growing back into forest.

The time frame of this process—from forest to pond to meadow back to forest again—depends on a range of

factors, and a beaver colony can inhabit a site for a few years or several decades before moving on. Similarly, a beaver meadow can persist for some time. Woody plants will eventually start encroaching on the meadow edges and it may take as long as 20-50 years before the area resembles a forest again. Beavers may return to the site if enough of the right kind of vegetation grows back, thus beginning the process once more.

*- Nick Rossi*

## Managing Beaver Conflicts A Cooperative Relationship

As beaver populations have grown in Massachusetts, the chances of conflict with humans have also increased, and the flooding from dams and gnawing of valuable trees can make tolerating a beaver colony on your property very difficult. Fortunately, there are actions you can take to manage nuisance beaver activity on your land.

Fencing can be a highly effective way to prevent damage to individual trees and orchards on your property. Beavers rarely burrow under fences, are not very good at climbing, and generally do not gnaw through fencing. Special fencing can also be installed around culverts that beavers could likely block. Culvert fencing must be installed in such a way that makes it difficult for beavers to block it so you should refer to a diagram or hire an expert before considering this option.

Dealing with flooding problems is a bit more complicated and may require you to obtain a permit. Breaching or altering a dam in Massachusetts is illegal without a proper permit, and is usually only a temporary solution. Beavers will respond to the sound of flowing water and will repair



their dams quickly, sometimes overnight. During the regulated trapping season (November 1 - April 15) beavers can be trapped, and Emergency Permits can be issued for urgent problems. Experienced trappers can be hired if you do not wish to do the job yourself. However, homeowners should be aware that trapping will not change the habitat conditions (i.e., wetlands, vegetation) that originally attracted the beaver colony and new beavers may move in at any time.

If you do not wish to remove a beaver from your property, then there are alternatives that may provide long-term relief, if conditions are right. The installation of water level control devices can lower water levels, even without beaver removal. These devices require long-term maintenance and require a permit.

The language of WPRs varies and may limit the types of measures you can take. So, if you are thinking about making major alterations to your property to deal with beavers, then you should contact Caroline Raisler before doing so.

The Division of Fisheries and Wildlife (DFW) is an excellent resource for beaver related conflicts. For more information you can refer to their website or contact DFW directly:

*Division of Fisheries & Wildlife  
1 Rabbit Hill Road  
Westborough, MA 01581  
(508) 389-6300  
mass.wildlife@state.ma.us  
www.mass.gov/eea/agencies/dfg/dfw/fish-wildlife-plants/mammals/beavers-conflicts.html*



Left: a water level control device installation. Right: Beaver art? *Photos: DCR Staff*

WPRs you can visit - From Page 1

### **Town of Hubbardston's Mount Jefferson Conservation Area.**

The Town of Hubbardston owns the underlying fee interest in this 250 acre conservation area, which is managed by the Town Open Space Committee, while DWSP holds a WPR over the area. Its trails connect to others on the adjacent Hubbardston/Templeton State Forest. *Website: [www.hubbardstonma.us/pages/hubbardstonma\\_bcomm/open/MtJeff.pdf](http://www.hubbardstonma.us/pages/hubbardstonma_bcomm/open/MtJeff.pdf).*

### **Massachusetts Audubon Society's Eagle Lake Wildlife Sanctuary.**

There is a WPR on a 7 acre portion of the 362 acre Eagle Lake Wildlife Sanctuary. *Website: [www.massaudubon.org/get-outdoors/wildlife-sanctuaries/eagle-lake/](http://www.massaudubon.org/get-outdoors/wildlife-sanctuaries/eagle-lake/).*



The east branch of the Swift River on the Harvard Forest WPR lies along a very nice hiking trail. *Photos: DCR Staff*

**Rutland Land Conservancy's Ferrie-Calkins Deering Woodland.** DWSP holds a WPR on this 24 acre property, which has two beautiful loop trails. *Website: [www.rutlandland.org/projects\\_fcd.html](http://www.rutlandland.org/projects_fcd.html).*

**White Oak Land Conservation Society's Porcupine Hill Sanctuary.** DWSP holds a WPR on White Oak's 60 acre Porcupine Hill Sanctuary, which contains the highest summit in Holden as well as some great porcupine habitat. *Website: [www.whiteoaktrust.org/wp-content/uploads/2015/03/Porcupine-Hill-Potter.pdf](http://www.whiteoaktrust.org/wp-content/uploads/2015/03/Porcupine-Hill-Potter.pdf).*

-Caroline Raisler

## **North County Land Trust's Underwood Road Conservation Area**



DWSP's most recent WPR, number 119, recorded on July 24, 2015, is on land owned by North County Land Trust (NCLT). NCLT is a regional land conservation organization founded in 1992 to protect, preserve and promote the natural resources of north central Massachusetts. They are one of the partners in the

Quabbin to Wachusett (Q2W) Forest Legacy project (which we have written about in past newsletter articles). As part of that effort, a WPR was acquired on their Underwood Road Conservation Area. This is the first completed transaction of around 12 Q2W WPRs we hope to record.

The Underwood Road Conservation Area is a 65-acre property in Hubbardston, which was donated to NCLT by Tom and Mary Robinson to protect its forests, wetlands and other conservation values. The property was opened to the public in 2011 as NCLT's first public access conservation area in Hubbardston. Janet Morrison, Executive Director of NCLT, said that the property is often used by neighbors, and that the closest neighbor is the unofficial caretaker of the property. In addition, they often host school groups and organize group hikes and educational programs. Public access is allowed and encouraged for

passive recreation, education, nature study and related activities.

The Underwood Road Conservation Area is wooded, with mostly red maple, white pine, and beech trees. Two streams and their associated wetlands cut through the property. A 1.4 mile loop trail leads across the wetland (using bog bridges to keep visitors' feet dry and protect the wetland) to a prominent knoll, from which you can see much of the property. The trail weaves among the beech trees and saplings, which in the late fall, with golden leaves waving in the breeze, make it feel like an enchanted forest.

Janet Morrison said that NCLT wanted to put a WPR on the property because they saw it as "a good opportunity to permanently protect the property and assist in the conservation of Boston's drinking water supply. Also, it's one of the tracts in the Q2W Forest Legacy Project, which will be helping us protect more land in Hubbardston." Overall, she sees the WPR on the property as "a very positive thing."

Information about this property and other NCLT properties can be found on NCLT's website, <http://northcountylandtrust.org>. An overview of the property can be found at <http://northcountylandtrust.org/Images/Conservation/Underwood/UnderwoodRd.CA.History.pdf> and a trail map and area map are available at <http://northcountylandtrust.org/maps.html>.

**Directions:** Parking is on a woods road just north of #16 Underwood Road in Hubbardston, 0.5 miles north from the intersection with Morgan Road, on the east side of Underwood Road. At the beginning of the woods road you will see a kiosk with visitor information. This woods road is the beginning of the loop trail.

## Wildlife Profile

## The Benefits of Beavers



The striking changes that beaver can cause are often visually dramatic. Yet beaver ponds and meadows also create new habitats that can attract wildlife that otherwise would not be there. For example, dead trees from flooding can attract woodpeckers which hollow out holes as they search of wood boring insects. These abandoned woodpecker holes serve as shelter for bats and cavity nesting songbirds. In addition, great blue herons have a particular preference for nesting in dead trees in beaver ponds.

The new beaver pond also provides habitat for a diversity of fish, turtles and amphibians, which in turn attracts other wildlife higher on the food chain. If you are especially lucky, you might see a river otter, which are drawn to beaver wetlands for the ready supply of prey and for the shelter that abandoned beaver lodges and bank dens provide.

Of course, the beavers themselves feed on a wide variety of aquatic plants in the summer and woody plants along the edge of their wetland in the winter. Over time, beaver activity can change the composition of trees growing along the wetland edges since beaver prefer certain types of trees, mainly hardwoods, over others. Once the beaver have exhausted all the available food,

they will move on allowing the dam to eventually breach and drain the wetland.

The drained beaver pond will eventually transition into a meadow dominated by grasses, sedges and wildflowers. A different set of species that benefit from meadow habitat such as voles, woodcock, butterflies and various songbirds will then begin utilizing the grassland habitat. This meadow can persist for years depending on the conditions, but forest will eventually reclaim the area. As the forest returns, beaver may come back to the site once again when habitat conditions and food supplies can support new colonies.

The ecological changes beavers bring can be significant but is an important natural process, and watching these changes happen over the years can be a fascinating experience. *- Nick Rossi*



The Great Blue Heron (left) and the Red Eft (below) are just two of the many animals attracted to wetlands created by beaver activity (top).

Photos: left, Robert Burton USFWS; below, David Bieri NPS; top, DCR Staff.



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