



Celebrating 100 years of New Hampshire's working forests

Manchester Water Works

Forest Management Provides Watershed Protection

When you think of a municipal “water works” you might think of reservoirs, holding tanks, aqueducts and miles and miles of piping but you might never think of 24,000 acres of forest land.

But large tracts of forest land are what the Manchester Water Works (MWW) owns and relies on to ensure a capacious supply of fresh water to the state’s largest city and the half dozen smaller surrounding towns who are also supplied by MWW.

24,000 Acre Forested Watershed

The 24,000 acres comprise the Lake Massabesic Watershed and encompass the city’s eponymous principal water source. The Manchester Water Works directly owns and manages 8,000 acres, and its mission for more than 138 years has been watershed protection through active forest management and community outreach.

A History of Forest Management & Stewardship

The Manchester Water Works has been practicing forest management since its earliest years, clearing existing species of trees and replacing with White Pine and other softwoods, which are considered desirable species along the shores of water supply reservoirs due to their ability to keep water clean -- and more importantly -- clear. Because these softwoods drop their needles every other year and have low levels of tannins they do not create brackish water. Later, Red Pine seedlings were planted in old fields and reclaimed gravel pits because of their resistance to the White Pine weevil.

For many years from the 1930’s to the 1970’s, the Water Works operated a renovated water turbine sawmill at the base of Clark’s Pond in Auburn, providing the MWW with an opportunity to begin harvesting timber commercially while providing a marketing advantage for the Water Works’ forest products. The mill could produce rough and planed lumber of all species as well as tongue-and-grooved White Pine. During the winter months, MWW employees worked on logging operations and used the harvested logs to supply the sawmill. The processed lumber was stickered and left to air dry in the board field. Due to financial constraints and lack of operation, the sawmill was shut down and dismantled in the early 1970s.

Manchester Water Works Forest Management Today

NEW HAMPSHIRE TIMBERLAND OWNERS ASSOCIATION
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Today, the MWW utilizes many proven management techniques to maximize the value of its timber resource and protect its watershed, including tree plantings, weeding, pruning, inventory, and some precommercial and commercial harvesting. Its Forest Management Plan was completed in 2008 and provides long-term strategic direction for management of its timber and wildlife resources. Deer, raccoon, fox, loons, hawks, and many other species of wildlife are part of this watershed.

Watershed management also includes an active forestry program and, under the direction of a professional forester, the Manchester Water Works annually harvests on about 300 acres resulting in an average 20-year harvesting cycle for the forest overall. The purpose of this program is to develop the best tree cover for the forest environment and promote controlled water retention and runoff.

The MWW has been very involved with the Rockingham County Woodland Owners Association, the Rockingham Recreational Trail Board, and the Boy Scouts among other groups, and has been a member of the Tree Farm Program for over 20 years.

Winter Storm Damage – Tours Offered

The Lake Masabesic Watershed experienced significant blowdown as a result of this past winter's wind and ice storms, with damage extending over a couple of hundred acres.

In addition to the obvious issues caused by the damage – access, safety, and operational difficulties -- the decay of the blown down timber could cause significant increases in nutrient loads in surface runoff into the lake. These increases could create algal blooms or other water quality problems.

To remedy these issues, the MWW is currently operating a timber salvage operation to clear the downed trees and debris from the forested watershed, and to salvage any commercially valuable blown-down timber. The MWW will have all the storm damaged areas cleaned up and replanted by late June of this year.

On May 15, 2010, John M. O'Neil, the watershed forester for the Manchester Water Works since 2008, will lead tours of the Manchester Water Works forestland during the Annual Meeting of New Hampshire Timberland Owners Association (NHTOA). Tours will include the site of the timber salvage operation.

For more information about the tours, please contact the NHTOA at 603-224-9699 or on its website at NHTOA.org.

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