



*The newsletter for
owners of land pro-
tected by a Water-
shed Preservation
Restriction (WPR)
held by the
Department of
Conservation and
Recreation (DCR),
Division of Water
Supply Protection.*

Winter 2019

Contents

- Climate Change and Your WPR
- Meet the Staff:
John Scannell
- Mount Grace Meeting
- A Bit More on Beavers
- Jim French Honored

Contact

Caroline Raisler
Watershed Preservation
Restriction Coordinator
774-275-8595
caroline.raisler@mass.gov



**Off to
Mount Grace**
See Page 2

Photo : MGLCT Staff

Watershed Currents

Weathering Change

Maintaining Green Connections to Mitigate Climate Change

Your WPR helps to compensate for changes in the climate by providing a buffer from extreme weather events



Photo: DCR Staff

The role of private landowners in conservation is often overlooked, but this tenet will be critical for implementing strategies to face climate change. The Watershed Preservation Restriction (WPR) on your land is an essential part of the DCR – Division of Water Supply Protection's efforts to protect clean drinking water for current and future residents of Massachusetts. WPRs are designed to protect water resources by restricting activities that can potentially harm water quality. The forests on your WPR help provide the cleanest and most stable water supplies for drinking water, aquatic habitat, and groundwater recharge compared to all other land uses.

The management and maintenance of watershed lands in a natural condition is paramount to the continuous supply of pure water. The finest drinking waters in the world are a product of the natural filtering processes of an undisturbed, forested landscape.

Climate change manifests itself primarily through changes in the water cycle. Water and weather, the delicate balance between evaporation and precipitation, is the primary cycle through which climate change is felt. As climate changes, droughts, floods, storms and sea-level rise intensify or alter, often with severe consequences.

A report by the Union of Concerned Scientists identified the following as among the most likely climate changes for the Northeast

region for the next century:

- Overall, more precipitation, especially in winter.
 - ♦ More winter rain with less snow due to warmer winters.
 - ♦ More severe rains.
- More short term droughts (lasting one to three months).
- Less streamflow. A combination of higher temperatures, increased evaporation, expanded growing season, and other factors causing summer and fall to become drier, with extended periods of low stream flow.
- More peak-heat days. Most cities in the region are likely to experience more than 60 days with temperatures over 90°F, including 14 to 28 days with temperatures over 100°F (compared with one or two days per year historically).

Although further attempts to describe, understand, and predict the effects of climate change are important, there is also considerable interest in identifying practical strategies that could help reduce or improve anticipated negative effects of climate change. There are two major terms that encapsulate the strategy to address climate change: **resilience** and **adaptation**.

In the case of WPRs, DCR-DWSP is addressing the resilience of the watershed. Resilience is the ability to absorb these changes and

Meet the Staff

John Scannell

DWSP Director

John Scannell grew up in Worcester, but admits to never spending much time in the Wachusett watershed before arriving at DCR over 25 years ago. John became the Director of the Division of Water Supply Protection (DWSP) in April 2018, after 17 years as the Wachusett Regional Director. He began his DCR career in 1993 as an Environmental Engineer.

One highlight of his early tenure with the agency was when he testified on the Commonwealth's behalf about watershed protection efforts at Wachusett, in the EPA lawsuit to force filtration. In fact, he had the distinction of being the only witness to testify in two millennia (December 1999 and January 2000)!

John's role includes management of two DWSP groups – the Office of Watershed Management, which encompasses watershed management for the Quabbin/Ware/Wachusett system, and the Office of Water Resources, who staff supports the Massachusetts Water Resources Commission as well as providing statewide guidance on lakes and ponds issues, flood hazard management, river hydrology and water needs forecasting. While his new office is in Boston, John spends a considerable amount of time in the watershed system working with his dedicated staff that protects the drinking water supply for 2.5 million Massachusetts users.

John has a bachelor's degree in Civil Engineering from Worcester



**Division of Water Supply Protection Director
John Scannell.**

Photo: K. MacKenzie

Polytechnic Institute. He and his wife recently moved from Rutland to West Boylston. They spend much of their free time with their four adult children, who are all in different states in the eastern half of the country.

Mount Grace Land Conservation Trust Annual Meeting at Chimney Hill Watershed Preservation Restriction

On October 20, 2018, I attended the 32nd annual meeting of the Mount Grace Land Conservation Trust, along with around 160 other attendees, including several WPR landowners. The meeting was held at Chimney Hill Farm, in Petersham, a property on which Mount Grace helped DCR acquire a Watershed Preservation Restriction, and which was profiled in the Summer 2016 issue of *Watershed Currents*. The WPR on this property was part of the Quabbin to Wachusett Forest

Legacy effort, which was a focus of this annual meeting.

I began the day with a tour of the farm, led by farm caretaker Shelly Knapp. The farm portion of the property is excluded from the WPR, so I had not previously seen the Devon cattle, heritage hogs, sheep, goats, chicken, and



Attendees at the Mt. Grace Land Trust annual meeting learn about Chimney Hill's farming practices (left) and walk down the woods road to visit and learn about the heritage hogs on the farm tour (right).

Photos: MGLCT Staff



ducks on the property. At the same time, there was also an option to tour the forest and learn about the Hall family's forestry operations on the property (an allowed use under this WPR).

After the tours, we had a delicious lunch, followed by an inspirational description of Mount Grace's amazing accomplishments over the last year and the presentation of awards (see page 4 for more about awards).

Mount Grace is a fantastic local organization, which has been a wonderful partner to DCR-DWSP over the years. It was great to spend time with their staff, board, and members at this celebration of their work.

~Caroline Raisler

Change - from Page 1

disturbances. Climate resilience is strengthened through healthy ecosystem services that rely on well-functioning watershed basins. Connecting forests and buffering important aquifers are a stabilizing force for the climate. They regulate ecosystems, protect biodiversity, play an integral part in the carbon cycle, and overall support the natural processes that create and recharge quality water resources.



The natural characteristics of your WPR are part of the green connection that buffers the effects of a changing climate.

Photo: DCR Staff

While many responses to climate-related threats are possible, capitalizing on the services provided by intact natural systems is among the most cost effective and efficient approaches available. This type of management approach, known as green infrastructure, can provide multiple benefits, including minimizing the threat of flooding, protecting water quality, improving air quality, and cooling urban environments.

On a watershed scale, green infrastructure is a network of conserved and working lands that provide essential environmental functions such as support of biodiversity and water resource protection. Managing climate impacts using a green infrastructure approach emphasizes the natural resiliency of the watershed while minimizing risks to citizens and limiting taxpayer costs.

Green infrastructure can also provide climate resiliency benefits through water infiltration. Infiltration is the process by which precipitation or water soaks into subsurface

soils and moves into rocks through cracks and pore spaces. The water moves through the soil and into the ground water. Protecting land through WPRs improves water infiltration, thus watersheds can increase the recharge rate of their groundwater sources, improving the resilience of the drinking water supply.

Water resources provide critical flood storage capacity and tremendous water quality and habitat enhancement benefits while mitigating the extreme flow variability caused by development and impervious cover. They help to absorb water that may overflow infrastructure like sewers and wastewater.

WPR landowners are helping the Division of Water Supply Protection to be resilient to a changing climate. Protection and maintenance of the green connections through conservation minded WPR landowners is paramount to minimizing the effects of climate change.

~Ken MacKenzie

For More Information

Mount Grace Annual Meeting

Additional descriptions - and more pictures:

- www.telegram.com/news/20181022/from-quabbin-to-wachusett-swath-of-land-protected-from-development
- www.atholdailynews.com/AN-A1-Chimney-Hill-Farm-w-photos-20906599
- www.mountgrace.org/celebrating-quabbin-wachusett

Beaver Issues on Your WPR

Mass Wildlife provides landowners with useful guidance about beavers:

- www.mass.gov/files/2017-08/living-with-beavers.pdf
- [www.mass.gov/files/documents/2018/05/11/Citizens guide to addressing beaver conflicts.pdf](http://www.mass.gov/files/documents/2018/05/11/Citizens_guide_to_addressing_beaver_conflicts.pdf)

Climate Change

Link to the Union of Concerned Scientists's report:

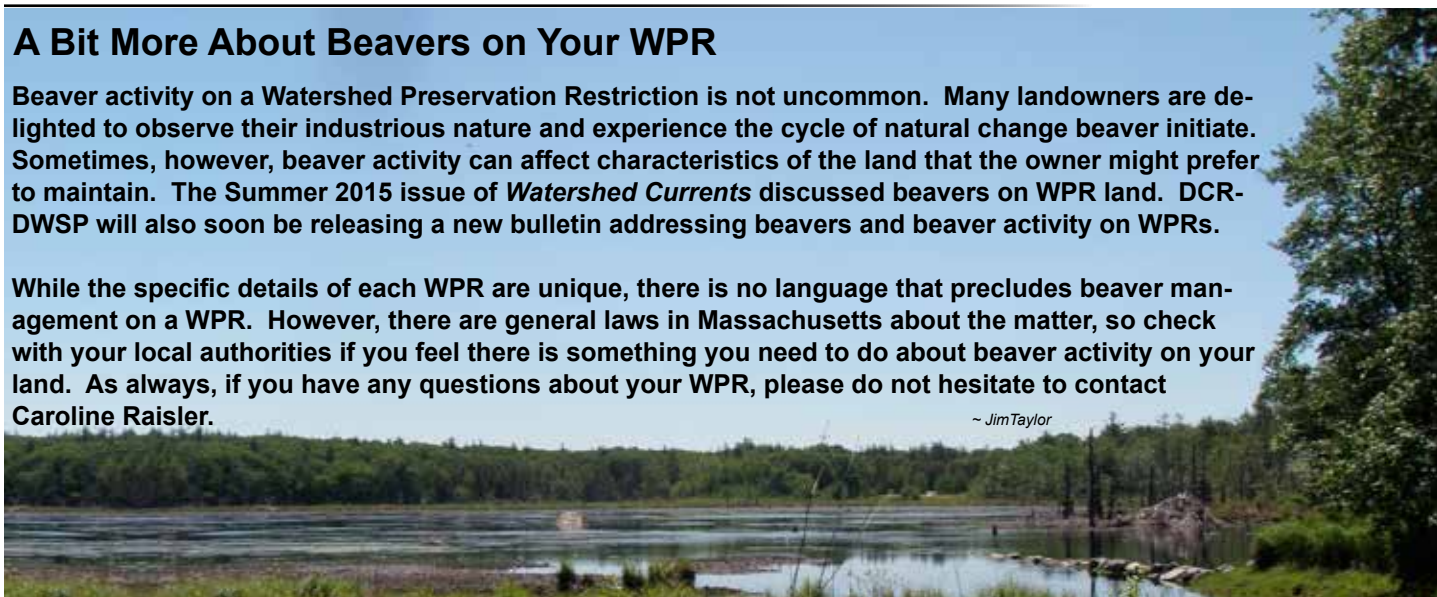
- www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/pdf/confronting-climate-change-in-the-u-s-northeast.pdf

A Bit More About Beavers on Your WPR

Beaver activity on a Watershed Preservation Restriction is not uncommon. Many landowners are delighted to observe their industrious nature and experience the cycle of natural change beaver initiate. Sometimes, however, beaver activity can affect characteristics of the land that the owner might prefer to maintain. The Summer 2015 issue of *Watershed Currents* discussed beavers on WPR land. DCR-DWSP will also soon be releasing a new bulletin addressing beavers and beaver activity on WPRs.

While the specific details of each WPR are unique, there is no language that precludes beaver management on a WPR. However, there are general laws in Massachusetts about the matter, so check with your local authorities if you feel there is something you need to do about beaver activity on your land. As always, if you have any questions about your WPR, please do not hesitate to contact Caroline Raisler.

~ Jim Taylor



Jim French Honored by Mount Grace Land Conservation Trust Recognized as Conservator of the Region

At the Mount Grace Land Conservation Trust annual meeting, Sarah Wells, Land Protection and Operations Director of Mount Grace, presented the award for Conservator of the Region to Jim French, Land Acquisition Coordinator for DCR-DWSP. She stated that Mt. Grace wished to give Jim this award to honor his lifelong work protecting land around the Quabbin and Wachusett Reservoirs, including his family farm in Sterling, saying “Jim, we thank you for all of the hard work you have put in to conserve land in our region and beyond.” She also acknowledged his role in the Quabbin to Wachusett Forest Legacy initiative.

The Quabbin to Wachusett Forest Legacy initiative was funded by a \$7 million federal grant. The state also provided a \$1.2 million Massachusetts Landscape Partnership grant. This money was combined with efforts and funds from three land trusts, several municipalities, and DCR-DWSP. These resources were used together to acquire Watershed Preservation Restrictions, Conservation Restrictions, or the outright ownership of 39 parcels covering over 4,000 acres. DCR-DWSP has ended up with the majority of this land, acquiring 12 WPRs on 2,234 acres and six fee-owned parcels on 301 acres.

Total federal Forest Legacy funds spent on DCR-DWSP WPRs and ownership were over \$3.5 million, and state Landscape Partnership Grant funding was over



Jim French proudly accepts the award at the MGLCT annual meeting held at Chimney Hill WPR.

Photo: MGLCT Staff

\$700,000. This initiative is not quite over, as DCR-DWSP is acquiring one more WPR before it's done. Leigh Youngblood, Mount Grace Land Conservation Trust's executive director, said, “This project protects the rural heritage of the region and the beauty and quiet of the North Central Massachusetts landscape.”

Jim accepted the award and spoke for a bit, both about his family's decision to protect their family farm in Sterling and about being a part of the Quabbin to Wachusett Forest Legacy initiative with Mount Grace. He told the gathering of Mount Grace members and supporters that this initiative could not have happened without the enthusiastic participation and patience of the landowners who sold their land or Restrictions on their land. “Everyone participated because they loved their land. And thanks to these land-

owners all 2.5 million users of the Quabbin as the source for their drinking water will benefit.”

When asked about his feelings on receiving the award, Jim said, “It is a real honor to be recognized for this land work, but all should understand that none of it succeeds without team effort and landowner commitment. I want to share this award with every person who has helped make the North Quabbin Region such a special place. When work is coupled with passion, and passion is rooted in land protection, then promises for a greener and safer world are kept.”

~Caroline Raisler

dcr
Massachusetts



Department of Conservation and Recreation
Division of Water Supply Protection
Office of Watershed Management
180 Beaman Street
West Boylston, MA 01583

Watershed Currents is produced semi-annually for WPR landowners in the DCR water supply watersheds.

Governor: Charlie Baker
Lt. Governor: Karyn Polito
EOEEA Secretary: Matthew A. Beaton
DCR Commissioner: Leo Roy
DWSP Director: John Scannell
Editor: James Taylor