



WSCAC Meeting

June 11, 2013-10:00 a.m.

Location: Barre Falls Dam, Hubbardston
Ware River Watershed

Members in Bold in Attendance:

Whitney Beals, WSCAC Chair, NE Forestry

Andrea Donlon, CRWC

Gerald Eves, Trout Unlimited

Michael Baram, BU & CFL

Martha Morgan, Nashua River Watershed

Mason Phelps, Millers River Watershed

Bill Fadden, OARS and SuAsCo Wild & Scenic Rivers

Alice Clemente, Blackstone River Watershed

Jeanne Richardson, Boston Water & Sewer

Paul Lauenstein, NepRWA

Nancy Bryant, SuAsCo

Dona Motts, MA League of Women Voters

Martin Pillsbury, MAPC

Non –Members in Attendance:

Lexi Dewey, WSCAC staff

Craig Allen, WAC

Bill Katz, WAC

Elie Saroufim, Boston Water & Sewer

Herm Eck, DCR-Quabbin

Dave Coppes, MWRA

Brianna Green, Army Corps of Engineers-Barre Falls

Sue Costa, WSCAC staff

Andreae Downs, WAC

Danielle Domingos, Boston Water & Sewer

Bill Pula, DCR-Quabbin

Justin Gonser, DCR-Quabbin

Ralph Gendron, Army Corps of Engineers-Barre Falls

Bill Pula-The Ware River Watershed

Bill notes that the Ware River Watershed has a more open landscape than the Quabbin and offers more recreational activities. DCR owns over 25,000 of the 62,270 acres in the Ware River watershed. Bill showed a map of the MWRA water system including source reservoirs and watersheds. Bill noted Barre Falls is an Army Corps of Engineer's flood control dam to control potential flooding in the Barre Plains area of the Ware River.

Water can be withdrawn from the Ware River at Barre Falls and diverted to the Quabbin from October 15th-June 15th. The Maximum Diversion Rate from the Ware River is 600 mgd. Staff from the MWRA, DCR and the Army Corps of Engineers work together during rain and snow events to protect common areas from potential flooding.

Quabbin is at an elevation of 530 feet above sea level, Wachusett is at 390 feet, and the Ware River is at 656 feet above sea level. Thus, although water from the Ware River is often sent to Quabbin, it can be sent in either direction – to Quabbin or to the Wachusett via the Quabbin Aqueduct. Bill noted that the nomenclature is to *divert from* the Ware and *transfer from* the Quabbin.

In the 1920s, Boston was having difficulty keeping up with water demand with the Wachusett Reservoir as the primary source. The Ware River Act of 1926 removed three villages and bought out and displaced 600 people to make way for the Ware River Watershed. The Swift River Act of 1927 to create the Quabbin displaced 2,500 people and in April 1938, the disincorporation of Dana, Enfield, Greenwich and Prescott occurred.

Q. Can you explain the ownership of water, land and facilities?

A. The Barre Falls Dam is under federal jurisdiction of the Army Corps of Engineers. The Commonwealth of Massachusetts owns the reservoirs, dams and a significant amount of land (12,000 acres at Wachusett, 60,000 at Quabbin and 25,000 at Ware River) at the reservoirs.

Bill showed the group pictures taken during construction of the aqueduct which resembled a mining operation. Using pictures of Quabbin, he illustrated where water from Ware River enters the Quabbin and described its journey around the islands and ultimately to the Chicopee Valley Aqueduct and the Quabbin Aqueduct.

The water on the western side of the islands is so clear you can see 40 feet down where as on the eastern side where Ware River water enters Quabbin, the water is not nearly as clear.

Quabbin staff maintains 100 miles of roads, a number of small dams, field mowing, 100 gates, the Quabbin Cemetery and public education programs for visitors and school groups. *****They also have forestry staff, engineering staff, environmental quality staff and rangers at the Ware River.

The Mass Central Rail Trail is open and providing new access to the public at the Ware River. The trail could eventually connect to trails in Belchertown and Northampton. Horseback riding and snowmobiling are allowed in parts of the Ware River. Cross country skiing is allowed throughout the watershed. The public access rules at Quabbin Reservoir and Ware River are different. While no dogs are allowed at Quabbin and Wachusett, dogs are allowed at Ware River. The Ware River Watershed has an advisory committee similar to the one at Quabbin. The Ware River Watershed Advisory Committee (WRWAC) was created approximately 15 years ago and meets quarterly with DCR staff.

Q. What do the environmental quality folks do?

A. They collect bi-weekly water samples. They are professional biochemists, engineers, and environmental engineers.

Bill spoke about the Watershed Protection Act (WPA). There are primary and secondary zones with requirements about lot sizes and house sizes, etc. Pictures of the Bear Hill subdivision in Rutland highlighted the serious erosion problems that it created in the Ware River watershed. DCR worked with DEP and the Attorney General for more than six years to control the environmental damage from construction of this subdivision. Bill estimated that DCR spent thousands of hours pursuing enforcement of this WPA violation and the cleanup from Bear Hill remains ongoing.

Q. What is the current elevation of the water at Quabbin?

A. It's at 526 feet so within 4.5 feet of full. It has come up a 1.5 feet in the last 6-8 weeks. It's much easier to operate Quabbin when it's full in the summer.

Q. At a large construction site how do you determine where jurisdiction enforcement comes from - DEP, EPA, etc.?

A. DCR has less ability to enforce and so they work very closely with DEP. DEP has wetlands jurisdiction. EPA wasn't involved with Bear Hill but will be involved in the next project.

Q. How is the Quabbin Aqueduct maintained?

A. The aqueduct hasn't been inspected in a long time (more than 20 years). A worker used to take canoe into the aqueduct but current safety regulations no longer permit that. A remotely operated vehicle will be sent down in the near future to assess the condition of the aqueduct.

Since December DCR has diverted Ware River water for 25 days for a total of 3.4 billion gallons or 465 hours of diversion to raise the level .45 feet. Back in 2003, 15 billion gallons were diverted because the water level at Quabbin was so low.

Q. Do you generate enough power to have a turbine at the Barre Falls Dam?

A. No. Hydropower is generated at the Cosgrove Intake, the Oakdale Power Station and at Loring Road Covered Storage facility.

A discussion about all the recent rainfall ensued.

Q. Is there anything on the horizon that will significantly increase demand for additional water from Quabbin?

A. Even if all the communities considering joining the MWRA became customers, the demand would still be much less than it was ten years ago. Demand continues to drop every year.

Ralph Gendron-Barre Falls and the Ware River –

The Army Corps of Engineers owns 557 acres surrounded by State lands. They own and operate 3 dikes and one major dam. Water capacity at Barre Falls is roughly 8 billion gallons of water. In 1987 they were 69% full and today they are about 10% full. They are at their minimum aquatic base flows. The interlocked land and jurisdiction insures the need for coordination between the US Army Corps, DCR, and the MWRA.

Ralph gave the group a detailed view of how the system works. The MWRA is 4 miles downstream from the Barre Falls Dam. It takes about 2-3 hours for the water to travel that 4 miles depending on the number of beaver dams it passes through. There is beaver activity up stream of the dam as well downstream. DCR's main concern about beavers is flooding roads.

Q. Do the beavers present a problem with diseases such as giardia?

A. Quabbin has an aquatic pathogen protection control zone and beavers are removed from that area. Other than that, beavers are not considered a big problem and DCR and the Army Corps try to live with them. Bill noted that there are methods of building diversions so the beavers do not hear running water.

Ralph, Bill, Dave and others gave the group a flavor for all the issues and considerations taken into account regarding diversion scenarios and the potential for flooding.

The Army Corps operates 33 projects throughout New England including the Cape Cod Canal, the Charles River Dam, the New Bedford Hurricane Barrier, and the Littleville and Knightville Dams. The Barre Falls Dam eventually flows into the Chicopee River.

Q. When was the last time the spillway at Barre Fall was spilling water?

A. It never has.

The meeting was adjourned for lunch and a tour of the watershed and Shaft 8 in Barre followed. Further details are available on the Presentations portion of the WSCAC website.

<http://www.mwra.com/monthly/wscac/meetings.html>