WATER SUPPLY CITIZENS ADVISORY COMMITTEE
to the Mass. Water Resources Authority

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# WSCAC Meeting

April 9, 2013
Location: MWRA Facilities in Southborough

*Members in **Bold** in Attendance:*

**Whitney Beals, WSCAC Chair, NE Forestry**
**Andrea Donlon, CRWC**
**Gerald Eves, Trout Unlimited**
**Michael Baram, CFL**
Kimberly Noake MacPhee, FRCOG
**Dona Motts, MA League of Women Voters**
**Martin Pillsbury, MAPC**
**Alice Clemente, Blackstone River Watershed**
Jeanne Richardson, Boston Water & Sewer
**Paul Lauenstein, NepRWA**
**Nancy Bryant, SuAsCo**
**Martha Morgan, Nashua River Watershed**
Mason Phelps, Millers River Watershed
**Bill Fadden, OARS, SuAsCo and Wild & Scenic Rivers**

*Non –Members in Attendance:*
Lexi Dewey, WSCAC staff
Bill Pula, DCR DWSP, Quabbin Regional Director
Thom Snowman, DCR DWSP, Environmental Analyst
Sue Costa, WSCAC
Dan Clark, DCR DWSP, Director of Natural Resources
Maggie Kenneally, MWRA Advisory Board

## WSCAC Business

Whit Beals opened the meeting and attendees indentified themselves for the record. Approval of the February meeting summary was voted and approved with the understanding that WSCAC staff would verify a correction by Paul Lauenstein on streamflow discussed by Julia Blatt in her SWMI presentation. Staff followed up with Julia and the meeting summary reflects the correction.

The second item, Membership Attendance, was moved to the May 14th WSCAC meeting.

The third item, materials for the Conflict of Interest, was mentioned to encourage the few remaining WSCAC members to complete the online test and send the certificate to the WSCAC office with the sign-off on the Conflict of Interest Guidance. The April deadline has passed and staff is required by law to maintain accurate records of compliance. Please contact the office if you need assistance.

**FEATURED PRESENTATIONS: DCR staff discussing Quabbin Park Planning, Terrestrial Invasive Plants (TIPS) in DCR Watersheds, and Deer in Quabbin Park.**

## Bill Pula-Quabbin Park

The Quabbin Reservoir was built in the 1930s, at about the same time as Hoover Dam and the Golden Gate Bridge. The park area is comprised of 3153 acres including the Quabbin Park Cemetery. Of these acres, 1385 are on-watershed and 1768 are off-watershed. The Park is considered the "window" on the Quabbin. It is located in the southern portion of the watershed and includes the Winsor Dam, Goodnough Dike, Quabbin Tower and the Administration building. Over 300,000 people visit each year and many come daily to walk, run, bicycle or drive through the park area.

DCR staff is working on a Quabbin Park Management Plan to address the mixed recreational and necessary operations that include road and structure maintenance, wildlife management, cemetery operations, interpretative sites, forest management, and public access. This plan will be separate from the Land Management Plan, Watershed

Protection Plan and Public Access Management Plan that DCR prepares for each of the four watersheds that comprise the DCR DWSP/MWRA water supply system.

Bill showed slides of Quabbin Park including the dam, dike, spillway, and lookout. The road across the dam was closed immediately following 9/11. Since the closure, the road has become increasingly more popular for walking and biking. Quabbin is host to many weddings (ceremonies only, not receptions), a bicycle race, a cancer walk, and many other activities.

There are a host of issues involved in managing Quabbin and Quabbin Park. Some of these include whether to mow or not mow fields, what, if anything, to do about viewing sites where the trees have grown so much they block the views, and adding handicap accessible facilities. There are many red pines dying from red pine scale. DCR would like to cut the red pines before they die but there is current a moratorium on logging. DCR staff work to discourage beavers and Canadian geese at Quabbin.

Earthen dams like Quabbin are at risk from earthquakes but Bill noted that the Winsor dam is overbuilt. Bill said ideally in an emergency you'd lower the water level but the capacity to do that is limited. The flow to Wachusett is gravity fed so what can be sent to Wachusett depends in part on the relative level of both reservoirs. Bill would like to see the spillway lowered so more water could be released but that would be a major project. The Chicopee Valley Aqueduct (CVA) is located close to the administration building – a less than ideal placement due to stormwater runoff from the road and parking lot. As a result, work has recently been completed to reroute stormwater away from the reservoir and intake area.

Public access and recreational activities at the Quabbin were influenced by political decisions and lobbying continues to play a big role in what is or isn't allowed. Recreation on the water includes motorized fishing boats. Most of the fish population in Quabbin came from the lakes that were flooded when Quabbin was formed, but the reservoir is also stocked with salmon. The fishing program operates seven days a week from mid-April until mid-October. Fees for licenses and boat rentals don't cover the cost of running the program but it is very popular with fishermen. Although its possible to snowshoe at Quabbin, cross-country skiing is only allowed on land off the reservation. This dates back many years but Bill said the Quabbin Watershed Advisory Committee (QWAC) is very much opposed to allowing skiing though members support the annual deer hunt and the forest management program. Another controversial issue is the use of motorized boats but not canoes and kayaks. A recent request by the Appalachian Mountain Club to route a portion of the NE Scenic Trail through Quabbin was voted down by QWAC.

Bill turned the floor over to Dan Clark to speak about deer.

**Dan Clark – Deer in Quabbin Park**

The Quabbin Reservation White-tailed Deer Impact Management Plan was developed in 1991 and included the beginning of controlled hunting of deer over most of the Reservation. The plan also included a commitment to explore the option of electric fencing as an alternative to hunting in the Park due to public interest. The first fence installed in 1993 and included 100 acres in the Park. Installation and maintenance were done by an outside contractor. An additional 3 fences were installed by the contractor in 1994 surrounding 100 acres each. Maintenance was the responsibility of the MDC. Despite areas being chosen for visibility and ease of maintenance due to road and trail access, the operation proved to be cost prohibitive and unfeasible. Faulty charges, storm damage and long periods when the fences were not electrified allowed the deer to come and go without limit. In 1998 the idea of fencing was abandoned.

Over the winters of 2001 and 2002 Dan conducted a study of the deer density in the Park. He gave a very interesting overview of how a population density study is conducted and the essentials needed to ensure the results are reliable. Currently deer densities in the Park are estimated at a very high 80-100 deer per square mile. An ideal deer density is around 15 deer per square mile. Unhunted areas such as the Park can serve as refuges for deer during hunting season - deer make their way into the refuge during hunting season and wander back out afterward. Deer feeding is

a known problem in the Park despite ongoing discouragement and signage by DCR. The Park is the most visited area and the public enjoys seeing the deer.

Options for deer management in the Park regard include doing nothing, putting up temporary fencing around key areas when regeneration is needed, or having a managed 2 day hunt similar to the annual deer hunt. No decisions have been made yet.

Several questions were posed to Dan. Whit asked if deer scat was a concern for water quality at Quabbin. Dan did not think it was. Dona Motts asked about hunting using shotguns versus rifles. Dan noted that Massachusetts doesn't allow rifles for hunting. He also mentioned that coyotes are not a deterrent to the deer population.

The committee discussed deer control and why it was important at the Park. The fertility rate of deer in the Park is unknown but the general expectation is that the reproductive rate would decline as the population increases.

Dan introduced Thom Snowman to talk about invasive plants in the watersheds.

**Thom Snowman - Terrestrial Invasives Plants (TIPS) at Quabbin**

Thom defined invasive plants as non-native plants lacking competition or natural predators. Many come from Asia via packing materials. Some native plants are invasive as well. Hay-scented fern can be found in many areas around Quabbin. It is invasive, affects the regeneration of various tree species and is difficult to get rid of without herbicides. Purple loosestrife produces more than a million seeds per plant but Thom said Kudzu, which can grow one foot a day, is the poster child of invasives. Kudzu has been found in eastern Massachusetts.

Thom gave the group some interesting history on how non-native plants arrived here. Home port dirt (containing seeds) was used as ballast on colonial ships. When the ships reached America, the dirt and seeds were emptied out and replaced with timber or other products from the colonies. Today's global shipping enables plants and seeds to hitch a ride. Homes located in the four towns that were removed before the reservoir was created planted Japanese Barberry and other common shrubs still in evidence around cellar holes today. Over the years the plants have spread and now cover a larger area.

Thom noted that invasive plants aren't categorically bad for water quality. The plants can monopolize the understory and they can be used for erosion control. The main concern of invasives in the watershed is their effect on regeneration of native trees and rare plant populations. Quabbin has 130 acres of rare plant populations. Thom characterized non-native plants as "ecothugs" when they can reproduce vigorously, alter habitat and have the ability to grow rapidly.

The top 10 invasives are:

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|---|---|---|
| Japanese Barberry | Oriental Bittersweet | Japanese Knotweed |
| Buckthorn | Burning Bush | Non-native Honeysuckle |
| Multiflora Rose | Autumn Olive | Common Reed |
| Purple Loosestrife | | |

Thom showed maps to illustrate where invasives are located in the watershed. For the most part, they are concentrated along roads sides with Barberry being the most common. Mowing, pulling, and burning are methods being used to combat invasives. Although there has been long discussion on using biologic controls, there is concern of creating a potential new problem by introducing a biologic control. The use of pesticides is a difficult discussion around a public water supply, so DCR continues to focus on the above options.

Priorities at Quabbin on invasives include:

- Buffers for rare plant populations

- Providing early detection and rapid control of **new** TIP populations
- Ensuring vigorous, native forest regeneration near intakes
- Inventorying and controlling TIPS **prior** to regeneration harvests
- The protection of biological diversity in critical habitats such as wetlands

Thom noted that reducing Barberry also reduces the tick population. The conclusions of a Harvest Forest study found that logging does not create invasive plants, but all disturbances, including logging, can encourage invasive plants. In addition, logging equipment can transport invasive seeds.

DWSP will monitor invasives during the review of proposed harvest areas. They are planning to design harvests to avoid established invasive populations. They will also inspect equipment from sites that contain invasives. Equipment operators may be required to clean their equipment if they have been working in areas where invasives are located.

. In summary Thom noted that following:

- Invasives aren't everywhere
- Eradication is feasible for new invasives but probably not for existing invasives
- Mechanical control methods are costly, but alternatives are controversial for water supplies
- Deliberate disturbances prior to controlling invasives should be avoided
- More research is needed on the direct and indirect effects of invasives on water supplies

**Nancy Bryant – SuAsCo Update**

Nancy noted that the SuAsCo Watershed includes the Sudbury, Assabet, and Concord Rivers. There are 36 communities and 377 square miles within the watershed. The Sudbury River is a slow flowing low gradient river. The Assabet has a higher gradient, faster flow and has more dams than the Sudbury River. The Concord River, which has characteristics that are a combination of the Sudbury and Assabet empties into the Merrimack River.

The Hultman Aqueduct and Metro-West Tunnel pass right through the SuAsCo watershed and Nancy provided some interesting historical background for members. When the Metro-West Tunnel was being build, the water level in Dudley Pond in Wayland went down considerably. The Dudley Pond lost its water through fractures in the ground as a result of the tunnel being built but because it was a very dry year, it wasn't initially obvious that the construction of the tunnel was causing the problem. The following spring, it was determined that tunnel construction was the cause and water was pumped out of the Hultman and into Dudley Pond temporarily until the Metro-West tunnel was finished.

Nancy had pictures showing the Sudbury at times of high and low flows. She made note of wastewater treatment facilities and mentioned that several years ago it was suggested that the Assabet River had more wastewater treatment plants per mile than any other river in the country. It's not that the wastewater plants are that big but rather that there are so many of them. The river has a limited capacity to manage all the effluent that comes from the plants, especially phosphorus which causes excess plant and algae growth. EPA is mandating increased treatment levels at wastewater treatment plants to lower the amount of phosphorus being discharged into rivers.

Water Chestnut and Eurasian Milfoil are aquatic invasives of concern in the watershed. The Nyanza superfund site led to mercury contamination in the Sudbury River. Thus, there are warnings about eating too much fish.

The SuAsCo Watershed Community Council was formed in 1997 under the Watershed Initiative which stated that every watershed in the state should have a "community council". Nancy believes the SuAsCo is the only watershed in Massachusetts to successfully use funding from the Watershed Initiative to launch a collaborative, enduring community council. The SuAsCo represents the diverse interests of the watershed and brings the various groups together to work for the common good of the watershed at large.

Five different organizations including the Sudbury Valley Trustees and the Metropolitan Area Planning Council were instrumental in the launch of the council. The biggest problem for SuAsCo is funding. When the Watershed Initiative ended, that funding was lost. Additional funding through foundation grants has decreased and is highly competitive.

SuAsCo is based in Stow and their mission is to "promote blue waters and a green economy". They do not advocate but rather collaborate and educate. Unfortunately, today advocacy is "sexier" and attracts more funding. SuAsCo's collaboration includes municipal governments, businesses, environmental groups as well as regional, state and federal agencies. Nancy believes it's a great model but funding is a critical problem.

SuAsCo creates policy via their steering group. They hold workshops and river events to engage the public and encourage participation in the watershed. They educate people about the importance of knowing what's happening upstream and downstream because the two are connected and people should care.

SuAsCo has been in a hibernation state for the last year or two deciding how best to move forward. Nancy passed around some SuAsCo "Stormwater Matters" education materials. A committee representing municipal, state, business, and environmental interests helped design the materials. Nancy and graphic designers did the work. Materials include flyers for residents and businesses, lesson plans for kids, tote bags, umbrellas, storm drain markers, etc. Nancy noted that some of their work has won awards. SuAsCo has made their materials available for sale outside the SuAsCo watershed and they are in the process of reintroducing some of their stormwater products. There was a question about the affect of sequestration on the SuAsCo. The council gets little government funding so it is not an issue for them but Nancy said there are other organizations in the watershed that are affected.

Nancy invited everyone to come and enjoy April events celebrating the long historic history of the Revolutionary War in the SuAsCo watershed. The Boston Marathon runs through the SuAsCo watershed. Bill Fadden noted that Riverfest is coming up in June and Lexi said she would send that information out.

**More WSCAC Business**

Whit noted that there is a request for continued funding for land protection at Wachusett. Further, the MWRA Board of Directors approved a $400,000 program to control aquatic invasives at Wachusett Reservoir. Bill Fadden asked that we establish a procedure on how we handle member feedback and the integration of comments. Several folks agreed we need improvement in this area and Lexi stated that staff would work on this.

The meeting was adjourned.