



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

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## **WSCAC Meeting**

January 14, 2014

10:00 A.M.

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, 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**

Elie Saroufim, 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

Steve Estes-Smargiassi, MWRA

Fabiola DeCarvalho, Town of Framingham

Sue Costa, WSCAC staff

Kurt Tramosch, MEWWA

Russ Cohen, DFW

### **WSCAC Business**

Whit brought the meeting to order and had attendees introduce themselves. The December meeting summary was not voted on in order to allow everyone to take a second look at it given that the digital recorder did not capture the beginning of the meeting.

Lexi gave an update on Senate Bill 1947 (formerly SB 1880). She noted that two WSCAC members had reservations about signing onto the Water Infrastructure Alliance (WIA) letter on the draft bill but other members were in favor of signing. The WIA did not meet their initial deadline for the letter and subsequently put out a second draft. WSCAC can sign on to this second letter and also send a letter from the committee outlining specific concerns. The letter would be sent to the Senate Joint Committee, the MWRA Board and other interested organizations. The green infrastructure portion of SB 1947 is still under discussion. Lexi will be sending WIA's redrafted letter out to the committee and noted that it is a generic letter written to show support for infrastructure funding and the legislative attention it is receiving. She further noted that it's hard to know what a WSCAC letter should focus on without first seeing the redrafted bill.

Paul spoke about ways we can pay for water infrastructure. He posed the following questions and comments: "Do we pay for it through water rates or with subsidies from the state?" He pointed out that if we pay for it through state subsidies there's a disconnect between people's water use and their pocketbook. He asked to

what extent is it appropriate that water rates drive conservation and noted the trade-off between efficient water use and fixing our infrastructure.

Russ Cohen agreed with Paul's comments and emphasized the need to use SB 1947 to incentivize communities to do the right thing. Whit mentioned that small public water suppliers and districts don't have much revenue and it would take them a long time to pay off any infrastructure investments in their systems. In these cases the state subsidies are really necessary. Paul noted that what matters is how affluent a community is rather than how big it is.

### **2013 Water Trends with Steve Estes-Smargiassi**

Water use increased by 3 mgd in 2013. In addition to the regular users, the MWRA sold water to Hudson on an emergency basis and also provided water to Cambridge when MWRA water and wastewater projects prevented Cambridge from fully utilizing their local sources.

Excluding Cambridge and Hudson, water usage was essentially flat. Looking at the City of Boston, water use was slightly less than the year before and also less than it was in 1900. The City of Boston population peaked in 1950 and then decreased until 1980. Since 1980 the population has increased. No matter how it is analyzed, per capita water use has declined.

During 2013, the lowest water use was on Christmas Day, followed by the day after Thanksgiving and February 9<sup>th</sup> (the day a big snowstorm closed down the city).

Over time the peaks and valleys in daily usage are declining. When the MWRA was created, **the average daily usage** was substantially higher than **last year's peak day usage**. The Carroll Water Treatment plant has both a minimum and a maximum operating capacity. Low use days can present operation issues especially if nighttime hour demand falls below the minimum operating capacity.

Q: Can you spill water if demand is below the minimum at the Carroll Water Treatment Plant?

A: They do not want/like to spill finished water. Finished water is expensive and requires de-chlorinating agents. The goal is not to spill finished water.

The MWRA analyzes indoor versus outdoor demand. November to March defines indoor usage or base demand. Base demand continues to decline and Steve said they expect the trend to continue. Thus, there is the ability to sell water to additional communities.

Seasonal demand is determined from May through September usage above the base demand. Total seasonal demand is roughly 9% of total usage. However as total demand drops, seasonal demand as a percent of total demand can increase because the dominator (total usage) is decreasing. To say it another way, as the base changes the percentage changes.

Last summer was hot and dry with big gaps between rainfalls. Outdoor water use in Boston is relatively small but outside the city there is substantially higher seasonal demand. The 5-year running average of water use is down 1 mgd despite emergency use by Hudson and Cambridge. The MWRA expects the 5-year average to remain fairly flat for the next few years.

Steve showed a graph of Quabbin elevations. This past year was the first year in several where there was not a significant spill at Quabbin; 1/100 of an mgd was spilled over the course of a year. The reservoir has been within normal operating range over the course of the entire year and in early January 2014 was at 88.5%.

Steve noted that every year is different and very much weather dependent. He presented several historical graphs on water usage and releases. He gave the group a flavor for the various factors that go into the decisions to transfer water.

Q: Paul asked about the variability in Ware River releases.

A: Releases are weather dependent and Steve noted that they try not to use the Ware because it is of lower quality. However, it is important to exercise the infrastructure and retrain staff on an annual basis.

Q: Dona asked about the rationale of taking water out of the Ware in 2006-2010 when Quabbin was frequently spilling.

A: No significant water has been taken out of the Ware River in years. The numbers are annual averages and timing can be an issue when a wet fall results in a spring spill in the following year. If the Army Corps of Engineers asks the MWRA to take water to prevent potential flooding, they take it if they can.

Q: Bill asked about transfers from the Ware River to the Wachusett.

A: Ware River water is not transferred to Wachusett. It is transferred to the Quabbin where it will stay for an extended time before being transferred to Wachusett.

Q: Does the Quabbin benefit from nutrients from the Ware River?

A: This might be theoretically correct but all the tributaries feeding Quabbin also have nutrients.

Steve noted that this year saw the clearest water ever at Wachusett.

Steve noted that UV at the Carroll Water Treatment Plant has been operating in extended testing mode since September with an EPA deadline by April 14. There are still some kinks to be worked out. Betsy Reilly and her team are working on all the reporting requirements. Steve gave an explanation of how you prove you are doing what you said you would do – it's not trivial.

Q: Given the West Virginia (WV) incident, has there been an overall assessment or a priority list on the quality of the system.

A: There is no chemical storage of size in our watershed but the MWRA does pay attention to transportation related risks. They do a lot of work being aware of what's going on and noted this area is in better shape than WV. Close attention is paid to the transportation of chemicals by rail.

In a place like WV where your source is a river and the area is industrial area communities look to treatment and assume their source may be polluted. Someone fell down on the job in WV but it wasn't the water supplier.

Q: Going back to the rail transport of chemicals prevention and contingency and emergency planning are two ways to deal with it. It sounds like you are relying on emergency planning rather than prevention.

A: Steve cautioned on generalizing. He was reluctant to give too many specifics. Due to confidentiality agreements with the railroad, he was not at liberty to say what information the railroad provided to the MWRA and how the MWRA uses it.

Q: Dona asked about UV treatment and what you do if UV is not effective.

A: If the UV were to fail they would adjust the other disinfectants. The treatment train for the Metro Boston water system is as follows:

- Watershed Protection & high quality source water
- Ozone
- UV
- Short period of free chlorine
- pH adjustment and chloramination
- Corrosion control
- Fluoride

Q: Does the MWRA do anything about pharmaceuticals?

A: The Authority has the benefit of having first use water whereas in some areas of the country water is treated and reused. They test for pharmaceuticals but haven't found any. They also do not see caffeine in the water, even at parts per trillion levels.

Q: Does the addition of UV allow you to reduce the amount of ozone and create a net energy reduction?

A: Yes, it allows us to reduce the ozone but we think energy usage will be close to neutral.

Q: Is there an issue with the warranty on the wind turbines as a result of the manufacturer going out of business.

A: Steve does not have the specifics but people are aware of it and he believes there is something in place.

Steve wrapped up his remarks with the note that the Southern Extra High redundancy project contract will be awarded shortly and he will update the committee on additional redundancy projects at a future meeting. He added that Marcis Kempe and Rick Trubiano, both senior staff at the Authority will be retiring in the next few weeks.

### **WSCAC Business**

The MWRA Advisory Board will be sending out their 2013 Water & Sewer Rate Survey as well as the Collins Report on economic development as it relates to water and wastewater infrastructure. WSCAC staff will post these reports on our website and send members a link to the Advisory Board posting. In lieu of a regular March meeting, the Advisory Board is planning to host a workshop for members on full cost water pricing and enterprise funding.

Lexi suggested a staff member from DEP as well as Julia Blatt from the Mass Rivers Alliance present an update on SWMI at the February or March meeting. Paul noted WSCAC has an opportunity to comment on SWMI in January or February. Lexi and Sue will email a copy of the December 5, 2013 SWMI presentation to members so they are familiar with what is now being discussed at the state level. Lexi does not feel we

can comment until we see the regulations. Paul thinks we should comment now based on the handout from the December meeting.

Andrea suggested we spend less time on a SWMI presentation and more time on crafting a response. The group agreed this was a good idea. Dona and Whit suggested Lexi and Paul work on draft comments now rather than wait for the regs.

Dona noted that when local sources are not used, recharge areas tend to be developed. It's hard to protect a source that is not in use. A discussion of the Birch Road wells in Framingham ensued. Bill Fadden will be giving a presentation on the Birch Road wells at a future WSCAC meeting.

Michael spoke of protecting local sources and recharge areas. Dona suggested reviewing older memos on this subject written by Alexandra Dawson. WSCAC will try using Dropbox to share PDFs with members.

Lexi mentioned that she will be asking each member to let us know their area of expertise. This information will be useful when forming subcommittees to work on specific topics of interest.

Michael raised the question of what is in WSCAC's purview. He also noted that the Authority doesn't seem to be comfortable discussing certain issues in a public meeting setting. The question of the safety of rail transportation near the reservoirs was cited as a specific example. There was a lengthy discussion of why the committee would like more information on rail traffic near reservoirs.

Bill noted that Reservoirs 1 & 2 are no longer part of the active system. Framingham State University is in the process of obtaining nearly 150 acres of state-owned woods around these reservoirs.

Lexi asked members to look at the purpose of WSCAC in the By-laws and to consider whether WSCAC should continue to pay attention to state water policy and not just MWRA issues? She noted that several people from the state have called the office recently regarding an opportunity for the Interbasin Transfer Act to be reviewed and they are hoping WSCAC will continue to have a voice in that.

Alice noted that WSCAC was started to protect watersheds and our role has always been broader than just the MWRA. She read the following text that was included in a June 1991 WSCAC newsletter:

WSCAC has always expressed a broad mandate for the proper management of all water resources in the Commonwealth. We have repeatedly emphasized two principles: preservation of sufficient instream flows for the health of our rivers, and demand management. We have objected to the plundering of rivers and aquifers for any use, in-basin or out-of-basin.

We believe these principles should be applied to all basins, and all water sources, in the state, whether currently stressed or not. We believe that all the demands on a river must be considered objectively, including human use, fisheries, recreation, wetlands protection, and waste dilution.

Water conservation measures should be required whether or not water sources are currently stressed, as a matter of state policy. We believe that leak repair, full-cost pricing, metering and the other elements of state policy, lead to more efficient and less costly supplies.

Whit suggested we post this text on our website. Dona suggested we use the statement on our "expressions of concern" to the MWRA.

It was noted that WSCAC is an independent organization. Although the committee needs to be responsive to MWRA issues, we can comment, and have commented on state water policy in general. After a general

discussion, the group decided the WSCAC By-laws are loose and members want them to stay that way for flexibility.

Michael suggested and the committee agreed, that WSCAC should send out “expressions of concern” on topics we want more information on. Michael further suggested that an expression of concern (in the wake of the West Virginia chemical spill) be sent to the MWRA on safety issues such as hazardous cargo transported by rail over the Wachusett Reservoir.

A motion was made to adopt a policy whereby when there is an issue of concern the committee wishes to bring to the Board, an expression of concern will be drafted and voted on by members. The motion was seconded, and approved unanimously. Specific expressions of concerns will be voted on at future meetings. Michael will work on drafting an expression of concern regarding safety issues with transporting harmful materials by rail near public water supplies. A long discussion followed on the control of information.

Lexi confirmed that there would be no changes to the WSCAC By-laws. Michael asked about the principle of local governance of water and noted that there is nothing noted in our contract or other official WSCAC language. WSCAC does not support use of local sources in all circumstances but rather for water management as a component of sustainable development.

When a new community becomes a MWRA ratepayer, who is going to address the issues of sustainable development, impervious cover, and other factors the SWMI criteria bring into the conversation? WSCAC is and has been able to comment through MEPA on the potential effects of accepting new water communities into the MWRA system.

Members expect that as the MWRA advertises to sell more water, there may be friction between the MWRA’s desire to sell and the WSCAC position on each individual case. Lexi noted that although WSCAC has evolved over time there is still a perception among MWRA Board members that the committee is not in favor of the MWRA selling additional water.

Paul spoke of the decline in MWRA water use. The SWMI classification of streams highlighted stressed basins. Paul is in favor of using MWRA water on a case-by-case basis to alleviate stress in the basins. However, he feels that potential state subsidies should come with requirements on rate structures such as ascending block rates. Smart Growth principles could also be a requirement for state grants. The bottom line is that we need to move in a progressive direction by adding requirements for state subsidies regarding the purchase of MWRA water.

The idea of bringing private wells into the equation was discussed. The topic of wells for irrigation brought about a lively discussion among members.

The meeting was adjourned.