



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

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WSCAC & WAC Joint Meeting

November 19, 2013

Location: WaterWorks Museum

WSCAC 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

WAC Members in Attendance:

Vin Spada, WAC
Beth Miller, WAC
Stephen Greene, WAC
Mary Adelstein, WAC

Craig Allen, WAC
Bill Katz, WAC
Tabor Kelly, WAC
Zhanna Davidovitz, WAC

Non –Members in Attendance:

Lexi Dewey, WSCAC staff
Andreae Downs, WAC
Carl Leone, MWRA
Ward Motts
Senator James Eldridge
Julie Wood, CRWA
Pamela Cady, Town of Acton

Kelly Coughlin, MWRA
Lise Marx, MWRA
Kristen Hall, MWRA
Jennifer Pederson, MWWA
Fabiola DeCarvalho, Town of Framingham
Wendy Leo, MWRA
Bruce Berman, Save the Harbor

WAC Business –

The October 4th meeting minutes were amended and approved. New members Wayne Chouinard and Elie Saroufim unanimously recommended.

Senator James Eldridge –

Senator Eldridge thanked every for the opportunity to speak. The Senator served as the co-chair of the Water Infrastructure Finance Commission (WIFC). The WIFC was established by the legislature in 2009 with appointees chosen in 2010. The WIFC met for over 2 years and had many discussions on how to finance water infrastructure. Sen. Eldridge noted that there is no consensus on how to fund infrastructure.

Sen. Eldridge mentioned that Martin Pillsbury served on the WIFC commission. In addition, although she was not on the commission Jennifer Pederson attended every public hearing.

The Senator spoke on the work of the WIFC including the analysis of the infrastructure needs of the state. Another focus was whether there were reforms that needed to be made to encourage greener structures for water that mimic more natural processes. Things like decentralized water and wastewater treatment were discussed. The MWRA is the gold standard for water so much of this discussion was about the smaller water districts – i.e. communities outside the MWRA system. The Senator is hopeful that the work of the WIFC will apply to the whole State.

One topic of discussion was whether there should be strings attached to SRF funding or other state grants for upgrades to water systems that would require energy conservation, leak elimination, and best practices such as maintenance funds. Regionalization was also considered. The commission also discussed wanting to provide some incentives for communities just outside the MWRA system to be able to join the system.

The WIFC ended last year and the legislature session began in January. Senator Eldridge and Representative Dykema filed several bills including a bill on water banking and another to establish a new trust to find newer ways to treat water. As an example, Senator Eldridge noted that earlier this year a group went to Deer Island to look into the possibility of using one of their off-line treatment facilities to test newer kinds of water technology.

Senate President Therese Murray prioritized water infrastructure as one of her top 5 priorities. Senator Eldridge worked with her office for several months and is very pleased that as a result, a unified bill, Senate Bill 1880, was filed. He highlighted some of the details of the bill including a requirement that DEP come up with best practices for water districts and water managers as well as looking a green infrastructure.

The bill includes funding to pay for 50% of the entry fee for joining the MWRA. There is also money for technical assistance. Senator Eldridge noted that this bill is a great way to highlight the accomplishments and record of the MWRA. It is also a way to expand the best practices of the MWRA to communities outside the MWRA system. However, the bill will not meet the water infrastructure need within the state so more needs to be done.

The WIFC could not agree on different forms of revenue for infrastructure so that's why Senate Bill 1880 is expanding the loan capacity for Water Pollution Abatement Trust at a relatively modest increase. Senator Eldridge supports more progressive taxation and the dedication of some of that money to water infrastructure. He noted that water is not a sexy issue and few people want to talk about it. We need to figure out how to generate interest in water.

The Senator concluded his presentation of took questions.

Q: Would the portion of the entrance fee paid by the state be a loan or a grant to the community?

A: It would be a grant.

Q: Water related energy use is a significant portion of total energy use. If we are going to subsidize joining the MWRA can we require progressive ascending water block rates to encourage conservation so we are not subsidizing water that will be used for lawn irrigation?

A: The bill challenges to DEP to come up with full cost water pricing. We need to have those discussions.

Comment: Mary Eddlestein noted that a major virtue of Senate Bill 1880 is full cost pricing. She went on to say that we shouldn't seem to make water cheap. When you under price water the maintenance of the pipes goes down. We should be careful not to perpetuate this situation by subsidizing water costs.

Q: Stormwater presents a huge challenge for small communities but that was not included in the WIFC purview. Please don't stop here. We need to fix these problems. Can you share your view on his bill and the Interbasin Transfer Act (IBTA)? Second, what can citizens do to help?

A: The entire environmental community is universally concerned that Senate Bill 1880 is not following the policy of keeping water local or regional. The bill is expanding the bonding capacity for Water Pollution Abatement Trust because there is no new revenue being dedicated to it.

Q: Going back to the IBTA. The Senate Bill 1880 would exempt communities from having to go through the existing process of the IBTA. It's a good process that requires communities to do through planning and allows for a public input process. The environmental communities are looking to not override this process.

A: I understand. We have heard universal opposition/concern to this from the environmental community so it may not be in the final bill. (Scribe's note: The language on the IBTA has been removed from the bill)

Comments: Lexi Dewey spoke to say that WSCAC's members are strongly opposed to the portion of the bill that overrides the IBTA. She stressed that the public process and due diligence on the side of the joining community is important. The transfer of water is worth the review and process. She further noted that reducing the process to 20 days for MA DEP doesn't do justice to large transfers. If you want the water you should need to put out that information for review.

A: Thank you for your comments. This is one reason we wanted experts in the Environmental community and the public to review the Bill.

Q: Why did you decide to incentivize joining the MWRA? Also, when you incentivized did you make a distinction between water and wastewater? Would that create a tension between water and wastewater?

A: There are a number of communities wanting to join the MWRA but the entry fee is high so incentivizing is a way to make it more likely to happen. As far as water and wastewater, the Senator will need to check on that.

Comment: Paul Lauenstein pointed out the connection between conservation-oriented ascending block rates for water and inter-basin transfers. If you incentivize conservation there will be less water used and less transfers and that will be true to the principal of keeping water local.

Comment: Jennifer Pederson thanked Senator Eldridge for his leadership on the water issue. One of the WIFC main recommendations was to increase the public awareness about water. MA WaterWorks and the Engineering community have come together to form a Water Infrastructure Alliance and part of that is supporting the legislation and part is creating tools for the water systems to use to make their case for infrastructure. She noted that water managers frequently want to do maintenance but the public doesn't want to fund it via rate increases.

The committees thanked the Senator for his time.

Lise Marx, Carl Leone, and Kristen Hall on the MWRA Master Plan -

The first Master Plan (MP) was done in 2006 and was used to set the 2009-2013 budget cap. As part of the 2013 MP they went back and revisited the goals and objectives from 2006 to see if they were still the right ones going forward. The MPs look out over a 40 year period with the most detail in the first 5 years and gradually decreasing detail as you go further out. The farthest out years are planning estimates and place holders.

Overall since the MWRA's inception they have spent \$7.7 billion in capital dollars – most (73%) in wastewater. The water and wastewater systems have a combined infrastructure replacement asset value of approximately \$13 billion, split roughly equally between water and wastewater assets. Most of the dollars on the water side are in tunnels and pipelines. On the wastewater side, 46% of the asset value is in the Deer Island Treatment Plant and outfall.

The MP is a tool for staff to use for annual CIP development and for management to use when looking out over the next 3 or 4 years. There are \$ 4 billion of projects addressed in the MP – \$1.5 billion in water projects and \$2.5 billion in wastewater projects. There 367 projects in the MP that are prioritized as 1-5 with #1 being Critical and #5 being Desirable.

The 2006 MP themes were redundancy, pipeline rehab, and asset protection needs. There hasn't really been any significant change. Moving forward the Authority believe the existing safe yield is adequate. There is nothing they see down the road in Federal and State regulations that will require major system dollars. Climate change is not expected to have a major impact on system yield.

Recommendations on the water side reflect that the MWRA believes that operational flexibility and system security are enhanced by having redundant means of supply. An inspection of the Quabbin tunnel is included in the CIP. More redundancy is included in the MP to systematically eliminate single points of failure in the system. Lise spoke in some detail about specific locations that need replacement, repair, or redundancy.

Storage is important to the MWRA and they are looking at specific distribution storage. Spot Pond covered storage of \$ 20 million gallons is slated to come on line in 2014. Lise presented information on historic storage levels.

Pipeline rehab remains critical with 53 miles of cast iron pipes relined so far. A map of pipes showing those rehabilitated and those needing rehabilitation was presented. Lise spoke of asset protection – maintenance and improvements.

Q: Foss Dam – are the lands DCR and the dam MWRA?

A: Yes

Q: What is MWRA doing about keeping water within basins? Are they taking any kind of a lead in recharge?

A: Lise suggested that Steve Estes-Smargiassi could answer this question more fully but noted that Reading and Wilmington are coming on-line. They are in the Ipswich Basin where the focus is to infiltrate more water. She wasn't sure what else the MWRA might be doing.

Lise concluded her remarks and Carl took over to discuss wastewater. On the wastewater side the MWRA is working to keep stormwater and ground water out of the sewer system.

Carl discussed the wastewater MP. The wastewater system covers 43 communities. The CIP has \$1 billion. Maintenance and improvements at Deer Island is using about 40% of the wastewater funds. In FY 2014 a co-digestion pilot will be underway at Deer Island. Wastewater is not expected to have any significant changes in flows and loads over the 40 year timeframe, nor are regulations are not expected to have major impact. Sea level rise is an ongoing project.

Carl had slides showing expected asset protection costs. Residuals facilities will account for about 10% of wastewater spending with co-digestion at Deer Island driving that over the next year or two.

Other wastewater issues discussed:

- Cross harbor tunnels to Deer Island
- The Head Works – Chelsea Creek, Columbus Park, and Wood Street slated for upgrades
- Phosphorus removal for the Clinton Plant
- Pumps stations and CSO facilities
- CSO control program
- Collection system sewers – 30% over 100 years old
- Interceptor renewal projects
- Wastewater metering and remote monitoring
- Community financial assistance

There is \$2.5 billion in the wastewater MP - \$1 billion in the CIP and \$1.5 billion going forward. Carl had graphs showing the breakdowns of these figures.

Q: Are there any clean energy projects going on in Clinton?

A: Carl isn't sure.

Q: What is involved in asset protection? Is climate change taken into account?

A: Asset protection is rehab and maintenance. We want to protect the facilities from sea level rise and any changes to facilities will take sea level rise into account.

Q: What have you done in regard to climate change?

A: They have done simulations of sea level rise. They are looking on a project-by-project basis to do what they can do to protect facilities. They expect to look at this again three years from now.

Q: How will financial assistance be impacted by Clinton?

A: It will not be affected.

Q: What are your assumptions on interest rates for bonding costs? What about inflation?

A: The MP doesn't take interest rates into account - all MP costs are current costs. Inflation dollars are included.

Carl concluded his presentation and Andreae Downs led a brief meeting of WAC business including a discussion of rehabilitating pipes.

Paul Lauenstein noted that Andrea's outline of the water system Master Plan themes doesn't seem to include climate change and green energy. Paul suggested we need to encourage the MWRA in this regard. The green energy discussion continued with various people mentioning specific locations and projects. Climate change

predictions for New England are for more water not less. The Head Works can end up being shut down by flooding.

Q: What are the Head Works?

A: They are big pump stations where wastewater is pumped to Deer Island.

Q: Is there an update on the Bottle Bill?

A: They are busy certifying the signatures. The legislature has until May to preempt this process. If they do nothing then more signatures need to be gathered and once they get them it can be placed on the ballot.

WSCAC Business –

A motion was made, seconded, and a vote taken on Whit Beals as WSCAC chair. Whit was unanimously approved. A motion was made, seconded, and a vote taken on all existing Executive Committee members returning to the Executive Committee. The existing committee was unanimously approved.

Lexi noted that there is a SWMI meeting on Dec 5th. This is the first SWMI meeting since 2012. Lexi and Martin will both be attending this meeting. Martin is expecting an update on the SWMI pilot projects at the meeting. Martin and Ian Cooke may do a SWMI presentation at the Dec 10th meeting. Lexi will check to see if Ian can make the meeting on the 10th.

The next WSCAC meeting will be Dec. 10th in Southboro. Lexi gave the committee some information on the meeting topic of local water – history versus where we are today.

The meeting was adjourned.