

TOWN OF ACTON
WATER RESOURCES ADVISORY COMMITTEE
MEETING NOTES OF NOVEMBER 14, 2018

Documents: Any documents utilized during this meeting are either included in these minutes, available on the web and/or can be examined at the Town offices during regular business hours.

Present: Robert Sekuler, Lucy Kirshner, Matthew Mostoller, Barry Rosen, Joan Gardner (BOS Liaison), Kim Kastens (guest).

Note Taker(s): Barry Rosen

Chairperson: Lucy Kirshner

Called To Order: The chairperson called the meeting to order on Wednesday, November 14, 2018 at 7:10 PM ET.

Old Business:

1. Approval of Minutes: On a motion by Mr. Mostoller which was seconded by Mr. Sekuler, the WRAC minutes of October 24, 2018 were approved by a unanimous vote.
2. Citizen Comments: There were no comments or announcements.
3. Continue Analysis of September 22, 2018 Water Workshop: The 2-person subcommittees formed during the previous meeting of the WRAC (10/24) began their reporting to the committee this evening. It should be noted that due to business travel schedules, the Forecasting/Planning subcommittee was not yet prepared with their initial report. The Policy/Permitting/Enforcement subcommittee was able to provide a preliminary report and may also provide an additional report to the WRAC at the next scheduled meeting. Copies of each presenting group's notes are attached. Some of the comments made during the presentations were:
 - 3.1. Science/Data: Mr. Mostoller and Mr. Rosen provided their spreadsheet listing of the questions raised at the workshop meeting which they believe fall into the science/data domain. They emphasized that many of these questions could fall into multiple domains. Ms. Gardner mentioned that the Town Engineer (Paul Campbell) might be helpful to the Science/Data group as well as the WRAC. A copy of the spreadsheet listing the questions that are in the domain and a findings summary are included in the minutes.
 - 3.2. Policy/Permitting/Enforcement: Ms. Kastens mentioned that she had asked to examine a copy of the Town of Concord's master plan. After contacting a number of people, she discovered that Concord does not seem to have a document that could be called a master plan. During the discussion, it was pointed out by Mr. Mostoller that the AWD is in the process of building a database that will include the parcel size, the number of occupants, the dwelling size and the water usage. Ms. Kastens thought that this type of information would be very helpful if it were in some type of a GIS system. The mapping may be able to provide some useful insights. Ms. Kastens expects to meet with Mr. Beck in the near future and possibly add to the report attached to these minutes during the next meeting of the committee.
 - 3.2.1. Mr. Sekuler asked how critical is zoning versus the number of people in the area? Other points raised during this discussion were:

- 3.2.2. There is a belief that there could be a wide range of water uses within any particular zone. For example, water could be used for domestic use, manufacturing and irrigation all within a single zone.
- 3.2.3. It would be nice to use a GIS approach to water usage and need.
- 3.2.4. We should re-do the stair step diagram. There are many who did not believe it. We need to re-look at it making sure that the data and the reasoning behind it are good. [Ms. Kastens]
- 3.2.5. There was quite a bit of discussion around enforcement. The group consensus was that enforcement was a problem in Acton. Everyone felt that enforcement was spotty, at best, and in some cases seldom performed. While a number of observations were presented, it did not seem that a single reason for lack of enforcement was apparent. The group thought that enforcement could be an issue in some other towns also.

3.3. Education: Ms. Gardner and Ms. Kirshner listed the major questions as:

- 3.3.1. Who should set the education agenda?
- 3.3.2. Who should absorb the cost?
- 3.3.3. Who should deliver education?
- 3.3.4. The summary report for education is attached to these minutes.

New Business:

4. Current Membership of the WRAC: Mr. Rosen noted that one of our agenda items was to discuss the VCC recruiting effort. He believed that we should hold that discussion until the return of Mr. Beck our chairperson who would likely be the person to communicate with the VCC. Secondly, he asked Ms. Gardner if there was anything that could be done to move Ms. Kirshner into the position of a full member of the committee which would free-up the associate member slot. This could enable us to look for a new member – perhaps even one from another committee such as the Planning Board. He stated that the WRAC has not seen or heard from “missing member” in about two years so it makes sense to have an interested person occupy the full membership post. Ms. Gardner told us that she would discuss this with Eva and see what could be done.
5. VCC Recruiting Effort: This item will be discussed at the next meeting of the WRAC.
6. Date/Time of Next Meeting: The next meeting of the WRAC was not definitely set during the meeting because of a potential scheduling conflict. The possible dates are Wednesday, December 12 or Thursday, December 13, 2018 at either 7:00 PM or 7:30 PM respectively. Mr. Rosen will set and post the next meeting date/time when the possible conflict is resolved.

Adjournment: On a motion by Mr. Sekuler which was seconded by Ms. Kirshner, the meeting was adjourned by a unanimous vote at 9:14 PM ET.

Science and Data Questions

What should we worry about in the outflow of a WW treatment plant?

Can waterless system be used instead? Other technologies?

What's the tipping point for moving on town sewer?

How close is the town as a whole to this point (ie tipping point for town sewers)?

How close can a well field safely be to a modern ww plant?

Could the well site have a bedrock well instead of overburden

What are creative disposal solutions?

What are the unintended consequences of this plant?

Is the future well parcel already conserved

What are alternatives to site? Local? Each parcel separately?

Tradeoff better supply and wastewater

Are there other sites and if so where for sewage recharge in Acton? And are there any problems with those sites? Are there other potential well sites?

Could some of the properties be taken off line to make a large enough area for discharge?

What kinds of soils are around the wells?

What is transfer from septic to wells?

How easily does each travel? And how dangerous is it when it gets there?

Can't we find another site?

Can we drill a well (uncontaminated)

Wastewater demand

Betterment area? Sewers?

What types dwellings? (# bedrooms)

Can we increase pumping

Location of parcels

What's the zoning

How much additional demand would proposed units create?

Seasonal demand?

DEP estimates for water use?

Hydrant system? What water main serves this property?

What is the collective private septic capacity of the ground?

What is the projected use of the new dwellings (#bedrooms?)

How is this developer's track record (current water usage) for existing properties?

Can we get an increase in the WMA permit? And what are the allowable criteria (populations, others) that can be used to make the case?

Are they going to have private wells? For irrigation? Or grey water? If so does that affect our ability (either legally or physically) to withdraw from the aquifer?

How much water will the project recharge to the aquifer? And is that within the historic and projected rainfall on the property?

How does the water use compare to the previous use? How does the projected recharge compare to previous use?

How will the recharge/runoff ratio change due to impermeable/permeable surfaces?

What are the alternate sources to make up water deficit? How significant is that quantity in the big picture?

What was the contaminant pathway (air/water/solid)?

Were the zone delineations accurate?

Are there other similar sources?

Is there a public safety risk? (water or other ongoing risk?)

What is the contaminant and is there a known treatment? How to contain?

Alternative sources? Other towns (for near term)?

Impacts of contamination on other sources and watershed?

What is the contamination?

How much contamination?

Was it one time or is it ongoing/systemic?

What cleanup processes are possible (if any) How clean will the water be after each cleanup option is applied? How expensive is each option?

What can be done to protect the 3rd uncontaminated well?

How do we measure the extent and impact of the contamination?

What are the characteristics of the contaminant?

With two wells offline, what is the capacity of the AWD to supply the town?

Do we know what the safe levels of this contaminant are?

Does this scenario bump us into scenario 1 (insufficient water for more development)

How much – water capacity was lost? Water is needed to live? Is still available from the remaining wells?

Can we activate tie-ins to neighboring towns? And if so how much water can we get this way?

Did they clean up the Grace mess?

How close is our service?

What is the implication of Grace selling back their sewer entitlement

Areas related to science and data came up regularly throughout the discussions during the water workshop. This overlaps with areas of policy, forecasting, permitting, education, and enforcement. The good news is, specific data that was being discussed or questioned for the decision making process may largely exist, however its availability or current use in existing decision making processes may not be well understood. Organizing and understanding what data is available and how it may be used is a first step. Areas of perceived, real or possibly out-of-date data gaps, may benefit from site/situation specific data generation and review versus broader initiatives that rely heavily on assumptions. Another data issue had a common theme related to GIS and analyzing land use, zoning, wastewater management, storm water management, and groundwater protection. Finally, some of the science issues relate to contaminants, regulations, treatment of water resources, and understanding the relationships of managing water resources and land use throughout the community and neighboring Towns. Developing a matrix of interests, concerns, and responsibilities across various stakeholders could drive better use and generation of data, scientific knowledge, and engineering principles.

Themes emerging from the “policy” cluster of questions from the Water Workshop

v. 1.1 Notes from Kim/Ron meeting of 3 November 2018, further developed by Kim

Does Acton have enough water for the desired or expected future growth?

A number of questions circled around the issues of “is there enough water for Acton’s future?” or “Will X activity leave enough water for the other things that Acton wants to do that will need water?”

- Sc 1: How much additional demand would proposed units create?
- Sc 1: How do we allocate limited capacity?
- Sc 1: Can we get an increase in the WMA permit? And what are the allowable criteria (populations, others) that can be used to make the case?
- Sc 4: What quantities of water are we talking about?
- Sc 4: Do we want to reserve any excess capacity for Acton or make it available to Stow?

One way to tackle this question would be to undertake a GIS study that would identify and sum up the plausible water demand for each of the undeveloped parcels in Acton, considering scenarios of (a) building as by right under existing zoning and (b) building at a denser level consistent with recently approved variances. With Acton’s strong ethic of open space conservation, no one expects that Acton will be built out to this intensity, but developing a model of this end member case will give Acton’s leadership and citizenry the starting point from which to contemplate where along the trajectory between the status quo and full build out would Acton confront the limits of its water supply. “Limits to water supply” may be regulatory, in terms of the maximum that Acton will be allowed under the Water Management Act, or may be physical, in terms of the pumping rate that can be sustained without further depletion of the groundwater aquifer.

Teach us to fish. Don’t just purchase a fancy fish dinner from a consultant.

{Idea here is that we don’t want to hire a consultant to make a model and use the model to answer some questions. We want to own the resulting model and build capacity in Acton (Town Hall and/or AWD) to keep the model up to date and use it to answer what-if questions in the future. Lesson learned from CWRMP experience.}

Enforcement of water-related regulations

{Idea here is that some water related regulations, especially around stormwater runoff, aren’t being strongly enforced. In part this might be because at present enforcement does not yield income, while development does (fees, and then taxes). But enforcement *could* yield income.}

Public Education: Lucy Kirshner and Joan Gardner for 11/14/18

Our understanding of the issue:

All people living in the town impact both the town's water supply and water quality and therefore have a responsibility for their water related behavior. Water treatment, delivery and the upkeep of infrastructure is expensive and people need to understand and support their own financial responsibility. Decisions made by our town's government related to building and development also impact our water resource both immediately and in the future. Consequently, because citizens are critical to this governance they need a broad understanding of our current water resource, levels of responsibility and how we can handle possible emergencies. While only four* of the questions collected at the WRAC workshop specifically mentioned public knowledge and education, almost all of the questions suggested a need for more public understanding.

We discussed:

- Who should set the agenda for Public Education?
- Who should shoulder the cost of Public Education?
- Who should carry out the agenda?
- How should public education be delivered?
 - public meetings, written material, radio, tV, website, talks at local groups: CoA, LWV, Garden Club, Chinese population, churches
- How are the following entities involved?
 - Town employees, AWD, WRAC, Green Acton/Water, Oars

We made a start at considering topics for Public Education:

1. Overview of the town's water resource and it's governance – Citizen's role
 - a. Our supply of clean water is limited – role of Mass DEP
 - b. Water treatment comes with expense. Role of the AWD.
 - c. Town development needs to consider water and wastewater. Role of the BoS
2. Personal water use as well as Wastewater and Septic/Sewer
 - a. All water is from the same aquifer – rules for private wells
 - b. Your household use and technologies to conserve
 - c. Your household wastewater and your responsibilities
3. Potential emergencies and how the town will respond
 - a. Drought and limited water
 - b. Contaminants – prevention and protection
 - c. Individuals with water problems – what do you do?
4. Long term planning
 - a. How does our town develop a shared vision for development
 - b. How does our town work with neighboring towns and the commonwealth
 - c. Long term planning for our town – MWRA

Next steps:

Joan planned to speak with the town manager to get his input on how the town employees might be involved.

* the four mentions of public education:

- How do you educate the towns people about water-related decisions? Who teaches.
- To what extent are home-owners responsible for the failure of the septic systems?