

SHARON WATER MANAGEMENT ADVISORY COMMITTEE (WMAC) MEETING MINUTES FOR DECEMBER 9, 2004

Prepared by Paul Lauenstein

Present at meeting:

WMAC Chairman Michael Birschbach; WMAC members Lealdon Langley, Paul Lauenstein, Richard Mandell, Len Sekuler, Mike Sherman, Jack Sulik and Cliff Towner; Selectman David Grasfield, FinCom member Charles Goodman; and Conservation Agent Greg Meister

Summary of Minutes for the 12/9/04 WMAC Meeting

1. Preliminary discussion

2. Minutes of 11/18/04 not approved

3. Mission Statement

4. Priorities

- **New wells**
- **Emergency backup**
- **Water quality**

5. Next meeting scheduled for Thursday, January 13, 2005 at 7:30 PM

Detailed Minutes for the 12/9/04 WMAC Meeting

1. Preliminary discussion

Michael Birschbach began the meeting by noting Eric Hooper's absence. He said he had sent Eric Hooper an email emphasizing the need for his presence, and commented that this was Eric Hooper's third missed WMAC meeting. Michael Birschbach said he would contact Eric Hooper regarding his attendance.

David Grasfield commented that he thought participation in citizen committee meetings was part of the job description for town professionals. He said he expected that Eric Hooper would attend future WMAC meetings.

Paul Lauenstein suggested discussing the November 18 memo from Eric Hooper, the first item of which concerned a revised RFP for a radio meter system. Paul Lauenstein expressed dismay that a new RFP for a radio meter system had been prepared without any input from the WMAC. He added that copies of the revised RFP had not been provided to the WMAC.

Richard Mandell said this action disregarded the WMAC's October 28 recommendation to the Selectmen to appoint a committee to evaluate available technology before re-issuing another RFP, and take advantage of free pilot installations to help decide which system to buy. He said the WMAC should

be included in the process of generating a revised radio meter RFP.

David Grasfield said he had seen the email from the WMAC to the Selectmen regarding the process of revising the radio meter RFP. However, he said he was not aware of any communication from the Water Department or Town Counsel since then, and he believed the process was temporarily stalled.

Paul Lauenstein bought up the item in Eric Hooper's memo reporting replacement of lead pipe in conjunction with resurfacing of Main Street. He asked if these services were replaced all the way to the house.

Jack Sulik explained that the lead pipe was replaced only between the water main and the property line. He said the service lines on private property are the responsibility of the property owner. He added that property owners were notified in case they wished to take advantage of the situation to minimize the cost of replacing all the lead pipe from the road to the house.

2. Minutes of November 18, 2004 not approved

Because Paul Lauenstein was unable to email the minutes of the 11/18/04 meeting to members in advance, approval had to be deferred until the next WMAC meeting.

3. Mission Statement

Michael Birschbach presented three sample mission statements that read as follows:

1. The mission of Sharon's Water Management Advisory Committee (WMAC) is to advise the Water Commissioners on providing an adequate and sustainable supply of safe, healthful and clean drinking water for residents on town water.
2. The mission of Sharon's Water Management Advisory Committee (WMAC) is to advise the Water Commissioners on providing an adequate and sustainable supply of safe, healthful and clean drinking water for residents on town water, while protecting the town's open spaces, wetlands and aquifers that purify and store our drinking water.
3. The mission of Sharon's Water Management Advisory Committee (WMAC) is to advise the Water Commissioners on how to provide an adequate and sustainable supply of safe, healthful and clean drinking water for residents on town water through an environmentally sensitive approach.

Michael Birschbach said the mission statement provides a frame of reference for the WMAC's activities. First, it should state that the WMAC answers to the Selectmen. Second, it should state that the WMAC is concerned with water quality and quantity. He added that the WMAC should address the issues of water supply with respect for the local environment, and work hand-in-hand with other town committees to maintain wetlands and aquifers. He said "adequate and sustainable" are key words in the mission statement.

Richard Mandell suggested replacing the words "on providing an adequate and sustainable supply of safe, healthful and clean drinking water" with "with respect to an adequate and sustainable supply of safe, healthful and clean drinking water."

Cliff Towner suggested that wetlands and environmental matters are the responsibility of the Conservation Commission, and should be left out of the mission statement. He said the WMAC should be concerned with the finances of the Water Department as well as water quality and quantity.

Mike Sherman said the role of the WMAC should be to advise the Selectmen on a broad range of water-related issues.

Richard Mandell proposed the following mission statement:

“The mission of the Sharon Water Management Advisory Committee is to advise the Water Commissioners with respect to water-related issues.”

Mike Sherman agreed that this mission statement is short, succinct and does not limit the WMAC.

Lealdon Langley expressed concern that this statement does not say more than the name “Water Management Advisory Committee” would imply, and therefore does not shed much light on the role of the WMAC.

Len Sekuler commented that he likes the phrase, “adequate and sustainable supply of safe, healthful and clean drinking water.”

Mike Sherman said prioritizing the issues facing the town’s water supply can provide more specifics, but current priorities do not belong in the mission statement because they change over time.

Paul Lauenstein moved that Richard Mandell’s version be adopted as the mission statement for the WMAC.

The motion passed 5-2, with one abstention.

4. Priorities

Michael Birschbach provided the committee with a list of potential initiatives as follows:

I. Water Quantity

- New Wells
- MWRA
- Aquaria
- Aquifer Recharge
- Aquifer Management & Controls

2. Water Quality

- Nitrates
- Iron and Manganese
- Other Contaminants

3. Emergency Water Requirements

- MWRA Emergency Backup

4. Infrastructure, Storage and Delivery of Water

- Radio Read Meter System
- Replacement of A/C pipe
- HPSD & New Water Tank

- Bottlenecks in the Water Main Grid
- Water Master Plan

5. Water Conservation

- Water-saving Appliances and Rebates
- Education, Public Relations and Behavior Modification
- Leak Detection (both in-home and in the delivery grid)
- Accounting for Water (and reduction of unaccounted-for and other area water use)
- Pricing Policy

Michael Birschbach said that the above list is a collection of ideas for discussion purposes, and invited WMAC members to comment.

Jack Sulik objected to prioritizing aquifer recharge. He said that of the thousands of acres in Sharon, only a tiny fraction of Sharon is sealed with impervious surfaces. He said there is no evidence that groundwater is diminishing. He pointed out that, because Sharon is higher in elevation than neighboring towns, both surface water and underground water flow out of town, so trying to retain surface runoff by forcing it into the ground is futile.

Lealdon Langley cited the contrast between the two sides of Beaver Brook as an example. The town center (southeast) side of the Beaver Brook valley is developed, with impervious surfaces such as pavement and buildings. The Moose Hill (northwest) side is wooded and much less developed. He said storm runoff from the town center escapes down storm drains, failing to recharge the aquifer and carrying pollutants to Beaver Brook. By contrast, the undeveloped side allows rainwater to soak into the ground where it gets filtered and purified, and releases it gradually to Beaver Brook to keep it flowing during dry spells, as well as recharge the aquifer that feeds three of the six town wells. Lealdon Langley pointed out that EPA's National Pollutant Discharge Elimination System (NPDES) regulates storm drain runoff, so the WMAC should be concerned about it. He added that promoting groundwater recharge would improve filtration and retention of water to provide adequate base flow in local streams and ensure sufficient quantities of high quality drinking water for the town.

PRIORITY #1 – NEW WELLS

Cliff Towner said he feels new wells in new aquifers should be the WMAC's highest priority. He pointed out that Sharon has only built one new well in the last 28 years. He said much of the water pumped from town wells is piped to remote parts of town and drains into different sub-basins. He said the inventory of potential well sites is dwindling. Those remaining should be tested immediately, and if good quality water is found in sufficient quantity, these sites should be secured by the town to be used as future well sites before they can be developed. He added that a year has passed since the WMAC voted to recommend this course of action, but no testing has been done.

Len Sekuler asked for clarification on the process by which the WMAC would select and rank its priorities, and how the priorities would be implemented.

Michael Birschbach said the WMAC has not been getting results. He referred to the following list of current outstanding WMAC recommendations and requests to which there has been no response from the Selectmen or the Water Department:

RECOMMENDATIONS

- I. Access to Gobbi Property, Canton St., Blair Circle, and Maskwonicut St. for exploratory test wells (December 11, 2003)
- II. Adherence to schedule for Fe/Mn filtration plant (voted on Jan. 22, 2004)
- III. Free pilot installations of radio meter technology and formation of a committee to evaluate radio meter systems (voted Oct. 28, 2004)
- IV. Insertion of a GPCD flyer in water bills (voted Nov. 19, 2004)

REQUESTS

- I. Correction of 2003 Annual Statistical Report (called for on May 6, 2004)
- II. Further details on the high unaccounted-for and other-area water categories (called for on July 29, 2004)

He said no significant progress had been made to date on these important initiatives. He said the WMAC must identify priorities, recommend them to the Selectmen, and then provide follow-up to get results.

Richard Mandell said his highest priority is the Fe/Mn filtration plant for Well #6. He said this project would restore the production capacity of Well #6, which is currently seldom used. It would diversify sourcing of water to an independent aquifer, and utilize existing permits already in place for Well #6.

Lealdon Langley agreed, saying a filtration plant for Well #6 is the most cost-effective path to augmenting Sharon's water supply.

Cliff Towner countered that since Well #6 is already permitted, it is less of a priority than other potential well sites that are threatened by development.

Jack Sulik pointed out that Well #6 is currently utilized during July and August when demand is highest.

Cliff Towner replied that water from Well #6 stains laundry because of its iron and manganese content.

Paul Lauenstein said testing and securing potential well sites in jeopardy of development should top the priority list.

Jack Sulik agreed, adding that the WMAC should consider all potential sources of good quality water including Aquaria.

Cliff Towner said considerable money has already been spent on more than one consulting firm investigating Aquaria as a potential source of water, so the WMAC should stay focused on identifying and securing new well sites in Sharon before they are developed. Permitting and well construction can come later. He said that the town has so far been ineffective at securing well sites, whereas private developers have accelerated suburban sprawl in Sharon. Testing of potential well sites should commence immediately because 40-B developments are simultaneously threatening to increase Sharon's population and eliminate potential well sites.

Lealdon Langley said that securing well sites alone may not prevent development in the Zone II's of those sites, unless a well was actually developed.

Cliff Towner responded that activities such as manufacturing that might threaten the Zone II's of potential well sites are largely prohibited by zoning by-laws.

Richard Mandell pointed out that the Gobbi property, which has one of the potential well sites identified by the WMAC, is likely to be developed in the near future, suggesting this might force the town to build a well there right away.

Cliff Towner replied that existing zoning laws would not allow the developer to do anything that would jeopardize a drinking water well in the vicinity.

Lealdon Langley said just one septic system could compromise the site.

Cliff Towner made the following motion:

The WMAC recommends that the Selectmen move immediately to determine the viability of four potential well sites (Gobbi property, Canton Street, Blair Circle, and Edge Hill Road) and, if they are determined to be viable, secure them as future well sites.

Jack Sulik asked exactly where the Edge Hill Road site is, and observed that this site was not on the list of sites recommended a year ago.

Greg Meister said it is an existing well on the property of Sharon Memorial Park capable of producing 750,000 gallons per day.

Cliff Towner said the Water Department had previously paid a consultant \$10,000 to negotiate with the cemetery, but the consultant's overtures were rejected by the cemetery. He said the town should attempt to negotiate directly with the cemetery.

Greg Meister said a special permit would be needed. He said he had laid out the issue for town leaders whereby the cemetery would be granted free water in perpetuity, and the town would undertake the costs of operating the well.

The motion passed 7-0, with one abstention.

PRIORITY #2: EMERGENCY BACKUP

Cliff Towner said the WMAC's second highest priority should be emergency backup. He said it is not reasonable to expect that fire trucks could transfer enough water from neighboring towns to keep Sharon supplied with water in the event of failure of Well #4 in summer. He said if both Well #2 and Well #6 were required to replace water from Well #4 in an emergency, the town's water supply would be unacceptable within 24 hours.

Cliff Towner said there is a simple solution: connect Sharon's 12" North Main Street water main to Stoughton's 12" water main at Cobb's Corner. He said Stoughton's water pressure at Cobb's Corner is 100 psi. Stoughton obtains part of its water from MWRA, so they would be able to supply enough water to cover Sharon's needs in an emergency. All that would be needed is the connection and a valve, which Cliff Towner said Jack Sulik had once estimated would cost approximately \$250,000. He said MWRA would not require a membership fee for an emergency hookup. In the event of an emergency, Sharon would only have to pay Stoughton for the water it used, plus a wheeling charge.

Michael Birschbach commented that the Boston Globe had recently run an article about neighboring towns including Sharon making agreements with each other for backup in case of a terror strike on the water supply.

Cliff Towner explained that Sharon's elevation is higher than neighboring towns, which makes it difficult to obtain water from neighboring towns unless their water pressure is high enough. He said that Canton's pressure of only 55 psi would make it less advantageous than Stoughton, and Norwood's low elevation at Tiot Street would make it more difficult to pump water up to Sharon. He said using fire trucks and/or rented pumps would be inadequate in the event of a true emergency. He said there is no reason for Eric Hooper's opposition to an emergency backup at Cobb's Corner.

Jack Sulik said that, in the event of an emergency, water could be obtained from Mansfield, Foxboro, Canton, Walpole and Stoughton using pumps and/or fire trucks. He said Cliff Towner's proposal was oversimplified and would not work. He said that two large water meters would be needed to account for Stoughton water purchased by Sharon and vice-versa. He added that an emergency backup connection at Cobb's Corner was not his second priority.

Lealdon Langley said there were reports of contamination at Cobb's Corner related to a gas station, but commented that the water pipes should be watertight and seal out any contaminants.

Greg Meister said that it seemed logical to him to connect Stoughton's 12" pipe to Sharon's 12" pipe at Cobb's corner, adding a pump if necessary, in order to provide Sharon with adequate backup, and said such inter-town hookups for emergency backup purposes are routine. He added that a direct hookup to MWRA water at Chemung Street would only be needed if Sharon wanted to use MWRA water on a regular basis long-term.

Lealdon Langley suggested the committee consider whether an Fe/Mn filtration plant at Well #6 might be a higher priority than emergency backup.

Richard Mandell commented that the emergency backup at Cobb's Corner would be faster and less expensive to install than the Fe/Mn filtration plant at Well #6.

Mike Sherman said the proposal for an emergency backup at Cobb's Corner sounded like a good idea, but asked if other water quality issues such as nitrate contamination should be given a higher priority.

Len Sekuler expressed his concern over the contamination issue at Cobb's Corner, saying that the WMAC lacked sufficient information about this and other aspects of an emergency backup at that location.

Greg Meister cautioned the WMAC to provide for adequate backup to be prepared for a water emergency, saying he would not want to be a member of a water committee that had failed to make such provision in the event of an emergency. He said there was no good reason not to provide the town with this added protection.

Len Sekuler asked how long the water in the town's water tanks would last in the event of a water emergency.

Cliff Towner said that would depend on the time of day and season, but the answer could be as short as 4 to 6 hours if the emergency occurred after depleting the tanks irrigating lawns on a hot summer evening.

Lealdon Langley suggested a motion to recommend that the Water Department study the issue of emergency backup. He said he did not favor hiring a consultant for this purpose, but he felt more information was needed.

Cliff Towner replied that Eric Hooper was opposed to an emergency connection at Cobb's Corner. He said Eric Hooper had already hired Metcalf & Eddy to study the emergency backup issue, and that Metcalf & Eddy recommended a hookup to the MWRA at Chemung Street at a cost of \$10,000,000.

Richard Mandell made a motion to recommend to the Selectmen that they instruct the Water Department to investigate the feasibility of an emergency hookup to Stoughton water at Cobb's Corner and, if feasible, do it.

Jack Sulik said he had a problem with Richard Mandell's motion. He said the WMAC should do its homework first and then make a recommendation to the Selectmen based on knowledge of the situation.

Michael Birschbach asked if Sharon is at serious risk without the proposed connection at Cobb's Corner.

Lealdon Langley said he thought the risk was real. However, he repeated his concern that more information was needed about various aspects of the proposed hookup, including a better idea of the cost, in order to make a decision of this importance. He added that the absence of a Water Department staff person at the meeting was a serious impediment to progress.

Richard Mandell offered an amended motion as follows:

The WMAC recommends that the Selectmen have the Water Department investigate an emergency backup connection to Stoughton's water supply at Cobb's Corner and report back to the WMAC by February 1.

This motion passed unanimously.

Len Sekuler suggested building a new well at the Maskwonicut Street site to provide a backup water source. He pointed out that if Well #4 failed, a reserve well at the Maskwonicut Street site could immediately replace it.

Someone said it would take a long time to conduct formal pump tests, obtain the permits and construct the well.

Len Sekuler asked why the town just spent \$900,000 to purchase the Maskwonicut property.

Jack Sulik said a plan is needed for the Maskwonicut Street property.

Lealdon Langley pointed out that installing an iron/manganese filtration plant at Well #6 would be more expeditious than testing, permitting and constructing a new well at Maskwonicut Street.

PRIORITY #3: WATER QUALITY

Lealdon Langley said his third priority was water quality. He said the iron/manganese problem at Well #6 and the nitrate levels in Wells 2, 3, and 4 along Beaver Brook need to be addressed.

Jack Sulik commented that nitrates levels are slowly rising in Wells 2, 3, and 4.

Cliff Towner referred to the Woodard & Curran report on nitrates at Well #4, and said monitoring wells should be installed in the vicinity of Well #4 to determine where the nitrates are coming from.

Jack Sulik said Sharon retained Woodard & Curran in 1999 to investigate nitrates at Well #4. He said the report found that nitrate levels exceeded the action threshold of 5 ppm. Jack Sulik the report was submitted to MA DEP, but despite repeated requests, MA DEP never approved the report, so no corrective action was taken.

Cliff Towner said aged cesspools uphill from Well #4 on Tree Lane should be checked as a possible source of the nitrates.

Jack Sulik explained that Well #4 runs 20 hours per day. When it is turned off, the cone of depression in the water table fills with ground water from nearby neighborhoods that may have elevated nitrates. When the well is re-started, a short-term spike in nitrate concentration occurs until cleaner water flushes out the nitrates. He added that he expected nitrates in the Beaver Brook aquifer to continue to creep up as a result of septic systems.

Lealdon Langley said a local wastewater treatment plant that would remove the nitrates but return water to recharge the Beaver Brook aquifer may be needed for neighborhoods near the center of town. He added that iron/manganese treatment at Well #6 is also important. He suggested a motion to recommend that the Selectmen take action to address both issues.

Len Sekuler agreed that both nitrates and iron/manganese contamination should be addressed concurrently.

Paul Lauenstein recalled that the WMAC voted on January 22, 2004 to allocate \$50,000 to hire a consultant to investigate the source of the nitrates and recommend corrective action. He said the WMAC should try harder to present the Selectmen with more specific recommendations as to how to address the nitrate issue. With respect to the iron/manganese issue at Well #6, he said the WMAC had voted last January to allocate \$35,000 to conduct a pilot study to test a system in FY '05, which ends on June 30, 2005. He pointed out that the November 18 memo from Eric Hooper to the WMAC now suggests that this pilot study won't be done until early in FY '06. Given the priority of this project, he said the schedule should not be allowed to slip.

Richard Mandell responded that, in addition to specific recommendations, a more general recommendation to the Selectmen indicating the WMAC's priority that water quality is important would also be useful.

Jack Sulik said that nitrate contamination at Well #4 should be addressed in the short term, and nitrate contamination in the entire Beaver Brook valley should be addressed over the longer term, but said that both are high priority.

Cliff Towner recommended installing monitoring wells around Well #4 and analyzing water samples from them to find out where the nitrates are coming from. He said enough studies have been done and it's now time for action.

Greg Meister agreed that monitoring wells to find the source of nitrates at Well #4 was a logical follow-up to the Woodard & Curran report. He said all three wells along Beaver Brook are showing elevated nitrates. He recommended finding out what technologies have potential for reducing or eliminating nitrates entering the Beaver Brook aquifer at the source. Otherwise, he said, the nitrate problem will continue to worsen.

Richard Mandell said that before voting on its third highest priority, and in addition to the specific motion previously carried to create an emergency connection at Cobb's Corner, the WMAC should vote to establish emergency backup as its second highest priority.

Richard Mandell moved that the WMAC establish emergency backup as its second highest priority.

This motion passed 6-1. (Len Sekuler had to leave before this vote was taken.)

Lealdon Langley moved to strongly recommend that the Selectmen instruct the Water Department to identify the source of nitrates at Well #4 as soon as possible.

This motion passed 6-0 with one abstention.

Richard Mandell moved that the WMAC establish water quality as its third highest priority.

This motion passed 6-1.

Jack Sulik said he voted against this motion because he felt that water quality should have a higher priority than emergency backup. He added that he thought the committee was moving forward too rapidly without sufficient information and knowledge.

5. Next meeting scheduled for Thursday, January 13, 2005 at 7:30 PM