

WMAC Meeting Minutes
February 20, 2014

Attendees:

David Crosby – Chair
Paul Lauenstein
Rory McGregor – Secretary
Chris Pimentel
Sarah Windman

Guest: Eric Hooper – Superintendent, Sharon DPW

1. Minutes of the December 19th meeting were approved.
2. Eric reviewed the hydrology of the watershed within Sharon and explained how we have sub watersheds associated with Beaver Brook, Billings Brook, and Canoe River. He noted that the northern 2/3 of Sharon is part of the Neponset River Watershed (Beaver Brook with Well Stations 2, 3, and 4) and the southern 1/3 is part of the Taunton Watershed (Billings Brook with Well Stations 5 and 7 and Canoe River with Well Station 6). He also identified the Zone 2 area around each of the town's wells. (Zone 2 is the distance that water will travel over a 6-month period with the well pumping at permitted capacity and no recharge taking place.)
3. Much of Sharon is deemed as a Groundwater Withdrawal Category 5 (the worst possible rating) with respect to alteration of groundwater caused by well pumping that takes place in August (the most difficult time of year to maintain stream flow). Impervious surface runoff and other factors also contribute to groundwater depletion. Much of the eastern part of Massachusetts is categorized as Category 5. Whether this is a fair rating is debatable. Nonetheless, evidence of dry stream beds and/or diminished stream flows is most evident in the month of August due to the heat of summer and the general increase in water usage.
4. Paul Lauenstein read a summary of the consultant report by Horsley Witten Group on the condition of the Great Cedar Swamp (GCS) near the Deborah Sampson fields and exhibited a map of the GCS showing groundwater flow and a photo showing tree roots exposed by receding peat. The potential concern raised in this report is the need to take care of reclamation related to the swamp in order to improve its general health. Horsley Witten deems that the GCS is the primary source of fresh water recharge and purification for the Town's six wells and Lake Massapoag due to its undeveloped nature and topography.
5. Manganese concentration limits are a topic of concern at state level and Eric advises that the state could ratchet down the permitted levels in future. This would impact the situation at Well Stations 2 and 3 where the iron and manganese levels are significant. New state regulations require that towns address concentrations of elements in the water

produced at each well. Currently manganese treatment is required for concentrations above 0.05 mg/L.

6. Paul Lauenstein said that an iron and manganese filtration plant at Well #6 would cost the average Sharon homeowner over \$500, plus operating costs. He suggested that a more cost-effective strategy for addressing the iron and manganese problem would be to continue Sharon's aggressive water conservation program in order to minimize the need to pump wells #2, 3 and 6 that have elevated iron and manganese content. He pointed out that the planned emergency connection to MWRA water would ensure continuity of water supply.

7. Lake Massapoag occupies roughly ¼ of the geography of the sub watershed in which it is located. The land to the east of Lake Massapoag (Mountain Street, Hampton Road) has stream flow which empties into the lake. Hampton Road is first area of priority for the geography that requires attention for addressing storm water runoff. It will have the biggest payback for the least investment. Center of town is second but will be significantly more expensive because the reclamation cost for the water runoff will be higher. Storm water runoff is becoming an issue of increasing concern at state level.

Paul Lauenstein showed photos of storm water outfalls at the ends of Sandy Ridge Circle and Berkshire Ave. that carry storm water runoff from these neighborhoods directly into Beaver Brook upstream of three town wells.

8. Water Department budget for 2015 has been reviewed with the Finance Committee. It is similar to the 2014 budget at \$2.844 million. Project work related to maintenance and capital improvements is approximately \$600K, but falls far short of the more than \$1 million that is needed to keep pace with the recommendations in the Water Master Plan. The selectmen have agreed to review water rates annually and continue making gradual increases that will serve to accomplish the project work specified in the Water Master Plan on a timely basis.

9. Next meeting is Thursday March 20th at the Community Center at 7:30 p.m. Agenda items will include further review of priorities for maintenance and capital improvement projects that comprise the Master Plan.

Respectfully submitted,

Rory McGregor