

White's Pond Study Committee

Minutes of May 11, 2011

Members present: Dick Downey, Ellen Duggan, Jim Fulton, Peter Reed, Herb Symes,
Jason Kreil

Members absent: Paul Boothroyd, Eugene Redner

Others in attendance: Jerry Flood, Bob Chapell of Woodard & Curran

Motion to accept May 9, 2011 minutes made by Ellen Duggan

Motion seconded to accept May 9, 2011 minutes made by Jim Fulton

Motion was passed unanimously.

Woodard & Curran Status Update Presentation

Bob Chapell of W/C distributed the following handouts for the presentation:

1. Assessment of Water Resources Project Status Update – May 11, 2011
2. Analytical Report of White's Pond Well Water Sample
3. Schematic of Membrane Filtration System

Evaluate Developing Groundwater Supply at White Pond

Bob Chapell explained that two 2 inch test wells were installed on the west side of the pond on April 22 and April 25. Material consisted of fine to medium sand with the water table approximately 11 feet below grade. The test well was pumped and sampled for water quality on April 26th. Preliminary estimates indicate that this would not be a high yielding site. W/C anticipates the yield from this site will be less than 0.5 MGD. Site constraints would require the use of a well field. This water sample also showed a high manganese level thereby requiring more treatment for manganese, ph adjustment and chlorination for disinfection. There would be treatment costs associated with this option. W/C is finalizing preliminary cost estimates for a ground water treatment facility using green sand filtration. The treatment facility could be located at either White Pond or at an in-Town location.

Evaluate Treatment Options at White Pond (Surface Water)

W/C has reviewed previous reports and technology that were originally recommended for surface water treatment at White Pond. W/C recommends that a membrane filtration system be evaluated. The membrane system will require less chemical addition, a lower backwash percentage and a smaller footprint, which should result in a cost savings to the

Town. Pilot studies would have to be redone or completed during winter and summer conditions. Reactivation and treatment for White Pond could potentially yield approximately 1.0 MGD. W/C is finalizing preliminary cost estimates for a surface water treatment facility using a membrane system. W/C reviewed the schematic of the membrane treatment facility with the committee.

Jim asked if the membrane technology was less costly and if we would have to make other changes at the pond?

Bob replied membrane technology cost was competitive with the old technology and that a few things would have to be changed at the pond but nothing too extensive.

Dick asked about using ozone treatment? Bob said that W/C would not recommend ozone treatment. Dick asked if W/C could give an educated comment regarding this on their report? Bob stated that W/C will do that.

Ellen asked if 1,000,000 gallons per day maximum could be pumped from White's Pond? W/C/ confirmed that number.

Jerry then reminded everyone that the state still sets a 65 gallon per day per person, sell rate. That is the sell rate not the pump rate.

Evaluate Improvements to the Old Marlboro Road Wells

W/C explained that there were problems with water color at this location when water is pumped at a high rate. W/C identified 3 options for pretreatment of the raw water for color removal: * Ballasted flocculation - * Dissolved air flotation - *Membrane filtration system. This would create a need to expand the treatment plant at this site. W/C stated that they would pilot the 3 options and then make a decision as to which method would be best. W/C is finalizing preliminary cost estimates for a color removal treatment system based upon these 3 technologies. Implementation of a color removal treatment system would increase the wells to operate at, or close to, its original design capacity of 0.87 MGD. This could almost triple the amount of water we are getting out of there currently.

Evaluate Improvements to Well #4

W/C stated that this would be a brand new well (#14). We could possibly use the existing treatment plant to treat this water. With a capacity of 270 GPM or 0.39 MGD would it be worth fighting with U.S. Fish & Wildlife and Assabet River Wildlife Refuge over this site? The project leader of A.R.W.R. has indicated she would not look favorably upon this well site. W/C will still cost this site out for this study.

Other In-Town Ground Water Supply Options

W.C stated that the Town completed test well work on the Tuttle Hill area in 1982. Test results indicated that the area "is not suitable for the development of a municipal water supply". FEMA currently owns this area. There have been some concerns raised regarding contamination in this area. Based upon these considerations, it is recommended that this site not be pursued as a public water supply.

Summary of Options

W/C will look at the following 6 options and finalize reports for each option.

1. White Pond Surface Water Treatment at White Pond
2. White Pond Surface Water Treatment at an in-Town Location
3. White Pond Ground Water Treatment at White Pond
4. White Pond Ground Water Treatment at an in-Town location
5. Old Marlboro Road Wells Water Treatment Facility Upgrades for Color Removal
6. Test Well # 14 with Treatment at the Well # 4 Water Treatment Facility

Dick asked for any possible mapping of the 200 test well sites in order to eliminate those sites that do not conform to requirements and to identify any sites that could possibly be developed? Jason and W/C stated that they have some information that may be helpful in this regard.

Dick also pointed out that the Gantt Chart shows being behind in some tasks and ahead on some others. W/C will provide an updated Gantt Chart.

Questions arose about the possible sale of water. It was pointed out that the Water Management Act limits Maynard to 1.09 MGD from all our water sources. This could affect our ability to sell. Selling water would have to be justified to the state. Towns purchasing the water would also have to prove a legitimate need to the state.

New Business

Discussion took place regarding compiling rate information from MWRA. Jason provided some of the information that he had researched. Jim stated that he found confusing comparison information in his research. He felt that it was as if MWRA was trying not to publicize its rates. Ellen questioned whether the information from MWRA was going to be helpful to our committee? Dick and Jim responded that the information

would help us in answering any voter questions that may arise regarding MWRA as an option. The information we gather may help us in selling our final recommendations.

Peter then mentioned that we as a committee should be prepared to answer this question from voters. Why do we need to change anything from what we currently have for water resources? Peter said that we need to be pro active with our water needs.

Peter Reed made a motion to adjourn the meeting.

Ellen Duggan seconded the motion to adjourn.

The motion to adjourn passed unanimously.

The meeting adjourned at 7:32 p.m.

Next meeting of the WPSC will be May 23rd at 6:00 p.m. - Municipal Building Room 201
