

Dennis Water District

Board of Water Commissioners

Edward A Crowell, *Chairman*

Paul F. Prue

Charles F. Crowell

Main-Line News

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Appointed by Water Commissioners

David Larkowski, *Superintendent*

Sheryl A McMahon, *Clerk & Treasurer*

James Ritchie, *Asst. Superintendent*

Iron & Manganese Treatment Update

A feasibility study for the removal of iron and manganese was completed earlier this year. Results of the analysis indicates that the presence of these two elements in the water supply are increasing and trend lines indicate that they will continue to increase over time. When iron and manganese, which occur naturally in groundwater, begin to settle out in the distribution system, they cause "dirty" water problems. Such problems are described as an unpleasant metallic taste and a dirt-like odor. The iron often times falls out of solution resulting in stained laundry and the manganese causes black-brown staining on ceramics and pottery. According to the United States Environmental Protection Agency (EPA), iron and manganese which are found to be consistently above the secondary limits of .3 mg/l and .05 mg/l respectively, as they are in Dennis, are considered aesthetic concerns and do not pose a health risk.

The next step was to conduct a pilot study to determine which removal process would be most effective at the least cost. There were two types of costs to consider. The capital costs of constructing the two treatment facilities and the annual maintenance and operational costs. The Water Commissioners wanted to be sure that, even though a particular treatment facility might be considerably less to build, it might be more expensive to operate than alternative facilities that might cost more to construct but, are less costly to maintain and operate in the long term. Results of the pilot study conducted by Earth Tech, Inc., found that two green-sand iron and manganese removal plants, each capable of treating approximately 4 million gallons per day, will

Board Approves Year-round Chlorination of Water Supply

Earlier this year, based on the recommendation of District Superintendent, David Larkowski, the Board of Water Commissioners approved the year-round chlorination of water as it enters the distribution system.

Since 1995, the District has only used chlorination on a part time basis. The primary reason for chlorinating was during the flushing program. Adding chlorine for a few weeks before, during, and for several weeks after the flushing of water mains and hydrants, prevented any bacteria growth from occurring during the flushing program. On the rare occasions when the District has experienced a total count violation, it has been necessary to turn on the chlorinators to knock the errant bacteria out of the system. The practice of turning on and off the addition of chlorine, up to as many as four times in a year results in inconsistent water quality.

The Water Commissioners had been reluctant to chlorinate full time due to the objectionable taste and odor that it often causes. Chlorine is added to the water at nine locations at a dosage of .4 mg/l (a.k.a parts per million). As the chlorine mixes with the water in the distribution system, it becomes diluted so that customers will generally receive an average dose of .1 - .2 mg/l in their homes. At these levels it should cause only a slight chlorine odor and taste.

The Massachusetts Department of Environmental Protection advises public water purveyors on best practices. They concurred with the Superintendent's recommendation, that implementing year-round chlorination will insure more consistent water quality for our customers at this time.

How can we make the connection? The scope of wastewater management often seems overwhelming. People often ask what they can do while we wait for the results of the Massachusetts Estuaries Project to determine the maximum nitrogen loading for our estuaries.

Coastal watersheds deliver nitrogen to estuaries from three main sources: wastewater, atmospheric deposition, and fertilizers. Over application of lawn fertilizers can leach into the groundwater and coastal environments adversely impacting water quality and ecosystems. Responsible lawn and turf maintenance will not only improve your lawn but, assist in minimizing nitrogen and phosphorous reaching our fresh and salt water bodies. As a means of promoting the use of organic fertilizers, you will find a 10% coupon on the purchase of organic fertilizer on the reverse side of this newsletter. Several Dennis retailers have agreed to accept this coupon. These retailers can provide assistance in determining the proper application of fertilizer for your lawn. Please don't hesitate to ask.

RTE 134 TANK PAINTING

Your Water Service Connection

The six-million gallon water storage tank will finally get its new paint job. Work on the project will begin this September after the tank is empty.



The District has chosen a contractor, *Amstar of Western New York, Inc.* to take on this colossal task. The contract was awarded at the quoted price of \$521,000. This project was included in our capital funding request for the past three years and the voters have been supportive by appropriating a portion of the cost annually.

The project requires the stripping of all exterior paint down to bare steel and applying three coats of paint. The tank, constructed in 1966, still has the original primer and undercoats of paint. Careful consideration was given in the development of the scope of work for the project. Various methods of sand blasting, debris containment and painting applications were reviewed in order to develop the scope of work and avoid the types of problems experienced during the painting of the elevated tank in West Dennis. *Amstar* will be using a self-contained robot unit that will do the sand blasting and vacuuming of the debris for collection and disposal. This technology will eliminate the need for the elaborate staging and protective wrapping that was so unwieldy during the West Dennis painting.

The project will begin in early September by first draining the tank. Weather permitting, it should be completed by the first of December. The color will be the same gray as the other two storage tanks and last for twenty years.

We would like to take this opportunity to remind customers that they are

“financially responsible for all repairs made to the water service line from the connection on the street water main up to the water meter”.

Often, customers are surprised when they receive a bill for repairs such as replacing a curbstop or ball valve. Billing policies vary greatly among communities in Massachusetts and even on Cape Cod. The Commissioners believe that the cost of water service maintenance and repairs is more equitably distributed among customers so that property owners with an average sized water line are not subsidizing those owners with much larger and longer water service lines.

Owners are also reminded that they are responsible for their water service line even when it crosses the street. Water mains are generally located on just one side of the roadway. If fire hydrants on your street are on the opposite side from your home, chances are your water service line originates from across the street also.

Iron & Manganese Continued.....

be the least expensive to build as well as to operate. The filter type selected is called Green Sand Plus pressure filtration. This is a time-proven process and is currently used quite successfully in the Town of Brewster.

At the Annual District Meeting, the voters unanimously supported a \$400,000 appropriation for engineering services for the design, bid specifications and construction oversight. Proposals for the scope of work to be undertaken by the an engineer are currently being reviewed. The Superintendent anticipates that the design and permitting will be completed during the winter and presented to voters at the Spring 2008 Annual District Meeting for the final borrowing authorization for construction. If approved, construction should be completed by January 2010.

DENNIS CLEAN-GREEN LAWN PROGRAM

10% Discount Coupon

OFF ONE BAG OF ORGANIC FERTILIZER

Redeemable at the following participating retailers

Agway of Dennis (also Chatham
686 Rte 134 and Orleans)
South Dennis

Hart Farm Nursery
21 Upper County Rd
Dennisport

True Value Hardware (also Yarmouth, Brewster
850 Rte 134 Harwich and Orleans)
South Dennis

Expires 12/31/2007

www.denniswater.org