

Wastewater Management

Commission

May 18, 2016

Regular Meeting

~ Minutes ~

Final

I. CALL TO ORDER

The meeting was called to order at 6:01 PM by Chairman Thomas M. Ferrio

II. ROLL CALL

Attendee Name	Title	Status	Arrived
Thomas M. Ferrio	Chairman	Present	
Elizabeth V. Richardson	Vice-Chairman	Present	
Peter Ogle	Commissioner	Present	
Robert D. Frost	Commissioner	Present	
Barbara Lutzell	Commissioner	Excused	

III. REVIEW AND APPROVAL OF MINUTES

1. Review and Approval of WWMC DRAFT Minutes for December 9, 2015

Minutes of December 9, 2015 were reviewed and approved as written.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Peter Ogle, Commissioner
SECONDER:	Thomas M. Ferrio, Chairman
AYES:	Thomas M. Ferrio, Elizabeth V. Richardson, Peter Ogle, Robert D. Frost
EXCUSED:	Barbara Lutzell

IV. COMMUNICATIONS AND REPORTS

1. Wastewater Manager's Report

Wastewater Manager's Report was presented to the Commission members by the Wastewater Manager and was placed on file in the Wastewater Manager's Office.

2. Solicitor's Report

Mr. Brochu stated that they are continuing with prosecutions in Municipal Court, mostly for inspection violations. Most of these inspection violations are resolved prior to arraignment or just after arraignment, by the homeowner having the inspection completed. Policy continues that if the system is inspected after the summons is issued but prior to arraignment, a one day fine is requested.

Through the Municipal Court process, Town staff is much better able to work with the homeowners on getting funding for system replacement, helping them through the process, guiding the homeowner, working with the homeowner and having the homeowner work with the Town staff. Mr. Brochu believes that guiding the homeowners through the process is working and is a beneficial service to the homeowners.

3. Wastewater Management Commission Reports

Ms. Richardson asked if the WWMC has solicited the Town Council for new members to the WWMC. Mr. Ferrio stated that this item is on the Town Council agenda every month.

V. OLD BUSINESS

There is no Old Business.

VI. NEW BUSINESS

1. Request from Town Council

Mr. Dowling stated that his understanding of this request from the Town Council is that the Town Council is looking for a list of action items that could possibly be implemented to reduce groundwater nitrogen concentrations within certain areas of the coastal watershed. The Town Council is looking for information regarding septic systems from the Wastewater Management Commission.

Discussion ensued regarding the North Kingstown zoning requirement for development in sensitive recharge zones: that the home size and OWTS and lot design be such that the net nitrogen contribution from the lot falls at or below 5 mg/l. Mr. Ferrio stated that with the North Kingstown zoning requirement, the net combination of rainfall, sewage and fertilizer from the house lot, accounting for runoff and things like that too, needs to have a net input into the aquifer of less than 5 ppm. This is what would have to be shown as part of the subdivision development plan, if implemented in Charlestown. Mr. Ferrio tried to put a similar plan together, as an example, to use in Charlestown. Mr. Ferrio feels that this is a more sophisticated approach rather than trying to put in a bunch of regulations. Mr. Ogle confirmed that this could be used on a lot by lot basis rather than as a subdivision regulation.

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Mr. Brochu stated that what has been done in Jamestown is that rain gardens, infiltration capture, and reduction of impervious surface features on a certain parcel are recorded in the Land Evidence Records as part of the plans for any new construction so that there is a record for the homeowner so that the homeowner knows what to do on his own property. It also serves as part of the zoning permit, however, from an enforcement perspective, it serves as an educational tool for the homeowner.

Ms. Richardson stated that the mention of financial burden should hold a lot of weight as part of this discussion. Ms. Richardson suggested using some sort of incentive program. Mr. Ogle stated that it would be nice if the Town's low interest loan program could be used to replace a conventional septic system with a denitrification system. Mr. Dowling stated that there would have to be some changes at the RI Housing Level and the State Revolving Fund level. Mr. Ferrio stated that that would not be impossible to do.

Mr. Ogle mentioned lot size and seasonal or year round assumptions for occupancy, and consideration of using a pressurized drainfield to get the extra nitrate reduction to get down to the optimal nitrogen reduction of ≤ 5 mg/l. A regular denitrification system just doesn't offer the same nitrogen reduction. Mr. Dowling explained that you don't get full biomat formation with a conventional drainfield and an IA system, it just doesn't work. This would mean pressuring RIDEM to require this (a pressurized drainfield with a denitrification system). The effluent that comes out of an IA system is clarified effluent that does not foster the development of a biomat across the whole length of the leachfield. The wastewater comes out of the D-Box into the leachfield and over time it never gets the chance to build up the biomat.

Mr. Ogle stated that the first order of business should be to test the existing denitrification systems, at least in the critical areas, so we will at least know if we are getting the 50% reduction. Mr. Dowling stated that after July 1, 2016, start of the new fiscal year, we are going to implement the program with George Loomis of URI to sample twenty (20) IA systems on a homeowner volunteer basis with the same parameters used in the previous program. This does not require an ordinance change to accomplish but rather, approval from the Town Council. Mr. Dowling stated that this should be the first goal.

Irrigation drip drainfield system as an alternative drainfield was mentioned by Lorraine Joubert and Mr. Dowling stated that he would look into this and educate himself about it.

Mr. Ferrio also suggested advising for the acceleration of the replacement of conventional septic systems. This could take place as a Point of Sale requirement or when a conventional system reaches a certain age. Discussion ensued. This is something that could happen but perhaps as a last resort.

Mr. Ferrio will work with Mr. Dowling and they will put together a DRAFT format of the discussion points that were addressed at this meeting and will bring this for final discussion at the next WWMC meeting, scheduled for June 8, 2016 at 6:00 pm.

VII. PUBLIC COMMENTS

Mr. Ron Meneo, East Beach Road resident, spoke his name and stated that he wanted to be identified for the record. Mr. Meneo suggested that perhaps the advisory points of the WWMC should be a gloss over the top of what is being recommended because as he understands it, the Town really has to acquiesce to the state for enforcement regulations and mandates, even though they are passed on to the Town, he questioned whether or not the Town has the authority to implement some of the suggestions that were made. Mr. Ferrio confirmed that what Mr. Meneo was suggesting was that the Town cannot just implement these regulations without RIDEM approval.

Mr. Meneo also provided a table (Groundwater Resources of the Central Beach and East Beach Water Systems Quonochontaug, RI, June 2000) prepared by Dr. Dan Urish which provides the Nitrate Nitrogen Levels of the Central Beach well and the East Beach well. He also provided current Nitrate Nitrogen Levels of the two wells from March/April 2016. The Central Beach (2 wells) Nitrate level was 2.6 mg/l in one well and 3.6 mg/L in the second well (March 2016). The East Beach (2 wells) Nitrate level was 3.8 mg/L and 5.8 mg/L (March 2016). In April 2016, the Central Beach well Nitrate level was 1.3 mg/L in one well, and 2.7 mg/L in the second well. These levels tend to be very seasonal and this is the low time of the year for nitrate levels, the peak being sometime around November/December. The East Beach wells for April 2016 were 4.9 mg/L and 4.8 mg/L.

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Mr. Meneo's last point was to mention that in Quonochontaug, in particular, anywhere from 50% to 75% of homes are seasonal homes and with the current school of thought being that these new denitrification systems may not be effective in seasonal homes, he stated "you're talking about accelerating the installation of these systems in a situation where you're being told that they are not efficient, so stepping back, the question really is, is that a good policy, to ask people to spend money to install these systems in an environment where the data and RIDEM are showing that on a seasonal basis, the systems aren't working efficiently". He believes that asking people to spend money might not be such a good policy.

Mr. Ogle offered that he doesn't think that the data shows that they are not working seasonally. The best data that Mr. Ogle has seen and discussed is the data from Barnstable, MA, where many systems have been tested. One scenario is when the system is just used on the weekends, and not used during the week, this seems to make no difference, and that yes, the systems have a start-up period if they are not used over the winter, lasting for a couple weeks. Mr. Ogle agreed that the systems don't work as efficiently after the start-up and for a couple weeks afterwards. Mr. Meneo stated that with the water system that Mr. Ogle manages, 75% of the systems are seasonal so this is really not a good example. Mr. Ogle stated that what he has been told by the experts who have tested these systems is that there is a start-up period that will take a couple of weeks, depends on the system, and then, in general, these homes have what is referred to as a soft start up, meaning that you come up on weekends, and start feeding the bacteria and it gets up to speed by the time you get to July and August. This is the scenario that he knows. He would like to see more tested that way and he would like to have the best performing systems.

Regarding the potential use of North Kingstown's example of zoning regulations for development, Lorraine Joubert commented that it would be useful to have a clause that states that the nutrient loading shouldn't exceed certain levels per acre. It should be based on the loading and therefore a density bonus should not be allowed unless the homeowner can demonstrate that they are keeping the nitrogen loading as required.

Ms. Joubert stated that otherwise, she supports the concept of requiring other compensation methods such as, increasing infiltration, reducing lawn size, using rain gardens, things like that.

Mr. Steve Hoff stated that he had a couple questions for Mr. Brochu. He asked for clarification on the point of sale upgrade requirements. According to the data that Mr. Hoff was able to compile, perhaps an estimate of 1% per year of systems were converting to denitrification systems from conventional systems, which means 7-8 property transfers per year in Quonochontaug. Mr. Hoff asked if the limited number of denitrification systems going in at point of sale, at a cost of 25,000 dollars per system, would have a significant impact on the groundwater. Mr. Brochu stated that the State of RI would have the burden of proof on whether or not there is a rational relationship between the regulation and the goal we are trying to achieve. Mr. Hoff questioned that the commission would be making a recommendation for a pretty heavy financial hit for many homeowners, many of whom are elderly, retired, and could be struggling financially or have health issues for a minimal impact on the groundwater. Mr. Ferrio stated that Quonochontaug is just one area of concern in Town but certainly not the only area. Mr. Hoff jokingly stated that he would like it to be on the record that he doesn't mind being required to sell his house in 40 years, he could live with that.

VIII. ADJOURNMENT

The meeting was closed at 7:59 PM

Attest:

Bonnie Langlois, Recording Secretary