

**Wastewater Management
Commission
June 14, 2016
Regular Meeting
~ Minutes ~
FINAL**

I. CALL TO ORDER

The meeting was called to order at 6:30 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	Chairman	Present	
Robert D. Frost	Commissioner	Present	
Barbara Lutzel	Commissioner	Excused	

III. REVIEW AND APPROVAL OF MINUTES

1. Review and Approval of WWMC Minutes of May 18, 2016

WWMC meeting minutes were approved as corrected.

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

IV. COMMUNICATIONS AND REPORTS

1. Wastewater Manager's Report

Wastewater Manager's report was read aloud and was placed on file in the Wastewater Manager's Office.

2. Solicitor's Report

Mr. Brochu stated that there is not much new. He mentioned that one of the long time cases for the Wastewater Management Office in Municipal Court is just about over because it looks as if the property is going to be sold, the violation remedied, and the fines vacated.

Discussion ensued regarding discussions that are allowed at the meetings and Mr. Brochu stated that we should stick to the agenda as closely as possible, citing the Open Meetings Act. Suggestion was made that if a Commissioner would like to have something on the agenda, he/she should make a suggestion to put the item on the next month's agenda. Ms. Richardson made a suggestion to Mr. Dowling that because there are so few commissioners, she thinks it would be wise to get a preliminary head count for the following month's meeting to make sure a quorum will be present.

3. Wastewater Management Commissioners Report

V. OLD BUSINESS

1. Discussion and Potential Action

Discussion ensued regarding a list of potential actions that could reduce septic system nitrate Nitrogen (N) loading to the Watershed as requested by the Town Council on March 14, 2016 specifically an "Advisory from the Wastewater Management Commission in the next few months as completed on Potential Actions the Town Could Take to Decrease the Level of Nitrates from Septic Systems, with a Copy of the Advisory to be Forwarded to the Potable Water Working Group".

A draft advisory was provided based on discussion at the May 18, 2016 WWMC meeting and it was discussed and modified in sections.

Motion to approve the two introductory paragraphs with change to the date from June 8 to June 14 (in two places) and correction of “complete” to “completed” in the first paragraph was made by Beth Richardson. Motion seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Motion was approved unanimously.

The text as approved is:

*Town of Charlestown Waste Water Management Commission
DRAFT Town Council Advisory
June 14, 2016*

The Town of Charlestown Wastewater Management Commission respectfully submits this Advisory in response to a motion made by the Town Council on March 14, 2016 requesting an “Advisory from the Wastewater Management Commission in the next few months as completed on Potential Actions the Town Could Take to Decrease the Level of Nitrates from Septic Systems, with a Copy of the Advisory to be Forwarded to the Potable Water Working Group”.

Responsive to that specific request, at WWMC meetings on May 18 and June 14, 2016, the Commission discussed potential actions that would reduce septic system nitrate Nitrogen (N) loading to the Watershed. For purposes of this discussion the Commission considered the geographic portion of Charlestown within the Salt Ponds Critical Resource Area (CRA)/ Special Area Management Plan (SAMP), (Charlestown’s established “Coastal Groundwater Protection Overlay District”), where Innovative/Advanced (Nitrogen Reducing) on-site wastewater treatment systems (OWTS) are required for all new OWTS installations pursuant to the Rhode Island Department of Environmental Management (RIDEM) OWTS Rules.

Motion to approve the introductory Potential Actions paragraph with deletion of “and is not a recommendation for action or implementation” was made by Beth Richardson. Motion seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Motion was approved unanimously.

The text as approved is:

Potential Actions

The following potential action items represent a summary of the discussion of the Wastewater Management Commission, the University of Rhode Island (URI) Cooperative Extension, Non-Point Education for Municipal Officials (NEMO), the New England On-site Wastewater Training Center (NEOWTC), URI Laboratory of Soil Ecology and Microbiology (LSEM), and others. The Commission discussed nine specific action items that could be implemented by the Town to achieve groundwater N-reduction from OWTS. These items are grouped into three broad categories.

Motion to approve the first potential action item with an additional sentence made boldface: “The Charlestown Office of Wastewater Management and the WWMC are currently working with URI to implement this small scale program this fiscal year.” was made by Beth Richardson. Motion seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Motion was approved unanimously.

The text as approved is:

*1. In a recent study conducted by URI (Lancellotti et al. (2015)), the Laboratory for Soil Ecology and Microbiology conducted sampling and analysis of N-reducing OWTS effluent in the Greater Narragansett Bay Watershed (including Charlestown). The results of that study indicate that N-reducing OWTS are often not achieving the expected Nitrogen removal. Further, the systems in the URI study are operating less effectively than the same technologies in Barnstable County, MA where effluent samples are routinely analyzed. Lancellotti et al. (2015) suggest that not incorporating sampling into the policy for N-reducing OWTS omits a critical link to achieving expected system performance. We believe effluent from N-reducing OWTS should therefore be collected and analyzed to optimized system functionality and consistently achieve the \leq mg/L threshold. The URI researchers are currently identifying a more cost effective field sampling procedure to obtain similar results as a laboratory analysis. The Town Council has approved a FY 2016/2017 budgetary line item for a small-scale, preliminary N-reducing OWTS sampling /optimization program in conjunction with URI LSEM that will analyze effluent from 30 N-reducing OWTS in July and November 2016. **The Charlestown Office of Wastewater Management and the WWMC are currently working with URI to implement this small scale program this fiscal year. The sampling program can then be expanded as a large scale program to ensure proper functionality of N-reducing OWTS within specified regions of the Watershed. Sampling is anticipated to become more cost effective over time as URI LSEM is currently identifying higher resolution field sampling methods.***

Motion to approve Action #2 with “all N-reducing” change to “all newly-permitted N-reducing” and the sentence containing those words changed to bold-, made by Beth Richardson. Motion seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Action #2 approved unanimously.

The text as approved is:

2. *Current RIDEM OWTS regulations allow an N-Reducing OWTS to utilize a conventional style drain field. However, the final efficiency of an N-Reducing OWTS is substantially reduced with a conventional drain field. The WWMC proposes that all newly-permitted N-reducing OWTS in Charlestown must utilize a pressurized drain field to maximize final wastewater treatment. If the Town Council directs, the WWMC and Charlestown Office of Wastewater Management will encourage RIDEM to make that rules change and determine Town authority to implement Ordinance requirements.*

Motion to approve Action #3 as written in the draft made by Beth Richardson. Motion seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Action #3 approved unanimously.

The text as approved is:

3. *Where technically feasible and not an excess financial burden, all future permitted N-Reducing OWTS should be required to utilize a pressurized shallow drain field (PSND) or similar to achieve an additional 33% to 53% Nitrogen reduction in the soil treatment area (Holden et. al., 2014). Otherwise, the OWTS must use a bottomless sand filter. If the Town Council directs, the WWMC and Charlestown Office of Wastewater Management will encourage RIDEM to make that rules change and determine Town authority to implement Ordinance requirements for critically impacted portions of the watershed areas.*

Motion to approve Action #4 with 1. Changing “10 mg/L N” to “10 mg/L Nitrate Nitrogen”, 2. Changing “However, the approval” to “However, the RIDEM approval” and 3. Removing “and budget” from the last sentence, made by Beth Richardson. Seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Action #4 approved unanimously.

The text as approved is:

4. *Two experimental N-Reducing OWTS designs are currently seeking approval for final Nitrogen effluent concentrations of ≤ 10 mg/L Nitrate Nitrogen. Achieving that level of OWTS performance would be an important step in assuring groundwater quality. However, the RIDEM approval for those two systems is not proceeding rapidly and required data submittals to the RIDEM are not currently forthcoming. The WWMC proposes that the Town engage with RIDEM and the manufacturers to accelerate the approval of those two system designs and any other of similar performance that become available. Then the WWMC would propose to require systems of that performance level in critically impacted portions of the watershed when new OWTS are required to be installed. If the Town Council directs, the WWMC and Charlestown Office of Wastewater Management will work with RIDEM and the manufacturers and develop a plan for how the Town can facilitate the approval of these higher-performance systems.*

Motion to approve Action #5 with changing “first initiative” to “first item in this advisory”, made by Beth Richardson. Motion seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Action #5 approved unanimously.

The text as approved is:

5. *The first item in this advisory proposes N-Reducing OWTS sampling and testing to facilitate system performance optimization. The WWMC further proposes that all new (future permitted) N-Reducing OWTS be designed to facilitate easy access for effluent sample collection. This will reduce the cost of the OWTS sampling and testing. **If the Town Council directs, the WWMC and the Charlestown Office of Wastewater Management will encourage RIDEM to make that rule change and determine Town authority to implement Ordinance requirements.***

Motion to approve Action #6 with changing “necessary rules” to “necessary RIDEM rules” in the last sentence, made by Beth Richardson. Motion seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Action #6 approved unanimously.

The text as approved is:

6. *The WWMC proposes that the Town encourage the installation of composting toilets. **If the Town Council directs, the WWMC and Charlestown Office of Wastewater Management will develop a plan for promotion of that option and any necessary RIDEM rules changes.***

Regarding the section on “Accelerating the replacement of conventional septic systems”, no motion was made to include this section, as written, in the final advisory. An alternative wording was proposed that added no advisory potential actions.

Motion to add alternative wording that adds no advisory potential actions was made by Beth Richardson. Motion seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Motion approved unanimously.

The text as approved is:

In the last eight years, the Town’s OWTS data indicate that approximately 35 OWTS per year have been upgraded to N-reducing technology in the Charlestown Coastal Groundwater Protection Overlay District for a net N reduction of approximately 350 lb/year to the groundwater and the salt ponds watershed; this could be accelerated by expediting the upgrade of older conventional OWTS to N-Reducing OWTS.

The WWMC discussed several triggers to accelerate the upgrade of conventional OWTS to N-reducing technology but did not come to consensus to recommend consideration of any of these at this time.

- a. A lower remodeling square footage increase to trigger a required upgrade,*
- b. A point of sale requirement to upgrade,*
- c. An OWTS age-related requirement to upgrade or*
- d. A scheduled, date-certain, requirement to upgrade*

The draft advisory included a section on “A Concept for Comprehensive Groundwater Protection” that highlighted an approach used in North Kingstown. There was no motion made to include that section in the final advisory.

Motion made by Beth Richardson to accept the entire document with above additional changes of 1. Changing “nine” to “six” in the Potential Actions introductory paragraph and 2. Labeling the six potential actions with numbers 1 through 6. Motion seconded by Pete Ogle. VOTE: Mr. Ferrio - aye, Mr. Ogle - aye, Mr. Frost - aye, Ms. Richardson - aye. Motion approved unanimously.

VI. NEW BUSINESS

No New Business

VII. PUBLIC COMMENTS

Mr. Wallace Kelly and Mr. Ron Meneo made comments questioning the efficiency of the denitrification systems.

Discussion ensued.

Mr. Kelly commented that he thought that within the next ten years, a large scale sewer system would have to be installed to handle the problem in the high nitrogen level areas.

VIII. ADJOURNMENT

The meeting was closed at 9:56 PM.

Attest:

Bonnie Langlois, Recording Secretary

Formatted: Justified