

**MEETING OF THE ORLEANS
BOARD OF WATER/SEWER COMMISSIONERS**

10 MAY 28 PM 4:03

April 7, 2010

A meeting of the Board of Water and Sewer Commissioners was held Wednesday, April 7, 2010 in the Nauset Room, Town Hall:

Those present were Kenneth McKusick, Judith Bruce and Ann Hodgkinson of the Board, associate member Ken Rowell and Leonard Short, Mark Carron, Board of Selectmen liaison, Ed Barr, Finance Committee liaison, Lou Briganti, Water Superintendent. Absent was Robert Rich of the Board. Leonard Short was asked to vote in the absence of Robert Rich.

Kenneth McKusick called the Board of Water and Sewer Commissioners meeting to order at 1:30 p.m.

MINUTES

Judith Bruce made a motion seconded by Ann Hodgkinson to approve the minutes of the meeting of March 17, 2010 as written. The vote by the Board was 3-0-2 with Kenneth McKusick and Jimmy Dishner abstaining as they were not present at the meeting.

SUPERINTENDENT'S REPORT

- See attached report

OLD BUSINESS

NSTAR HERBICIDE USE IN THE WATERSHED

The Board of Selectmen are sending a second letter.

MEMBRANE REPLACEMENT

Ann Hodgkinson and Jimmy Dishner were selected by the Board to review the RFP's for the membrane replacement.

22.5 ACRES OPEN SPACE, BREWSTER

The Board of Water and Sewer Commissioners support the purchase of the 22.5 acres of property in Orleans but mentioned that this type of purchase has never before been funded by water rates.

NEW BUSINESS

COMMITMENTS/ABATEMENTS/REFUNDS


A motion was made by Jimmy Dishner seconded by Judith Bruce to commit for the month of March 2010 to rate \$0.00, to services \$640.00, to usage \$0.00, to installations \$3,790.20 and to added billing \$1,732.98. The vote by the Board was 5-0-0

A motion was made by Jimmy Dishner seconded by Judith Bruce to refund \$190.42 to Jeffrey Wickeri, account # 1289 because it was paid twice in error. The vote by the Board was 5-0-0.

ADJOURNMENT

At 2:30 p.m., a motion was made by Judith Bruce and seconded by Ann Hodgkinson to adjourn the meeting. The vote by the Board was 5-0-0.

The next regular meeting is scheduled for April 21, 2010 at 1:30 p.m.



Secretary, Board of Water/Sewer Commissioners

Board of Water & Sewer Commissioners

I am going to admit that I am a little perplexed by the approach EPG is taking. I did a couple of intermunicipal water sales in NJ and this is just not taking the same form.

From my perspective EPG needs to be clear on a scope of work with Eastham first, then meet with, or meet jointly with Orleans.

To date Orleans has had multiple discussions with Eastham to try to get to something more formal going. We contacted and know that CCC will support an 0.5 MGD transfer. To me it is time to verify the feasibility of the transfer, examine whether it will be 0.5 MGD maximum or an average and add some meat to the bones. Then see if an interconnection is still feasible.

It would really help me to see the tasks identified and listed. I would also like to know that Eastham is happy with what they are going to get for their money. Speaking of money, I'd like to be clear that I believe Eastham should pick up the tab for the engineering firm that works on Orleans behalf. We do not want to have a conflict of interest and I believe another firm will add a higher level of confidence to the study.

I hope we're getting closer to being on the same page. Maybe I'm mixing up your purpose, approach and goals for tasks, but I do think the study needs to address Eastham's needs first and as much or more than Orleans.

I attached a file with Orleans withdrawal data. The links below are to the wastewater report and Orleans Planning Dept. – let me know if I can help.

Thanks,
Lou

Here is the draft-wastewater report & planning department contacts:
http://www.town.orleans.ma.us/Pages/OrleansMA_BComm/docs/cwmp0908/cwmpdrafts

George Meservey
Director of Planning & Community Development
John Jannell
Assistant Town Planner

From: Stephen Olson [mailto:sco@envpartners.com]
Sent: Friday, March 05, 2010 4:27 PM
To: Louis Briganti
Cc: Mark White
Subject: Orleans Modeling for Eastham

Board of Water & Sewer Commissioners

Hi Lou,

Thanks for taking the time to meet with me and Mark this past Monday to discuss supplying water to Eastham. We recognize that you and the Town have already expended time and energy investigating the potential of supplying water to Eastham. We believe that we understand your concerns and want to document what we discussed at our recent meeting:

Purpose: Develop a concept-level program for providing a connection of the Orleans Water System to Eastham that will allow for the sale of up to 0.5 MGD of water to Eastham. Identify the infrastructure requirements (distribution and treatment) and estimated capital cost for making this connection. Evaluate implications on the existing WMA permit and whether any modifications to the permit may be required because of the connection and water to be provided to Eastham.

Approach: Using the Orleans Water System Hydraulic Model identify the infrastructure requirements for supplying Eastham with up to 0.5 MGD of water. The proposed connection to Eastham will be made in the vicinity of the Route 6 rotary, where a transmission main will be installed within the rail trail/bike path to the business district area of Eastham. The performance of the water system under future "build out" conditions, particularly with respect to the performance of the Eastham connection and transmission main, will also be evaluated as a scenario using the hydraulic model. The water demand requirements under this future-conditions scenario will be based on available data and projections developed as part of the Orleans Wastewater Facilities Planning study.

The infrastructure requirements required to deliver adequate pressure and flow to the Eastham business district and the improvements to the existing water system in Orleans necessary for accommodating this Eastham connection will be identified. The ability of the Orleans' treatment facilities to provide up to 0.5 MGD of water to Eastham, e.g., confirming whether the plant is adequately sized for this purpose, will also be evaluated. Lastly, examine Orleans existing withdrawal limits under the Water Management Act and assess the impacts of increasing the Town's demand by 0.5 MGD. EPG will develop a summary for Eastham that describes the operating requirements of a public water system: regulatory compliance, licensed operation and maintenance, rules and regulations for connections, meters, and use.

Needs: Orleans will supply EPG with the past 5 years of pumping records and a copy of the future wastewater projections for the Town of Orleans.

Goal: Provide Orleans with feedback and results as they become available. Work with Orleans to determine an acceptable infrastructure program to enable the Town to sell water to Eastham.

Let me know if you concur and/or if you have anything to add/change.

Board of Water & Sewer Commissioners

Once we confirm the process and approach, we'll get started and keep you in the loop.

Thanks again.
~ Steve O

Stephen C. Olson, P.E.
Sr. Project Manager

Environmental Partners Group, Inc.
A partnership for Engineering Solutions
1900 Crown Colony Drive, Suite 402
Quincy, MA 02169
Main Number: 617 657 0200
Direct Number: 617 657 0255
Fax Number: 617 657 0201
Cell Number: 781 588 6800
www.envpartners.com

The information so transmitted here is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you receive this in error, please contact the sender and delete the material from any computer.

GWR

We received a letter from MA DEP on March 29th granting 4-log approval for the wtp. Oh Boy – now the reporting starts.

It is unlikely that approval of "pending modifications" for Facility no. 1 and Well no. 7 will be granted.

Board of Water & Sewer Commissioners



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST REGIONAL OFFICE
20 RIVERSIDE DRIVE, LAKEVILLE, MA 02347 508-946-2700

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

March 23, 2010

Mr. Louis Briganti, Superintendent
Orleans Water Department
19 School Road
Orleans, MA 02653

RE: ORLEANS-Water Supply
PWS ID #4224000
Ground Water Rule (GWR)
4-Log Treatment Certification
Orleans WTP

Dear Mr. Briganti:

The MassDEP Drinking Water Program (DWP) is in receipt of your Form D-Ground Water Rule-Request for 4-log Certification-Chlorination.

The application is hereby approved and the Orleans Water Department (the PWS) is granted state certification for 4-log virus treatment for source(s): Well 1-4224000-01G, Well 4-4224000-04G, Well 5-4224000-05G, and Well 6-4224000-06G.

Effective upon receipt of this letter the PWS must conduct GWR compliance monitoring per 310 CMR 22.26(4)(b) to prove that the disinfection process is meeting 4-log treatment at all times. Monthly GWR compliance monitoring forms must be submitted. All forms are located at <http://www.mass.gov/dep/water/drinking/systems.htm#gwr>. The first form is due within 10 days from the close of the month. Compliance monitoring forms must be completed for each chlorination application point.

The chlorination facility identified as Orleans Water Treatment Plant must meet the following requirements:

- Chlorine residual must be measured at or before the first customer AND after the contact time required to achieve 4-log treatment.
- A CT of 5.6 min-mg/L must be provided at all times. The PWS has completed a tracer study and has calculated CT at 14.9 min-mg/L using a minimum chlorine residual of 0.5 mg/l.
- The PWS must maintain a minimum measured chlorine residual of 0.2 mg/l at all times.

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057. TDD/ 866-539-7622 or 617-574-6868.

DEP on the World Wide Web: <http://www.mass.gov/dep>

Printed on Recycled Paper

Board of Water & Sewer Commissioners

- The PWS must provide continuous chlorine residual monitoring. Equipment and methods used must meet the requirements of 310 CMR 22.26. If there is a failure in the continuous monitoring equipment, you must conduct grab sampling every four hours until the continuous monitoring equipment is returned to service. The system must resume continuous residual disinfectant monitoring within 14 days of failure.

The PWS shall not make any changes to the chlorination application and monitoring processes used to achieve compliance with the GWR 4-log treatment requirement without obtaining prior written approval from the MassDEP.

Please contact Michael Quink at (508) 946-2766 if you have any questions. Information and forms associated with the GWR are located at:

<http://www.mass.gov/dep/water/drinking/systems.htm#gwr>.

Very truly yours,



Richard J. Rondeau, Chief
Drinking Water Program
Bureau of Resource Protection

R/MQ/cb

cc: D. Springborg
MassDEP-DWP Boston

Four log Cert Orleans
Y:\DWP\Archive\SERO\Orleans-4224000-Four Log Certification 2010-03-23

Board of Water & Sewer Commissioners

NSTAR Right of Way

Ongoing issue.

NSTAR did receive a map with the locations of our Zone I's from the Health Dept.

Rate Increase

The BOS voted unanimously in favor of the water rate increase at their March 24th meeting.

Tanks 1 & 2

A *Letter of Interest* for repair of the tank finials has been created with the help of Leo Yuskus. Our goal will be to try and find 3 to 4 vendors that might be interested in doing the work. We are awaiting one more climb of the tanks before proceeding with the *Letter of Interest*.

WTP (& Membrane Status)

• **CIP**

In accordance with our 8 week CIP schedule chemical cleanings were performed on Rack no.3 on 03/15 and Rack no.1 on 03/22.

The annual aggressive cleaning (citric acid/caustic & chlorine/citric acid) was performed on Rack no. 2 between 03/31 and 04/01. The results were very encouraging with the final permeability reaching 6.35 gfd.

On January 26 to 28 an Aggressive CIP was performed on rack no. 1. This is the annual chemical cleaning that each rack receives before peak season. The rack was cleaned with citric acid followed by KOH/Chlorine followed by a final citric acid CIP.

The results were very good. We achieved a permeability of 6.22 GFD – the target being 6.0.

• **Membrane Fiber Breaks**

There have been 2-additional fiber breaks since February 1st – minimal.

The number of fiber breaks seems to have stabilized. The total is now 19 as of February 1st – only 2 breaks since 12/30/2009.

For what it is worth - Pall Corp. is being kept aware through email (below). Included was a spreadsheet with a map of the fiber breaks across the 3-racks. Since the wtp was placed in service there have been 17 fiber breaks – 9 breaks have occurred since Nov. 11th.

Board of Water & Sewer Commissioners

• Membrane Replacement

The draft RFP for membrane replacement was submitted to the Town Administrator's office on 03/11. A meeting was held on 03/30 with The Town Administrator, Town Counsel, Jeff Musich, Susan Brown and I. It is anticipated that edits will be completed within the week and that the project schedule will be maintained.

Draft RFP to Water Department	March 08, 2010.
Draft Copy of RFP to Town Counsel	March 11, 2010
Final Draft for Review	March 30, 2010
Advertise in the Central Register	April 14, 2010
Bids due	May 6, 2010

Information to date:

After meeting with the Town Administrator and Town Counsel on 12/08 and 12/15 it has been concluded that replacement membranes will need to be publicly bid. Jeffrey P. Musich, P.E., Vice President of Wright-Pierce provided the best approach and price to assist the Town in this effort.

1. Replacement membranes must be publicly bid -Town Counsel.
2. Pall UF membranes (LOV5210) would only require that MA DEP be notified. The membrane material is PAN –Polyacrylonitrile.
3. For Pall MF membranes (UNA-620A), MA DEP will require a demonstration test with the first rack in lieu of a pilot study. This is a verbal commitment (2009.06.09, DEP SERO). These MF membranes are made of PVDF - Polyvinylidene fluoride.
4. Any other membranes will need to be piloted and also be listed on MA DEP's Approved Technologies List.
5. Layne Christensen Company could supply Toray UF membranes and are willing to conduct a free pilot study (2009.06.30, WTP). The Toray PVDF membranes have a larger pore size than the Pall UF membranes. Layne could provide some level of ongoing support.
6. Technology Sales Associates with General Electric Co. can supply ZeeWeed 1500 UF membranes (PVDF) along with a free pilot study (2009.07.09, WTP). Ongoing support is not provided.

Well no. 8

MA DEP visited the site of well no. 8 on March 8th – "You can use the well on my verbal. I don't know when I'll get to writing a letter." Success.

Miscellaneous

We are currently working with ITS to complete upgrades to well no. 7 that will make it compliant with MA DEP's chemical safety regulations (*shoe string* budget).