

# TATA & HOWARD

I N C O R P O R A T E D

November 12, 2010

Mr. James J. Dillon  
Department of Environmental Protection  
Bureau of Resource Protection  
205B Lowell Street  
Wilmington, Massachusetts 01887

Subject: Sanitary Survey Summary  
Wayland Department of Public Works  
PWSID#: 3315000  
T&H No. 2208

RECEIVED

DEC 03 2010

DEP  
NORTHEAST REGIONAL OFFICE

Dear James:

On behalf of the Wayland Department of Public Works, please find below responses to the corrective actions outlined in the Sanitary Survey Findings Summary dated May 28, 2010. We trust the information will assist the Department of Environmental Protection (MassDEP).

## Table A-Violations

### Citation No. 1:

*"310 CMR 22.22(3)(h): Ensuring that all double check valve assemblies and reduced pressure backflow preventer devices are inspected and tested in accordance with the public water system program as approved by the Department and as specified at 310 CMR 22.22(13)."*

*"310 CMR 22.22(13)(d): The public water system is responsible to ensure that each reduced pressure backflow preventer will be inspected semiannually...As provided for in 310 CMR 22.22(3)(b). Also, each double check valve assembly shall be tested annually."*

*During the calendar 2009, Wayland conducted only one (1) round of backflow device testing.*

Wayland has contracted with Whitewater to perform the required backflow device testing and will submit the following to MassDEP: A list of all permitted reduced pressure backflow preventer install in its water distribution system, a list of all double check valve assemblies installed in its water distribution system, a schedule for testing all devices this

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year, a plan and schedule for re-surveying Wayland, and the names and license numbers of all testers and surveyors who conduct the work. The estimated date of completion is January 2011.

Citation No. 2:

*"310 CMR 22.04(5): Existing Public Water Systems. The Department may require any existing public water system to demonstrate its compliance with 310 CMR 22.0, including but not limited to 310 CMR 22.04(1) and the Department's Guidelines and Policies for Public Water Systems, at the time of the sanitary survey conducted pursuant to 310 CMR 22.01(12) or as otherwise directed by the Department."*

Security fences surrounding the Reeves Hill water storage tanks will be installed as the corrective action and hardened locks will be put on the access hatches immediately. The fencing is currently being designed. The installation of the fencing and associated tree clearing requires a submittal of a Notice of Intent (NOI) with the Wayland Conservation Commission, which has been submitted. It is anticipated that the fencing will be installed in Spring 2011, but no later than September 2011.

Citation No. 3:

*"310 CMR 22.04(5): Existing Public Water Systems. The Department may require any existing public water system to demonstrate its compliance with 310 CMR 22.0, including but not limited to 310 CMR 22.04(1) and the Department's Guidelines and Policies for Public Water Systems, at the time of the sanitary survey conducted pursuant to 310 CMR 22.01(12) or as otherwise directed by the Department."*

The corrective action includes installing a lock on the access for Baldwin Pond Well 1A. This item has been completed.

Citation No. 4:

*"310 CMR 22.21(3)(b): Current and future land uses within the Zone I shall be limited to those land uses directly related to the provision of the public water system..."*

The removal of the storage trailers within the Zone I at the Happy Hollow wells is required as the corrective action. This task requires action by other Town departments. The DPW is working with the other departments to relocate the storage trailers outside of the Zone I.

Citation No. 5:

*"310 CMR 22.04(5): Existing Public Water Systems. The Department may require any existing public water system to demonstrate its compliance with 310 CMR 22.0, including*

*but not limited to 310 CMR 22.04(1) and the Department's Guidelines and Policies for Public Water Systems, at the time of the sanitary survey conducted pursuant to 310 CMR 22.01(12) or as otherwise directed by the Department."*

*Currently, the pH and disinfection equipment at all active wells is in non-compliance with the Chemical Safety Control rules and will not be by the required deadline of June 30, 2010. A schedule is required for bringing the wells into compliance.*

The Town is preparing a warrant article for the annual town meeting so money can be available on July 1, 2011 for chemical safety upgrades at the Happy Hollow well site. The anticipated date of completion is August 15, 2011. The Baldwin Pond Wells upgrades were completed as part of the construction of the Water Treatment Facility so upgrading Happy Hollow will give the water department the benefit of having their largest two sources compliant with chemical safety and meeting summer demands. The use of the Chamberlin Well and the Campbell Well will be avoided until modifications to the chemical feed systems are completed. The modifications to Chamberlain and Campbell will follow Happy Hollow and be completed as funds allow.

Citation No. 6:

*"310 CMR 22.04(5): Existing Public Water Systems. The Department may require any existing public water system to demonstrate its compliance with 310 CMR 22.0, including but not limited to 310 CMR 22.04(1) and the Department's Guidelines and Policies for Public Water Systems, at the time of the sanitary survey conducted pursuant to 310 CMR 22.01(12) or as otherwise directed by the Department."*

*Wayland is required to submit a plan and schedule for providing emergency power at its well stations to meet the requirements of the Department's Guidelines & Policies to provide written documentation how peak demand can be met with the wells. It is the Department's understanding that the new water treatment can provide a maximum of 1.5 MGD but the peak summer demand can be 2.55 MGD.*

One portable generator has been purchased for use at any well site. In addition, a permanent generator will be purchased in 2011 to connect to one of the three well sites and two additional generators are to be purchased in the future for installation the rest of the well sites to meet the MassDEP's Guidelines & Policies.

## Table B-Deficiencies

### Citation No. 1:

*"Guidelines, Chapter 8: Posted in a readily visible part of the pump house shall be a contingency planning sheet containing directions, contacts, and phone numbers of the proper persons to contact in the case of an emergency."*

*The corrective action for the town to take includes updating the notification sheet with the current phone numbers as required by the Guidelines at all their facilities.*

The task has been completed.

### Citation No. 3:

*"Groundwater Rule."*

*Corrective Action: Wayland is required to submit form D to the Department to obtain 4-log viral certification for the Baldwin Pond wells which are now being treated at the new Baldwin Pond Water Filtration facility.*

The Baldwin Pond Wells have already received 4-log viral certification from MassDEP. Please refer to the correspondence in Attachment A.

### Citation No. 4:

*"310 CMR 22.11B."*

*The action plan includes submitting a revised staffing plan. The primary treatment operator and the primary distribution operator needs to be identified.*

The current staffing plan is attached. The Water Department is also currently advertising for another operator.

### Citation No. 5:

*"Groundwater Rule."*

The Water Department has verified that all draw down tubes, well vents, etc. are properly protected with screens, plugs, etc. to prevent both chemical, microbial, etc. contaminants from entering the well.

## Table C-Recommendations

### Recommendation No. 1:

*"Install dead man switches on all chemical transfer pumps."*

The installation of the dead man switches will be incorporated into the necessary chemical safety upgrades as outlined in the Chemical Safety response to Citation No. 5 in Table A.

### Recommendation No. 2:

*"Taps used for obtaining samples for bacteriological analysis shall be of the smooth-nosed type without exterior or exterior threads, shall not be of the mixing type, and shall not have a screen, aerator, or other such appurtenances."*

Each sample tap used for collecting raw water samples is currently a smooth-nosed sample tap meeting the recommendations of the Guidelines so that the samples are less likely to produce false-positive results.

### Recommendation No. 3:

*"According to 310 CMR 22.11B, it is recommended that any operator currently holding a 1-T license up their license to 2-T in the event that one or more of the Baldwin Pond wells is determined to be under the direct influence of surface water resulting in the classification of the Baldwin Pond Water Filtration facility being upgraded from 2-T to 3-T."*

The Town encourages training of all personnel. The department is currently staffed with three personnel with a T-2 license and one with a T-3 license.

### Recommendation No. 4:

*"The Department recommends that the Wayland Fire Department and Police Department acting as first responders to be aware of the layout of the water treatment facility as well as all the hazards, both chemical and electrical within the facility."*

The Department of Public Works and the Wayland Fire Department conduct training on a quarterly basis at the Baldwin Pond Water Treatment Facility.

### Recommendation No. 5:

*"Develop a written safety policy including such elements of trench safety, chemical handling procedures, road safety, electrical hazards, lock out procedure, etc.."*

The Town has an Emergency Response Plan and Operation and Maintenance Manuals for each pump station and the water treatment facility that outlines several safety procedures.

Recommendation No. 6:

*"Alarm all safety eye wash stations and safety showers if this has not yet been done and tie the alarms into the Wayland Fire Department to summon help, especially on weekends and holidays when there is minimal staffing."*

Chemical containment areas at the Baldwin Pond Water Treatment Facility are connected to the HAZMAT alarm system so the fire department will be aware of any major chemical spill at this site. The well sites will be on schedule to be upgraded as outlined in the Chemical Safety response to Citation No. 5 in Table A.

Recommendation No. 7:

*"Verify field location of all interconnections and exercise yearly. Establish written policies with the other town on their emergency use."*

The Town of Wayland does not have a written interconnection contract agreement with the Town of Lincoln or Weston. Verbal communication between Town water officials is all that is required to activate an interconnection. However, the Town will contact the representatives of Lincoln and Weston to prepare a plan for exercising valves, flushing, chlorine injection, etc. at the interconnection locations. The Town's Emergency Response Plan also recommends the Town keeps updated interconnection valve tie-cards on file for assistance in locating valves in an emergency.

Recommendation No. 8:

*"Install dead man switches on all chemical transfer pipes."*

The installation of the dead man switches will be incorporated into the necessary chemical safety upgrades as outlined in the Chemical Safety response to Citation No. 5 in Table A.

Recommendation No. 9:

*"Institute a valve exercising program."*

The Town currently utilizes their flushing program and water system improvements in combination with their current valve exercising program. The Town plans to implement a valve exercising program in conjunction with a valve replacement program in the future.

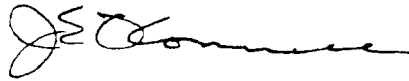
Mr. James J. Dillon  
Massachusetts Department of Environmental Protection

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We trust this submittal satisfies the requirements outlined by the Department. Should you have any questions, please call.

Sincerely,

TATA & HOWARD, INC.



Jack O'Connell, P.E.  
Senior Vice President

cc: Mr. Donald Ouellette, P.E., DPW Director

TATA & HOWARD  
  
INCORPORATED

# System Staffing and Comprehensive Operations Plan

System Name: Wayland Water Division City/Town: Wayland PWS ID#: 3315000

System Classification: COM  NTNC  NC  (Check one)

Contract Operator(s)  Licensed Staff  No Certified Operator  (Check one)

Operator Name: <u>Michael Hatch</u>	Superintendent	Phone# <u>508-808-5044</u>	Grade/Cert# <u>3-T #11736</u>
Operator Name: <u>Manny Pacheco</u>	Treatment Plant Manager	Phone# <u>508-397-7598</u>	Grade/Cert# <u>2-T #22555</u>
Operator Name: <u>Brian Vaudreuil</u>	Working Foreman	Phone# <u>508-958-2805</u>	Grade/Cert# <u>1-T #7229</u>
Operator Name: <u>Paul Hatfield</u>	Water Craftsman 3	Phone# <u>508-958-2803</u>	Grade/Cert# <u>2-T #7078</u>
Operator Name: <u>Richard Bushey</u>	Water Craftsman 2	Phone# <u>774-239-1422</u>	Grade/Cert# <u>2-T #22919</u>
Operator Name: <u>Nick Iarussi</u>	Water Craftsman 2	Phone# <u>508-328-3443</u>	Grade/Cert# <u>1-T #22551</u>
Operator Name: _____	Water Craftsman 1	Phone# _____	Grade/Cert# _____

\*Water Superintendent and Treatment Plant Manager are not in the "on-call" or "weekend duty" rotations, but are available for emergencies.

\*\* Operator has passed his exam and is currently waiting for the 1-T OIT certification to arrive in the mail. The Operator will be added into the on-call rotation as soon as he receives the license.

Give a brief description of **proposed** operating practices including the number of hours per day, week, or month that the licensed operator will be at the facility. Include the name and telephone number of the person accepted by the licensed operator who will be responsible for the system in the absence of the licensed operator. (See notes below for further information.)

The Primary Treatment Operator is Manny Pacheco, Water Treatment Plant Manager.

The Baldwin Pond Water Filtration Facility will be staffed 8 hours per day, Monday – Friday. During this time the Treatment Plant Manager will perform the daily water quality sampling, preventative maintenance and operation of the Treatment Plant. The wells, tank and booster stations will be sampled and maintained by the Water Craftsman 3. The other personnel will be available to assist either the plant operator or station operator if needed.

The SCADA system is equipped with an auto dialer program to phone the on-call person to notify them if there is a problem. The on-call operator will be issued a laptop to dial in to the SCADA system to access a problem and take corrective action. If the plant shuts down, for example due to a high pH condition in the membrane filtration skids after a backwash the system is designed not to allow remote re-starts. The operator has to go to the plant to correct the problem by initiating a backwash to clear the high pH alarm, and then the system will allow the plant to be re-started. This is one of the many built-in fail safes.

On the weekends and holidays, the plant will be staffed 4 hours per day with an additional hour for visits to the other stations.



Please note the following:

1. The primary operator must be able to respond to emergencies within one hour during those times when he or she is not present at the facility.
2. The primary operator is responsible for the operation of the system during his or her absence between scheduled visits, the person(s) affiliated with the public water system are acting under the direction of the primary operator.
3. The PWS must have the ability to detect any malfunction in the operation of the facility/system in the absence of the primary operator.

I certify under penalty of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best of my knowledge and belief.

James C. J. J.  
Signature

11-30-10  
Date

# System Staffing and Comprehensive Operations Plan

System Name: Wayland Water Division City/Town: Wayland PWS ID#: 3315000

System Classification: COM  NTNC  NC  (Check one)

Contract Operator(s)  Licensed Staff  No Certified Operator  (Check one)

Operator Name: <u>Michael Hatch</u>	Superintendent	Phone# <u>508-808-5044</u>	Grade/Cert# <u>4-D #11889</u>
Operator Name: <u>Manny Pacheco</u>	Treatment Plant Manager	Phone# <u>508-397-7598</u>	Grade/Cert# <u>2-D #22334</u>
Operator Name: <u>Brian Vaudreuil</u>	Working Foreman	Phone# <u>508-958-2805</u>	Grade/Cert# <u>2-D #11646</u>
Operator Name: <u>Paul Hatfield</u>	Water Craftsman 3	Phone# <u>508-958-2803</u>	Grade/Cert# <u>2-D #3651</u>
Operator Name: <u>Richard Bushey</u>	Water Craftsman 2	Phone# <u>774-239-1422</u>	Grade/Cert# <u>2-D #22992</u>
Operator Name: <u>Nick Iarussi</u>	Water Craftsman 2	Phone# <u>508-328-3443</u>	Grade/Cert# <u>1-D #22090</u>
Operator Name: _____	Water Craftsman 1	Phone# _____	Grade/Cert# _____

\*Water Superintendent and Treatment Plant Manager are not in the "on-call" or "weekend duty" rotations, but are available for emergencies.

Give a brief description of **proposed** operating practices including the number of hours per day, week, or month that the licensed operator will be at the facility. Include the name and telephone number of the person accepted by the licensed operator who will be responsible for the system in the absence of the licensed operator. (See notes below for further information.)

The Primary Distribution Operator is Brian Vaudreuil, Working Foreman.

The Primary Operator is on site 8 hours a day 5 days a week. The Town of Wayland has a Water Division employee on-call after normal hours. The on-call person rotates on a weekly basis. On the weekends and holidays, the system will be staffed 4 hours per day.

The on-call person is issued a cell phone and laptop with access to the departments SCADA system in case of emergencies.

Please note the following:

1. The primary operator must be able to respond to emergencies within one hour during those times when he or she is not present at the facility.
2. The primary operator is responsible for the operation of the system during his or her absence between scheduled visits, the person(s) affiliated with the public water system are acting under the direction of the primary operator.
3. The PWS must have the ability to detect any malfunction in the operation of the facility/system in the absence of the primary operator.

I certify under penalty of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best of my knowledge and belief.

Signature \_\_\_\_\_

Date 11-30-10