



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

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January 11, 2019

Town of Southborough
Attn: Mark Purple, Town Administrator
17 Common Street
Southborough, MA 01772

Re: PWS Town: Southborough
PWS Name: Southborough DPW Water Division
PWS ID #: 2277000 – COM; R.O.#: 165191
Program: System Modification WS32
MassDEP Trans. # X277002
Action: **Approval**

Dear Mr. Purple:

The Central Regional Office of the Massachusetts Department of Environmental Protection (MassDEP) received your permit application, WS32 – Modification to Distribution System on December 11, 2017. The permit application was submitted by Timothy P. Thies, of Pare Corporation, 8 Blackstone Valley Place, Lincoln, RI 02865, on behalf of the Towns of Southborough and Ashland. The permit application is for modifications to the Southborough water distribution system as well as an interconnection vault on the Southborough-Ashland Town line for MWRA water to flow through Southborough into Ashland. In Southborough, proposed modifications are for an upgrade to the Hosmer Pump Station (where MWRA water enters Southborough) and piping modifications and installation of a new altitude valve at the Overlook Storage Tank in Southborough. The new interconnection vault will be an underground vault on Oregon Road in Ashland, with a meter and telemetry equipment and chemical addition of zinc orthophosphate.

The proposed project required the completion of Massachusetts Environmental Policy Act (MEPA), and therefore the submitted WS32 permit application was put on “Hold” through a letter MassDEP issued on February 20, 2018, pending completion of the Environmental Impact Review process. In the meantime, the project proponent completed the MEPA review process, and the Executive Office of Energy and Environmental Affairs (EOEEA) issued MEPA Certificate on the Final Environmental Impact Report (FEIR) EOE# 15388 on June 29, 2018. Following completion of the MEPA review, the permit submittal was divided into two permits; the current WS32 permit relating to the project in Southborough, and a second WS32 permit relating to the Ashland portion of the project with design plans and specifications of the interconnection vault to be reviewed and approved by MassDEP’s Northeast Regional Office. The Applicant submitted additional modifications on the design and specifications on January 8, 2019.

Project Description and Background

The Town of Southborough receives 100% of its water from the MWRA. Water enters the Town of Southborough through two booster pumping stations; the Boland Pumping Station (PS) off Northborough Road and the Hosmer Pumping Station off Boston Road. The Boland Pumping Station has two 550 gpm pumps that pump water from the Hultman Aqueduct to the high pressure area of Southborough and the 1.3 MG Fiddlers Green Reservoir Storage Tank. The Hosmer Pumping Station also has two 550 gpm pumps that pump water from the aqueduct to the low pressure side of Southborough and the Oak Hill Storage Tank and Overlook Drive Storage Tank. There are 4 pressure reducing valves in Town, so water from the high pressure zone can be supplied to the low pressure zone.

The Town of Ashland treats its own water from 5 wells (Wells 04G-09G) that are located adjacent to the DCR Hopkinton State Park reservoir. In the winter, the DCR lowers the level of water in the reservoir, which results in lower water levels in the wells. There have been times when the Town of Ashland, through an emergency declaration, get water from the MWRA. The Town of Ashland also provides water to the Town of Hopkinton.

The Town of Ashland has obtained permission from the MWRA to obtain a **maximum of 1.6 MGD** of water through an interconnection with the Town of Southborough. MWRA water has a pH greater than 9.0 (Ashland pH is around 7.5), MWRA adds Fluoride (Ashland does not add Fluoride), and MWRA does not add a phosphate (Ashland adds Zinc Orthophosphate).

To pump the additional water from the MWRA system to the Town of Ashland distribution system, upgrades to the Southborough Water System Hosmer Pumping Station are required. The proposed modifications to Southborough's water system involves removing the two existing 550 gpm booster pumps at the Hosmer Pump Station (Total pumping capacity 0.8 MGD), and replacing them with three 1,000 gpm new booster pumps for a total pumping capacity of 2.85 MGD. This also involves upgrading the pipes out of the Pump Station and upgrades to the mechanical and electrical controls in the Pump Station. A new backup generator will be installed. The new booster pumps will provide increased flow and pressure to the pipes, so a second redundant 12-inch pipe, parallel to the existing 12-inch pipe, will be installed from the Hosmer Booster Station out along the Hosmer access road. Since the flow and pressure will increase in the Low Pressure Service Area, an altitude valve will be installed at the Overlook Drive Tank so the increased pressure does not cause the tank to overflow. The altitude valve and pipe fittings will be located within a new 12.75 ft x 7.5 ft building.

Permit Review and Approval

MassDEP reviewed the permit application and supporting documentation, and hereby issues the permit/approval. This Permit does not convey property rights of any sort or any exclusive privilege. Pursuant to MassDEP's authority under 310 CMR 22.04(7) to require that each supplier of water operate and maintain its system in a manner that ensures the delivery of safe drinking water to consumers, this permit is made subject to the conditions set forth below.

General Permit Conditions

1. Compliance with Permit Approvals - The Applicant shall conduct activities in accordance with the approved plans, reports, and other submissions, except as may be modified by the conditions set forth in Specific Permit Conditions. No material changes in the design or activities described in the approved documents shall be performed without prior written MassDEP approval.
2. Compliance with Other Approvals - The activities at this Public Water System shall be performed in compliance with all other applicable local, state and federal laws and regulations. This approval does not relieve the owner or operator of this Public Water System from complying with all other applicable local, state and federal requirements, licenses and permits.
3. Duty to Mitigate – The Applicant shall remedy and shall act to prevent all potential and actual adverse impacts to public health or the environment resulting from noncompliance with the terms or conditions of the permit or approval.
4. Duty to Provide Information – The Applicant shall furnish to MassDEP, within a reasonable time, any information MassDEP may request, and which is deemed by MassDEP to be relevant in determining compliance with permits, regulations, guidelines and policies.

Specific Permit Conditions

1. Hydrant – A new hydrant shall be installed at the end of the new 12-inch water line leaving the Hosmer Pump Station. This hydrant can also be used for flushing water out of the system after the upgrade construction is complete. Submit a revised sheet showing the hydrant has been included in the construction plans.
2. Construction Certification - The Applicant shall submit to MassDEP, prior to the final inspection, a copy of the Massachusetts Professional Engineer's certification letter/report on the installation of the upgrades to the Hosmer pumping station, installation of the new water line, and installation of the altitude valve. The Engineers certification shall also include a final set of as-built plans that show any changes from the submitted and approved plan.
3. Operation and Maintenance Manual – The Applicant shall submit to MassDEP for review and approval, a new Section to the Operation and Maintenance (O&M) Manual for the operation of the new Booster Pumps.
4. SCADA System – The operation of the new VFD Booster Pumps shall be connected to the Southborough SCADA system. The flow meter in the interconnection vault will also be connected to the Southborough SCADA system.

5. Distribution Map Modifications – The Town of Southborough shall modify the distribution map to include the second 12-inch distribution line on Hosmer Road and the interconnection vault on Oregon Road.
6. Interconnection Operation – The Towns of Ashland, Southborough and MWRA shall maintain their communication protocol so that when the Town of Ashland opens the interconnection, they notify both the Town of Southborough and the MWRA. The vault has been designed so the butterfly control valve inside the vault is operated by the Town of Ashland through SCADA, but can be overridden by the Town of Southborough in the event of an emergency situation. Southborough will also be notified every time Ashland opens the valve. MassDEP recommends a plug for a portable generator be included in the interconnection vault design so both parties can operate the automatic butterfly valves and SCADA system during extended power outages.
7. Final Inspection – MassDEP must be notified upon completion of the construction of this project, so that MassDEP personnel may conduct the final inspection of the facility. Please allow at least ten (10) working days for MassDEP personnel to conduct the final inspection. MassDEP’s written approval must be obtained prior to placing the project upgrades in service.

Thank you, and if you should have any questions or comments regarding this matter, please feel free to contact Margo Webber of the Drinking Water Program 508-767-2738. Please feel free to contact me as well at 508-849-4036.

Sincerely,



Robert A. Bostwick
Section Chief
Drinking Water Program

Cc: Drinking Water Program, BWR, MassDEP-Boston
Drinking Water Program Files, BWR, MassDEP-CERO
Paula Caron, DWP, MassDEP-CERO
Nick Zessoules, NERO, 205B Lowell St, Wilmington, MA 01887
Shane Driscoll, Pare Corporation, 8 Blackstone Valley Place, Lincoln RI 02865
Southborough BOH, 9 Cordaville Rd, Southborough, MA 01772
Ashland BOH
Southborough DPW/Water Department, 147 Cordaville Rd, Southborough MA 01772
Ashland Water Department