

Lisa Tomyl

From: Doug Halley
Sent: Wednesday, September 03, 2014 4:26 PM
To: Manager Department
Subject: FW: Letter for sewer connection
Attachments: Letter to Acton BOH for sewer connection 090314.pdf

Attached please find a request from the Water District to connect the new Water Filtration Treatment Plant to the Public Sewer on High Street. We have worked out the Privilege Fee in accordance with the Sewer Assessment Bylaw and the Water District is agreeing to pay the Privilege Fee. Please put this on the Board of Selectmen's consent agenda for the 8th. I will follow-up with a detailed memo for the packet on Friday. Thanks!

From: Chris Allen [<mailto:Chris@actonwater.com>]
Sent: Wednesday, September 03, 2014 2:58 PM
To: Doug Halley
Cc: James Cray
Subject: Letter for sewer connection

Doug,

As previously discussed, attached is a letter requesting approval of our South Acton Water Treatment Plant connection to the Sewer District on High Street. We understand that there are, as yet, some undetermined characteristics of the connection, but hope that it can be approved with conditions to keep the project on track.

Please let me know if anything else is required.

Thank you
Chris

Chris Allen
District Manager
Water Supply District of Acton
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693 Massachusetts Ave
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Email: chris@actonwater.com

"When the well's dry, we know the worth of water"—Benjamin Franklin 1776

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Water Supply District of Acton

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September 3, 2014

Mr. Doug Halley
Acton Public Health Department
472 Main Street
Acton, MA 01720

**Subject: Sewer Connection Privilege Fee
South Acton Water Treatment Plant
DWSRF ID #3652
Acton, Massachusetts**

Dear Mr. Halley,

The Acton Water District (AWD) supplies public water for the Town of Acton from eleven groundwater sources located throughout the town. Two of the sources, the Assabet and School Street groundwater sources, have elevated levels of iron and manganese that have historically contributed to a discolored water problem. In addition, one of the South Acton sources (Christofferson Well) was classified as groundwater under the influence of surface water (GWUI) prompting an Administrative Consent Order (ACO) from the Massachusetts Department of Environmental Protection (MA DEP) to implement treatment for this source. The AWD proactively decided to treat the five sources in the South Acton quadrant at one common facility to address the ACO and the chronic discolored water problem. The Assabet and School Street groundwater sources have a total authorized pumping rate of 1.7 Million Gallons per Day (MGD). This new South Acton Water Treatment Plant (WTP) will filter over 40% of the AWD's water supply. Furthermore, this facility provides an inherent increase in the available capacity of potable water due to the restoration of the Christofferson Well to its permitted capacity. Historically this well was not used to its fullest extent due to poor water quality and adverse microbial impacts.

The treatment process includes the use of aeration for VOC removal; potassium permanganate for oxidation of minerals; potassium hydroxide for pH adjustment; sodium hypochlorite for disinfection; and sodium fluoride for fluoridation. The primary treatment process in the facility is membrane filtration (Microfiltration). The solid material removed by the membranes is periodically removed through routine backwashing of the filters, chemically enhanced backwashes and a clean-in-place (CIP) process using a high concentration chlorine solution and an acid bath to remove embedded particles. The routine backwash water is collected in in-plant tanks, allowed to settle and the supernatant is recycled to the head of the plant for retreatment. The solids from the backwash settle and accumulate. Periodically, these solids will be discharged to the sewer system. The chemically enhanced backwashes and the CIP wastes are neutralized and discharged to on-site lagoons, and, thusly, NOT discharged to the sanitary sewer. The treatment facility also includes administrative space for staff to control, monitor and maintain the treatment processes. Sanitary wastes will be generated from toilet facilities, lavatories, a shower and testing laboratory activities.



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The total waste proposed to be discharged to the Acton sewer system is estimated to be 150 gallons per day (gpd) for sanitary wastes and 1,600 gpd for process waste. The sources for these estimates have been reviewed with you. The privilege fees associated with these anticipated volumes will be based on 5.83 sewer units at the rate of \$12,711.52 per unit for a total of **\$71,776.16**. The District will agree to pay this privilege fee prior to connecting to the sewer system. Given the mutually beneficial nature of this project, due to the unprecedented expense of the overall project, \$13.5-million, (Inclusive of over 2 miles of pipe installation), and the high Operations & Maintenance costs that the new facility will bear, the District appreciates any consideration for financial relief in reduction or modification of the privilege fee.

It is understood that this is considered the first Industrial Connection. The operation and maintenance fees are currently being developed with the Town's Wastewater Treatment Facility contract operator, Woodard & Curran, Inc., based on the proposed volume and solids loading. Because the South Acton WTP was designed with flexibility, the solids loading from the process wastes can be controlled to minimize potential impacts from the new waste source.

We look forward to working with the Town and their contract operator to make the management of wastes from the South Acton WTP an easy transition, and, ultimately, to significantly improve the overall quality of life of the citizens of Acton.

Respectfully,

Chris Allen
District Manager

Cc—(By Electronic copy ONLY) Jim Cray, Wright-Pierce