



March 20, 2024

Mr. Daniel Shinnick, Chairman  
Rowley Conservation Commission  
Town Hall Annex Room #4  
39 Central Street  
P.O. Box 24  
Rowley, MA 01969

Subject: Request for Agenda Placement  
New Source Test Well Exploration  
Rowley, Massachusetts  
T&H No. 6621

Dear Mr. Shinnick:

On behalf of the Rowley Water Department, we would like to request agenda placement on the April 2, 2024 public meeting of the Rowley Conservation Commission to discuss the upcoming Test Well Exploration Project we are completing with the Rowley Water Department. To support this discussion, we anticipate the following parties to be in attendance of the remote public meeting:

- Bernie Cullen, Rowley Water Commissioner
- Bob Gray, Rowley Water Department Superintendent
- Katie Carreira, Tata & Howard
- Ryan Neyland, Tata & Howard

Tata & Howard, Inc. completed a New Source Evaluation report for the Rowley Water Department in June of 2020 in which existing and projected water system demands were evaluated in addition to existing water supplies and potential alternatives for additional sources to meet future demands. The projected 2035 average day demand (ADD) for the Rowley water system of 0.57 million gallons per day (mgd) exceeds the Town's Water Management Act total permitted and registered average daily withdrawal volume of 0.55 mgd. It was recommended that the addition of a new source be investigated in order to increase source capacity for meeting the projected 2035 ADD in addition to reducing the vulnerability of the water system during emergency events and drought periods, and to provide additional sources to supplement existing groundwater wells that may have a reduction in production when routine well cleaning and redevelopment are needed. As part of the report, a number of historical studies were reviewed to gather information on previous groundwater exploration efforts in Town, and multiple Town-owned and State-owned parcels which have the potential for development of a municipal water supply were identified based on parcel size and land use restrictions.

One area that was recommended for potential groundwater exploration was Parcel No. 13-14 (467 Haverhill Street) due to the fact that the property is owned by the Town of Rowley and the site is greater than 12-acres. This property owned by the Town is under the care and custody of the Rowley Conservation Commission. See attached Figure No. 4-2 which indicates the location of the recommended test well sites, including Parcel No. 13-14. As part of this new Test Well Exploration project, the Rowley Water Department is proposing to drill test wells and monitoring wells and complete a short-term pump test to estimate potential yields in Parcel No. 13-14. In an effort to meet future water demands and diversify the Rowley Water Department's sources, the long term goal of the test well exploration work is to construct a permanent, new source. As seen in Figure No. 4-2, Parcel No. 13-14 is located just north of one of the Town's existing sources, the Haverhill Street Well No. 2. Based on the proximity of a potential new source to the existing Haverhill Street Well No. 2, there is potential to connect a new source to the existing water source's discharge line to the distribution system. This would require installing new water main within Parcel No. 13-14 to the south to connect the new source to the existing Haverhill Street Well No. 2. The potential for horizontal directional drilling of a new water main would be evaluated during the design of the new source.

The attached Figure No. 1 shows Parcel No. 13-14 with wetland areas as obtained from MassGIS. The wetland areas were buffered to show the 25-foot and 100-foot buffer areas. The parcel was evaluated to observe potential area for exploratory drilling work. If an individual gravel packed well is constructed, a Zone I protective radius of 400 feet is required. If a wellfield is constructed, a Zone I protective radius of 250 feet is required around each well. These radii are indicated on Figure No. 1 based on the boundary of the parcel. The test well drilling work will be conducted within the 250-foot radius area, but outside of the wetlands 100-foot buffer area. The resultant potential test well drilling work area is indicated on Figure No. 1.

There is an existing gravel access road that extends from Smith Lane near the southwest corner of Parcel No. 13-14 to the existing communications tower located within Parcel No. 13-14. It is anticipated that this existing path can be utilized to access the test well drilling site from the southwest side of Parcel No. 13-14. The existing access road is approximately 250 feet from the potential test well drilling area, therefore additional clearing may be needed to create a path from the existing access road to the test well drilling area to accommodate the required equipment. The exact location of the access path from the existing access road to the test well drilling area and extent of any required clearing will be determined upon finalizing the exact area of the test well drilling, and will be included in the Request for Determination of Applicability as discussed below. Figure No. 3 indicates the approximate location of the existing access road from Smith Lane to the existing communications tower, and the approximate potential path from the existing access road to the potential test well drilling area. Figure No. 3 also shows the locations of nearby certified and potential vernal pools as obtained from MassGIS. As shown, there are two certified vernal pools approximately 170 feet from the access path and one potential vernal pool approximately 110 feet from the access path.

In order to confirm wetlands boundaries throughout the parcel, a wetlands scientist has been retained to complete wetlands delineation within the entire Parcel No. 13-14. The wetlands scientist is responsible for inspecting the wetland resource areas on the parcel for the presence of

resource areas subject to jurisdiction under the Massachusetts Wetlands Protection Act and regulations and local wetlands protection bylaws, and delineating the boundary of Bordering Vegetated Wetlands (BVWs) with surveyor's flagging. On February 26, 2024, the wetlands scientist began identifying and flagging the boundary of BVWs on Parcel No. 13-14 until we received notice from the Rowley Conservation Commission that all activities on the property should be ceased until the Commission has given proper authorization for any activity to occur. The wetlands scientist left the site that day after completing approximately half of the delineation work, and has been instructed to not return to the site until authorization is given. The attached Figure No. 2 indicates the approximate extent of the delineation work that was completed by the wetlands scientist on February 26, 2024. To note, the delineation areas are not complete, and the sketched areas are approximate only. Parcel No. 13-14 in which the wetlands delineation work is being completed and the proposed test well exploration work will be completed is under the care and custody of the Rowley Conservation Commission, and therefore authorization must be given from the Commission before any activity may resume on the site.

On behalf of the Rowley Water Department, we are requesting authorization from the Rowley Conservation Commission to complete the wetlands delineation work on Parcel No. 13-14. The mapped wetlands delineation will help to determine the exact area where test well drilling may occur. After the wetlands delineation work is completed, a Request for Determination of Applicability (RDA) will be submitted to the Rowley Conservation Commission for the proposed test well exploration work which will include a site plan of the area showing the wetlands delineation and the proposed area of test well drilling work. No exploratory work or test well drilling will be started until after we receive approval from the Conservation Commission following the RDA submittal and public hearing.

Sincerely,

TATA & HOWARD, INC.



Kathryn Carreira, P.E.  
Project Manager

Enclosures

cc: Mr. Robert Gray, Superintendent  
Rowley Water Department