



August 10, 2016

Mr. Andrew R. Port, AICP
Director of Planning & Development
City of Newburyport
60 Pleasant Street
Newburyport, MA 01950

SUBJECT: Proposal for Peer Review of Evergreen Golf Course Open Space Residential Development

Dear Mr. Port:

In response to your July 14, 2016 request to conduct a peer review assessment of the proposed Evergreen Golf Course development in relation to the City's Well No. 2, we respectfully provide the following scope of work and recommended budget.

Our proposal assumes that this work will be completed as a purchase order under our October 9, 2014 Water System Engineering On Call Contract with the City of Newburyport, Department of Public Services – Water Division.

BACKGROUND

Newburyport Well No. 2 is a part of the city's drinking water infrastructure system and supplies on average approximately 10% of the city's drinking water. The well is approximately 60 years old and is located off of Ferry Road adjacent to the Evergreen Valley golf course. A large residential development is being proposed for construction within the only undeveloped Zone II resource area of Well No. 2. The City has requested AECOM to conduct a review of the proposed development as it relates to potential impacts on the well including water quality, capacity, and limitations on future replacement/expansion of the City water supply.

AECOM will conduct the evaluation in a series of interrelated tasks as described below.

PROPOSED SCOPE OF WORK

1. AECOM will conduct a site visit to Well No. 2 and the surrounding Zone I and Zone II resource areas including the proposed development area at Evergreen Golf Course. The purpose of the site visit will be to visually observe the overall condition of Well No. 2 and to collect information to be used in the evaluation.
2. AECOM will meet with Water Department representatives to discuss the Well No. 2 operations and to understand their concerns about the proposed development. At the meeting we will look to obtain available design, construction, and operational documents for Well No. 2 from the Water Department.
3. AECOM will review available documents provided by the Water Department which could include:
 - a. Report of Zone II Delineation for Well 2
 - b. Well construction diagrams and pumping test record for Well 2
 - c. Geologic logs of Well 2
 - d. Historical pumping records for Well 2
 - e. Any reports and records (i.e., borings) of a geologic or hydrogeologic nature

4. AECOM will review available US Geological Survey reports, which could include:
 - a. Hydrogeologic reports/maps
 - b. Geologic reports/maps

The purpose of this review will be to get a general sense of the groundwater flow direction, the presence or absence of confining clay layers, and recharge areas, etc.

5. Based on available information, AECOM will evaluate the potential impacts of the proposed development on the water quality and capacity of Well No. 2. Potential impacts to be evaluated include the use of fertilizers, onsite flooding, illicit pool discharges, use of de-icing salts and solutions, vehicular traffic, and storm water impacts. Potential impacts to the well capacity could include an increase in Zone II impervious area resulting from the development.

The existing well No. 2 is 60 years old. AECOM will evaluate the impact the proposed development will have on the City's ability to locate and drill a new well in the future to replace the existing aging well. Potential impacts to a future well replacement could include siting limitations imposed on the City by developing the only remaining undeveloped Zone II resource area around this water supply. AECOM will also review and comment on the need for providing a protected Zone I around a future well area that may encroach on the proposed development.

6. AECOM will prepare a letter report summarizing the findings of the evaluation. The report will also provide recommendations on any actions the City should take toward the proposed development and an opinion as to the potential impact the development could have on the City's future water supply at this location.
7. AECOM will attend a meeting with City representatives to discuss findings of the letter report.
8. Assumptions:
 - a. AECOM will rely on data provided by the City and the developer. AECOM will inform the City of conflicts in the data received. The effort and cost presented herein does not include the effort and cost to verify the City's data.

COST ESTIMATE

AECOM proposes to complete these tasks, based on the billing rates established in our Water System Engineering On Call Contract, for an estimated cost of \$15,000.

STAFFING

For this project, Mr. Doug DeNatale will be AECOM's lead in conducting the peer review assessment. Mr. DeNatale routinely conducts groundwater exploration programs, performs prolonged aquifer pumping tests, tests groundwater quality, maps potential sources of well contamination, delineates wellhead protection areas, and designs and oversees construction of municipal water-supply wells. Mr. DeNatale will be assisted by Mr. Doug Gove and other AECOM water supply engineers and experts as required. Mr. Gove was AECOM's project manager on the recently completed water treatment plant project for the City of Newburyport and he has extensive knowledge of the City's water supply and infrastructure.



SCHEDULE

AECOM will work with the City to develop a mutually agreeable fast track schedule for this work. We estimate that the scope of services described herein can be completed within 4 weeks once all relevant documents are made available.

Thank you for providing us the opportunity to continuing working with the City of Newburyport on this important water supply issue. We hope that our proposed scope of work meets the City's needs and we look forward to working with you. We would be happy to respond to any questions you may have. Please feel free to call Doug Gove at 978-905-2981 or Doug DeNatale at 978-905-2180 to discuss our proposal.

Yours sincerely,
AECOM

A handwritten signature in blue ink, appearing to read "Donald J. Chelton", is written over the typed name.

Donald J. Chelton
Vice President

Cc: Doug Gove, AECOM
Doug DeNatale, AECOM