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April 12, 2007

Mr. Steven M. Scharf, P.E.  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Action Bureau A  
625 Broadway, 11<sup>th</sup> Floor  
Albany, New York 12233-7015

**Re: New York Water Service Corporation  
Seaman's Neck Road Plant Site  
Wellhead Treatment System  
H2M Project No.: AQUA 07-01**

Dear Mr. Scharf:

As you know from our conference call / meeting of March 30<sup>th</sup> with you, Northrop Grumman, the Navy & their consultants (Tetra Tech-NUS), New York Water Service Corporation (NYWSC) and Holzmacher, McLendon & Murrell, P.C. (H2M), we have been retained by NYWSC and their new parent, Aqua America, Inc. (Aqua) to evaluate wellhead treatment technologies at the Seamen's Neck Road Plant site in Wantagh, New York. The wells on the site have been impacted by TCE. In accordance with the Record of Decision and Wellhead Protection Contingency Plan for the Naval Weapons Industrial Reserve Plant in Bethpage, we understand that the Navy is responsible for mitigating impacts to public water supply wells, including the Seaman's Neck wells, that were identified in the ROD as being in the path of the plume from that site. NYWSC will install appropriate treatment system to remove the TCE and protect the public water supply, and expect the associated costs to be borne by the Navy.

The detections of TCE contamination in the public supply wells have left very little time to plan for treatment. Noting that the production wells at the Seamen's Neck Road site represent a significant production capacity to NYWSC, it is imperative that the facility be available at its current capacity for the upcoming peak summer pumping season until the permanent system can be constructed. Although the report is not yet complete, it is anticipated that air stripping will be the long-term treatment solution for this site. However, it will likely take 18 – 24 months to get this facility online, once the design is authorized. We are only two months from the start of the peak pumping season. Consequently, in the interim, NYWSC is proceeding with the construction of an emergency temporary treatment plant at the site that will utilize granular activated carbon (GAC). Based on our meeting of March 30<sup>th</sup>, all parties were in agreement that this type of emergency interim treatment system would provide the most timely and effective short-term assurances that NYWSC needs to maintain its required capacity for this summer.

As stated, the interim treatment will utilize a GAC filter system to remove VOC's. Although there are three wells at the site, the GAC system will only be used to treat two of the three wells, since historic trends indicate that two wells are required to meet summer pumping demands.

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Each GAC pressure vessel has a manufacturer's recommended treatment capacity of 700 gpm. Therefore, six vessels would be required to treat the site's production capacity of 4,200 gpm. In addition to the GAC treatment equipment, a concrete foundation pad will be required for three sets of vessels, as well as site piping to route effluent from the existing iron removal plant to the GAC vessels. The vessels will be located outside the anticipated air stripping building envelope such that the long-term solution could be constructed with the temporary GAC system remaining in operation. Site landscaping will be required to screen the treatment systems from the neighbors' view. Initially, the GAC vessels will not be enclosed. However, since it is anticipated that the GAC system will likely be required to operate beyond the fall, NYWSC will have to enclose the vessels to protect against freezing. The determination as to how best to enclose the temporary GAC vessels has not been made at this time.

H2M has contacted leading GAC system manufacturers, and the quickest delivery schedule for three sets of filter vessels is 10 – 12 weeks, which would bring NYWSC into July just for delivery. This schedule is unacceptable and since time is of the essence, H2M has been in discussions with the Suffolk County Water Authority (SCWA) on behalf of NYWSC in an attempt to reach an agreement to rent their GAC vessels. The SCWA maintains spare GAC vessels in a portable arrangement to be transported to its well sites at a moments notice based on contamination detections at its supply wells. With only two months available, the SCWA is NYWSC's only option to get temporary treatment on site in time to meet the peak pumping season. As such, the following work is planned to get the treatment system in operation.

- Construction of concrete foundation
- Transport and setting of three sets of GAC filter vessels (total of 6 vessels)
- Loading of 120,000 pounds of GAC
- Installation of site piping to and from the GAC vessels / electrical modifications
- Installation of site landscaping for screening
- Start-up and testing
- Regulatory approval from the Nassau County Department of Health
- Installation of building enclosure (if required)

The costs associated with this work have yet to be finalized. However, we have prepared a rough cost opinion based on our experience in publicly bidding similar GAC filtration projects for other water suppliers.

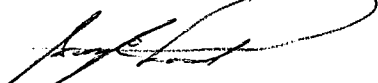
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Description	Cost
<b>Construction</b>	
Concrete foundation	\$ 45,000
Transport and setting of GAC vessels by SCWA	\$210,000
Rental of GAC vessels from SCWA	\$ 30,000
Loading of GAC	\$ 120,000
Installation of site piping / electrical modifications	\$ 100,000
Installation of landscaping	\$ 20,000
Start-up and testing	\$ 15,000
Removal and demobilization by SCWA	\$210,000
<b>Total Base Construction Costs</b>	<b>\$750,000</b>
Installation of building enclosure	\$275,000
<b>Total Construction Costs</b>	<b>\$1,025,000</b>
<b>Non-construction Costs (Engineering and Administration)</b>	<b>\$125,000</b>
<b>Total Interim Treatment Project Costs</b>	<b>\$1,150,000</b>

As NYWSC proceeds with implementing this interim treatment system, it is imperative that the Navy make a commitment so as to establish the protocol that will be put in place for reimbursement of costs for this project. Should you have any other questions or comments, or wish to further discuss this project, please feel free to contact this office.

Very truly yours,

**HOLZMACHER, McLENDON & MURRELL, P.C.**



Gary E. Loesch, P.E.

cc: Matthew Snyder, NYWSC  
Joseph Trotta, NYWSC  
Preston Luitweiler, Aqua  
Susan Clarke, Navy