

January 5, 2016

Roland Bartl, AICP  
Planning Director  
Town of Acton  
472 Main Street  
Acton, MA 01720

RE: Proposed Nagog Pond Water Treatment Plant, Acton, Massachusetts  
Supplemental Submittal for Special Use Permit and Site Plan Special Permit

Dear Mr. Bartl:

Based on feedback received during a recent Conservation Commission hearing on December 2, 2015 and MEPA site visit on December 18, 2015, the Town of Concord has made changes to the above referenced proposed project. A summary of the proposed project modifications and clarifications is provided below:

1. All activities associated with the proposed solar photovoltaic (PV) system, including clearing of land, have been moved outside the 100 foot wetland buffer. As such, the applicant has retracted its request for a waiver as all work associated with the proposed PV system is now outside the jurisdiction of the Conservation Commission. The applicant is proposing to clear existing trees and vegetation up to the property line as shown on the revised sheet C-9S. The proposed fence line along the southern property border has been placed 20-ft from the property line, and the PV arrays are located 20-ft from the fence line. Select vegetative cover is proposed between the property line and fence to provide screening for the PV arrays. It should be noted that anti-glare PV arrays will be specified and construction techniques will consider anti-glare practices.
2. The proposed building has been shifted such that it is no closer to the wetland boundary than the existing building (70 feet). As such, the applicant has retracted its request for a waiver of the wetland by-law setback requirements. The footprint and floorplan of the proposed Nagog Pond WTP building has not changed. The location of the building has pivoted slightly on the northeast corner of the structure. Updated plans showing the new building location is attached (refer to Sheet C-9 and C-9S).
3. The proposed method of replacing the existing 16-inch intake line to Nagog Pond has been finalized and includes dewatering a section of Nagog Pond. The existing coffer dam which is partially submerged will be reconstituted and amended with the placement of a temporary coffer dam consisting of an impermeable barrier/liner and super sand sacks. Once the temporary coffer dam is in place, the existing Nagog Pond dam outlet structure will be utilized to dewater the lower section of the pond so that replacement of the intake pipe can be accomplished in the dry.

The area of the pond to be dewatered is shown on sheet C-5 (attached) and consists of approximately 707,019 square feet. This area also represents a volume of approximately 19.65 million gallons of water if the pond was full prior to dewatering. The target release

rate of water to Nagog Brook is between 300 gallons per minute (gpm) and 700 gpm. If these release rates are achieved, the time for drawdown will be between 20 and 45 days. It is anticipated that construction activities associated with the intake, including draining the reservoir, will begin in September and be completed in December. The goal is to complete construction of the intake line before the new Water Treatment Plant is placed into service, anticipated to be in the summer of 2018.

The existing 16-inch intake pipe will be removed and the new 16-inch intake pipe installed in the same location within the coffer dam area. All excavation work will be accomplished such that there will be no net increase in soils/sediments removed/added to the pond bottom. All existing sediments/soils will remain and no new soils will be added. During the excavation process sediments will be stockpiled adjacent to the pipe trench and re-used to backfill the pipe.

The Contractor will be required to maintain several dewatering pumps to transfer water from isolated low spots in the dewatered area. Water will either be pumped to another isolated low spot not affecting the construction zone or pumped to the dam outlet zone for release downstream. Any water which is pumped will be monitored visually for the transport of solids/sediment. If solids/sediments are detected, then they will be allowed to settle within the dewatering area before being discharged to Nagog Brook.

The remaining section of the intake pipe will be installed using a barge. HDPE pipe will be fused and concrete collars installed. The pipe will be filled with air and dragged/floated out to the location to be installed. The pipe will then be filled with water and submerged. Divers will be used to connect the new intake screen and associated support tower to the HDPW intake line. The support tower will be deployed using a barge. Locations will be determined using GPS equipment.

4. The Acton Fire Department requested that the existing paved access road be increased from a width of 12 feet to 20 feet. In an effort to minimize the amount of impervious surface area, the applicant requested that the paved width be reduced from 20 feet to 18 feet, and include 1 foot wide gravel edges. The Fire Department agreed to this concept. If the Fire Department and other Acton Town Boards and Departments are agreeable, the applicant is hereby requesting that the paved access road width be further reduced to 14 feet, with 3 foot gravel shoulders on each side.

The following information is enclosed in support of the proposed project modifications:

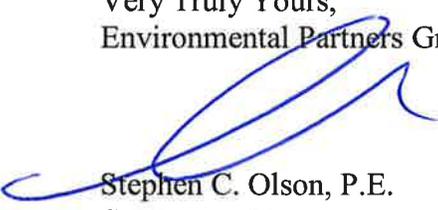
- Updated Project Plans (C-5, C-6, C-8, C-9, C-9S)
- Nagog Pond Underwater Intake Pipe Inspection Report (April 11, 2012)
- Nagog Pond Watershed and Solar Feasibility Study, Draft Report (July 17, 2013)
- Archeological Site Locational Survey, November 1994

For your information, the revised plan Sheet C-9 includes a table of existing and proposed site features including clearing, pervious, and impervious areas. There are no proposed changes being made to the stormwater and drainage systems previously submitted. Based on the limited site changes proposed, it is anticipated that there will be negligible differences in stormwater

management. As indicated by the previous stormwater analysis, it is expected that the peak stormwater discharge rates will be lower compared with existing conditions.

If you should have any questions or require additional information, please do not hesitate to contact me at (617) 657-0255. I can also be reached via e-mail at [sco@envpartners.com](mailto:sco@envpartners.com).

Very Truly Yours,  
Environmental Partners Group, Inc.



Stephen C. Olson, P.E.  
*Sr. Project Manager*

Encl:

- Attachment A - Updated Project Plans (C-5, C-6, C-8, C-9, C-9S)
- Attachment B - Nagog Pond Underwater Intake Pipe Inspection Report (April 11, 2012)
- Attachment C - Nagog Pond Watershed and Solar Feasibility Study, Draft Report (July 17, 2013)
- Attachment D - Archeological Site Locational Survey, November 1994

CC: Christopher Whelan, Concord Town Manager  
Richard Reine, Concord Public Works Director  
Alan Cathcart, Concord Water/Sewer Division, Superintendent  
Concord Public Works Commission

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*Attachment A*  
*Updated Project Plans (C-5, C-6, C-8, C-9, C-9S)*

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*Attachment B*

*Nagog Pond Underwater Intake Pipe Inspection Report (April 11, 2012)*

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*Attachment C*  
*Nagog Pond Watershed and Solar Feasibility Study, Draft Report (July 17, 2013)*

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*Attachment D*  
*Archeological Site Locational Survey, November 1994*