

FW: Cold Brook Crossing- WP79 DEP Technical Review Comments

Murphy, Bill

Tue 6/23/2020 2:43 PM

To: Duchesneau, Adam <DuchesneauA@sudbury.ma.us>; Suedmeyer, Beth <SuedmeyerB@sudbury.ma.us>;

Beth and Adam,

This was just released and I just had a conversation with Kevin Brander at DEP a few minutes ago. In his words these are deficiencies not fatal flaws in the DEP submittal. Issues shouldn't be an obstacle for permitting. There are rigorous compliance standards due to travel time to public well.

I have no other issues.

Bill Murphy, MS,RS,CHO

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From: Brander, Kevin (DEP) <kevin.brander@state.ma.us>
Sent: Tuesday, June 23, 2020 2:22 PM
To: Murphy, Bill <MurphyB@sudbury.ma.us>
Subject: FW: Cold Brook Crossing- WP79 DEP Technical Review Comments

These just went out.....

KB

Kevin Brander, P.E.
Section Chief
Wastewater Management Section
DEP/NERO

[205B Lowell Street](#)
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From: Lama, Tenzin (DEP) <tenzin.lama@mass.gov>
Sent: Tuesday, June 23, 2020 2:15 PM
To: Chris Claussen <cgclaussen@gmail.com>
Cc: Ray Willis <rwillis@onsite-eng.com>; Brander, Kevin (DEP) <kevin.brandier@mass.gov>; Nerden, Joseph (DEP) <joseph.nerden@mass.gov>; Don Provencher <Don@Provencher.com>
Subject: Cold Brook Crossing- WP79 DEP Technical Review Comments

Dear Mr. Claussen:

The Massachusetts Department of Environmental Protection, Northeast Regional Office (MassDEP) received an application for an Individual Groundwater Discharge Permit (WP79) on March 19, 2020, for the Quarry North Road, LLC's proposed development project, Cold Brook Crossing. The project is located 36 North Road in [Sudbury, MA 01776](#). MassDEP issued an approval of the hydrogeological report for the proposed project on October 1, 2019.

MassDEP has reviewed the application, including the technical design documents and provides the following comments to be addressed before we can resume our review.

Wastewater Treatment Facility Design:

- Page 18 of the design report states that the HVAC system will be designed prior to obtaining a building permit for the project. Please submit the design plans and supporting documentation for DEP review and approval. Specifically address the exchange of fresh and exhaust air, odor control, heating of interior spaces and adequate venting of corrosive gasses within the process building.
- Chemical storage: The *MassDEP Guidelines for the Design, Construction, Operation and Maintenance of Small Wastewater Treatment Facilities with Land Disposal* states that chemical spill containment capacity shall be designed to handle 110% of the design chemical storage volume. Page 17 of the design report mentions that only 100% chemical containment will be provided for Sodium Bicarbonate.
- MBR: Provide additional cross-sections and elevation views through the WWTP building. The design must demonstrate that all major process unit components have adequate safety measures and access to facilitate routine inspection and preventative maintenance.
- Screening system: The location of the screening unit is located between the MBR tank and the building wall. How will the operator maintain the system in the space provided? How will the HVAC and odor systems be configured to address odors and corrosive gases from the screening unit?
- Floor drains: The design plan doesn't show any floor drain in the WWTF building design. How will floors be cleaned in the event of a spill or for general cleaning?
- Influent sampling: How and where will influent samples be taken?
- Buoyancy calculation: Was a buoyancy calculation done for the final effluent pump chamber? If so, the buoyancy calculation attachment wasn't included. Please provide it for review.
- The schedule of elevation for Pre-treatment #1, shown on page M-2 of the design plan, lists the invert out elevation at 127.15 instead of 128.85. Please explain.

Soil Absorption System (SAS) Design:

- The reserve SAS is shown to be in close proximity to proposed row houses built at an elevation above the primary SAS and below the row houses. How will the reserve SAS be constructed in the future if needed? Please provide cross-sections of the proposed reserve SAS pre and post construction, along with a brief description of any measures needed to protect the row houses.
- Plan C (Page 12): Explain in more detail how stormwater runoff is being diverted from the primary leach field? Similarly, how will stormwater runoff be diverted from the reserve bed if required in the future? The reserve SAS is located under a 10 ft vertical slope between the row houses above and the primary SAS below.
- Please explain how flow to a SAS bed can be stopped or diverted if one of the three SAS bed fails?
- Cleanout: The SAS plan shows that there are cleanouts for the outlets from D-Box A, but there are no cleanouts to the outlet from D-Box P1, P2, and P3. Please explain.

Collections System Design:

- Plan B (Page 14): The service line for Units 89-92 connects to the Water line instead of the Sewer line.
- In the Legend and Notes section of the collection plans, Utility Note #10.2 refers to a pump station size. Please clarify if the proposed collection systems will include any pump stations?
- Please provide profile view of SMH A, SMH 1, and SMH 2 to get a better sense of the depth of the manholes. In addition, provide any special requirements for the contractor due to the depth of the manhole.

Items for follow up resulting from the March 30, 2020, design meeting with MassDEP.

- During our meeting with the project proponents, it was mentioned that for the MBR to start up it requires a minimum flow of approximately 3000-4000 GPD. The proposed plan was to bypass the biological process units from the FET to the final effluent chamber and use the SAS for disposal. MassDEP cited concerns with this approach because the SAS is located in a Zone II. Because of this concern the project proponent stated that the flow would be pumped and hauled from the FET prior to the facility going online. Therefore, please remove the bypass line from the FET to the final effluent chamber as shown on Page M-3 of the design plan.
- Since the effluent limit for the proposed project is expected to be of a high quality, MassDEP suggests the project proponent consider possible water reuse options. Please provide an explanation of reuse options assessed and any recommendations.
- There is a limited number of SAS observation ports for the entire SAS system. MassDEP would like to see more observation ports added to the ends of distribution piping in order to better assess the performance of the SAS by operators and inspectors.

Facility Ownership and Financial Assurance Mechanisms:

- Please clarify if all the proposed housing units will be condominiums or if some will be retained as rental units.

Per 314 CMR 5.15(1), a single entity must be responsible for the ownership and use of the wastewater treatment facility, and prior to startup financial assurance mechanisms cited in 314 CMR 5.15 Requirements for Privately Owned Wastewater Treatment Facilities must be executed and fully funded.

Please provide the additional documentation noted above. Submittal of **revised plans should be highlighted** to reflect the changes made for MassDEP review.

The Governor's Executive Order ("Order") in regard to MassDEP permitting procedures was issued on March 26, 2020 and continues to be in effect. The Order affects the timeframe for MassDEP decisions and appeals from any party on MassDEP approvals or permits. In the context of the Governor's Order, MassDEP has continued to advance permit applications to the draft permit phase when feasible and proceed with the public comment

6/26/2020

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period. However, we are at this time forgoing issuing any final permits until the Order is lifted, and the appeal timeframe is defined. Thus, until such time as the Order is either terminated or supplanted, the date of any final permit approval is unknown.

Please contact me should you have any questions.

Sincerely,

Tenzin

Tenzin Lama, EIT

Environmental Engineer