

G03480-001
February 20, 2024

Town of Grafton Selectboard
Wastewater Committee
P.O. Box 180
117 Main Street
Grafton, VT 05146

Re: **Wastewater Questions**

Dear Seth and Members of the Town of Grafton Selectboard Wastewater Committee,

Thank you so much for your letter received via email on December 18th. While addressed to Lynette Claudon and Emily Hackett of the State of Vermont Department of Environmental Conservation, Tighe & Bond has worked together with Emily and Lynette to provide a comprehensive response that takes into account the original scope of work, the funding source for those items, and the applicability of funding toward potential additional scope.

In specific response to your questions:

- 1) Cluster systems were evaluated for the Village and found to be infeasible due to the proximity of individual drinking water wells. Please see Figure A.6 of the 60% Preliminary Engineering Report. This has been completed, is covered by the grant, and is included in the current PER.
- 2) The recommended sewer service area is based upon engineering evaluation using appropriate parcel sizes, distance to drinking water wells, inclusion in the Village Center and Planning Buffer area, and flooding potential. A parcel's willingness to be part of the system does not change the recommendation that from an engineering perspective, it should be included.

As referenced in your letter, smaller repair systems or small cluster systems that are installed by the individual parcel owner(s) are absolutely a feasible way of treating wastewater, but are inconsistent with the goals of the study, and are not in compliance with the VTDEC regulations that must be adhered to for project funding under the Engineering Planning Advance grant as they will not provide sufficient separation between wastewater discharge and individual drinking water wells. Therefore, this alternative will not be addressed by the current scope and funding source, but may be evaluated through a different analysis.

- 3) We have discussed the "Living Machine" technology with the VTDEC and they have stated that it is acceptable to include the cost for pretreatment via the Living Machine technology in the 90% PER. At this time, VTDEC does not commit to approving this technology but the report can include these costs. We had hoped to provide this cost estimate through use of costs for a constructed system escalated to reflect current versus historic costs as the basis for cost analysis, but unfortunately, the systems we are aware of have been installed more than a decade ago and the construction data is no longer available. Unlike the other alternatives we have reviewed, this technology requires the use of a greenhouse building to house the treatment system, thus a more detailed cost estimate will be required to document the needed building mechanical, structural, and electrical costs.



- 4) The State of Vermont has no additional recommendations of pretreatment technologies.
- 5) The general methodology and costs for Point of Entry PFOS systems will be part of the 90% report, but as a stand alone alternative it does not meet the goals of this evaluation as it does not provide for any additional economic viability.

At this time, to complete the current report, the following scope modifications are recommended and found acceptable to VTDEC.

- 1) An additional treatment methodology, the "Living Machine" style treatment system will be included as an alternative treatment system in addition to those currently presented. If desired by the Town, this will require an amendment of \$7,800. It is our understanding that this amount is fundable by current sources.
- 2) The Village Park/Fire Pond Road alternative will continue to be included but will also require a Drinking Water PER be completed should the Village decide to advance this alternative. The report will note this alternative is contingent upon completion of the Drinking Water PER. A Drinking Water PER would be eligible to be paid for under the ARPA grant at no cost to the Town if the Town decides to pursue this alternative.
- 3) An alternative based upon a "theoretical parcel" will be identified that describes the size, soil type, and location for a parcel that would be suitable for placement of a wastewater disposal system. This alternative will include the use of PFAS/PFOA point of entry treatment systems. Please note that PFAZ/PFOA point of entry treatment systems are not eligible for funding under the ARPA grant. This alternative will replace the alternative that utilized Spring Hill Farm as a potential parcel.

The scope as progressed for this project is based on the "Notice of Request for Statements of Qualifications for Wastewater Engineering and Planning Services for the Town of Grafton VT". This document cited the need for a system that served the "economic health of the Village" and impact on "revitalization of the Village". As such, it was both Tighe & Bond's and VTDEC's understanding that this study's focus was on providing long term solutions that permitted for a sustainable Main Street business area with the capabilities to provide a limited amount of growth. It is both Tighe & Bond's and VTDEC's opinion that the current approach provided in the report represents the most technically feasible method to do so. As such, we propose to complete this report as it provides the methodology to meet the goals as presented in the original RFP with the approach noted above.

In regard to the questions on system management:

- 1) The utility encompasses all the users of the system. Basically, it is the financial component, while the commissioner/selectboard manages the system.
- 2) There is no state regulation that supersedes statute 24 VSA 3506. This statute may be found here, for reference:
<https://legislature.vermont.gov/statutes/section/24/097/03506>



We appreciate the opportunity to serve the Town of Grafton and provide continued progress on a challenging project. Please let us know if the Selectboard will support an amendment to include the Living Machine technology as an alternative and we will provide formal documents in a format acceptable to funding agencies and VT DEC.

Very truly yours,

TIGHE & BOND, INC.



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