

REQUEST FOR APPROVAL FROM BOARD OF HEALTH
DECISION NEEDED BY December 28, 2020

STREET ADDRESS: 0 East Street **(IN A ZONE II)**

CURRENT BEDROOMS: 0 DSCP REQUESTED BEDROOMS: Two (2) for over 55
yr of age DEED RESTRICTED

PARCEL #: 045-045-000

OWNER: Lovendale, LLC

1. MOVE: To Grant new construction of a vacant lot using construction in fill. Pat Brennan, Amory Engineers, has reviewed the submitted plan to make sure it demonstrates that there is no increase in stormwater runoff from the site for the 2, 10 and 25 year storm events as required in the Town of Duxbury Board of Health Supplementary Rules and Regulations 1.15(1). See the enclosed comments.

MOVE: To **Grant/Deny** use of Micro Fast Unit to increase flows in a Zone II wellhead protection area. Under 310CMR 15.217 an increase in allowable nutrient loading per acre may be allowed with the use of a technology approved for enhanced nutrient removal pursuant to either the piloting, provisional or general use certification provisions in 310 CMR 115.281 through 15.288.

This lot consists of 11,478 sf and is located in a Zone II wellhead protection area which allows one (1) bedroom per 10000 sf of property. Proposed use of the micro fast system to allow for an increase to 2 bedrooms designed for 150 gpd for over 55 years of age.

COMMENTS:

This lot has 11,478 square feet. The applicant is seeking to add 2 bedrooms for over 55 years of age (150 gpd) with the use of a FAST system.

CONDITIONS: Under Certification for General Use Approval Department of Environmental Protection dated March 20,2015 (See attached)

Conditions Applicable to the System Owner

1. The System owner shall at all times have the System properly operated and maintained by a Company approved Operator in accordance with this Certification, the designer's operation and maintenance requirements and the Company's approved procedures.
2. The System is certified only in connection with the discharge of sanitary wastewater from facilities with a design flow of less than 2000 gpd. Any non-sanitary wastewater generated and/or used at the facility served by the System shall not be introduced into the System and shall be lawfully disposed of.

3. The System Owner shall provide access to the site for the System Operator to perform inspections, maintenance, repairs, responding to alarm events, field testing, and sampling as may be required by the Approval.

Operation and Monitoring Requirements

4. System effluent total nitrogen (TN) concentrations shall not exceed 19 or 25 mg/L and effluent pH shall not be less than 6.0 or more than 9.0. Field test observations of dissolved oxygen (DO) shall equal or exceed 2 mg/L and for Turbidity shall be equal or less than 40 NTU.

5. All samples shall be taken at a flowing discharge point, i.e. distribution box, pipe entering a pump chamber or other Department approved location from the treatment unit.

6. Inspection, operation and maintenance (O&M), sampling, and field testing of the System required by the Approval shall be performed by a Company approved Operator who has been certified at a minimum of Grade Level 4 (four) by the Board of Registration of Operators of Wastewater Treatment Facilities, in accordance with Massachusetts regulations 257 CMR 2.00, and is an approved Title 5 System Inspector in accordance with 310 CMR 15.340.

7. Prior to commencement of construction of the System, the System Owner shall provide to the local approving authority a copy of a signed O&M Agreement that meets the requirements of paragraph IV (8).

8. The System Owner shall maintain, at all times, an O&M Agreement with a qualified System Operator approved by the Company. The Agreement shall be at least for one year and include the following provisions:

a) The name of a System Operator who is an approved System Inspector in accordance with 310 CMR 15.340 and who meets any additional qualification requirements specified in the Approval;

b) The System Operator must inspect the Alternative System as required by paragraph IV (9) and (12);

c) The System Operator shall be responsible for submitting the monitoring results to the System Owner in accordance with paragraph IV (13) and to the local approving authority in accordance with paragraph IV (14); and

d) In the case of a System failure, an equipment failure, alarm event, components not functioning as designed, or violations of the Approval, procedures and responsibilities of the System Operator and System Owner shall be clearly defined for corrective measures to be taken immediately. The System Operator shall agree to provide written notification within five days, describing corrective measures taken, to the System Owner and the local board of health.

9. The System Owner shall comply with the following monitoring requirements if the System is subject to a TN concentration limit in accordance with paragraph II (4):

a) Year-round installations shall be inspected and have effluent sampled for at least the TN parameter quarterly for the first year, then a minimum of twice/year thereafter, at least 5 months apart and with at least one sample taken between December 1 and March 1 of each year. Field testing shall be completed per

paragraph IV (11) below, and as determined necessary by the System Operator. See DEP Field Testing Protocol at <http://www.mass.gov/dep/water/laws/policies.htm#t5pols>. Wastewater flow shall be recorded at each inspection, see 'Flow Metering' paragraph IV (10).

b) Seasonal installations shall be inspected and have effluent sampled for at least the TN parameter a minimum of twice/year. At least one sample must be taken 30 to 60 days after each seasonal occupancy begins. A second sample must be taken no less than 2 months after the first sample. Field testing shall be completed per paragraph IV (11) below, and as determined necessary by the System Operator. Wastewater flow shall be recorded at each inspection, see 'Flow Metering' paragraph IV (10).

c) Systems in operation prior to issuance of this Approval, which have received approval of sampling reduction from the Department may continue with that System monitoring frequency.

Properties occupied at least 6 months per year are considered year-round properties. Properties occupied less than 6 months per year are considered seasonal properties. TN is measured as the total of TKN (Total Kjeldhal Nitrogen), NO₃-N (Nitrate nitrogen) and NO₂-N (Nitrite nitrogen).

10. Flow Metering: Reporting of residential System water use is not required, however it is recommended the Operator record water meter readings if available at all inspections, or otherwise estimate System flow, to assist in addressing possible operational problems or issues. Flow measurement when recorded shall be based on:

a) actual metering data of wastewater flow to the System or actual water meter data of flow to fixtures that discharge to the wastewater system; or

b) actual water meter data for the total facility with either actual meter data or estimated flows for non-wastewater usage subtracted from the total facility water usage. If estimating the wastewater portion of metered water usage, the System Operator shall provide a best estimate of wastewater discharged to the System with the method of estimating, such as pump run times, occupancy rates, adjustment due to seasonal outdoor watering use, etc.; or

c) for Systems installed under a prior Approval that did not include a wastewater flow data reporting requirement, if no flow meters are available, the System Operator shall provide a best estimate of wastewater discharged to the System with the method of estimating, such pump run times, occupancy rate, etc.

11. Field Testing: Temperature, turbidity, pH and DO shall be measured and recorded in the field whenever the effluent is sampled for TN. See applicable sections of the Department's Field Testing Protocol at <http://www.mass.gov/dep/water/laws/policies.htm#t5pols>.

12. At a minimum, the System Operator shall inspect the System:

a) quarterly for the first year then two times per year thereafter;

b) in accordance with the approved O&M manual, the Designer's operation and maintenance requirements, and the requirements of the local approving authority; and

c) any time there is an alarm event, equipment failure, or system failure.

Recordkeeping and Reporting

13. Within 60 days of any site visit, the System Operator shall submit an O&M report and inspection checklist to the System Owner and the Company. It is recommended the System Owner and Company maintain copies of these items for possible Department audit. The O&M report shall include, at a minimum:

- a) for a System failing, any corrective actions taken;
- b) wastewater analyses, wastewater flow data, field testing results and inspection checklists;
- c) any violations of the Approval;
- d) any determinations that the System or its components are not functioning as designed or in accordance with the Company specifications; and
- e) any other corrective actions taken or recommended.

14. By February 15th of each year the System Owner or the System Operator if designated by the owner, shall submit to the local approving authority all monitoring results with all O&M reports and inspection checklists completed by the System Operator during the previous 12 months

15. Upon determining that the System has failed, as defined in 310 CMR 15.303, the System Operator shall notify the System Owner immediately.

16. Upon determining that the System has failed, as defined in 310 CMR 15.303, the System Owner and the System Operator shall be responsible for the notification of the local approving authority within 24 hours of such determination.

17. The System Owner shall notify the Approving Authority and the Company in writing within seven days of any cancellation, expiration or any other change in the terms and/or conditions of the O&M Agreement required by Paragraph IV (8).

18. Violations of the TN concentration in the System effluent shall not constitute a failure of the System for the purposes of 24-hour notification or 5-day written reporting as required in Paragraphs IV (16) and (8).

19. The System owner shall provide a copy of this Approval, prior to the signing of a purchase and sale agreement for the facility served by the System or any portion thereof, to the proposed new owner.

20. The System owner shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request.

21. Prior to issuance of a Certificate of Compliance of the System, and after recording and/or registering the Notice required by 310 CMR15.287(10), the System Owner shall provide to the Local Approving Authority a copy of: (i) a certified Registry copy of the Notice bearing the book and page/or document number; and (ii) if the property is unregistered land, a Registry copy of the System Owner's deed to the property, bearing a marginal reference on the System Owner's deed to the property. The Notice to be recorded shall be in the form of the Notice provided by the Department.

22. Prior to signing any agreement to transfer any or all interest in the property served by

the System, or any portion of the property, including any possessory interest, the System Owner shall provide written notice of all conditions contained in the Approval to the transferee(s). Any and all instruments of transfer and any leases or rental agreements shall include as an exhibit attached thereto and made a part of thereof a copy of the Approval for the System. The System Owner shall send a copy of such written notification(s) to the Local Approving Authority within 10 days of giving such notice to the transferee(s).