



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

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Commissioner

May 24, 2018

Harvard Ridge Condominium Trust
c/o Mike Monahan
The Dartmouth Group
4 Preston Court, Suite 101
Bedford, MA 01730

City/Town: Boxborough
Re: **Technical Approval/Public Notice**
Program Identifier: WP12 GW #727-2
Transmittal No. X276234
Facility Name: Harvard Ridge WWTF
Authorization Type: Groundwater Discharge

Dear Mr. Monahan:

The Massachusetts Clean Water Act (M.G.L. c.21, s.21-53) was amended by Chapter 246 of the Acts of 1973 to authorize the Massachusetts Department of Environmental Protection (the MassDEP), to regulate discharges into all waters of the Commonwealth, including groundwaters. The MassDEP regulates discharges through the issuance of discharge permits, which impose limitations on the amount of pollutants that may be discharged in the effluent, together with monitoring and reporting requirements and other conditions to insure adequate treatment of all liquid wastes prior to discharge. **Please note that the Financial Assurance Mechanisms (FAMs) are outstanding and the final permit will not be issued until the documents are completed and executed.**

This is a groundwater discharge permit renewal. The permit was originally issued in 2003. MassDEP has completed its technical review of your application submitted on behalf of Harvard Ridge Condominium Association WWTF to discharge treated wastewater from the facility, located on 90 Swanson Road, Boxborough, Massachusetts to the ground, and has developed the conditions contained in the enclosed draft permit.

On March 1, 2018, the Department met with the permittee to discuss the potential changes to the existing permit due to the proximity of the discharge to nearby public water supplies (PWS) within the wellhead protection areas. The limits incorporated into this permit take into consideration the anticipated travel time from the discharge to the nearby wells. The permit does not currently have provisions of time to allow the permittee to investigate compliance options. If there are any comments on the draft permit, please attach a timeline or a plan towards compliance.

The proposed draft permit can only be considered in draft form because of provisions in the Law regulating public notice of the proposed issuance of the permit and opportunity for public comments

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

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and public hearing. The draft permit consists of *Section I. Special Conditions* (Pages 1- 9) that are specific to your discharge permit. *Section II. General Permit Conditions* (Pages 10-16) are not included here due to the fact that they apply to all groundwater permits per the regulations at 314 CMR 5.16 and cannot be modified. Following receipt of comments on the public notice, and public hearing, if held, the MassDEP will issue its final determination to issue or deny the permit.

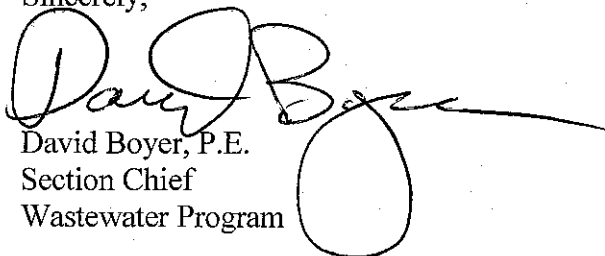
Enclosed herewith is a copy of the public notice for your groundwater discharge permit. The enclosed public notice should be published to start the thirty (30) day public comment period. **If you have any comments or concerns regarding the enclosed draft permit, please submit them in writing to the Department within fourteen (14) days of receipt of this letter.** If there are no comments or concerns, and you are satisfied with the permit please proceed with the publishing of public notice as described herein.

In accordance with 314 CMR 2.06(4) and M.G.L. c.30A, the applicant or permittee, as applicable, shall publish public notice of the permit proceedings in *The Environmental Monitor*, a publication of the Massachusetts Executive Office of Energy and Environmental Affairs. For instructions on filing this notice with MEPA please refer to MEPA's website at <http://www.env.state.ma.us/mepa/submittingnotices.htm>

The applicant or permittee shall submit to the Department a copy of the public notice as published in the *Environmental Monitor*, within seven days after the date of publication or at such other time as the Department requires. This information should be sent to the attention of at the above letterhead address. The mandatory thirty day public comment period will commence with the date of publication of the public notice.

If you have any questions or comments regarding this matter, please feel free to contact Andrew Osei at 508-767-2774 or Andrew.osei@state.ma.us.

Sincerely,



David Boyer, P.E.
Section Chief
Wastewater Program

Ao/hs: X276234PN (Boxborough)-037

cc: Nashoba Assoc. Boards of Health
30 Central Ave.
Ayer, MA 01432

Donald Martinage P.E.
Martinage Engineering Associates, Inc.
131 Main Street
Reading, MA 01867-3966

Purna Rao -- DEP CERO Permit Coordinator

PUBLIC NOTICE
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER RESOURCES/WASTEWATER MANAGEMENT PROGRAM
8 NEW BOND STREET
WORCESTER, MA 01606
TEL#: (508) 792-7650

Notice is hereby given that the following application for an Individual Groundwater Discharge Permit is being processed and the following actions being proposed thereon pursuant to Section 43 of Chapter 21 of the General Laws, and 314 CMR 5.00 and 2.06:

CITY/TOWN: Boxborough

PROJECT NAME: Harvard Ridge Condominium Groundwater Permit Renewal Application

APPLICANT: Harvard Ridge Condominium Association

FACILITY LOCATION: 90 Swanson Road, Boxborough, Massachusetts 01719

TYPE OF DISCHARGE: Groundwater discharge of sanitary wastewater

QUANTITY OF DISCHARGE: 33,130 GPD

PERMIT NO: 727-2

TRANSMITTAL NO: X276234

PROPOSED ACTION: Tentative determination to issue individual groundwater discharge permit

A copy of the application, draft permit, and statement of basis or fact sheet relative to the draft permit may be obtained from the MassDEP's Wastewater Management Program at the above address and telephone number or online at: <http://www.mass.gov/eea/agencies/massdep/news/comment/>

Comments on the proposed action or requests for a public hearing thereon pursuant to 314 CMR 2.07 must be filed with MassDEP at the above address within thirty (30) days of this notice. For information on the process for formally intervening in adjudicatory proceedings, please refer to 310 CMR 1.00: Adjudicatory Proceedings, Section (7) Intervention and Participation.
<http://www.mass.gov/eea/agencies/massdep/water/regulations/310-cmr-1-00-adjudicatory-proceedings.html>

David Boyer, P.E.
Bureau of Water Resources



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INDIVIDUAL GROUNDWATER DISCHARGE PERMIT

Name and Address of Applicant: Harvard Ridge Condominium Trust
90 Swanson Road
Boxborough, MA 01719

Date of Application: October 6, 2017

Application/Permit No. 727-2

Date of Issuance: DRAFT

Date of Expiration: DRAFT

Effective Date: DRAFT

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AUTHORITY FOR ISSUANCE

Pursuant to authority granted by Chapter 21, Sections 26-53 of the Massachusetts General Laws, as amended, 314 CMR 2.00, and 314 CMR 5.00, the Massachusetts Department of Environmental Protection (the Department or MassDEP) hereby issues the following permit to: Harvard Ridge Condominium Trust (hereinafter called "the permittee") authorizing discharges to the ground from the onsite wastewater treatment facility that treats wastewater from the condominium complex located at Swanson Road, Boxborough MA such authorization being expressly conditional on compliance by the permittee with all terms and conditions of the permit hereinafter set forth. The condominium consists of six (6) residential units with a total of 283 bedrooms and a pool facility.

David Boyer, P.E.
Bureau of Water Resources

Date

I. SPECIAL CONDITIONS

A. **Effluent Limits**

- 1) The permittee is authorized to discharge into the ground from the wastewater treatment facilities for which this permit is issued a treated effluent whose characteristics shall not exceed the following values:

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Effluent Characteristics

Discharge Limitations

Flow	33,130 gpd
Biochemical Oxygen Demand (BOD ₅)	10 mg/l
Total Suspended Solids (TSS)	5 mg/l
Nitrate Nitrogen	5 mg/l
Total Nitrogen (NO ₂ + NO ₃ + TKN)	5 mg/l
Oil & Grease	15 mg/l
Turbidity	See Item e.
Total Organic Carbon (TOC)	1 mg/l
Fecal Coliform	See Item f.

- a) The pH of the effluent shall not be less than 6.5 nor greater than 8.5 at any time or not more than 0.2 standard units outside the naturally occurring range.
- b) The discharge of the effluent shall not result in any demonstrable adverse effect on the groundwater or violate any water quality standards that have been promulgated.
- c) The monthly average concentration of BOD and TSS in the discharge shall not exceed 15 percent of the monthly average concentrations of BOD and TSS in the influent into the permittee's wastewater treatment facility.
- d) When the average annual flow exceeds 80 percent of the permitted flow limitations, the permittee shall submit a report to the Department describing what steps the permittee will take in order to remain in compliance with the permit limitations and conditions, inclusive of the flow limitations established in this permit.
- e) Turbidity shall not exceed an average of 2 NTU in a 24-hr period, 5 NTU over 5% of the time in a 24-hr period or 10 NTU at any time.
- f) The median of fecal coliform samples shall be non-detect for a 7 day sample and no samples shall exceed 14/100 ml.

B. Monitoring and Reporting

- 1) The permittee shall monitor and record the quality of the **influent** and the quality and quantity of the **effluent** prior to discharge to the leaching facilities according to the following schedule and other provisions:

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INFLUENT:

<u>Parameter</u>	<u>Minimum Frequency of Analysis</u>	<u>Sample Type</u>
BOD ₅	Monthly	24 Hr. Composite
TSS	Monthly	24 Hr. Composite
Total Solids	Monthly	24 Hr. Composite
Ammonia Nitrogen	Monthly	24 Hr. Composite

EFFLUENT:

<u>Parameter</u>	<u>Minimum Frequency of Analysis</u>	<u>Sample Type</u>
Flow	Daily	Reading-report Max-Min-Avg
pH	Daily	Grab
Ultraviolet Intensity	Continuous	Continuous Reading
Turbidity	Continuous	Continuous Recording
BOD ₅	Weekly	24 Hr. Composite
TSS	Weekly	24 Hr. Composite
Nitrate Nitrogen	2/Week	24 Hr. Composite
Total Nitrogen	2/Week	24 Hr. Composite
Total Organic Carbon (TOC)	2/Week	24 Hr. Composite
Fecal Coliform	Daily	Grab
Oil & Grease	Monthly	Grab
Total Phosphorus	Quarterly	Grab
Orthophosphate	Quarterly	Grab
Volatile Organic Compounds	Semi-Annually	Grab

(US EPA Method #624)*

- a) After one full year of monitoring the Total Phosphorus and Orthophosphate results, the Department may determine, upon the request of the permittee, that the frequency of monitoring may be reduced if, in the judgment of the Department, the results of the sampling indicate that existing phosphorus levels will not adversely impact downgradient receptors. If the Department reduces the frequency of monitoring for Total Phosphorus and Orthophosphate, the Department reserves the

right to resume more frequent monitoring if the Department determines that phosphorus levels are impacting downgradient receptors.

- 2) The permittee shall monitor, record, and report the quality of water in the existing upgradient monitoring well **MW-1** and **MW-2** and the downgradient monitoring wells **MW-4, MW-5** and **MW-6**, as stated within the approved hydrogeologic report by Provencher Engineering and dated April 26, 2001, according to the following schedule and other provisions:

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<u>Parameter</u>	<u>Minimum Frequency of Analysis</u>
pH	Monthly
Static Water Level	Monthly
Specific Conductance	Monthly
Nitrate Nitrogen	Quarterly
Total Nitrogen	Quarterly
Total Phosphorus	Quarterly
Orthophosphate	Quarterly
Volatile Organic Compounds	Annually

(US EPA method #624)

- a) Static Water Level shall be expressed as an elevation and shall be referenced to the surveyed datum established for the site. It shall be calculated by subtracting the depth to the water table from the surveyed elevation of the top of the monitoring well's PVC well casing/riser.
- b) After one full year of monitoring the Total Phosphorus and Orthophosphate results, the Department may determine, upon the request of the permittee, that the frequency of monitoring may be reduced if, in the judgment of the Department, the results of the sampling indicate that existing phosphorus levels will not adversely impact downgradient receptors. If the Department reduces the frequency of monitoring for Total Phosphorus and Orthophosphate, the Department reserves the right to resume more frequent monitoring if the Department determines that phosphorus levels are impacting downgradient receptors.
- 3) Any grab sample or composite sample required to be taken less frequently than daily shall be taken during the period of Monday through Friday inclusive. All composite samples shall be taken over the operating day.
- 4) The permittee shall submit all monitoring reports within 30 days of the last day of the reporting month to MassDEP using the eDEP data submission system.

To register for electronic submission go to:

<http://www.mass.gov/eea/agencies/massdep/service/online/edep-online-filing.html>

All discharge monitoring reports shall also be submitted to the Board of Health at the following address: *Nashoba Associated Boards of Health, 30 Central Avenue, Ayer, MA 01432*

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C. Financial Assurance Mechanisms

- 1) The permittee shall establish and maintain a financial assurance mechanism that provides for the continued availability of an immediate repair and replacement account. The immediate repair and replacement account shall contain adequate funds to correct any unanticipated problem immediately so that any disruption of operation is minimized, and a violation of the terms and conditions contained in the permit does not occur. To create an immediate repair and replacement account, the permittee shall deposit at least 25% of the estimated construction cost of the PWTF into an interest bearing escrow account in accordance with the financial assurance mechanism and 314 CMR 5.15.
 - a) For purpose of the financial assurance mechanism requirement, the estimated construction cost of the wastewater treatment facility shall include the cost of constructing the wastewater treatment plant, collection system, associated mechanical equipment, but not including the land, ground and disposal area.
- 2) The permittee shall meet the obligation to establish the required financial assurance mechanism by using Department-approved form documents and shall submit said Department-approved form documents to the Department for its review and approval as follows:
 - a) A permittee that constructs the wastewater treatment facility after the issuance of the Individual permit may submit the financial assurance mechanism(s) to the Department for its review and approval no later than ninety (90) days prior to the start-up (clear water test) of the facility. Such a permittee shall not operate the facility unless and until the Department has approved the required financial assurance mechanism, the financial assurance mechanism is in full force and effect, and the permittee has made all contributions required thirty (30) days prior to the start-up (clear water test) of the facility; or,
 - b) A permittee with a wastewater treatment facility in existence prior to the submission of the individual permit renewal application may submit the financial assurance mechanism to the Department for its review and approval no later than ninety (90) days from the date of submission of the individual permit renewal application. Said permittee shall be in compliance with the provision of the approved financial assurance mechanism requiring contributions to the immediate repair and replacement account no later than thirty (30) days prior to the date on which the renewal is issued.

- 3) The permittee shall maintain the current form documents evidencing the required financial assurance mechanism approved by the Department. The permittee shall perform all its obligations under the required financial assurance mechanism as approved by the Department.
- 4) Once established and funded, the permittee shall keep an amount equal to at least 25% of the estimated construction cost of the PWTF in the immediate repair and replacement account and shall replenish the account within 90 days of any disbursement.
- 5) On or before January 31st of each year, the permittee shall submit an annual financial report identifying the initial and current balance in the immediate repair and replacement account and confirming the continuing availability of the funds in said account for the purposes specified in the permit and 314 CMR 5.15. Said report shall be prepared in accordance with generally accepted accounting principles. Reports pertaining to the required financial assurance mechanism(s) shall be sent to the Wastewater Management Section Chief at the appropriate Regional Office.

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D. Supplemental Conditions

- 1) The permittee shall notify the Department at least thirty (30) days in advance of the proposed transfer of ownership of the facility for which this permit is written. Said notification shall include a written agreement between the existing and new permittees containing a specific date for transfer of permit, responsibility, coverage and liability between them.
- 2) A staffing plan for the facility shall be submitted to the Department once every two years and whenever there are staffing changes. The staffing plan shall include the following components:
 - a) The operator(s)'s name(s), operator grade(s) and operator license number(s);
 - b) The number of operational days per week;
 - c) The number of operational shifts per week;
 - d) The number of shifts per day;
 - e) The required personnel per shift;
 - f) Saturday, Sunday and holiday staff coverage;
 - g) Emergency operating personnel
- 3) The permittee is responsible for the operation and maintenance of all sewers, pump stations, and treatment units for the permitted facility, which shall be operated and maintained under the direction of a properly certified wastewater operator.
- 4) Operation and maintenance of the proposed facility must be in accordance with 314 CMR 12.00, "Operation and Maintenance and Pretreatment Standards for Wastewater

Treatment Works and Indirect Discharges", and, 257 CMR 2.00, "Rules and Regulations for Certification of Operators of Wastewater Treatment Facilities".

- a) The facility has been rated (in accordance with 257 CMR 2.00), to be a Grade 4 facility. Therefore, the permittee shall provide for oversight by a Massachusetts Certified Wastewater Treatment plant operator (Chief Operator) Grade 4 or higher. The permittee will also provide for a backup operator who shall possess at least a valid Grade 3 license.
- b) The date and time of the operator's inspection along with the operator's name and certification shall be recorded in the log book on location at the treatment facility. All daily inspection logs consistent with the O&M Manual requirements shall be kept at the facility for a period of three (3) years.
- c) Records of operation of wastewater treatment facilities or disposal systems required by the Department shall be submitted on forms supplied by the Department or on other forms approved by the Department for such use. Monthly reports shall be certified by the wastewater treatment plant operator in charge and shall be included in the discharge monitoring reports submitted each month.
- 5) If the operation and maintenance of the facility is contracted to a private concern, the permittee shall submit a copy of the contract, consistent with what is required by the approved Operation & Maintenance manual and signed only by the contractor, to the appropriate MassDEP Regional Office within thirty (30) days of permit issuance. Along with the contract, a detailed listing of all contract operation obligations of the proposed contractor at other facilities shall also be submitted.
- 6) Any additional connections to the sewer system, beyond the existing 6 condominium buildings with a total of 283 bedrooms shall be approved by MassDEP and the local Board of Health prior to the connection.
- 7) All tests or analytical determinations to determine compliance with permit standards and requirements shall be done using tests and procedures found in the most recent version of *Standard Methods for the Examination of Water and Wastewater* and shall be performed by a Massachusetts Certified laboratory.
- 8) The permittee shall notify the appropriate MassDEP Regional Office, in writing, within thirty (30) days of the following events:
- a) Any interruption of the treatment system operation, other than routine maintenance.
 - b) Final shutdown of the treatment system.

- 9) The permittee shall contract to have any and all solids and sludges generated by the treatment system for which this permit is issued removed off site by a properly licensed waste hauler for disposal at an EPA/MassDEP approved facility. The name and license number of the hauler along with the quantity of wastes removed and the date(s) of removal shall be reported by the permittee in writing to the appropriate MassDEP Regional Office.

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- 10) Simultaneously with the permit renewal application at year thirty following the activation of the plant (2033), the permittee shall submit two reports to the Department for its review and approval:

- a) An engineering report, prepared by a registered professional engineer, that outlines in sufficient detail what modifications (if any) to the facility or other changes are required to insure that the facility can remain in compliance with its GWDP and other applicable requirements through the next 5 year permit term (year 2038) and beyond; and
- b) A financial plan that contains the cost estimates for implementing the facility modifications or other changes identified in the engineering report, and describes and demonstrates, how and when the permittee will finance the needed facility modifications or other changes.

- 11) In the event that effluent limits are not met, or the discharge is determined to impair groundwater quality in accordance with 314 CMR 5.16(1), the permittee may be obligated to modify, supplement or replace the permitted treatment process so as to ensure that the discharge does not impair the ability of the groundwater to act as an actual or potential source of potable water.

- 12) Pursuant to M.G.L. Chapter 21A, section 18(a), and 310 CMR 4.03, holders of this Permit may be subject to annual compliance assurance fees as assessed each year on July 1st and invoiced by MassDEP. Failure of the Permit holder to pay applicable annual compliance assurance fees shall result in the automatic suspension of the permit by operation of law under the statute. If fee non-payment continues for sixty days or more, MassDEP has the statutory option of revoking the Permit, denying any other pending permit applications filed by the Permit holder or taking other enforcement action. Permit holders are required to notify MassDEP in writing if they wish to relinquish or transfer a permit. Failure to do so will result in the continued assessment of fees.

E. Appeal Rights

During the thirty (30) day period following issuance of this permit, a Notice of Claim for an Adjudicatory Appeal may be sent by any person aggrieved (the "Petitioner") by the issuance to:

Case Administrator
Office of Appeals and Dispute Resolution
Department of Environmental Protection
One Winter Street/2nd Floor
Boston, MA 02108

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310 CMR 1.01(6)(b) requires the Notice of Claim to: include sufficient facts to demonstrate aggrieved person status; state the facts which are grounds for the appeal specifically, clearly and concisely; and, state relief sought. The permit shall become or remain effective at the end of the 30 day appeal period unless the person filing the Notice of Claim requests, and is granted, a stay of its terms and conditions. If a permit is modified under 314 CMR 2.10, only the modified terms and conditions may be subject to an Adjudicatory Appeal. All other aspects of the existing permit shall remain in effect during any such Adjudicatory Appeal.

Per 310 CMR 4.06, the hearing request to the Commonwealth will be dismissed if the filing fee is not paid. Unless the Petitioner is exempt or granted a waiver, a valid check payable to the Commonwealth to Massachusetts in the amount of \$100.00 must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The filing fee is not required if the Petitioner is a city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority effective January 14, 1994, or any municipal housing authority; or, per MGL 161A s. 24, the Massachusetts Bay Transportation Authority. The Department may waive the adjudicatory hearing filing fee for a Petitioner who shows that paying the fee will create an undue financial hardship. A Petitioner seeking a waiver must file, along with the hearing request, an affidavit setting forth the facts believed to support the claim of undue financial hardship.