

May 22, 2020

Mary Savage-Dunham, Community Planning Director
Planning Board
Town of Hingham
210 Central Street
Hingham, MA 02043-0239

Re: 100 Industrial Park Road
Proposed Shipping Warehouse

Dear Ms. Savage-Dunham:

We are in receipt of the Engineering Peer Review comments from Chessia Consulting Services, LLC, dated April 20, 2020, regarding the project noted above. We would like to address specifically the comments related to Title 5 inspection for the existing wastewater treatment facility on-site. Our responses are indicated below in ***bold italic*** text and are as follows:

GENERAL PLAN REVIEW

The following issues are considered the most significant for the Board to consider in review of the project:

Summary of Main Concerns

- There is an existing wastewater disposal system that includes an open tank treatment system of some kind with open sand beds. The sand beds are as close as 30 feet to the wetlands, which are tributary to a water supply, and the system is in the FEMA Flood Hazard Zone A. It is likely that this system will need to be upgraded to accommodate the proposed facility. I recommend that the Applicant provide data on the projected flows and a copy of the Title 5 inspection report consistent with the Hingham Board of Health Supplemental Rules and Regulations for the Disposal of Sanitary Sewage. Although this aspect is primarily a Board of Health concern, upgrades to the wastewater system could impact other aspects of the design and should be coordinated at this time.

Response: The existing wastewater disposal system referenced above is a treatment system that is licensed by the Massachusetts Department of Environmental Protection (MADEP) and operated by a Licensed Sewage Treatment Plant Operator. As such, it is inspected on a

regular basis (monthly) to ensure that it is operating properly and effectively treating the sewage effluent prior to discharge to the sand filter beds. Likewise, the sand filter beds are inspected and maintained on a regular basis. Inspections and maintenance is done by the Licensed Sewage Treatment Plant Operator who is also responsible for reporting the results to the Town of Hingham BOH. The important distinction for this method of waste disposal is that the existing sewage disposal system has more inspection, testing, maintenance, and reporting than a Title 5 septic system, which essentially has no requirements for any inspections or maintenance. The existing treatment system is obliged to operate in accordance with an existing Ground Water Discharge Permit.

In addition, the sewage treatment facility provides a significantly greater amount of sewage effluent treatment than a standard Title 5 system. The existing system includes settling tanks to remove solids, blowers to oxygenate the effluent, and chlorination for disinfection. The system is a biological system that relies on microbes to digest the effluent and in effect, to clean the effluent before it is discharged to the sand filter beds. Passing the polished effluent through the sand filter beds is a final step that further cleans the effluent before it flows into the natural soil surrounding the sand filter beds.

The FEMA Flood Hazard Zone A in the vicinity of the sand filter beds is a graphical estimate of the flood plain and it is not an accurate representation of the actual Zone A boundary, based on an elevation. This is evident because the FEMA line does not correlate with the actual surveyed topographic conditions. The boundary was established by FEMA graphically and FEMA does not provide any elevations in this area for the Zone A. The sand filter beds are an existing condition and there is not proposal to alter them in any way so there will be no impact on the FEMA boundary as mapped graphically by FEMA.

SECTION I-I SITE PLAN REVIEW

- 4e. There is an existing wastewater disposal system in the easterly corner of the property. I recommend that the system be inspected as required by Title 5. I recommend that the Board of Health comment on the suitability of the existing system to service the new facility. It is unknown if there would be an increase in occupancy proposed for the site. Based on a brief review of Title 5 requirements it appears that the system would fail under two of the criteria and require replacement/upgrade. As a building with storage and drive through of vehicles, it is likely that floor drains and a holding tank for the floor drains would be required.
- 4g. This item requires information to assess the impact of the development on soil, water supply, ways and services. The submittal should address soil removal and/or import and identify if an earth removal permit will be required. The project proposes to reuse the existing wastewater disposal system for wastewater disposal.

It is unclear if there has been a Title 5 inspection or if any changes to the number of employees is proposed. As noted, it appears that the existing system would not pass a Title 5 inspection. The wastewater system as currently configured does not meet current setbacks or design requirements and it could be required to replace this system. Any revisions to the wastewater disposal system would need to comply with setbacks or be granted variances. Since vehicles will be driving through the building and potentially parked in the building for a period of time floor drains will likely be required. Floor drains would need to discharge to a tight tank. There are no provisions for interior floor drain discharge on the plans. The Board of Health has requested more data on the existing wastewater disposal system but should also comment on this aspect of the project.

Response: There is an existing wastewater treatment facility at the south end of the site that has an associated Groundwater Discharge Permit with the Massachusetts Department of Environmental Protection under 314 CMR 4.00 for 10,000 gallons per day or less. This existing treatment system provides a higher degree of treatment than a standard Title 5 septic system that provides only primary solids removal before the effluent is discharged to the soil absorption field. This permit has been continuously renewed since 1999 when JEB Group LLC acquired the property. See Attachment A in this letter for documentation.

A maximum of 189 Employees at one time would be at the facility that includes drivers loading and queuing. Normal operations of personnel is 125 people. When operating with the maximum number of employees, the design flow for the wastewater discharge for the proposed facility is 2,835 gallons per day which is significantly lower than the approved capacity of the existing sewage treatment system of 3,900 +/- gallons per day. It is important to note that the Title 5 estimate of 15 gpd/person is a design flow intended to ensure that a Title 5 system has sufficient capacity for the intended use. The actual discharge from the facility, on a daily basis, is generally less, particularly when averaged on a weekly basis when some days have lower populations in the building and hence lower discharge volumes.

The wastewater treatment facility is maintained and monitored on a monthly basis by Clearwater Recovery (operator) in contract with JEB Group LLC under the Groundwater Discharge Permit and these reports are sent to the BOH for documentation on the monitoring of this system. Refer to Attachment B in this letter for the latest O&M report sent to the BOH and refer to Attachment C for JEB Group LLC's contract with Clearwater Recovery to maintain the system. The maintenance, permit renewals, and reporting for this wastewater treatment facility would still continue under the proposed operation for this site.

The existing wastewater treatment facility was originally part of the Merriman facility and was designed for 3,900 gallons per day The benefit of this type of system is that the effluent is treated with microbes before entering the sand filter bed which allows for a greater degree of treatment with this system than a conventional Title 5 septic system. The facility will be upgraded for the proposed use for this application.

The existing wastewater treatment facility is a more effective method of on-site waste disposal than a standard Title 5 system and it provides a greater degree of environmental protection. See Attachment D in this letter for Clearwater Recovery's summary of the existing wastewater treatment facility.

Floor drains are proposed at the vehicle entry and exit to the building which will drain to collection tanks which that will be pumped and disposed of appropriately as required. These collection tanks will not be piped to or through the wastewater treatment facility.

We trust our responses are sufficient to facilitate further discussion with the Applicant, Town of Hingham and John Chessia next week . Should you require additional information, please feel free to contact me at 203-608-2438.

Sincerely,



Kevin Hixson
Senior Project Manager

Attachment A

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INVOICE Remit to: PAY ONLINE AT MASSPAYS.COM/DEP DEPT OF ENVIRON. PROTECTION COMMONWEALTH MASTER LOCKBOX P.O. Box 3982 BOSTON MA 02241-3982	Customer Name		Page 1
	JEB GROUP LLC		
	Customer Number	Invoice Number	Notice Date
	VC7000016122	INTACF2013783X332177	11-12-19
	E-Payment ID	AR Dept BPRO	Due Date
	0061258770	EQE:ACFN	01-11-20
	Amount Due	Amount Enclosed	
	\$3,565.00		

Bill to:
 JEB GROUP LLC
 430 FIRST STREET
 ATTN:TOM NOLAN
 BOSTON MA 02127

*100 Industrial Park
 6800-00*

Payment Method: Check Money Order

Please check if address has changed. Write correct address on back of stub and attach with payment

Please write Invoice No on front of check or Money Order. DO NOT MAIL CASH

Please detach the above stub and return with your remittance payable to COMMONWEALTH OF MASS OR ONLINE AT MASSPAYS.COM/DEP



Commonwealth of Massachusetts
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
ORIGINAL

Page : 1

			Customer Number
			VC7000016122
Customer Name	Invoice Number	Notice Date	Due Date
JEB GROUP LLC	INTACF2013783X332177	11-12-19	01-11-20
Invoice Charges			
Ref Line No.	DESCRIPTION	Invoice Date	No. of Units
			Unit of Measure
			Unit Price
			Charges/Credit
1	SMALL GROUNDWATER SEWAGE DISCHARGE < /= 10000 GAL/DAY	11-12-19	1.000 each 3565.000000
			\$3,565.00
Credit Payments Applied			\$0.00
Total Amount Due By 01-11-20			\$3,565.00

CCT #: 332177 JEB GROUP LLC 100 INDUSTRIAL PARK HINGHAM, MA 02043

Instructions
 NEW PAYMENTS CAN NOW BE MADE ONLINE. LOG ONTO THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION -PAYMENTS WEB SITE AT [HTTPS://MASSPAYS.COM/DEP](https://masspays.com/dep)

THE ENCLOSED BILLING RIGHTS ARE PART OF THIS ORIGINAL INVOICE PURSUANT TO 310 CMR 4.00. YOU MUST EITHER REMIT FULL PAYMENT OR REQUEST A REVIEW BY THE DUE DATE PURSUANT TO 310 CMR 4.03 (8) AND THE ENCLOSED BILLING RIGHTS. NONPAYMENT WILL RESULT IN INTEREST, LATE CHARGES, INTERCEPT OF STATE PAYMENTS OR TAX REFUNDS AND REFERRAL TO DEBT COLLECTION UNDER C.7A, C.62D AND 815 CMR 9.00. EMAIL CONTACT TO "DEP.COMPLIANCE-FEES@STATE.MA.US"

CONTACT: COMPLIANCE FEE HELPLINE 1-888-846-4067

100 Industrial Park Rd.

6430-00



INVOICE for Alternative Septic System

Invoice Date = 11/6/2019

PAYMENT DUE DATE = 12/6/2019

Town of Hingham
Board of Health
210 Central Street
Hingham, MA 02043

Casey and Hayes
100 Industrial Park Road
Hingham, MA 02043

23

PERMIT

PRICE

**Waste Water Treatment
Plant Permit**

\$150

Total Due = \$150

*The annual fee covers quarterly review
costs of plant test data, maintenance
contracts and maintenance reports
submitted to the Board of Health as part
of the annual permitting process.*

**PAYMENTS MADE AFTER 12/15/19
WILL BE CHARGED A \$50 LATE FEE**

Questions? Call 781-741-1466

Attachment B

Stephen B. Nelson, LLC d/b/a Clearwater Recovery
175 Spring Street Rockland, Massachusetts 02370

Tel: 781-878-3849

Fax: 781-871-4918

Friday, May 22, 2020

Casey & Hayes Storage Co., Inc.
Tom Nolan
430 First Street
So. Boston, MA 02127

RE: Monitoring Report
Groundwater Discharge Permit 98-0

Dear Tom Nolan:

Enclosed, please find the report for operations of the wastewater treatment system at:

100 Industrial Park Road
Hingham, MA 02043

For: May 2020

All routine preventive maintenance was completed and corrective maintenance was performed as necessary.

If you have any questions or comments, please call my office at 781.878.3849.

Sincerely,



Daniel Grant
Technician Performing Services

CC:

Casey & Hayes Storage Co., Inc., Tom Nolan
Town of Hingham - Board of Health, Health Agent



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Title 5
DEP Approved Inspection and O & M Form for Title 5 I/A
Treatment and Disposal Systems

A. Installation

100 Industrial Park Road Hingham 02043

Facility Street Address

Owner: Casey & Hayes, Inc.
 Attn: Accounts Payable
 P.O. Box E-62
 South Boston MA 02127-

Telephone:

B. Authorized Service Provider

Stephen B. Nelson, LLC d/b/a Clearwater Recovery
 O & M Firm

175 Spring Street Rockland, MA 02370
 Street Address

781-878-3849
 Telephone Number

Daniel 17153
 Certified Operator Name Certification Number

C. Facility/System Information

DEP ID _____ Activated Sludge _____ Model Number _____ Installation Date 2/27/1979
 Manufacturer ID _____ Start of Operation _____

Approval Type: General Provisional Piloting Remedial Seasonal Res - used less than 6 mo./yr Yes No

D. Operating Information

5/4/2020 _____ Yes No
 Inspection Date Previous Inspection Date Sludge Depth (to be checked yearly) Pumping Recommended

E. Field Testing

Field Inspection:

Color: gray brown clear turbid other: _____

Odor: musty earthy moldy offensive other: _____

Effluent Solids: no some PH SU DO mg/L Turbidity NTU
 6 to 9 2 or greater 40 or less

Should a Remedial or General Use system fail the Field Testing, effluent samples shall be collected per Standard Methods and analyzed for BOD and TSS.

F. Sampling Information

Parameters sampled:
 Samples: Eff - Ammonia, Nitrogen 350.1
 Influent Eff - BOD
 Eff - Nitrate, Nitrogen 4110B
 Effluent Eff - Solids, Suspended

Commercial systems or systems with a design flow of 2000 gpd and greater, and General User nitrogen reducing systems:

G. Inspection and Maintenance

Technician reports a routine Operations and Maintenance (O&M) visit. Effluent sample was clear and odorless with no solids. pH 6.8 - Dissolved Oxygen 2 - Turbidity 11.7. Collected effluent lab sample. Technician notes that the system is operating normally at this

1,000.00
 gpd

H. Certification

I certify: I have inspected the sewage treatment and disposal system at the address above, have completed this report and the attached manufacturer's operation and maintenance checklist, and the information reported is true, accurate, and complete as of the time of the inspection. I am a Massachusetts certified operator in accordance with 257 CMR 2.00.



 Operator Signature

5/4/2020

 Date

Stephen B. Nelson, LLC d/b/a Clearwater Recovery
175 Spring Street Rockland, Massachusetts 02370

Tel: 781-878-3849

Fax: 781-871-4918

Groundwater Discharge Permit - Monitoring Report

Permit # 98-0 for May 2020

Name of Applicant Casey & Hayes, Inc.

Facility Location 100 Industrial Park Road, Hingham

Comments

5/4/2020 Technician reports a routine Operations and Maintenance (O&M) visit and collected effluent lab sample for BOD, TSS, TKN, NH3, and NO3. Technician notes that the system is operating normally at this time.

CERTIFICATE OF ANALYSIS

Stephen B. Nelson, LLC d/b/a Clearwater Recovery

175 Spring Street

Rockland, Massachusetts 02370

COLLECTED BY: Daniel

TIME: 13:30

LOCATION: 100 Industrial Park Road, Hingham MA
Effluent Composite

REPORTED: 5/12/2020

ORDER #: G2046826

SAMPLE DATE: 5/5/2020

DATE RECEIVED: 5/5/2020

SAMPLE ID: HINGCaseyHayes

DESCRIPTION: Water

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	Result
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LAB-ID#: 0570035-01

Test Parameters

Ammonia, Nitrogen 350.1	EPA 350.1	5/7/2020	mg/L	0.10	0.74
BOD	SM 5210B	5/6/2020	mg/L	4.00	18
Nitrate, Nitrogen 4110B	SM 4110 B	5/5/2020	mg/L	0.50	22.9
Solids, Suspended	SM 2540 D	5/7/2020	mg/L	4.00	10

NA = Not Applicable

ND = Not Detected

'<' = Less Than

'*' = Detection Limit

Approved By:


Lab Manager

e-copy

5/12/2020

original on file

Attachment C

Stephen B. Nelson, LLC d/b/a Clearwater Recovery
175 Spring Street Rockland, Massachusetts 02370

Tel: 781-878-3849

Fax: 781-871-4918

OPERATIONS CONTRACT

Agreement is made this day, November 01, 2016 by and between:

FILE

Casey & Hayes, Inc.
Attn: Attn: Accounts Payable
P.O. Box E-62
South Boston, MA 02127

and

Stephen B. Nelson, LLC d/b/a Clearwater Recovery (Operator)
175 Spring Street
Rockland, Massachusetts 02370
781-878-3849.

Agree as follows:

1. Term: For a period of 2 Years from this date, the Operator shall operate and maintain the Activated Sludge on-site wastewater treatment system located at:

100 Industrial Park Road (Property)
Hingham, MA 02043

2. Operator's Obligations: Operator shall perform regularly scheduled maintenance and preventive maintenance in accordance with the factory service manual as follows:

Item	O/M required
A. Primary Compartment	General Inspection four times per year, inspect depth of sludge and scum layer annually, recommend pumping, when necessary.
B. Aerobic Treatment Reactor	Observe Treatment Characteristics
C. Blower or Aerator	Inspect for proper operation
D. Controls	Check for proper operation
E. Effluent Pump (if inst)	Inspect four times, per year.
F. Effluent Quality	Inspect for clarity, suspended solids and odor.

Effluent sampling and laboratory testing, as required:
Effluent - BOD, TSS, pH, Total Nitrogen, alkalinity
Influent - BOD5, TSS, pH, Total Nitrogen, alkalinity

Please note effluent limits:
Nitrogen limit - 25 mg/l
BOD limit - 30 mg/l
TSS limit - 30 mg/l

If follow-up inspection, laboratory analysis, and field testing indicate failure to meet effluent limits, corrective actions are required.

Operator shall submit an operational report to Owner and to the Board of Health. Operator shall submit a summary report of system performance to the Massachusetts Department of Environmental Protection, as required by law. The report shall include an operation and maintenance summary and analysis of water quality sampling.

Stephen B. Nelson, LLC d/b/a Clearwater Recovery
175 Spring Street Rockland, Massachusetts 02370

Tel: 781-878-3849

Fax: 781-871-4918

3. System Alarm or System Failure: If a system alarm occurs or if the system fails, Owner shall immediately notify Operator within 24 hours. Operator will investigate appropriate corrective actions and discuss with owner before implementing a corrective plan.

4. Fees: Fees are listed as follows:

Regular operation and maintenance, as outlined in
Section 2 (A,B,C,D,E,F) above - \$540.00 per activity
Effluent sampling and laboratory testing - \$180.00 per activity
Influent sampling and laboratory testing - \$180.00 per activity
Corrective actions by Operator - \$80.00 per hour
(plus cost of parts, materials, subcontractors)

No corrective maintenance shall be conducted without prior notice and authorization by Owner. Corrective maintenance or extraordinary repair work may be arranged at costs to be determined by mutual written agreement of both parties to this contract.

5. Payment Due upon Receipt of Invoice: Invoices shall be provided to Owner at service intervals by Operator. Owner agrees to pay all invoices upon receipt. Unpaid invoices shall bear interest at the rate of 1.5% per month after thirty (30) days. Owner agrees to pay all cost of collection incurred by Operator for unpaid invoices including but not limited to reasonable attorney's fees and costs of litigation and collection. This obligation shall survive the termination of this Agreement. TMAL

6. Assignment by Operator: The parties expressly agree that the Operator may not assign its rights and obligations under this Agreement without written consent of Owner.

7. Assignment by Owner: At time of sale of the property, all rights and obligations under this Agreement are terminated provided the seller notifies Operator in writing.

8. Indemnification: Owner shall indemnify, defend, save and hold harmless Operator, its officers, agents members, directors, agents, employees, and attorneys from any claim, injury, damage, demand or action arising out of Owner's breach of this Agreement and/or its ownership and/or control of the Property.

9. Entire Agreement: This Agreement embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supercedes all prior oral or written agreements and understandings relating to the matter heretof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

10. Amendment: The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the parties hereto.

11. Waiver: Operator's nor Owners action in not enforcing a breach of any part of this Agreement shall not prevent it from enforcing its rights as to any other breaches of this Agreement that Operator or Owner later discovers.

12. Binding upon Successors: This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, representatives, successors and assigns.

13. Choice of Law/Choice of Forum/Consent to Jurisdiction, etc.: This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the law of the Commonwealth of Massachusetts, without giving effect to the conflict of law principles thereof. The parties agree that any action, challenge to the validity or interpretation of this Agreement, demand, claim or counterclaim relating to the terms and provisions of this Agreement, or its breach, shall be commenced in Massachusetts. The parties irrevocably submit to the exclusive jurisdiction of any state or federal court sitting in the Commonwealth of Massachusetts in any action or proceeding arising out of or relating to this Agreement and agree that all claims in respect of the action or proceeding may be heard and determined in any such court, and agree not to bring any action or

FILE

Stephen B. Nelson, LLC d/b/a Clearwater Recovery
175 Spring Street Rockland, Massachusetts 02370

Tel: 781-878-3849

Fax: 781-871-4918

proceeding arising out of or relating to this Agreement, in any other court or to contest the jurisdiction (in rem or in personam) or power or decision of such court over or pertaining to the party or with respect to the subject matter in any other court, within or without the United States. The parties irrevocably consent to the service of process of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by certified mail, postage prepaid to their addresses. The parties irrevocably waive any defense of inconvenient forum to the maintenance of any such action or proceeding so brought. The parties irrevocably waive the right to raise any issue or defense relating to lack of contacts with Massachusetts for purposes of governing law. The parties further acknowledge and agree that venue in any such action or proceeding so brought shall exclusively lie in Massachusetts and the parties hereby further agree that any such action or proceeding shall be resolved by a judge alone, and hereby waive and forever renounce the right to a trial before a civil jury.

14. Severability: The parties intend this Agreement to be enforced as written. However, if any portion or provision of this Agreement shall to any extent be declared illegal or unenforceable by a duly authorized court having jurisdiction, then the remainder of this Agreement, so long as it can be carried out as contemplated by the parties, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, shall not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

15. Captions: The headings and captions of the various subdivisions of this Agreement are for the convenience of reference only and shall in no way modify, or affect the meaning or construction of any of the terms or provisions hereof.

16. Equal Participation in Preparing this Agreement: The parties expressly agree that they participated equally in the crafting of this Agreement and hereby stipulate and agree that any ambiguity found in the document shall not be construed against one party and in favor of another.

17. Renewal: The term of this Agreement shall commence on November 01, 2016 and shall terminate on November 01, 2018. This Agreement between the parties, without further action by the parties, shall extend for successive consecutive 2 Years periods. Intent to terminate this Agreement upon the expiration of the 2 Years period, may only be made by written notice at least sixty (60) days prior to the expiration date of this Agreement. *

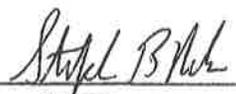
18. Survival of Termination: All rights and obligations of the parties that came into effect before this Agreement was terminated shall survive its termination.

19. THE PARTIES HERETO EXPRESSLY STATE AND AGREE THAT THEY HAVE HAD A REASONABLE PERIOD SUFFICIENT TO STUDY, UNDERSTAND AND CONSIDER THIS AGREEMENT, THAT THEY HAVE HAD AN OPPORTUNITY TO CONSULT WITH COUNSEL OF HIS CHOICE, THAT THEY HAVE READ THIS AGREEMENT AND UNDERSTAND ALL OF ITS TERMS, THAT THEY ARE ENTERING INTO AND SIGNING THIS AGREEMENT KNOWINGLY AND VOLUNTARILY AND THAT IN DOING SO THEY ARE NOT RELYING UPON ANY STATEMENTS OR REPRESENTATIONS BY OPERATOR OR ITS AGENTS.

EXECUTED AS OF THE DATE FIRST ABOVE WRITTEN.

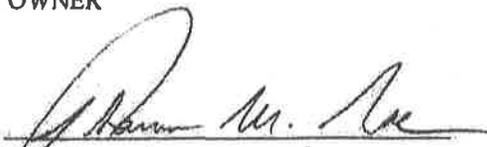
OPERATOR

Stephen B. Nelson, LLC d/b/a Clearwater Recovery



Stephen B. Nelson, member
Duly Authorized

OWNER



Auth: Accounts Payable Thomas M. Nelson
Duly Authorized

Attachment D

Clearwater *Recovery*

Spring Street, Rockland, MA 02370

ph (781) 878-3849

Russell, MA 01071 – ph (413) 862-4091

“We make clean water, we ARE clean water”

May 22, 2020

Re: Wastewater treatment system
at 100 Industrial Park Road, Hingham Mass

The wastewater treatment system at this location was originally built by Yeomans Brothers Company in Chicago, Illinois. The system was installed under Mass DEP groundwater discharge permit with a discharge limit of 3,900 gallons per day. The system is approved to provide secondary treatment effluent levels of 30 mg/l Biochemical Oxygen Demand (BOD) and 30 mg/l Total Suspended Solids (TSS).

Clearwater Recovery has provided operations and maintenance services at this location since 1997, when the property was owned by Merriman, Inc. JEB Group, LLC purchased the property about 20 years ago to utilize the building as warehouse, which produced minimal daily flows. Wastewater treatment process control can be more challenging in such low flow conditions. The system has reliably produced clear, odorless effluent and continues to meet its discharge permit. Monthly monitoring reports have been submitted Hingham Board of Health as required .

The system uses an extended aeration activated sludge process. The aeration chamber is capable of providing 24 hour detention time under aeration for 10,000 gallon per day flow. Aeration is provided by Roots blower driven by a 3 horsepower motor. Aerated wastewater (mixed liquor) flow to the clarifier where solids are settled out and returned to aeration. Return activated sludge is driven by air lift pump – air supplied by Roots blower and controlled by a series of air line valves. Clarified effluent is chlorinated before final disposal provided by two 80 ft x 30 ft sand beds.

Clearwater Recovery has been notified that the building will soon be occupied by approximately 200 workers. Using daily flow estimates provided by Mass DEP, we expect flows to increase to approximately 3,000 gallons per day. We are presently performing corrective maintenance to the motor and blower, which will allow the system to perform to its full potential.

If you have any comments or questions, please call me at (781) 878-3849.

Sincerely,



Stephen B Nelson

Registered Sanitarian
Grade 6-C Wastewater Treatment Operator