Bourne Board of Health 24 Perry Avenue Bu zzards Bay, MA 02532

May 31, 2022

Re:

Variance Requested For 17 Scotch House Cove Road, Bourne, MA Lawrence R. Coen, Jr., Applicant/Owner

Dear Members:

In accordance with the State Environmental Code, Title 5: 310 CMR 15.410, please accept this letter of request to be heard before the Board of Health at their next meeting to discuss relief from Title 5 and/or Board of Health Regulations for the installation of an upgraded septic system at 17 Scotch House Cove Road, Bourne, MA. We respectfully request consideration of the following local upgrade approvals/variances to accommodate our project.

The Variance(s) requested are:

A 47.8 foot variance from the Bourne Board of Health 150 Foot Setback Regulation for the placement of a leaching facility (S.A.S.) within 102.2 feet of the top of a coastal bank

Enclosed is the completed original variance application and design plans, together with seven (7) copies of all documents and plans. We have notified all abutters as required and attached proof of mailing. Thank you in advance for your consideration of this request.

Sincerely

J. F. Landers-Cauley F

Enclosures:

\$250.00 Check for application fee \$125.00 Check for permit fee Letter to Board of Health Members requesting waiver or variance Application For Septic Variance or Waiver Requests Letter in support of Application for Septic Variance
Email from Applicant in support of Septic Variance
Letter To Health Agent re Proof of Notice to Abutters
Copy of certified abutters list
Copies of white certified mail slips
Copy of letter sent to abutters
Bourne Assessors Property Card Map 51.1 Parcel 25-0
Bourne Assessors Property Card Map 51.1 Parcel 24-0
Nitrogen Loading Calculation Sheet for 6 bedrooms
Plan of Land Prepared for Lawrence R. Coen of 17 Scotch House Cove Road Bourne, MA dated 05/12/21, revised 05/16/22 Sheet 1 of 2 and Sheet 2 of 2

p://Ken B/17 Scotch House Cove Rd BOH Variance



Bourne Board of Health Application for Septic Variance or Waiver Requests



In accordance with the established procedures of the Bourne Board of Health, this application is for septic variances and waivers which have not been approved administratively and require approval at a public meeting. Please use the following application form for guidance on how to apply for variances and waivers which serve new construction, changes in use, or increases in flow to on-site sewage disposal systems with design flows of less than 10,000 gallons/ day.

1. Facility Name and Address:
Owner's Name
Lawrence R. Coen, Jr.
Facility's Street Address
17 Scotch House Cove Road, Bourne, MA
Owner's Telephone Number
<u>617-962-1400</u>
Owner's E-mail Address
ChipCoen@Live.com
Owner's Mailing Address
Box 711, Cataumet, MA 02534
2. Applicant or Preparer's Name and Address (if different from above):
Preparer's Name
J. E. Landers-Cauley, P.E.
Company
J. E. Landers-Cauley, P.E.
Telephone Number
508-540-7733
E-mail Address
Box 364 West Falmouth Highway, MA 02574
Mailing Address
State/ Zip Code
otate/ Zip Code
3. Type of Facility (check all that apply):
☑ Residential ☐ Commercial ☐ Institutional ☐ School ☐ Industrial
4. Describe Facility (i.e. single-family dwelling, 45 seat restaurant): Single family dwelling with existing and
functioning six bedroom septic system consisting of a septic tank, distribution box and leaching pit, all of which
are less than 50 feet from top of bank.
The state of the s
5. Type of System (check all that apply): Conventional Title 5 I/A System
☐ Pumped System ☐ Gravity System ☐ Pressure Dosed ☐ Existing ☐ Proposed

distribution box and leaching pit. Existing system-septic tank, and
Proposed system-tank and distribution box and S.A.S.
7. Design Flow per 310 CMR 15.203 (in gallons/ day):
660 gallons per day Design flow of system:
660 gallons per day
Total design flow of facility:
8. Enclose a letter of request for variances/ waivers which makes reference to the specific provisions of Title 5 and/ or the Board Bourne of Health Regulations for which a variance is sought. Please use this opportunity to demonstrate compliance with 310 CMR 15.410, and to justify the relevant facts and circumstances of the individual case. Note that with regard to variances for new construction, enforcement of the provision from which a variance is sought must be shown to deprive the applicant of substantially all beneficial use of the subject property in order to be manifestly unjust. Be sure to explain why full compliance with the applicable regulations is not feasible, and how a level of environmental protection that is at least equivalent to that provided under Title 5 and the Board of Health Regulations can be achieved without strict application of said regulations.
9. In order for this Application to be deemed complete, it must be accompanied by the following:
Application Fees paid to the Town of Bourne. Letter of request describing nature of variances (see samples) Six sets of complete plans and specifications. One with original stamp of design engineer. Nitrogen Loading Calculation Sheet(s) if applicable If abutter notification is required, one of each of the following must be submitted: A copy of the certified list of abutters from the Assessor's Department Sample letter for abutter notification postmarked 10 days prior to meeting date Proof of certified mailing (receipts) meeting requirements of 310 CMR 15.405(2) Proposals for installation of Innovative/ Alternative septic systems must be accompanied by: A copy of the Certification for Use including technology specific conditions Draft disclosure notice for the I/A technology to be recorded in the deed Hydrogeologic data for all leaching facilities proposed within 100ft of a wetland/ watercourse Percentage of Increase Worksheet may be required for waivers or increases in flow
10. Certification:
"I certify under penalty of law that this document and all attachments, to the best of my knowledge and belief, are true, accurate, and complete. I am aware that there may be significant consequences for submitting false information, including, but not limited to, penalties or fine and/or imprisonment for deliberate violations."
Facility Owner's Signature Council Date 5/21/22
Print Name Lawrence R. Coen, Jr.
Signature of Preparer Date 05/24/22
Print Name J. E. Landers-Cauley, P.E.

		For Office Use Only		
Completed Application F Hearing Date:			d By:	
Circle all that apply: Notes:	Approved	Continued	Disapproved	Other

Bourne Board of Health 24 Perry Avenue Bu zzards Bay, MA 02532

May 31, 2022

Re: Letter in Support of Requested Variance 17 Scotch House Cove Road, Bourne, MA Lawrence R. Coen, Jr., Applicant/Owner

Dear Members:

I represent the Applicant and owner, Lawrence R. Coen, Jr.

Mr. Coen owns the property located at 17 Scotch House Cove Road. This lot consists of Parcel #25 and Parcel #24 which have been combined into one Lot (Barnstable Registry of Deeds Plan Book 690 Page 60). Mr. Coen also owns Parcel 6 which is an unbuildable lot. There is an existing dwelling house with six bedrooms and a barn located on the property. There is no plumbing installed in the barn.

The existing septic system consists of a septic tank, distribution box and leaching, pit, all of which is located within 25 feet of the top of the coastal bank. A copy of the Title V Inspection Report dated 7/20/16, obtained from the Bourne Board of Health, shows the existing system Passed. The existing septic system continues to function properly.

The Applicant proposes to pump the existing septic system, fill it with clean inert material, and to install a new Title V compliant system consisting of a tank, distribution box and S.A.S.. There is No proposed increase in flowage nor increase in the number of bedrooms.

No Percentage of Increase Worksheet has been filed herewith because there are no proposed renovations, alterations, or additions to the existing dwelling or barn.

A Nitrogen Loading Worksheet has been submitted for the existing 6 bedroom system.

The proposed new Title V system is less than 150 feet from the top of a coastal bank and the Applicant is requesting a variance or waiver from the local Town of Bourne regulation requiring septic systems to be at least 150 feet from the top of a coastal bank.

At the present time the Applicant is in full compliance with all conservation commission and Board of Health regulations. He is voluntarily proposing to construct the new proposed Title V system as an

upgrade to both the environmental and health protections that the new Title V system will provide over the existing conditions.

FULL COMPLIANCE WITH LOCAL REGULATIONS IS NOT FEASIBLE.

Locating the proposed Title V system in full compliance with ALL conservation and ALL health regulations is NOT possible. Full compliance with the 150 foot setback from the top of a coastal bank is not possible for any location on the Applicant's property.

The proposed location of the new septic system is the maximum, or very close to the maximum distance, that the Title V system can be located from the top of the coastal bank.

THE LEVEL OF ENVIRONMENTAL PROTECTION IS AT LEAST AS MUCH AS PROVIDED UNDER EXISTING REGULATIONS

The Applicant is proposing to relocate his septic system from less than 25 feet for the top of a coastal bank to more than 100 feet from the top of a coastal bank. Installing the proposed new Title V system an additional 75 feet from the top of the coastal bank will improve the present environmental and health conditions.

I respectfully request consideration of the following local upgrade approvals/variances to accommodate this project.

The Variance requested is:

A 47.8 foot variance from the Bourne Board of Health 150 Foot Setback Regulation for the placement of a leaching facility (S.A.S.) within 102.2 feet of the top of a coastal bank

Sincerely,

Lawrence R. Coen, Jr. Applicant/Owner

From: chipcoen@live.com,

To: CCoen@mswalker.com, jlandersca@aol.com, john@civilengineer.comcastbiz.net, chipcoen@live,

Subject: Re: Board of Health Septic upgrade application and personal appeal. UPDATED!

Date: Wed, May 25, 2022 12:56 pm

From: Chip Coen <CCoen@mswalker.com>
Sent: Wednesday, May 25, 2022 12:43 PM
To: jlandersca@aol.com <jlandersca@aol.com>
Cc: CHIPCOEN@LIVE.COM <chipcoen@live.com>

Subject: Board of Health Septic upgrade application and personal appeal.

Jack & Ken, Thank You for forwarding this document to the Bourne Board of Health for the June 8th 2022 public hearing.

To the Board of Health:

Dear Members, This letter is meant to request a Septic variance related to State Environmental Code, Title 5: 310 CMR 15.410.

We would like to upgrade our existing, Title #5 approved system to further distance it from the Resource Area and Mean High Tide.

- 1: The proposed design is outside the State's 100 ft requirement @ 102.2 FT.
- 2: We have met with the Conservation Commission for an R.D.A. and received an Unanimous "Negative Determination #3".

The location is above 25' Elevation and has passed the PERC test on 6/28/2018, witnessed by BOH agent, Ms. Terri Guarino.

Our property has been reconfigured to Merge Land Parcels to comply with the demand for space.

We have no increase in bedrooms or flow and the current system is Not in Failure.

Warwick Engineers have staked the plan, as well as the Work limitations.

The location is @ # 17 Scotch House Cove Road, Cataumet, MA. 02534

Environmental Engineer, Mr. Jack Landers-Cauley has notified abutters, enclosed the completed variance application and provided the requisite plans.

Due to property limitations we would like to request a formal "Hardship Relief" from the Bourne Setback requirement. We will then proceed with moving our system to the physical limit of our property as noted on the plan.

Sincerely,

Chip Coen #17 Scotch House Cove Rd. P.O. Box #711 Cataumet, MA. 02534

Mobile # 617-962-1400

CONFIDENTIALITY NOTICE: This email message and any attachments are for the sole use of the intended recipient(s) and may contain proprietary, confidential, trade secret or privileged information. Any unauthorized review, use, disclosure or distribution is prohibited and may be a violation of law. If you are not the intended

recipient or a person responsible for delivering this message to an intended recipient, please contact the sender by reply email and destroy all copies of the original message.

Terri Guarino, Health Agent Bourne Board of Health 24 Perry Avenue Buzzards Bay, MA 02532

May 31, 2022

Re:

Variance Request-Proof of Notice to Abutters 17 Scotch House Cove Road, Bourne, MA Lawrence R. Coen, Jr., Applicant/Owner

Dear Ms Guarino:

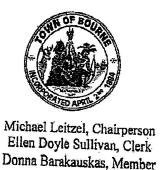
Enclosed please find copies of

- 1) Copy of certified abutters list; and
- 2) Copies of the white certified mail slips; and
- 3) Copy of the letter sent to the abutters

Sincerely,

J. E. Landers-Cauley, P.E.

p://Ken B/17 Scotch House Cove Road BOH Variance



TOWN OF BOURNE

Board of Assessors 24 Perry Avenue Buzzards Bay, MA 02532 (508) 759-0600 Ext. 1510 ♦ Fax (508) 759-8026



Rui Pereira, MAA Director of Assessing

May 26, 2022

J.E. Landers-Cauley, PE PO Box 364 West Falmouth, MA 02574

Re: Abutters List for Map 51.1 Parcel 25

Property address: 17 Scotch House Cove Road

As required by the Bourne Board of Health, pursuant with section 310 CMR 15.411(1), this is to certify that the attached list of names and addresses constitutes all of the parties in interest as shown on the most recent tax list of the Town of Bourne.

Abutting properties are: Map 51.1 Parcels 4, 5, 6, 8, 26, 27, 35, 36 & 46.

Your payment of \$10.00 has been received by the Bourne Assessor's Office.

Please be advised that this abutters list is only good for 30 days from the date on this letter. Expired abutters list can be recertified for an additional filing fee.

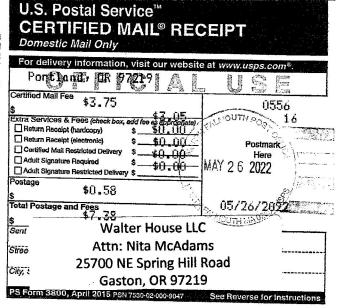
See enclosed for abutters mailing addresses.

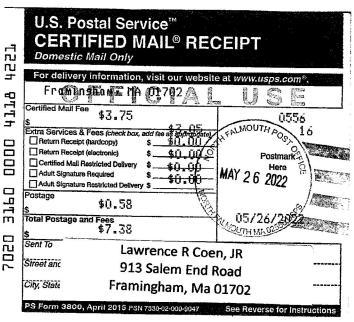
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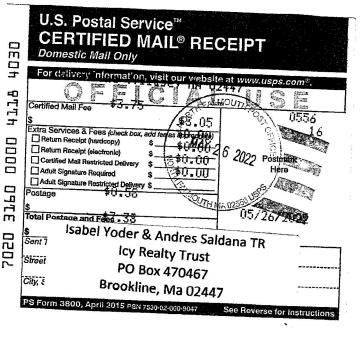
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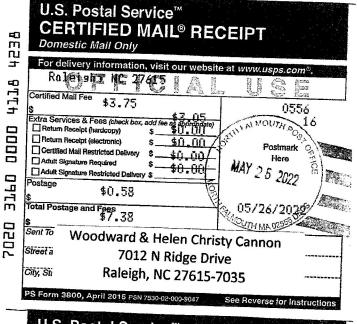






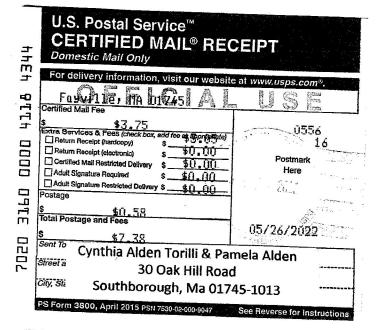


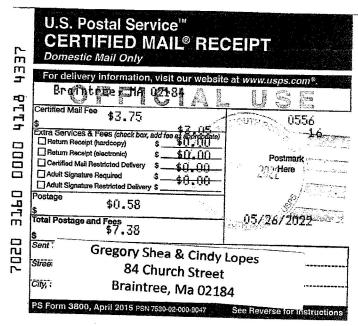


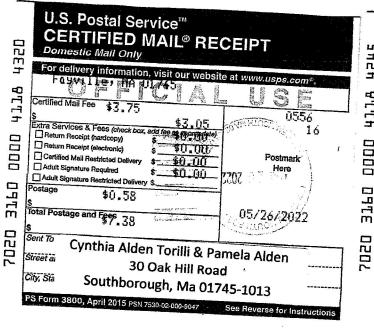




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May 26, 2022

Re: 17 Scotch House Cove Road, Bourne, MA

Notice of Public Hearing

Dear Abutter:

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This hearing is tentatively scheduled for <u>June 8, 2022</u> at 5:30 p.m. in the Lower Conference Room of the Bourne Town Hall. Information regarding the hearing may be available for your review one week prior to the meeting at the Bourne Health Department, 24 Perry Avenue, Buzzards Bay, Monday through Friday from 8:30 a.m. until 4:30 p.m.

Meeting agendas are posted on the Town of Bourne website, www.townofbourne.com/health no less than 48 hours in advance of the hearing. Please confirm the date, time, and location of the meeting with the Town, in case of any changes. Should you have any questions or concerns, please do not hesitate to contact our office, J. E. Landers-Cauley, P.E., 508 540-7733, or the Bourne Health Department at 508 759-0600, ext. 1513.

Sincerely

. E. Landers-Cauley, P.E. fo

Lawrence R. Coen, Jr., Applicant

p://Ken B/17 Scotch House Cove Rd abutter notice



Michael Leitzel, Chairperson Ellen Doyle Sullivan, Clerk Donna Barakauskas, Member

TOWN OF BOURNE

Board of Assessors 24 Perry Avenue Buzzards Bay, MA 02532 (508) 759-0600 Ext. 1510 ♦ Fax (508) 759-8026



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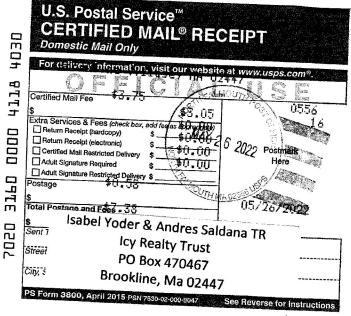
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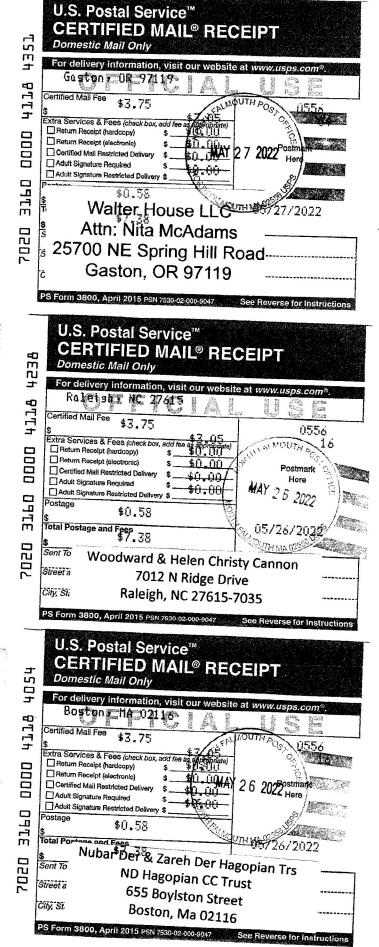
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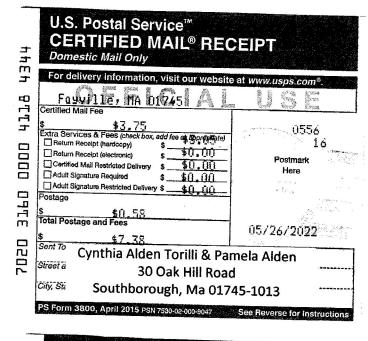
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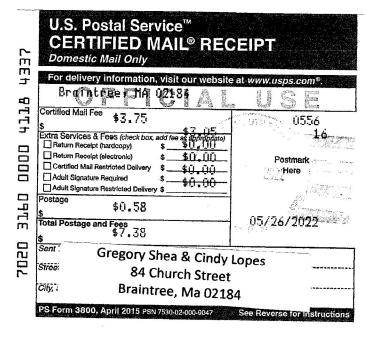


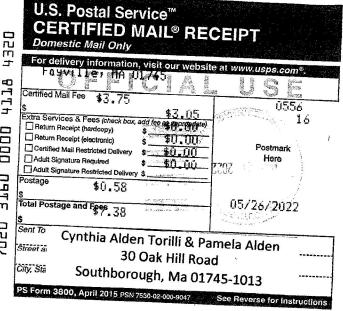


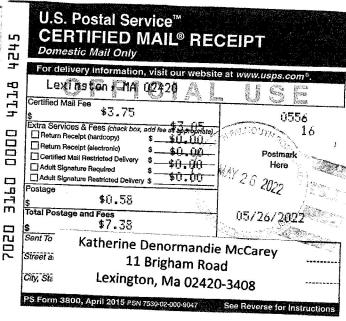












May 26, 2022

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Q D"

J. E. Landers-Cauley, P.E. for Lawrence R. Coen, Jr., Applicant

p://Ken B/17 Scotch House Cove Rd abutter notice

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Town of Bourne

CONSERVATION COMMISSION

Nitrogen Loading Calculation Sheet for Residential Housing

The following calculation sheet is based upon Technical Bulletin 91-001 issued by the Cape Cod Commission and deals with nitrate nitrogen (NO₃-N). <u>Use the information from your PLAN OF RECORD to provide the following:</u>

Number of bedrooms (Title 5 definition) Lot size (in square feet) Impervious surfaces; **Roof area = 37/6 Natural Area = lot area minus all impervious su Lawn area in sq. ft.	
TITLE 5 FLOW = 110 GAL. / DAY PER BEDROOM WASTEWATER FLOWS (NITROGEN LOAD & WA	TER LOAD)
Nitrogen from Title 5 design = $14,572 \text{ mg NO}_3\text{-N/day}$ Water from Title 5 design = $4163 \text{ L H}_2\text{O/day/bedrod}$ 1a) Number of bedrooms = $\frac{6}{4} \times 10^{-2}$ X 1 1b) Number of bedrooms = $\frac{6}{4} \times 10^{-2}$ Actual Nitrogen load = $6071.5 \text{ mg NO}_3\text{-N/day}$ Actual Water load = $173.5 \text{ L H}_2\text{O/day/bedrod}$ *Note: This assumes 2.5 people / unit average of	om $4,572 = \frac{27432}{246} \text{mg. NO}_3 - \text{N / day}$ $416 = \frac{246}{2} \text{L H}_2\text{O / day}$ om om
2a) Number of bedrooms = $\begin{array}{c} & & & & & & & & & & \\ & & & & & & & & $	
NO ₃ -N load number sq. ft. of roof surface > H ₂ O load number sq. ft. of roof surface > X	 0.19395 mg NO₃-N / sq. ft. 0.2586 L / sq. ft.
3a) Roof surface = $\frac{3716}{\text{sq. ft.}}$ sq. ft. X 3b) Roof surface = $\frac{3716}{\text{sq. ft.}}$ sq. ft. X	$0.19395 = \frac{721}{961} $ mg NO ₃ -N $0.2586 = \frac{961}{2}$ L H ₂ O
NO_3 -N load number sq. ft. of paved surface X H_2O load number sq. ft. of paved surface X	S - 1 - 1
	face X 0.388 mg / sq. ft. = $\frac{\text{mg NO}_3\text{-N}}{\text{Mg NO}_3\text{-N}}$

17 Scotch House Cove Road LAWN NITROGEN LOAD = 0.933 mg / sq. ft. lawn surface 5) sq. ft. of lawn = 23, 675 $\times 0.933$ = 22,089 mg NATURAL AREA WATER LOADING = 154,843 sq.ft. Natural area = lot size - impervious surface 6) Natural area = 154,843 X water recharge factor = 2-1,028 L $(0.1358 L / sq. ft. for Bourne)^1$ SUMMARY OF NITROGEN LOADING Estimated Title 5 Nitrogen & Water Loading 7a) ADD the above NO₃N load: $\frac{10}{87}$ $\frac{1}{43}$ $\frac{1}{2}$ $\frac{3}{4}$ $\frac{1}{72}$ $\frac{3}{4}$ $\frac{4}{2}$ $\frac{4}{22}$ $\frac{5}{8}$ = 110, 242 mg NO₃-N/day 7b) ADD the above water (H₂O) load: $\frac{1b}{2496} + \frac{3b}{96i} + \frac{4b}{96i} + \frac{21,028}{24985} = \frac{24485}{L H_2O/day}$ 7c) DIVIDE 7a by 7b = $\frac{4.502}{}$ ppm NO 3-N***** Actual Nitrogen & Water Loading 8a) ADD the above NO 3N load: $\frac{2a}{36429} + \frac{3a}{721} + \frac{6}{22,089} = \frac{59,239}{mg NO_3-N/day}$

 $\frac{2b}{104/} + \frac{4b}{96/} + \frac{4b}{4} + \frac{21}{1028} = \frac{23}{1030} L H_2O / day$

FINAL CALCULATION ADD 7c & 8c (ppm) = $\frac{7.074}{1.000}$ divide by 2 = $\frac{3.537}{1.000}$ ppm NO₃-N

This is the actual nitrate nitrogen load for the project as designed. The target for coastal areas is 5 ppm nitrate nitrogen. Certain critical embayments may require a LOWER figure to prevent degradation.

*****If your nitrate nitrogen load exceeds the target limit USE A SECOND CALCULATION SHEET TO SHOW ALTERNATIVES IN TRYING TO ACHIEVE THE 5 PPM NITRATE NITROGEN

Water recharge factors for data line 6: @21' / yr. use 0.1358 in Bourne and Falmouth; @ 19" / yr. use 0.1228 for Mashpee & Sandwich; @ 18" / yr. 0.1164 for Barnstable, Dennis & Yarmouth; @ 17" / yr. use 0.1101 for Brewster &

Harwich; @ 16" / yr. use 0.1031 for Chatham, Eastham, Orleans, Provincetown, Truro & Wellfleet.

8b) ADD the above water (H 2O) load:

LEVEL****

8c) DIVIDE 8a by 8b = 2.572 ppm $NO_3-N*****$