

Drinking Water & Groundwater Protection Division - Permit Application

Wastewater System & Potable Water Supply

**For Office Use Only:**

Application#	PIN#	Date Complete Application Received

General Information:

IMPORTANT: This application form **IS NOT** intended to be printed and filled out by hand. Because of the dynamic nature of the form, it is required that the information be typed directly into the fields using a computer.

In most cases a licensed designer will be required for your project and to help complete this application form. There are also line-by-line instructions available to assist with completing this form: <http://dec.vermont.gov/sites/dec/files/dwgwp/wastewater/pdf/WWApplInstructionsRules.pdf>.

NOTE: We strongly suggest referring to the application instructions while completing this application form.

A. Prior Permits

1 Please enter any prior or related WW permit or Act 250 permit number(s) (if applicable)

WW-138-1706

B. Project Name

1 Please enter a name that can be used as a reference for the project

Remo Pizzagalli Lot 3

C. Landowner Information**Landowner Name**

1 Legal Entity/Organization Name (if the Landowner is a legal entity or organization rather than a person)

2 Landowner First Name (and Middle Initial if appropriate)

Remo

3 Landowner Last Name

Pizzagalli

Landowner Contact Information

4 Mailing Address Line 1

P.O. Box 37

5 Mailing Address Line 2

6 City

Charlotte

7 State/Province

VT

8 Country

United States

9 Zip/Postal Code

05445

10 Email Address

RPizzagalli@pizzagalliproperties.com

11 Telephone

802-238-7219

Landowner Certifying Official Information (if applicable)

12 First Name (and MI if appropriate)

13 Last Name

14 Title

15 Email Address

16 Telephone

Add Another Landowner

D. Primary Contact Information (if other than Landowner)

1 First Name (and Middle Initial if appropriate)

John H

2 Last Name

Stuart

3 Company/Organization Name

JH Stuart Associates, Inc.

4 Mailing Address Line 1

P.O. Box 8367

5 Mailing Address Line 2

6 City

Essex

7 State/Province

VT

8 Country

United States

9 Zip/Postal Code

05451

10 Email Address

john@jhstuartassociates.com

11 Telephone

802-878-5171

E. Lot(s) Affected by this Project

1 Please list any and all proposed lots or existing parcels that are directly affected by this project. If this application is an amendment to a previous project, please use consistent lot numbers.

(a) Existing or Proposed Lot	(b) Lot Number	(c) SPAN	(d) Parcel ID	(e) Acres	X
Existing	Lot 3	138-043-11160	00100-1945	8.63	
(f) Book Number (ref. 1)	(g) Page Number(s) (ref. 1)	(h) Book Number (ref. 2)	(i) Page Number(s) (ref. 2)	(j) Book Number (ref. 3)	(k) Page Number(s) (ref. 3)
36	294				
(l) Comments					

Add Another Lot

F. Project Information

1 Project Description

Relocate accessory building and mound system as shown on Dwgs. 1 and 2 and reduce design flow from 540 GPD to 490 GPD.

2 Total Acreage of Property

8.63

3 Town (primary)

Charlotte

4 Town (secondary - if located in more than one town)

5 Street Address (911 address if available, otherwise a brief description of the location)

Mutton Hill Road

6 Center of property GPS coordinates - Enter the approximate center of the project coordinates using GPS set for NAD83 or as derived from a map (map must be based on NAD83).

(a) Latitude (in decimal degrees to five decimal places, ex. 44.38181°)

44.33001

(b) Longitude (in decimal degrees to five decimal places, ex. -72.31392°)

-73.23043

7 If someone from the Drinking Water & Groundwater Protection Division's Regional Office has been to the property for a site visit, please indicate who visited the property and the date of the visit.

(a) Name of Staff Person

Brian Trembach

(b) Date of Visit (m/d/yyyy)

5/30/17; 04/12/18

G. Application Fee

Please refer to the [Application Fee Schedule](#) prior to selecting the Application Fee Code for your project below.

1 Select Application Fee Code

(RO1) 560 gpd or less

2 Fee Amount Due

\$306.25 200.00

H. Wastewater System and Water Supply Component Details**Component Information:**

PLEASE READ: The purpose of this section is to provide supplementary information for system components when there are proposed changes to existing conditions or previous permits. In the case that the application includes site plans, the component names on this worksheet must match those on the site plans. If there is a prior permit, the component names must be labeled consistent with plans from the prior permit(s). It is ***required*** that, at a minimum, the following component types must be included for each application: final disposal; pre-treatment (if applicable); building unit(s); water treatment (if applicable); and water source. To add components after the third entry, click the green button labeled "Add Another Component". You may also insert components between components you've already added by clicking the "Insert Component Between" button. For large projects with many components, you may consider using the "Show/Hide Component Set Separator" button to separate sets (or groups) of connected components by naming each set. For additional instructions, please review the appendix to the application instructions: <http://dec.vermont.gov/sites/dec/files/dwgwp/wastewater/pdf/WWApplInstructionsRules.pdf>.

Component 1 Information

Show/Hide Component Set Separator

Remove This Component

Component Group Type (WW) Final Disposal

Component Type Mound

--Component 1 Details--

Component Name	Lot 3 mound		
Lot # Physical Location	Lot 3	Change Type	Decreased Flow
WW Design Flow	490	Changes	Reduce design flow from 540 to 490 GPD
I/A Dispersal Type		Comments	
Variance Requested	<input type="checkbox"/>		
Design Approach (select all that apply, press Ctrl and Click to select multiple)	<ul style="list-style-type: none"> Alternative Toilets Constructed Wetlands Existing - Unknown Filtrate Flow equalization No discharge (other than holding tank) Performance based Prescriptive Store and dose Subsurface drip distribution Time dosing Wastewater strength 		
Manufacturer			
Model Name			
Model Number			
As-Built Latitude			
As-Built Longitude			

Insert Component Between

Component 2 Information Show/Hide Component Set Separator Remove This Component

Component Group Type	(WW) Conveyance	Component Type	STEP
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--Component 2 Details--

Component Name	Lot 3 septic tank/pump station		
Lot # Physical Location	Lot 3	Change Type	Decreased Flow
Municipal WW System		Changes	Reduce design flow from 540 to 490 GPD
		Comments	

Insert Component Between

Component 3 Information Show/Hide Component Set Separator Remove This Component

Component Group Type	Building	Component Type	Building-Unit
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--Component 3 Details--

Component Name	Accessory building/single family dwelling		
Lot # Physical Location	Lot 3	Change Type	Decreased Flow
WW Permitted Flow	490	Changes	Reduce design flow from 540 to 490 GPD
WS Permitted Flow	490	Comments	
Flow Basis	Rule		

Insert Component Between

Component 4 Information Show/Hide Component Set Separator Remove This Component

Component Group Type: (WS) Source Component Type: Potable

--Component 4 Details--

Component Name: Lot 3 drilled well

Lot # Physical Location: Lot 3 Change Type: Decreased Flow

Source Type: Drilled/Driven Well Changes: Reduce design flow from 540 to 490 GPD

WS Design Flow: 490

Allocation Approval: Comments:

Construction Approval:

Variance Requested:

As-Built Latitude:

As-Built Longitude:

Insert Component Between

Add Another Component

I. Project Plan Reference

1 Please provide the following information for all water supply and wastewater system plans being submitted.

(a) Sheet#	(b) Title	(c) Plan Date	(d) Last Revision Date	
1 of 2	Remo Pizzagalli Subdivision Site Plan	12/1/2017	4/9/2018	X
2 of 2	Remo Pizzagalli Water and Wastewater Details	6/10/2017	4/9/2018	X

Add Another Plan Reference

J. Project Scoping Questions

- Does this project involve the replacement of a failed wastewater system? Yes No
- Does this project involve the replacement of a failed water supply? Yes No
- Does this project involve construction within the buffer for a Class 2 Wetland? Yes No
- Does this project involve construction within a river corridor? Yes No
- Is the property within 250 feet of the mean water level of lakes greater than 10 acres in size? Yes No
- Will the project require a public water supply permit? Yes No
- Is any portion of the proposed wastewater system located in a Water Source Protection Area (SPA) as designated by the Drinking Water & Groundwater Protection Division? Yes No
- Does this project require an Underground Injection Control Permit? Yes No
- Is this project located in a Class A Watershed? Yes No
- If this project is in a Class A Watershed, does the design flow for the project exceed 1,000 gpd or is the project located on the same lot as other buildings, structures, or campgrounds where the total design flow for the lot is greater than 1,000 gpd? Yes No NA
- Are any of the proposed water sources located within 1 mile of a hazardous waste site as designated by the Waste Management & Prevention Division and identified on the Agency mapping website (if Yes, please submit additional information on the site)? Yes No

K. Consultant/Designer Certification

Consultant/Designer Certification & Copyright License

"I hereby certify that in the exercise of my reasonable professional judgment, the design-related information submitted with this application is true and correct, and that the design included in this application for a permit complies with the Vermont Wastewater System and Potable Water Supply Rules and the Vermont Water Supply Rules. As the individual who prepared this application, including all documents that are marked as copyrighted, I hereby grant a non-exclusive, limited license to the State to allow the documents to be made available for public review and copying in order to properly implement and operate the permitting programs for Wastewater Systems and Potable Water Supplies, and for no other purposes. As a condition to this license, the State agrees that it will not make any changes to such documents, nor will the State delete any copyright notices on such documents."

WWW/WS Designer: JH Stuart, P.E. Consultant/Designer Role: Print Consultant/Designer Name

Consultant/Designer Signature: *JH Stuart* Signature Date: 04/18/2018

Add Second Consultant/Designer

L. Signatures & Acknowledgements of Landowner(s)

This application must be signed by each Landowner listed on the property deed or by individuals with legal authority to sign on behalf of each Landowner. In order to insure compliance with the requirements of the regulations administered by the Department of Environmental Conservation, Drinking Water and Groundwater Protection Division, it may be necessary to visit the property. As this would involve a Department employee entering private property, we request your approval to do so.

If we do visit your property, do you have any special instructions?

"By signing this application, I certify that I am a landowner listed on the property deed or that I have the legal authority to sign on behalf of the landowner. I understand that by signing this application I am granting permission for the Department employees to enter the property, during normal business hours, to insure compliance of the property with the applicable rules of the Department.

I also understand that I am not allowed to commence any site work or construction on this project without written approval from the Department of Environmental Conservation.

If my project utilizes an Innovative/Alternative System or Product, I have received a copy of the Drinking Water & Groundwater Protection Division's approval letter and agree to abide by the conditions of the approval.

I also certify that to the best of my knowledge and belief the information submitted above is true, accurate and complete."

Remo Pizzagalli
Print Landowner Name

Remo Pizzagalli
Landowner Signature

4.19.18
Signature Date



Add Landowner Signature Block

ANR FORM 1
Notice of Overshadowing at the time of Filing an Application for a Wastewater System and Potable Water Supply Permit

To PETER PIZZAGALLI (Overshadowed Landowner):

I am currently preparing an application for a State of Vermont Wastewater System and Potable Water Supply Permit. My project proposes a water supply and/or wastewater (septic) system designed to comply with the technical standards of the Wastewater System and Potable Water Supply Rules (Rules). The Rules include required isolation distances around the supply or system. These isolation distances are designed to prevent wastewater systems and water supplies from being built too close to each other in order to protect drinking water quality and human health.

The isolation distances for my proposed water supply and/or wastewater system extend onto your property. The extension of these isolation distances is often referred to as an "overshadowing" of property.

In 2010, the legislature determined that people who own property that will be "overshadowed" by the required isolation distance be notified of that fact. This form is being sent to you in order to provide that notice. Attached to this form is a copy of a plan that shows what I propose to build and the isolation distance(s) that extend onto your property.

Please consider the following facts to help you understand what this actually means to you:

1. Under the existing Rules, an evaluation of the horizontal relationship between existing wastewater systems and potable water supplies and newly proposed wastewater systems and potable water supplies is required during the review of any application. Therefore, the horizontal isolation distance between newly proposed wastewater systems and potable water supplies and the location of your current water supply and wastewater system will be evaluated and determined to comply with the Rules as part of the permit process.
2. A permit application review does not determine if the proposed water supply or wastewater system may affect or restrict potential future development of a water supply or wastewater system on your property. These possible restrictions exist because of the required isolation distances between potable water supplies and wastewater systems.
3. It is important to note that in many instances overshadowing may have no effect on the ability to develop adjoining properties. Whether there is actually any effect is a very site specific determination that depends on a number of factors. For example, the fact that an isolation distance from a wastewater system may prohibit where a well could be drilled may have no real effect because that portion of the neighboring property that is overshadowed by the wastewater system is too steep to be accessed by a well drilling rig. Another example is where a well isolation distance means that no wastewater system could be placed in a certain area but that area is a wetland that prevents the construction of a wastewater system.

ANR FORM 1
Notice of Overshadowing

4. When considering potential effects on your property, you should be aware that you may drill a well within the identified well isolation zone and you may build a wastewater systems in the identified septic isolation zones provided the well or wastewater system complies with the technical standards of the Rules. What may not be allowed without providing additional technical information is putting a wastewater system in a well isolation zone and putting a well in a wastewater system isolation zone.

5. The water supply and wastewater system isolation zones only restrict the construction of water supplies and wastewater systems. Construction of other things such as houses, garages, and driveways may be in the isolation zones as allowed by the Rules.

6. This notification requirement did not start until 2010 and the state permit program has been in place since 1969 so it is possible that there are already water supplies or wastewater systems that "overshadow" your property or that your own wastewater system and/or water supply "overshadows" your neighbor's property.

7. The Legislature created the notification requirement so that neighbors have the opportunity to discuss the possible effects on future development and potentially resolve them before a well is drilled or a septic system is built. Therefore you are getting this notice before the permit application is filed so that you may consider having those discussions.

8. VERY IMPORTANT: Although the legislature has required notification to potentially affected landowners, the legislature did not give the Agency of Natural Resources the authority to deny a permit application based on isolation zones that may "overshadow" your property.

Please contact me if you have any questions.

Sincerely,

Name of Applicant REMO PIZZAGALLI
Address 1445 ETHAN ALLEN HWY. P.O. BOX 37
COLCHESTER 05445
Phone Number 238-7219

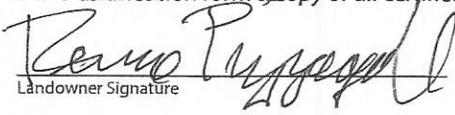
8/24/12 Last Revised 9/11/12 (To Comply with Act 145 and Act 117)

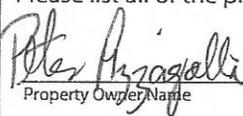
Department of Environmental Conservation
Wastewater System & Potable Water Supply Permit Application

ANR Form 4: Certification Statement for Notification of Overshadowed Property Owners pursuant to the Wastewater System & Potable Water Supply Program

A person submitting an application to the Secretary for a Wastewater System and Potable Water Supply Permit where the proposed project has isolation distances (overshadowing) that extend onto property owned by persons other than the permit applicant shall submit the following certification with the application.

Note: When the property subject to the permit application is owned by more than one person, only one of the landowners must sign this certification statement even though all landowners must sign the permit application itself.

Landowner Certification		
<i>I hereby certify that the individual(s) that own property that is overshadowed by my proposed project have been sent by certified mail a copy of the required notification form and the site plan(s) that accurately depicts all isolation distances. I also certify that I attached to this certification form a copy of all certified mail receipts for notifications that were sent to the affected property owners.</i>		
	Remo Pizzagalli Print Landowner Name	4/19/18 Certification Date
00100-1445 Property Address or Property Tax ID#		

Property Owners Notified by Certified Mail	
Please list all of the property owners who were sent a notification by certified mail.	
	Peter Pizzagalli, 291 Mutton Hill Rd. Charlotte, VT 05445 <input type="checkbox"/>
Property Owner Name	Property Owner Address

SOIL TEST RESULTS

Client: Remo Pizzagalli

Date: 05/30/2017

TP5-1

0-12 Very fine sandy loam 10YR-5/4

12-40 Fine silt 2.5Y-5/4

lt. mottles @ 12

TP5-2

Same profile as TP5-1 to 36, lt. mottles @ 14, hvy. mottles @ 22

TP5-3

Same profile as TP5-1 to 47, lt. mottles @ 13

SOIL TEST RESULTS

Client: Remo Pizzagalli

Date: June 27, 2017

TP6-1

0-8 Silt loam 5Y-3/3
8-16 Mottled silt loam, blocky
16-35 Very fine sandy loam, mottled, seeps @ 20

TP6-2

0-10 Silt loam 2.5Y-3/4, mottled @ 8
10-34 Very fine sandy loam, mottled, seeps @ 24

TP6-3

0-10 Silt loam, mottled @ 9
10-25 Mottled silt loam
25-38 Very fine sandy loam, mottled, saturated

TP6-4

0-20 Silt loam, mottled @ 9
20-36 Very fine sandy loam, mottled

TP6-5 thru 6-8

Same profile as TP6-4, mottled @ 9

TP6-9 and 6-10

0-31 Silt loam 2.5Y-4/3, mottles @ 10
31-38 Very fine sandy loam, mottled, seeps @ 36

TP6-11

0-10 Silt loam, blocky, mottled @ 9
10-33 Mottled very fine sandy loam, seeps @ 30

TP6-12 thru 6-14

Same profile as 6-11, mottled at 9, 9, 10, seeps at 30

TP6-15 (Additional tests east of proposed garage/warehouse)

0-12 Silt loam (see sieve analysis)
12-35 Mottled silt and silt loam

Pizzagalli Soil Tests

Page 2

TP6-16

Same profile as TP6-15, mottled @ 12

TP6-17

Same profile as TP6-15, mottled @ 14

TP6-18 - 21 (Adj. to Mutton Hill Road)

Silt and clay, mottled @ 6/7

TP4-1 and 4-2

0-15 Fine sandy loam 2.5Y-5/5

15-36 Silt loam, mottled 2.5Y-5/3

Pump Selection for a Pressurized System - Single Family Residence Project

PIZZAGALLI

Parameters

Discharge Assembly Size	1.50	inches
Transport Length	150	feet
Transport Pipe Class	40	
Transport Line Size	1.50	inches
Distributing Valve Model	None	
Max Elevation Lift	10	feet
Manifold Length	0	feet
Manifold Pipe Class	40	
Manifold Pipe Size	2.00	inches
Number of Laterals per Cell	1	
Lateral Length	39	feet
Lateral Pipe Class	40	
Lateral Pipe Size	1.50	inches
Orifice Size	1/4	inches
Orifice Spacing	6	feet
Residual Head	5	feet
Flow Meter	None	inches
'Add-on' Friction Losses	0	feet

Calculations

Minimum Flow Rate per Orifice	1.73	gpm
Number of Orifices per Zone	7	
Total Flow Rate per Zone	12.2	gpm
Number of Laterals per Zone	1	
% Flow Differential 1st/Last Orifice	1.2	%
Transport Velocity	1.9	fps

Frictional Head Losses

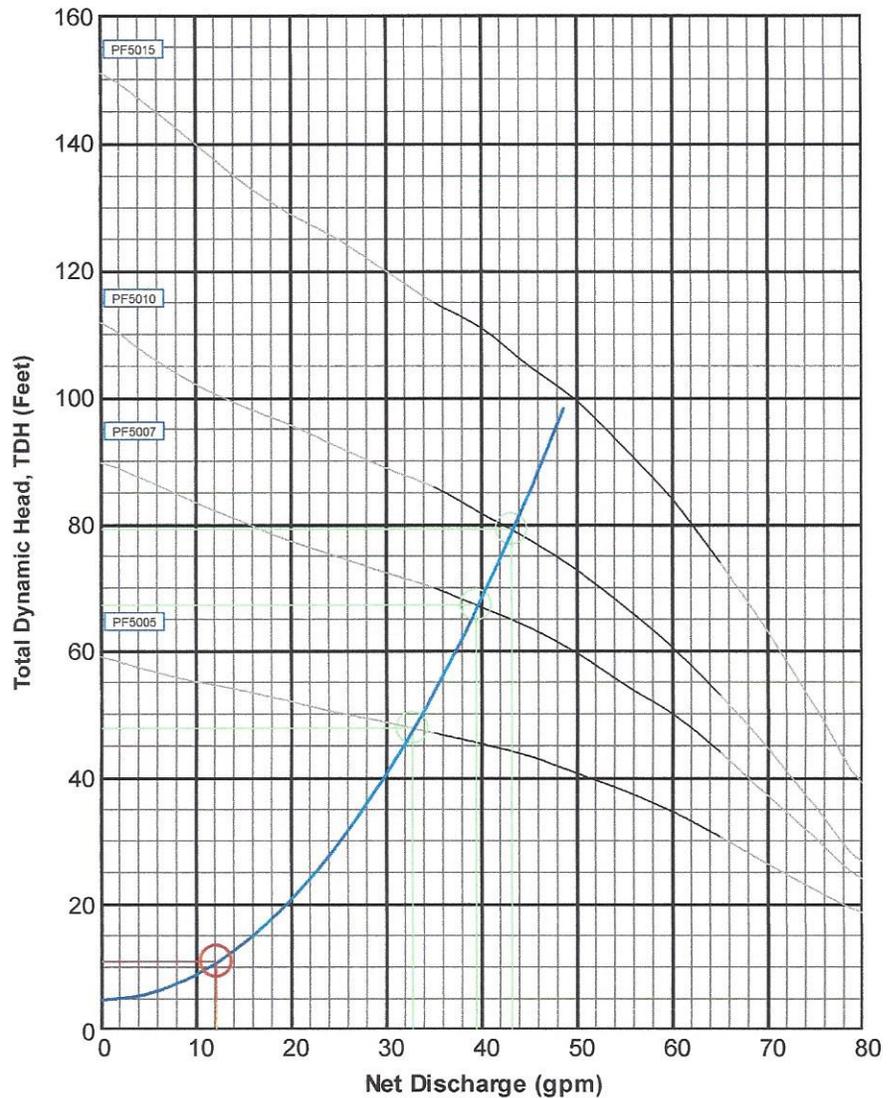
Loss through Discharge	0.4	feet
Loss in Transport	1.5	feet
Loss through Valve	0.0	feet
Loss in Manifold	0.0	feet
Loss in Laterals	0.2	feet
Loss through Flowmeter	0.0	feet
'Add-on' Friction Losses	0.0	feet

Pipe Volumes

Vol of Transport Line	15.9	gals
Vol of Manifold	0.0	gals
Vol of Laterals per Zone	4.1	gals
Total Volume	19.9	gals

Minimum Pump Requirements

Design Flow Rate	12.2	gpm
Total Dynamic Head	17.1	feet



PumpData

PF5005 High Head Effluent Pump
50 GPM, 1/2HP
11 5/230 V 1Ø 60Hz, 200/230V 3Ø 60 Hz

PF5007 High Head Effluent Pump
50 GPM, 3/4HP
230V 1Ø 60Hz, 200/230/460V 3Ø 60Hz

PF5010 High Head Effluent Pump
50 GPM, 1HP
230V 1Ø 60Hz, 200/460V 3Ø 60Hz

PF5015 High Head Effluent Pump
50 GPM, 1-1/2HP
230V 1Ø 60Hz, 200V 3Ø 60Hz

Legend

System Curve:	—
Pump Curve:	—
Pump Optimal Range:	—
Operating Point:	○
Design Point:	○

ACT 145 NOTIFICATION

The undersigned has been provided a copy of the planned development of the Remo and Donna Pizzagalli property, specifically the development of Lot 3.

The plan provided depicts a wastewater isolation zone associated with proposed mound system overshadowing my property and does not result in any impact to either my water or wastewater systems.

Signed:

Peter Pizzagalli 19 Apr 2018

Peter Pizzagalli

Date: