

TOWN OF UNDERHILL

Development Review Board

PETER M. BINGHAM
PRELIMINARY & FINAL SUBDIVISION REVIEW
Docket #: DRB-18-13

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March 29, 2019

Peter Bingham
51 Lakeside Ave
Burlington, VT 05401

RE: Subdivision with construction of 2 single family residences at 59 Lower English Settlement Rd.

Dear Peter,

We have reviewed your request to subdivide and construct 2 new single family residences at 59 Lower English Settlement Road in Underhill. After reviewing the overall site plan along with the driveway plan and profile for lots 2&3 (dated 2-22-19), the addition of two single family residences would not add any undo burden on the fire department's ability to provide reasonable fire protection to the new home or the community.

I have attached a copy of our criteria checklist for one or two family residences for you to have. **The curb cut on both driveways only has a 20' turn radius which does not meet our minimum 35' turn radius requirement and should be increased to 35'. Also the driveway on Lot 3 does not say what the turn radius is, but it appears to be a fairly sharp turn especially on a -10% slope. Again if it is not at least 35' turn radius it will need to be increased to meet the requirement.**

From the plans provided your proposed driveway meets the minimum width of 14' on the portion leading to 2 residences and minimum width of 12' on the sections leading to just one residence. As well as having a slope that is not greater the 10% standard. We are glad to see the hammerhead turnarounds near the residences are sized at to accommodate our largest engine and the one that carries the most water (15' wide by 37.5' deep).

Reminder that there should also be an unobstructed height of 13'6" above the driveway. 911 address numbers are to be posted at the driveway entrance and must be a minimum of 4" in height and of contrasting colors, i.e. white on green.

If the site plan changes we ask you provide us with an updated copy for our review and comment. If you have any questions you may contact me at 899-4025 or by e-mail at Harry@ujfd.org

Sincerely,


Harry Schoppmann III
Duty Captain

Cc: Town of Underhill Zoning

UNDERHILL-JERICHO FIRE DEPARTMENT, INC.

P.O. Box 150 • Underhill, Vermont 05489 • Station: 802-899-4025

UNDERHILL-JERICHO FIRE DEPARTMENT, INC.
CHECKLIST
ONE OR TWO FAMILY RESIDENCES CRITERIA

1. Town Road Specs shall be used for the construction of any access road.
2. Driveways and entry road must meet the following minimums:
 - 1 residence 12' wide
 - 2 residences 14' wide
 - 3 to 4 residences 20' wide
 - 5 residences or more 24' wide
3. Driveways to each house from the point of town road or access road shall be the following:
 - minimum of 12 feet wide
 - not less than 12 inches of gravel base
 - driveways shall have slopes no greater than 10%
 - maintained and kept clear 12 months per year
 - all bridges shall have a rating capacity of 35,000 pounds or more
 - all curves and grades shall meet town road specifications
 - driveways shall have clear height unobstructed of 13'-6"
 - curve radius – 30' inside radius minimum
4. Distance between dwellings:

If the available fire flow is less than 500 gallons per minute, or the nearest hydrant, if any, is more than 500 feet away, the distance between dwellings must be greater than 100 feet. For less than 100 feet Separation, ISO Standard 6/80 must be met.
5. Identification of dwelling:

Residents shall have their names posted conspicuously on mailbox or sign at the intersection of the driveway.
6. Early warning devices:

All dwelling units shall be protected with a minimum of 1 U.L. approved smoke detection device at or Near the heating apparatus and one protecting all sleeping quarters.
7. Fire department access to dwellings:
 - Exterior access must be provided to all basements, which should be accomplished by one of the following; (1) bulk-head with stairs, (2) window w/minimum dimension of 3', (3) or a passage door.
 - All concealed spaces with a clear dimension of more than 24" shall be provided with a 3' x 3' access door; this shall include attic and crawl spaces.
8. Heating devices:

Installation of all solid fuel (wood/coal burning) heating devices shall be approved by the fire department before such devices become operational.
9. Notification of occupancy:

A Fire Department Home Owner's Form must be filed within one week of occupancy.

WASTEWATER SYSTEM AND POTABLE WATER SUPPLY PERMIT

LAWS/REGULATIONS INVOLVED

10 V.S.A. Chapter 64, Potable Water Supply and Wastewater System Permit
Wastewater System and Potable Water Supply Rules, Effective September 29, 2007
Chapter 21, Water Supply Rules, Effective December 1, 2010

Landowner(s): Peter M. Bingham
51 Lakeside Avenue
Burlington VT 05401

Permit Number: WW-4-5198

This permit affects the following property in Underhill, Vermont:

Lot	Parcel	SPAN	Acres	Book(s)/Page(s)#
N/A	LE059	660-209-10403	14.90±	Book:227 Page(s):239-240

This project, to subdivide to create Lot 1 (4.90± acres) with an existing four bedroom single family residence, Lot 2 (5.40± acres) for a proposed five bedroom single family residence, and Lot 3 (4.60± acres) for a proposed three bedroom single family residence, located on Lower English Settlement Road in Underhill, Vermont, is hereby approved under the requirements of the regulations named above subject to the following conditions.

1. GENERAL

- 1.1 The project shall be completed as shown on the plans and/or documents prepared by Justin Willis from Willis Design Assoc., Inc., with the stamped plans listed as follows:

Title	Sheet Number	Plan Date	Revision Date
Details 3 Lot Subdivision	D1	02/26/2019	04/01/2019
Details 3 Lot Subdivision	D2	02/26/2019	
Site Plan 3 Lot Subdivision	S1	02/26/2019	04/01/2019
Site Plan 3 Lot Subdivision	S2	02/26/2019	

- 1.2 This permit does not relieve the landowner from obtaining any and all other applicable state and local approvals and permits PRIOR to construction.
- 1.3 The conditions of this permit shall run with the land and will be binding upon and enforceable against the landowner and all assigns and successors in interest. The landowner shall record and index this permit in the Underhill Land Records within thirty, (30) days of issuance of this permit and prior to the conveyance of any lot subject to the jurisdiction of this permit.
- 1.4 The landowner shall record and index all required installation certifications and other documents that are required to be filed under these Rules or under a specific permit condition in the Underhill Land Records and ensure that copies of all certifications are sent to the Secretary.
- 1.5 No permit issued by the Secretary shall be valid for a substantially completed potable water supply and wastewater system until the Secretary receives a signed and dated certification from a qualified Vermont Licensed Designer (or where allowed, the installer) that states:

"I hereby certify that, in the exercise of my reasonable professional judgment, the installation-related information submitted is true and correct and the potable water supply and wastewater system were installed in accordance with the permitted design and all the permit conditions, were inspected, were properly tested, and have successfully met those performance tests",



or which otherwise satisfies the requirements of §1-308 and §1-911 of the referenced rules.

- 1.6 Lot 1 is approved with an existing four bedroom single family residence, Lot 2 is approved for the construction of a five bedroom single family residence, and Lot 3 is approved for the construction of a three bedroom single family residence. Construction of additional nonexempt buildings including commercial and residential buildings is not allowed without prior permitting by the Drinking Water and Groundwater Protection Division and such permit may not be granted unless the proposal conforms to the applicable laws and regulations. No construction is allowed that will cause non-compliance with an existing permit.
- 1.7 Each purchaser of any portion of the project shall be shown a copy of the Wastewater System and Potable Water Supply Permit and the stamped plans prior to conveyance of any portion of the project to that purchaser.
- 1.8 By acceptance of this permit, the landowner agrees to allow representatives of the State of Vermont access to the property covered by the permit, at reasonable times, for the purpose of ascertaining compliance with the Vermont environmental and health statutes and regulations, and permit conditions.
- 1.9 Any person aggrieved by this permit may appeal to the Environmental Court within 30 days of the date of issuance of this permit in accordance with 10 V.S.A. Chapter 220 and the Vermont Rules of Environmental Court Proceedings.

2. WATER SUPPLY

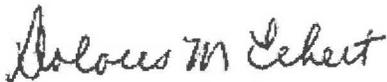
- 2.1 The components of the potable water supply herein approved shall be routinely and reliably inspected during construction by a qualified Vermont Licensed Designer (or where allowed, the installer) who shall, upon completion and prior to occupancy of the associated building, report in writing to the Drinking Water and Groundwater Protection Division that the installation was accomplished in accordance with the referenced plans and permit conditions, as specifically directed in Condition #1.5 herein.
- 2.2 Lot 2 is approved for a potable water supply using a drilled or percussion bedrock well for 560 gallons of water per day provided the supply is located as shown on the stamped plans and meets or exceeds the isolation distances, construction standards, and water quality standards required in the Water Supply Rule.
- 2.3 Lot 3 is approved for a potable water supply using a drilled or percussion bedrock well for 420 gallons of water per day provided the supply is located as shown on the stamped plans and meets or exceeds the isolation distances, construction standards, and water quality standards required in the Water Supply Rule.
- 2.4 The landowner(s) shall operate the potable water supply in a manner that keeps the supply free from contamination. The landowner shall immediately notify the Division if the water supply system fails to function properly and becomes a "failed supply".
- 2.5 The potable water source locations as shown on the stamped plans shall be staked out and flagged by a qualified Vermont Licensed Designer prior to any construction on this project with the flagging being maintained until construction is complete.
- 2.6 Lot 1 is approved with an existing onsite drilled well water supply system for 490 gallons of water per day provided the water supply meets or exceeds the isolation distances, construction standards, and water quality standards required in the Water Supply Rule. The landowner shall operate the potable water supply in a manner that keeps the supply free from contamination.
- 2.7 No changes shall be made to the existing water system unless prior approval is obtained from the Drinking Water and Groundwater Protection Division. No other means of obtaining potable water shall be allowed without prior review and approval by the Drinking Water and Groundwater Protection Division unless otherwise exempt. The landowner shall immediately notify the Division if the water supply system fails to function properly and becomes a "failed supply".

3. WASTEWATER DISPOSAL

- 3.1 The components of the sanitary wastewater system herein approved shall be routinely and reliably inspected during construction by a Vermont Licensed Designer who shall, upon completion and prior to occupancy of the associated building, report in writing to the Drinking Water and Groundwater Protection Division that the installation was accomplished in accordance with the referenced plans and permit conditions, as specifically directed in Condition #1.5 herein.
- 3.2 Lot 2 is approved for the disposal of wastewater in accordance with the design depicted on the stamped plans for 560 gallons of wastewater per day. The system shall be operated at all times in a manner that will not permit the discharge of effluent onto the surface of the ground or into the waters of the State.

- 3.3 Lot 3 is approved for the disposal of wastewater in accordance with the design depicted on the stamped plans for 420 gallons of wastewater per day. The system shall be operated at all times in a manner that will not permit the discharge of effluent onto the surface of the ground or into the waters of the State.
- 3.4 Lot 2 and Lot 3 are each approved for the mound wastewater system provided the mound is constructed in strict accordance with the following conditions:
- a. The mound system is to be located and constructed as depicted on the plans that have been stamped by the Drinking Water and Groundwater Protection Division.
 - b. A qualified Vermont Licensed Designer shall inspect the mound system during critical stages of construction. This shall include the staking of the location of the mound, ensuring the site has been properly plowed prior to placement of the appropriate sand fill, the installation and testing of the distribution piping, final grading of the mound including side slopes, and pump station installation.
 - c. The construction of the mound shall adhere to the guidelines set forth in Section 1-913(f) of the above referenced rules.
- 3.5 The corners of the proposed primary wastewater areas shall be accurately staked out and flagged prior to construction with the flagging/staking being maintained until construction is complete.
- 3.6 Lot 1 is approved with an existing wastewater system for 490 gallons of wastewater per day. No changes shall be made to the existing wastewater system unless prior approval is obtained from the Drinking Water and Groundwater Protection Division.
- 3.7 Should the system(s) fail and not qualify for the minor repair or replacement exemption, the current landowner shall engage a qualified Vermont Licensed Designer to evaluate the cause of the failure and to submit an application to this office and receive written approval prior to correcting the failure.
- 3.8 A future replacement wastewater area for Lot 1 has been identified on the stamped plans. There shall be no construction or other activities that would impact the suitability of this replacement area for wastewater disposal.
- 3.9 The replacement wastewater area for Lot 1 is located on Lot 3. The land deeds that establish and transfer ownership of these parcels shall contain a legal easement which grants the purchaser(s) and any future owner(s) the right to enter upon the property for the construction, repair, maintenance and other such reasonable purposes as may arise regarding the wastewater system. Failure to properly execute the easement renders this permit null and void for any lot conveyed without the proper easement.
- 3.10 The wastewater systems for this project are approved for domestic type wastewater only except as allowed for water treatment discharges. No discharge of other type process wastewater is permitted unless prior written approval is obtained from the Drinking Water and Groundwater Protection Division.
- 3.11 No buildings, roads, water lines, earthwork, re-grading, excavation or other construction that might interfere with the installation or operation of the wastewater systems are allowed on or near the site-specific wastewater systems or replacement area depicted on the stamped plans. All isolation distances that are set forth in the Wastewater System and Potable Water Supply Rules shall be adhered to and will be incorporated into the construction and installation of the wastewater systems.

Emily Boedecker, Commissioner
Department of Environmental Conservation



By _____
Dolores M. Eckert, Assistant Regional Engineer
Essex Junction Regional Office
Drinking Water and Groundwater Protection Division

Dated April 1, 2019

cc: Justin Willis
Underhill Planning Commission

Shared Right of Way and Maintenance Agreement (proposed language)**Preliminary Statement:**

Lots 1, 2, and 3 are shown and depicted on a plat entitled, "Final Plat, Proposed Three Lot Subdivision for Peter M. Bingham, 59 Lower English Settlement Road, Underhill, Vermont," dated January 23, 2019, prepared by Bradford L. Holden, Land Surveyor, and recorded at Hanging File#--- of the Town of Underhill Land Records ("the Plat").

Reference is also made to a plan entitled, "Site Plan 3 Lot Subdivision, Peter M. Bingham, 59 Lower English Settlement Road, Underhill, Vermont," dated July 2018, prepared by Willis Design Assoc., Inc., Project No. 16-027 ("the Site Plan").

Lot 1 and Lot 2 are benefitted by a 50' wide shared right of way and easement over, upon, and across Lot 2 and Lot 3 for the construction, maintenance, repair and/or replacement of a driveway for access and utilities as shown on the Plat ("the Right of Way").

Lot 1 and Lot 2 are benefitted by an underground utility easement on Lot 3 as shown on the Plat.

Lot 3 is accessed by an individual driveway on Lower English Settlement Road as shown on the Site Plan.

Lot 1 and Lot 2 will share in the responsibilities and costs of construction, maintenance, repair and/or replacement of the Right of Way.

Lot 3 will have limited access to the Right of Way, but will not share in the responsibilities and costs associated with said access.

Agreement:

Lot 1 and Lot 2 shall have an easement over, upon and across the Right of Way located on Lot 2 and Lot 3 and shall use the Right of Way for such purposes consistent with the lawfully approved uses including, but not limited to, the construction, maintenance, repair and/or replacement of a driveway for access and utilities.

Costs associated with the routine maintenance, repair, snowplowing and other expenses, and the costs of capital repairs and replacement of the Right of Way that are required due to accumulated use over time shall be shared equally by the owners of Lot 1 and Lot 2. The Right of Way shall be maintained in good operating condition at all times to ensure safe access. Each of the Lots shall be entitled to receive credit for reasonable repairs and maintenance conducted or performed on the Right of Way.

If either Lot causes damage to any portion of the Right of Way due to its own use including, but not limited to, use connected to construction of a residential dwelling and/or installation of utilities, such Lot shall be responsible for the costs to maintain or repair the Right of Way, including the costs for capital repairs to the Right of Way.

This Agreement shall run with the land, and is binding upon the Lot owners and their respective heirs, executors, administrators, successors or assigns.

Septic System Easement

Lot 1 is benefitted by and Lot 3 is burdened by a Replacement Septic Easement Area and a 25' Septic Easement as shown and depicted on the plat entitled, "Final Plat, Proposed Three Lot Subdivision for Peter M. Bingham, 59 Lower English Settlement Road, Underhill, Vermont," dated January 23, 2019, prepared by Bradford L. Holden, Land Surveyor, and recorded at Hanging File#--- of the Town of Underhill Land Records ("the Plat").

Lot 1 is permitted to use the Easements on Lot 3 to construct, install, operate, maintain, repair, improve, and replace a septic disposal system and pipelines, pump stations, leach fields, underground utility lines and any other equipment or appurtenances necessary or appropriate to the septic disposal system and/or pipelines (the foregoing together referred to as the "Septic System"). During the course of construction, maintenance, repair and/or replacement, Lot 1 shall have the right to use the Easement Area and any adjacent land as necessary to reasonably undertake such construction, maintenance, repair and/or replacement. In the event that Lot 1 shall install the Septic System, Lot 1 agrees to grade the ground surface to a reasonably level condition and to rake, mulch and seed the area with grass.

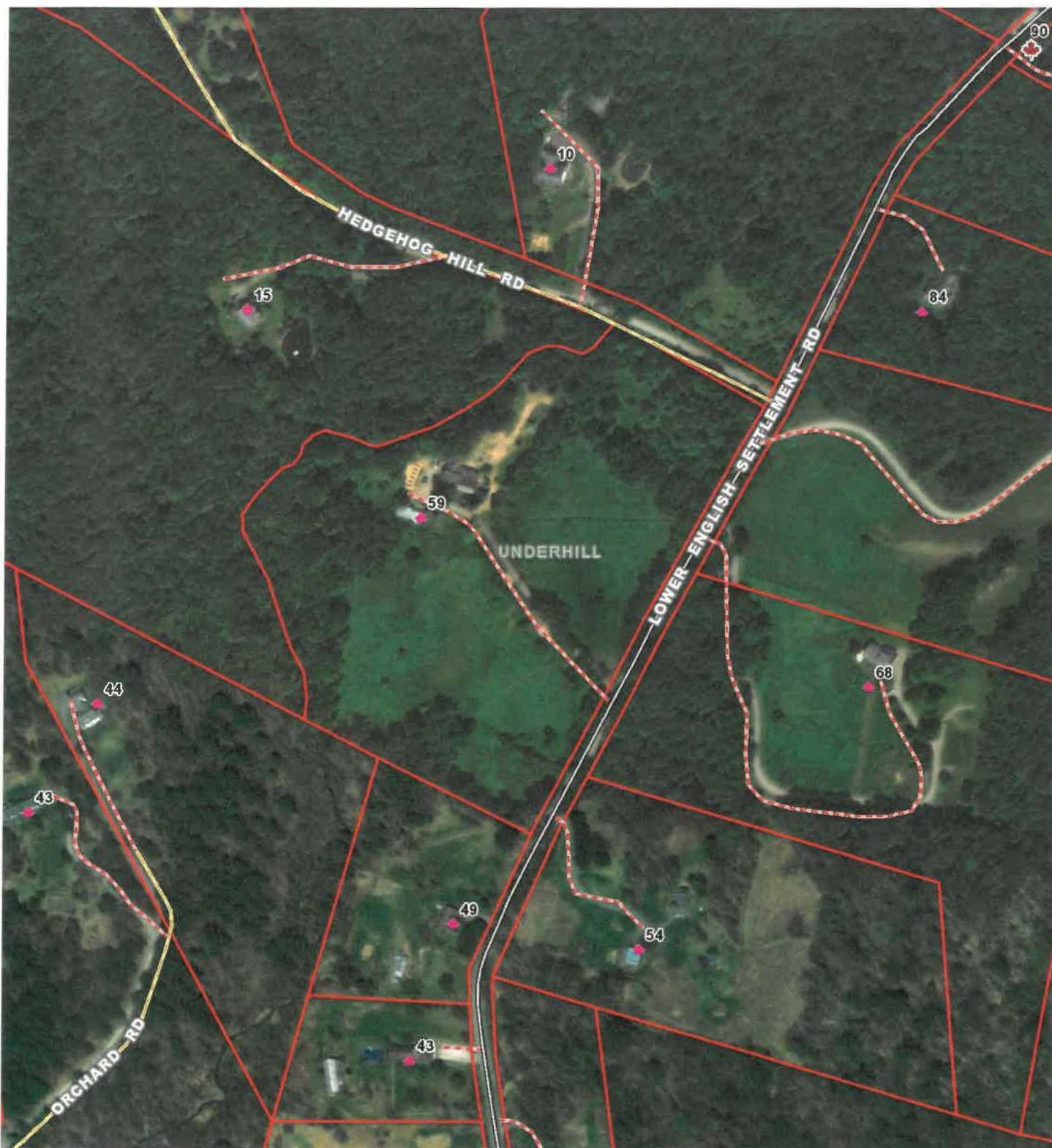
Lot 3 shall not use the surface or subsurface of the Easement Area for any purpose inconsistent with the use for the Septic System including, but not limited to, construction of any improvements in the Easement Area or planting of any trees, shrubs or other deep rooted plants. Lot 3 shall not do anything upon the surface or the subsurface of the Easement Area that would compact or otherwise adversely affect the soils of such Easement Area. Once the Septic System is installed, Lot 3 shall not use the surface or subsurface of the ground for any purpose except mowing the grass or other vegetation on the Easement Area either by hand or by machinery that will not adversely affect the Septic System. Further, Lot 3 shall not do anything upon the surrounding land which would affect the ability of Lot 1 to utilize the Easement Area for the permitted uses.

All construction, maintenance, repair and/or replacement of the Septic System shall be performed in conformance with Wastewater System and Potable Water Supply Permit No. WW-4-5198 and completed in as timely a fashion as is reasonably practicable. The surface shall be restored to its prior condition as is reasonably practicable.



E9-1-1 Viewer

e911.vermont.gov/e911viewer



May 4, 2018



DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. E911 and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 3-lot subdivisoin/59 English Hill Road City/County: Underhill/Chittenden Co. Sampling Date: 25 May 2018
 Applicant/Owner: Peter Bingham State: VT Sampling Point: Upland A
 Investigator(s): Patricia Greene-Swift Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex - none Slope (%): 2 - 5%
 Subregion (LRR or MLRA): LRR R Lat: 44.52364 Long: 72.91355 Datum: DD
 Soil Map Unit Name: Marlow fine sandy loam, 12 to 20 percent slopes NWI classification: Non-hydric

Are climatic / hydrologic conditions on the site typical for this time of year? Yes Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes Yes No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>No</u> Hydric Soil Present? Yes _____ No <u>No</u> Wetland Hydrology Present? Yes _____ No <u>No</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>No</u> If yes, optional Wetland Site ID: <u>Wetland A</u>
Remarks: (Explain alternative procedures here or in a separate report.) Failed tile drains are not present in the upland sampled plot.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>No</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>No</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>No</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>No</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION – Use scientific names of plants.

Sampling Point: Upland A

Tree Stratum (Plot size: <u>30' Radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Sapling/Shrub Stratum (Plot size: <u>15' Radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Spiraea alba var. latifolia</u>	<u>4%</u>	<u>Yes</u>	<u>FACW</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

_____ = Total Cover

Herb Stratum (Plot size: <u>5' Radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Potentilla simplex</u>	<u>20%</u>	<u>Yes</u>	<u>UPL</u>
2. <u>Onoclea sensibilis</u>	<u>20%</u>	<u>Yes</u>	<u>FACW</u>
3. <u>Aster cordifolia</u>	<u>15%</u>	<u>Yes</u>	<u>UPL</u>
4. <u>Dactylis glomerata</u>	<u>10%</u>	_____	<u>UPL</u>
5. <u>Fragaria virginiana</u>	<u>10%</u>	_____	<u>FACU</u>
6. <u>Solidago altissima</u>	<u>10%</u>	_____	<u>FACU</u>
7. <u>Anthoxanthum odoratum</u>	<u>5%</u>	_____	<u>UPL</u>
8. <u>Poa pratensis</u>	<u>5%</u>	_____	<u>FACU</u>
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

_____ = Total Cover

Woody Vine Stratum (Plot size: <u>15' Radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Clematis virginiana</u>	<u>3%</u>	<u>Yes</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

_____ = Total Cover

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>24</u>	x 2 = <u>48</u>
FAC species <u>3</u>	x 3 = <u>9</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>55</u>	x 5 = <u>275</u>
Column Totals: <u>107</u>	(A) <u>432</u> (B)

Prevalence Index = B/A = 0.24

- Hydrophytic Vegetation Indicators:**
- ___ 1 - Rapid Test for Hydrophytic Vegetation
 - ___ 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - ___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - ___ Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No No

Remarks: (Include photo numbers here or on a separate sheet.)

Prevalence worksheet was used due to the low numbers in the dominant percent categories of FAC and FACW species under shrub stratum, woody vine stratum, and herb stratum categories.

While a small percent of hydrophytic vegetation was present, the dominant cover type is upland vegetation.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 3-lot subdivisoin/59 English Hill Road City/County: Underhill/Chittenden Co. Sampling Date: 25 May 2018
 Applicant/Owner: Peter Bingham State: VT Sampling Point: Wetland A
 Investigator(s): Patricia Greene-Swift Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 2 - 5%
 Subregion (LRR or MLRA): LRR R Lat: 44.52364 Long: 72.91355 Datum: DD
 Soil Map Unit Name: Cabot silt loam 3 to 15 percent slopes NWI classification: Hydric

Are climatic / hydrologic conditions on the site typical for this time of year? Yes Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes Yes No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>Yes</u> No _____ Hydric Soil Present? Yes <u>Yes</u> No _____ Wetland Hydrology Present? Yes <u>Yes</u> No _____	Is the Sampled Area within a Wetland? Yes <u>Yes</u> No _____ If yes, optional Wetland Site ID: <u>Wetland A</u>
Remarks: (Explain alternative procedures here or in a separate report.) Failed tile drains are present on site.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <u>Yes</u> No _____ Depth (inches): <u>1/2 inch</u> Water Table Present? Yes <u>Yes</u> No _____ Depth (inches): <u>1 inch</u> Saturation Present? Yes <u>Yes</u> No _____ Depth (inches): <u>At surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>Yes</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Surface water was present at the outflow of the drainage patterns, the water table was present in patches at 7 to 10 inches, and saturation was generally present at the surface throughout the wetland.	

VEGETATION – Use scientific names of plants.

Sampling Point: Wetland A

Tree Stratum (Plot size: <u>30' Radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Sapling/Shrub Stratum (Plot size: <u>15' Radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Spiraea alba var. latifolia</u>	<u>10%</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Spiraea tomentosa</u>	<u>5%</u>	<u>Yes</u>	<u>FACW</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

_____ = Total Cover

Herb Stratum (Plot size: <u>5' Radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Onoclea sensibilis</u>	<u>35%</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Symphotrichum puniceum</u>	<u>15%</u>	<u>Yes</u>	<u>OBL</u>
3. <u>Solidago gigantea</u>	<u>15%</u>	_____	<u>OBL</u>
4. <u>Zizia aurea</u>	<u>17%</u>	_____	<u>FAC</u>
5. <u>Scirpus atrovirens</u>	<u>7%</u>	_____	<u>OBL</u>
6. <u>Poa sp.</u>	<u>7%</u>	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

_____ = Total Cover

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Clematis virginiana</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

_____ = Total Cover

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

- Hydrophytic Vegetation Indicators:**
- ___ 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - ___ 3 - Prevalence Index is ≤3.0¹
 - ___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - ___ Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

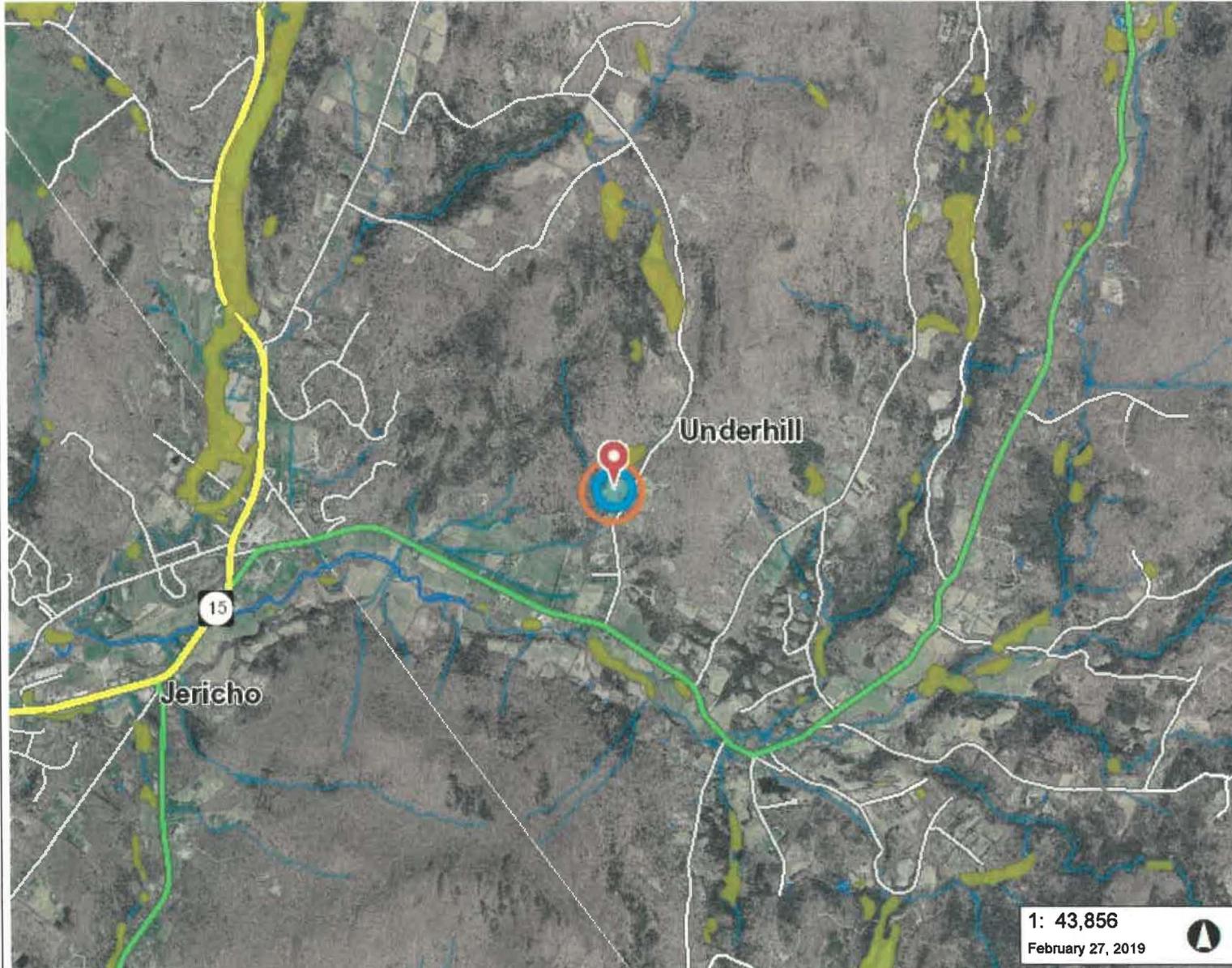
Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present?

Yes Yes No _____

Remarks: (Include photo numbers here or on a separate sheet.)



LEGEND

Wetland - VSWI

- Class 1 Wetland
- Class 2 Wetland
- Buffer

Roads

- Interstate
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local
- Not part of function Classification S

Waterbody

- Stream
- Town Boundary

EXHIBIT

AA

1: 43,856
February 27, 2019

2,228.0 0 1,114.00 2,228.0 Meters
 WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 3655 Ft. 1cm = 439 Meters
 © Vermont Agency of Natural Resources THIS MAP IS NOT TO BE USED FOR NAVIGATION

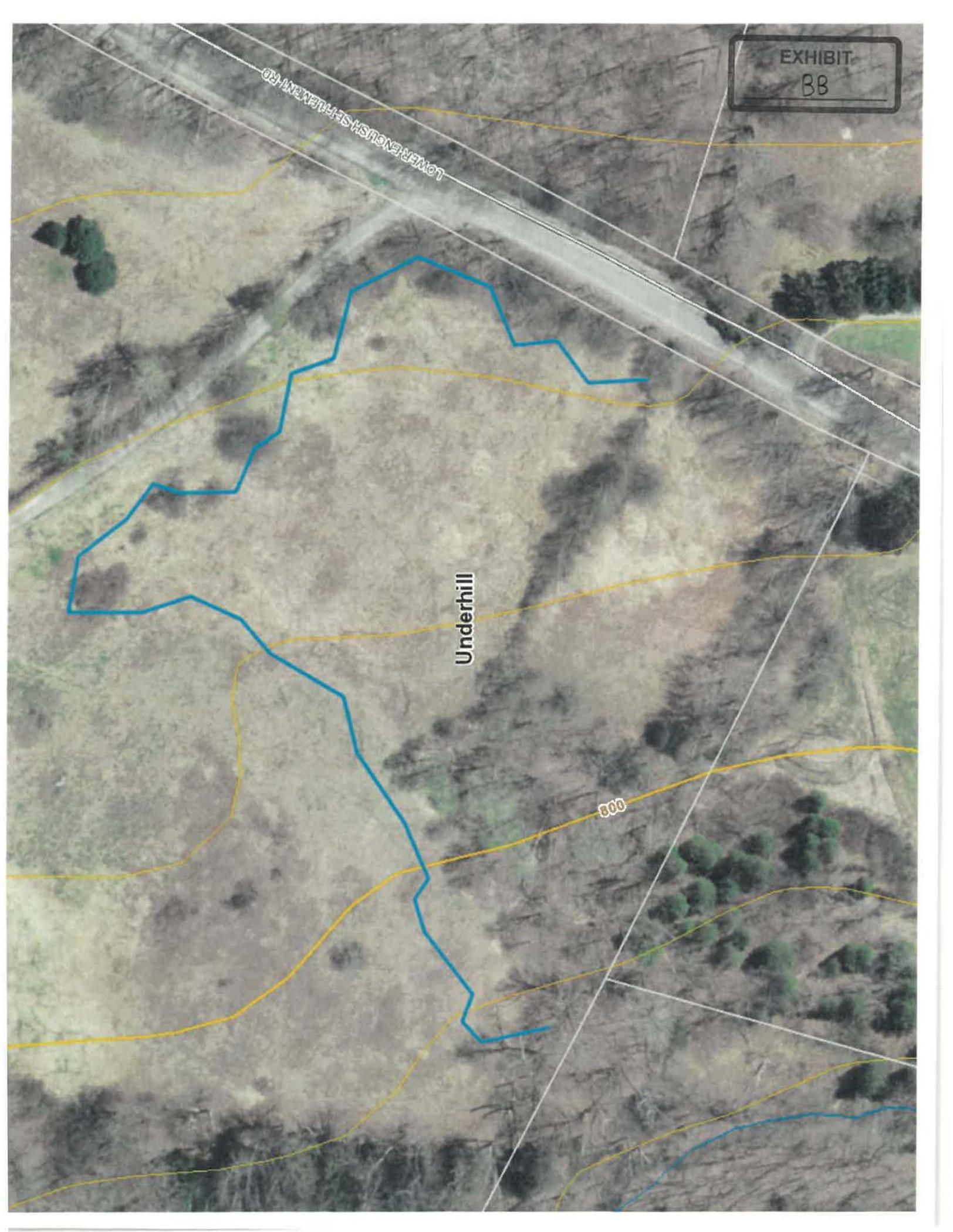
DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

NOTES
 Map created using ANR's Natural Resources Atlas by PEGS

02-11-2017 15:15:00

Underhill

800





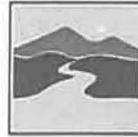
050

Underhill

SHERMAN RD

**Vermont Wetlands Program
General Permit #3-9025
Qualification Form**

Under Sections 9
of the Vermont Wetland Rules



VERMONT DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
**WATERSHED
MANAGEMENT DIVISION**
WETLANDS PROGRAM

EXHIBIT
DD

<p>1. General Permit Eligibility Checklist: <i>If you cannot verify all of the following, stop and proceed to the Individual Permit Application.</i></p>	
<p><input checked="" type="checkbox"/> The activity does not qualify as an Allowed Use under Section 6 of the Vermont Wetland Rules.</p> <p><input checked="" type="checkbox"/> The activity does not need additional conditions to protect functions and values.</p> <p><input checked="" type="checkbox"/> All impacts have been avoided and minimized to the greatest extent possible.</p> <p><input checked="" type="checkbox"/> The wetland complex is not significant for Function 5.5 Exemplary Wetland Natural Community or 5.6 Rare, Threatened and Endangered Species Habitat, or applicant has received a waiver letter from VT Fish and Wildlife. (attach waiver)</p> <p><input checked="" type="checkbox"/> The activity is not located in or adjacent to a vernal pool, fen, or bog.</p> <p><input checked="" type="checkbox"/> The wetland is not at or above 2,500' in elevation (headwaters wetland).</p> <p><input checked="" type="checkbox"/> The project is not located in a Class I wetland or associated buffer zone.</p> <p><input checked="" type="checkbox"/> The activity is not an as-built project that constitutes a violation of the Vermont Wetland Rules.</p> <p><input checked="" type="checkbox"/> The activity is not associated with an activity which received a Wetland Permit.</p>	
<p>2. Project Type (as described in General Permit 3-9025)</p> <p>Non-Linear Project</p>	
<p>3. Wetland Type Proposed for Impact</p> <p><Choose Primary> <Choose Secondary></p>	
<p>4. 50ft Wetland Buffer Proposed for Impact</p> <p>Managed Area Managed Area</p>	
<p>5. Activity Threshold based on the selections above, select the appropriate threshold. If the activity is greater than the thresholds below, stop and proceed to the Individual Permit Application. eg: Project type is non-linear, wetland and buffer type is managed and natural, and total impacts are 700 sqft → choose option (d) below.</p> <p><input checked="" type="checkbox"/> (a) The total activity impacts proposed are <3,000 square feet of managed wetland or buffer and will not exceed 999 square feet of natural wetland or buffer and will not exceed 149 square feet of surface water margins.</p> <p><input type="checkbox"/> (b) The activity is associated with a linear project and total activity impacts proposed are <5,000 square feet of managed wetland or buffer and will not exceed 2,999 square feet of natural wetland or buffer and will not exceed 149 square feet of surface water margins.</p>	
<p>6. Section 8B Specific Activity Best Management Practices All permittees covered under the VT Wetland General Permit must implement best management practices (BMP) under section V. of the permit. Here, identify if the proposed activity must implement special BMPs in accordance with Section 8B</p> <p><input type="checkbox"/> 8B(a) Placement, relocation, removal, or upgrade of overhead utility lines</p> <p><input type="checkbox"/> 8B(b) Installation of underground facilities including utilities, dry hydrants, foundation drains, and wells</p> <p><input type="checkbox"/> 8B(c) Activities in surface water body margins</p> <p><input checked="" type="checkbox"/> None Apply</p>	

The Secretary may require a person applying for an authorization under a general permit to apply for an individual permit. VWR §9.8. Contact your District Ecologist to verify eligibility before submittal.

Vermont Wetlands Program Permit Application Database Form

Under Sections 8 and 9
of the Vermont Wetland Rules



Application Submittal Instructions

- If submitting via US post, include a check in the correct fee amount made payable to the "State of Vermont," and a CD for applications that contain large files (1 MB or greater).
Mail to: Vermont Wetlands Program
 Watershed Management Division
 One National Life Drive, Main 2
 Montpelier, VT 05620-3522

- Applications can also be submitted via email to the following address: anr.wsmdwetlands@vermont.gov
 - If submitting via email, please mail a check in the correct fee amount, made payable to the "State of Vermont," and a copy of the Vermont Wetlands Program Application Database Form (this page) to the address provided above. **It is not necessary to mail in a copy of the complete application.**

Applicant Name: Peter Bingham		Application Preparer Name: Patricia Greene-Swift	
Town where project is located: Underhill		County: Chittenden	
Span#: (As found on your property tax bill)		Vermont Wetlands Project (VWP)# if Known:	
Project Location Description: 59 English Settlement Road, Underhill VT in field north and south of the driveway 911 street address or direction from nearest intersection			
Brief Project Summary: To widen the existing driveway to access two homes (instead of one) in a three lot subdivision.			
Application Type: <input type="checkbox"/> Individual Permit (multiple wetlands) <input type="checkbox"/> After the Fact Permit <input checked="" type="checkbox"/> Wetland Determination <input type="checkbox"/> Individual Permit (single wetland) <input checked="" type="checkbox"/> General Permit Coverage Authorization			
Existing Land Use Type(s): (Check all that apply) <input checked="" type="checkbox"/> Residential (single family) <input type="checkbox"/> Residential (subdivision) <input type="checkbox"/> Undeveloped <input type="checkbox"/> Agriculture <input type="checkbox"/> Transportation <input type="checkbox"/> Forestry <input type="checkbox"/> Parks/Rec/Trail <input type="checkbox"/> Institutional <input type="checkbox"/> Industrial/Commercial			
Proposed Land Use Type(s): (Check all that apply) <input type="checkbox"/> Residential (single family) <input checked="" type="checkbox"/> Residential (subdivision) <input type="checkbox"/> Undeveloped <input type="checkbox"/> Agriculture <input type="checkbox"/> Transportation <input type="checkbox"/> Forestry <input type="checkbox"/> Parks/Rec/Trail <input type="checkbox"/> Institutional <input type="checkbox"/> Industrial/Commercial			
Proposed Impact Type(s): (Check all that apply) <input type="checkbox"/> Buildings <input type="checkbox"/> Utilities <input type="checkbox"/> Parking <input type="checkbox"/> Septic/Well <input type="checkbox"/> Stormwater <input checked="" type="checkbox"/> Driveway <input type="checkbox"/> Park/Path <input type="checkbox"/> Agriculture <input type="checkbox"/> Pond <input type="checkbox"/> Lawn <input type="checkbox"/> Dry Hydrant <input type="checkbox"/> Beaver Dam Alteration <input type="checkbox"/> Silviculture <input type="checkbox"/> Road <input type="checkbox"/> Aesthetics <input type="checkbox"/> No Impact <input checked="" type="checkbox"/> Other: widen existing driveway			
Wetland and Buffer Impact Type: (Check all that apply) <input type="checkbox"/> Dredge <input type="checkbox"/> Drain <input type="checkbox"/> Cut Vegetation <input type="checkbox"/> Stormwater <input type="checkbox"/> Trench/Fill <input checked="" type="checkbox"/> Other: Fill to widen driveway.			
Wetland Delineation Date(s): May 25, 2018			

Wetland Improvements	Buffer Zone Improvements	Reason for Improvements
Restoration: s.f.	Restoration: s.f.	<input type="checkbox"/> Correction of Violation
Creation: s.f.	Creation: s.f.	<input type="checkbox"/> To offset permit impacts
Enhancement: s.f.	Enhancement: s.f.	<input type="checkbox"/> Voluntary
Conservation: s.f.	Conservation: s.f.	

Wetland Review Fee Calculations: Round to the nearest square foot. Fees will auto-calculate.

Total Wetland Impact (minus linear clear, including ATF)	0 square feet (s.f.)	Calculated at \$0.75 per square foot	\$ 0.00
Total Wetland Clearing (qualified linear projects only)	0 square feet (s.f.)	Calculated at \$0.25 per square foot	\$ 0.00
After The Fact Wetland Impact (to correct a violation)	square feet (s.f.)	Calculated at 0.75 per square foot (Required for after the fact permit applications)	\$ 0.00

Total Buffer Zone Review Fee Calculations: Round to the nearest square foot

Total Buffer Zone Impact	1250 square feet (s.f.)	Calculated at \$0.25 per square foot	\$ 312.50
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Additional Fees

Agricultural Crop Conversion Check here: <input type="checkbox"/>	\$ 0.00
Minimum Review Fee: (\$50.00) <i>Required when total impact fee is less than \$50.00</i>	\$ 0.00
Administrative Fee:	\$ 240.00

Make Checks Payable to: State of Vermont	Total Review Fee Amount:	\$ 552.50
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Application for Authorization Under the Vermont General Wetland Permit #3-9025 and Determination Petition

Under Sections 8 and 9
of the Vermont Wetland Rules



Refund Policy

- If an application is modified, withdrawn or denied after technical review has commenced, all fees are retained.
- If an application is withdrawn prior to administrative review, all fees will be refunded.
- If an application is withdrawn after administrative review but prior to commencement of technical review, deemed administratively incomplete and returned to the applicant, or determined that a permit is not required; administrative fees are retained, and permit application review fees will be refunded.

By checking this box, the applicant certifies that they have read and understands the refund policy

Applicant Information: *If the applicant is someone other than the landowner, the landowner information must be included below*

Applicant Name: Peter Bingham			
Address: 51 Lakeside Avenue		City/Town: Burlington	State: VT
Phone Number: 802-343-2728		Email Address: peter.bingham@uvmhealth.org	
<small>(Required to receive notices via Environmental Notice Bulletin)</small>			

Applicant Certification:

By signing this application, you are certifying that all information contained within is true, accurate, and complete to the best of your knowledge.

- For General Permit NOI applications which require a wetland determination only: By checking this box, the applicant certifies that all adjoining landowners have been provided an official notice via US mail prior to the submission of this application**

Applicant Signature: _____ Date: _____

Landowner Information: *Landowner must sign the application. If landowner is different from the applicant this section must be filled out*

Check this box if landowner is the same as the applicant

Landowner Name: Peter Bingham			
Address: 51 Lakeside Avenue		City/Town: Burlington	State: VT
Phone Number: 802-343-2728		Email Address: peter.bingham@uvmhealth.org	
<small>(Required to receive notices via Environmental Notice Bulletin)</small>			

Landowner Easement: *Attach copies of any easements, agreements, or other documents conveying permission, and agreement with the landowner stating who will be responsible for meeting the terms and conditions of the permit. List the attachment for this information in this section. Describe the nature of the agreement or easement in the space provided below:*

Landowner Certification:

By signing this application, you are certifying that all information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.

Landowner Signature: _____ Date: _____

Application Preparer Information: *Consultant, engineer, or other representative that is responsible for filling out the application, if other than the applicant or landowner.*

Application Preparer Name: Patricia Greene-Swift			
Address: 1 Conti Circle		City/Town: Barre	State: VT
Phone Number: 802-479-7480		Email Address: team@gbevt.com	
<small>(Required to receive notices via Environmental Notice Bulletin)</small>			

Application Preparer Certification:

By signing this application, you are certifying that all information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.

Application Preparer Signature: Patricia E. Greene-Swift Digitally signed by Patricia E. Greene-Swift
Date: 2019.03.28 09:07:18 -05'00' Date: _____

<p>1. Location of Wetland and Project: (Individual Permit Application [IPA] Section 1) <i>Location description should include the road the wetland is located on, the compass direction of the wetland in relation to the road, 911 street address if available, and any other distinguishing features.</i></p>	
<p>Wetland B: 59 English Settlement Rd, south of the driveway (determined to be a Class II wetland) Wetland A: northeast corner of the property well above the field north of the driveway (determined to be a Class III wetland and is not a part of the project)</p>	
<p>2. Program Contact: (IPA Section 2) <i>Indicate here if you have been in contact with the Wetlands Program before the application submittal.</i></p>	
<p>2.1 Date of Interaction with State Wetland Ecologist</p>	<p>2.2. State Wetland Ecologist Name</p>
<p>May 6, 2018</p>	<p>Tina Heath</p>
<p>3. Wetland Classification: (IPA Section 3) <i>If the wetland is presumptive (unmapped), you are required to fill out section 13</i></p>	
<p>3.1. The wetland is a class II wetland because: (IPA Section 3.1)</p>	
<p>The wetland meets the presumption of significance</p>	
<p>3.2. Section 4.6 Presumption (IPA Section 3.2) <i>If the wetland meets the Section 4.6 Presumption, it does so because:</i></p>	
<p>a. Wetland is of the same type and threshold size as those mapped on VSWI maps; or greater than 0.5 acres.</p>	
<p>b. The wetland contains woody vegetation and is adjacent to a stream, river, or open body of water.</p>	
<p>c. The wetland contains dense, persistent, non-woody</p>	
<p>4. Description of Entire Wetland: (IPA Section 4) <i>Answer the following questions regarding the entire wetland, which includes all wetland areas connected to the wetland area proposed for impact. Answers may be estimates based on desktop review when wetland extends past the investigation area (parcel boundary). Specific questions about the wetland in the project area will follow.</i></p>	
<p>4.1. Size of Complex in Acres: (IPA Section 4.1) <i>The size of the complex can be obtained from the Wetland Inventory Map for mapped wetlands, or best estimation based on review of aerial photography or site visit. This is not the size of the of the delineated wetland on the subject property unless the entirety of the wetland is represented in the delineation.</i></p>	
<p>Approximately 1.5 acres.</p>	
<p>4.2. Vegetation Cover Types Present: (IPA Section 4.2) <i>List all wetland types in the entire wetland and their percent cover. For example: 50 acres of softwood forested swamp; or 30% scrub swamp, 70% emergent wetland</i></p>	
<p>80% Emergent wetland and 30% shrub swamp/emergent wetland complex.</p>	
<p>4.3. Pre-project Cumulative Impacts to the Wetland: (IPA Section 4.7) <i>Identify any cumulative ongoing impacts outside of the proposed project that may influence the wetland. Examples include but are not limited to: Wetland encroachments on and off the subject property, land use management in or surrounding the wetland, or development that influences hydrology or water quality. List any past Vermont Wetland Permits or CUD's related to this property.</i></p>	
<p>Wetland B was in agricultural use (hayed) and was tile drained, and the tile drainage system has failed.</p>	
<p>5. Context of Subject Wetland: (IPA Section 5.1) <i>Describe where the subject wetland is in the context of the larger wetland or wetland complex described above. For example: Upslope/downslope, narrow eastern "finger", 400 ft. from open water portion.</i></p>	
<p>The subject wetland is at the northern end of the wetland complex, and the driveway is just above the wetland boundary in the wetland buffer.</p>	
<p>6. Subject Wetland Vegetation: (IPA Section 5.3) <i>List dominant wetland vegetation cover type and associated dominant plant species. For example: emergent marsh with cattails; forested swamp dominated by red maple and yellow birch; shrub swamp dominated by speckled alder and peat moss; wet meadow dominated by reed canary grass.</i></p>	
<p>Onoclea sensibilis, Scirpus atrovirens, Solidago gigantea, Zizia aurea, Symphyotrichum puniceum, Spiraea alba var. latifolia, Spiraea tomentosa, Clematis virginiana.</p>	

7. Buffer Zone: (IPA Section 5.6) Describe the buffer zone of the subject wetland	
7.1 Buffer Land Use: (IP Section 5.6.1) For example: Mowed shoulder, forested, old field, paved road, and residential lawns, etc. Describe any previous and ongoing disturbance in the buffer zone.	
Hayed open field, driveway, English Settlement Road, stream, forested.	
8. Wetland Function Summary: (IPA Section 6) Check which functions are present in the wetland complex	
<input type="checkbox"/> Flood/Storm Storage	<input type="checkbox"/> RTE Species
<input checked="" type="checkbox"/> Surface & Groundwater Protection	<input type="checkbox"/> Education & Research
<input type="checkbox"/> Fish Habitat	<input type="checkbox"/> Recreation/Economic
<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Open Space/Aesthetics
<input type="checkbox"/> Exemplary Natural Community	<input checked="" type="checkbox"/> Erosion Control
9. Overall Project Description: (IPA Section 17)	
9.1. Overall Project Purpose: (IPA Section 17.1) Description of the basic project. For example: six-lot residential subdivision; expansion of an existing commercial building, building a single-family residence.	
To widen the existing driveway for a three-lot subdivision, that will provide the correct access road width to an additional new driveway for a second lot (lot-two), within the three-lot subdivision, that will include the original residence and farm infrastructure as lot one. Lot three is planned well beyond the wetland and wetland buffer.	
10. Project Details: (IPA Section 18) Provide details regarding specific impacts to the wetland and buffer zone.	
10.1. Specific Impacts to Wetland and Buffer Zone Dimensions: (IPA Section 18.1) List portions of the project that will specifically impact the wetland or buffer zone and their dimensions. For example: driveway crossing with 16' wide fill, installation of buried sewer force main with 5' trench including fill footprint.	
The driveway upgrade will be support an additional driveway off the existing driveway. This will involve 1,250 feet of fill on the north side of the driveway, within the wetland buffer north of the existing driveway (the wetland is south of the driveway).	
10.2. Bridges and Culverts: (IPA Section 18.2) Culvert circumference, length, placement and shapes, or bridge details. List any stream alteration permits that are required or obtained where perennial streams or rivers are involved.	
A culvert is proposed to be replaced to match the existing grades where the driveway turns onto English Settlement Road. At present the culvert is in a hanging position.	

11. Wetland and Buffer Zone Impacts: (IPA Section 19)

11.1. Wetland Impacts: (IPA Section 19.1)

Summarize the square footage of impact in the appropriate category. Round to nearest square foot

Permanent Wetland Fill	0 s.f.
Temporary Wetland Impact	0 s.f.
Other Permanent Wetland Impact <i>(this number includes clearing of woody vegetation, dredging, and does not include fill)</i>	0 s.f.
Total Wetland Impact:	0 s.f.

Describe in detail the proposed impact to wetlands

For example: Fill for road crossing, temporary impacts for trench and fill related to utility installation.

No part of the project is proposed within a wetland.

11.2. Buffer Zone Impacts: (IPA Section 19.2)

Summarize the square footage of impact in the appropriate category.

Temporary Buffer Impact	s.f.
Permanent Buffer Impact	1250 s.f.
Total Buffer Impact:	1250 s.f.

Describe in detail the proposed impact to buffer zones

For example: Addition of fill along roadway embankment extending into buffer zone.

The addition of fill along the north side of the existing single driveway, that extends into the wetland buffer, to upgrade the driveway to an access drive that will function for access to two separate homes and separate driveways approximately 100 feet down the existing driveway.

11.3. Cumulative Impacts: (IPA Section 19.3)

List any potential cumulative or ongoing, direct and indirect impacts on the functions of the wetland.

For example: Increased noise from parking lot, vegetation management, inputs from stormwater pond outlet, reduction in flood storage volume from the addition of fill from the project.

There should be no cumulative or ongoing impacts to the wetland functions as the wetland is south of the existing driveway and the upgrade to the driveway will be on the north side of the driveway at the furthest point away from the wetland.

<p>12. Mitigation Sequence: (IPA Section 20) <i>Please refer to Section 9.5b of the rules on Mitigation Sequencing for this section.</i></p>
<p>12.1. Avoidance of Wetland Impacts: (IPA Section 20.1)</p>
<p>12.1.1. Can the activity be located on another site owned or controlled by the applicant, or reasonably available to satisfy the basic project purpose? If not, indicate why. Cite any alternative sites and explain why they were not chosen.</p> <p>The applicant does not own or control an alternative site for this subdivision, therefore there is no other property available for the project.</p>
<p>12.1.2. Can the proposed activity be practicably located outside the wetland/buffer zone? If not, indicate why. Explain the alternatives you have explored for avoiding the wetland and buffer onsite, And why they are not feasible.</p> <p>The driveway upgrade, which includes widening the existing driveway and replacing the old culvert with a new culvert involves upgrades to existing structures, both at the furthestmost edge away from the wetland. ** Creating a new driveway south of the existing driveway, outside the existing driveway would mean at least 2,500 feet of wetland and buffer impacts, so a new single driveway for lot 2 was not chosen as it involves greater impacts to the wetland and buffer. ** Due to Lot 3 having the only appropriate wastewater replacement site for Lot 1, a new driveway north of the existing driveway for a new lot with a home, well, and emergency vehicle turn-around was not chosen since there isn't enough room with required setbacks.</p>
<p>12.2. Avoidance to the Impact to Functions and Values: (IPA Section 20.2)</p>
<p>12.2.1. If the proposed activity cannot be practicably located outside the wetland/buffer zone, have all practicable measures been taken to avoid adverse impacts on protected functions?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>12.2.2. What design alternatives were examined to avoid impacts to wetland function? For example: Use of matting, relocation of footprint, etc.</p> <p>Placing fill to widen the existing driveway on the north side of the driveway, which essentially creates a barrier to the wetland on the south side of the driveway, was examined to reduce wetland impacts. Using silt fence to avoid runoff from getting into the wetland and buffer where the replacement culvert will be constructed, and along the edge outside the new driveway construction in the buffer was chosen to avoid potential wetland impacts. The above construction choices for the project will avoid impacting the erosion control function and the surface and groundwater protection function.</p>
<p>12.2.3. What steps have been taken to minimize the size and scope of the project to avoid impacts to wetland functions and values? Include information on project size reduction and relocation.</p> <p>The driveway for lot 2 was re-located to be outside the wetland and its buffer, and the house was moved to the southwest to be outside the wetland buffer. The driveway upgrade is for two lots instead of three so the driveway won't have to be upgraded to a full size road, which would involve greater wetland buffer impacts.</p>
<p>12.2.4. Explain how the proposed project represents the least impact alternative design. Explain why other alternatives, which you described above, were not chosen.</p> <p>The proposed project has minimal wetland buffer impacts to the existing road, compared to a new road to access the three parcels and their infrastructure due to the existing driveway being able to handle an additional residences traffic, without being widened to a dirt road width of 48 feet wide to access three lots. Creating a new driveway to access lot-2 would involve at least 2,500 square feet of impacts to the wetland and its buffer, and therefore was not chosen.</p>

13. Wetland Determination: (IPA Section 21)

All applications for impacts to presumptive, unmapped, non-contiguous wetlands require a wetland determination for Class II. Please answer the following questions for applications involving a wetland determination. GIS shapefiles and Wetlands Evaluation Forms must be included for determinations. Adjoining landowners must be notified.

- Wetland is mapped or contiguous to the Vermont Significant Wetland Inventory Map
- Wetland is not mapped on or contiguous to the Vermont Significant Wetland Inventory Map

13.1. Reason for Petition: (IPA Section 21.1)

Please choose one from the dropdown menu.

Make a determination of Class II

13.2. Determination Narrative: (IPA Section 21.2)

Please provide any narrative to support the petition for a wetland determination here, including previous decisions by the Secretary or Water Board. Determinations are made based on an evaluation of the functions and values present. Add a narrative description on the functions listed in section 8 of this application and described in section 5 of the Vermont Wetland Rules. **For example:** Wetland provides water storage and surface water protection because it is large in size, concave, and naturally vegetated.

The wetland is approximately 2.5 Acres and its outlet flows into an unnamed stream west of the project. This unnamed stream flows into the Browns River south of River Road in Underhill, and therefore has a significant water quality function. Due to the wetland being located on a 5 - 10% +/- grade, with outflow to the unnamed stream, the wetland is also significant for erosion control.

13.3 Vermont Significant Wetland Inventory (VSWI) Mapping Attribute Information: (IPA Section 21.3)

If attribute data is not included with the shapefile it is required to be listed here.

Please select/add wetland attribute information to be included on the VSWI from the drop-down lists below. For information on how to create a shapefile from the VSWI go to our website:

<http://dec.vermont.gov/watershed/wetlands/maps>

Wetland Attributes		Wetland Attributes	
Wetland ID	Wetland A	Wetland ID	Wetland B
Wetland Type 1*	PEM1-Palustrine, Emergent, Persistent	Wetland Type 1*	PEM1-Palustrine, Emergent, Persistent
Wetland Type 2*	<Choose One>	Wetland Type 2*	<Choose One>
Wetland Type 3*	<Choose One>	Wetland Type 3*	<Choose One>
Water Regime*	Saturated/Semipermanent/Seasonal	Water Regime*	Intermittently Flooded/Temporary
Special Modifiers*	Partially Drained/Ditched	Special Modifiers*	Partially Drained/Ditched
Wetland Class	Class II	Wetland Class	Class II
Mapping Organization	Consultant	Mapping Organization	Consultant
Map Source	Color Orthophoto 1:1250	Map Source	Color Orthophoto 1:1250
Mapping Method	Digitized From Screen	Mapping Method	Digitized from Screen
Additional Notes	Wetland is in an old farm field where tile drainage is failing, and it flow into an unnamed stream. 	Additional Notes	Wetland B is not a part of this application, and it is separated from a mapped wetland north of Hedgehog Hill. Wetland 

*Cowardin, L.M., Carter, V., Golet, F.C., and LaRoe, E.T. (1979). "Classification of wetlands and deepwater habitats of the United States," U.S. Fish and Wildlife Service, Office of Biological Services, FWS/OBS-79/31/ Washington, DC

<http://www.fws.gov/wetlands/data/wetland-codes.html>

14. Supporting Materials: (IPA Section 22)

****ADDITIONAL MATERIALS REQUIRED TO CALL APPLICATION COMPLETE**

14.1. **Location Map: (IPA Section 22.1)

Provide a location map that is 8 ½" x 11" and separate from any site plans. The Vermont Natural Resources Atlas is appropriate using USGS topography map base layer, roads, and VSWI wetlands.

Date	Title
2-27-2019	Location Map 59 English Settlement Rd 2019
3-28-2019	Wetland B approximate line

14.2. **Site Plan(s): (IPA Section 22.2)

Please list by date, date of last revision, author, and title. Plans must include wetland delineation and buffer zones, limits of disturbance, erosion controls, building envelopes, and any permanent memorialization.

Title	Author	Date	Last Revision Date
Bingham C-3 2-22-19 Lot 3 Overview	Scott Homsted	2-22-19	
Bingham C-1 2-22-19 Subdivision plans	Scott Homsted	2-22-19	

14.3. Other Supporting Documents: (IPA Section 22.4)

Provide any other documentation that supports the application. Examples include but are not limited to: Photographs, easements, agreements, restoration/plan, GIS shapefiles, additional ACOE forms.

Date	Last Revision	Author	Title
2 February 2019	N/A	Patricia Greene-Swift	ACOE WETland Form English Hill Rd Underhill
2 February 2019	N/A	Patricia Greene-Swift	ACOE UPLand Form English Hill Rd Underhill
11 March 2019	N/A	Patricia Greene-Swift	Wetland A approximate line - Wetland B approximate line is included

Submit Application

OFFICIAL NOTICE

Hello Neighbor,

This letter is an official notice that Peter Bingham intends to apply for one or more permits from the Agency of Natural Resources, Department of Environmental Conservation (DEC). Because your property borders the location of the activity as described below, Vermont law requires the applicant to provide you with notice of the application(s).

Once each application has been submitted and deemed complete by DEC to begin the review, it will be posted to the DEC Environmental Notice Bulletin (ENB) at ENB.VERMONT.GOV, where you may register to receive notifications to stay informed as each application moves through the review process. Although the application(s) may not yet be received or processed by the DEC upon receipt of this letter from the applicant below, you may register now to receive notifications using a specified mile/distance radius from your address location (see *next page for detailed instructions on how to register*).

In the meantime, you may also contact the property owner/applicant with questions about the activity using the contact information provided below. For background, the permit process includes a public comment period and an opportunity to request a public meeting, all which can be done through the ENB link above once permit applications are posted. Note that to appeal a final permit decision you must submit comments during the public comment period.

For additional information please visit the following website: DEC.VERMONT.GOV/PERMITS/ENB/GENERAL. For general questions or assistance with registering on the ENB please call DEC's main line at (802) 828-1535 and plan to provide the permit types that are being applied for as listed below.

PROPERTY OWNER(S)/APPLICANT(S) NAME

Peter Bingham/Patricia Greene-Swift Consultant

PROPERTY OWNER(S)/APPLICANT(S) CONTACT INFORMATION (MUST PROVIDE TELEPHONE NUMBER AND/OR EMAIL)

Peter Brigham 802-343-2728 Patricia: 802-479-7480 team@gbevt.com

PROPOSED ACTIVITY STREET ADDRESS/ROUTE

59 English Settlement Road

PROPOSED TOWN(S)

Underhill

PERMIT TYPE(S) (INDICATE FOR EACH PERMIT TYPE NEW OR RENEWAL)

Wetland permit (new), subdivision permit (new), wastewater permit (new)

To register on the ENB and set up your subscription: please go through the following steps. There are illustrated instructions on **Page 12** of the ENB User Guide:

1. Go to ENB.VERMONT.GOV
2. Click **Register** on the upper right-hand side of the home page
3. Enter the required information (name, email address and create password) and click Register
4. You will receive an email confirmation for your email address. Once confirmed you will be able to log-in and set up your subscription.
5. Log into ENB and then click **My Subscription** at the top left-hand side of the home page
6. Click **Modify Alerts** on the My Subscription page
7. Click **Edit** for Alert #1
8. Choose the permits being applied for from the **Activity Types of Interest** list by checking the check boxes.
9. Next, choose the location using **Distance from a Point** and click the map icon to set your location.
10. Enter your own address, including Town in the **Search Address** field and set the distance large enough to capture the project activity (1 mile, 5 miles, etc.)
11. Click **OK** once the radius has been set
12. Click **SAVE** on the next page, then Click **OK** to return the main subscription page.
13. Once you receive an alert for an activity, you can choose to **Follow** the activity from your subscription page.
14. For additional instructions see the **User Guide** on ENB.VERMONT.GOV.
15. For help with registration please contact the ENB Administrator: ANR.ENBAdministrator@vermont.gov.