

Vermont Wetlands Program Permit Application Database Form

Under Sections 8 and 9
of the Vermont Wetland Rules



Application Submittal Instructions	
<ul style="list-style-type: none"> ■ 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). <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> ■ 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. <i>It is not necessary to mail in a copy of the complete application.</i> 	

Applicant Name: Sarah H. Dole		Application Preparer Name: Christian C. Heins	
Town where project is located: Dorset		County: BENNINGTON	
Span#: 180-057-10893		Vermont Wetlands Project (VWP)# if Known:	
Project Location Description: 99 Bond Lane Dorset VT <i>911 street address or direction from nearest intersection</i>			
Brief Project Summary: 150 sq. ft. Building addition 150 sq. ft. parking addition and grading in wetland buffer. Replacement of septic disposal field.			
Application Type: <input type="checkbox"/> Individual Permit (multiple wetlands) <input type="checkbox"/> After the Fact Permit <input type="checkbox"/> Wetland Determination <input checked="" type="checkbox"/> Individual Permit (single wetland) <input type="checkbox"/> General Permit Coverage Authorization <input type="checkbox"/> Permit Amendment: VWP Project # _____			
Existing Land Use Type(s): <i>(Check all that apply)</i> <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): <i>(Check all that apply)</i> <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 Impact Type(s): <i>(Check all that apply)</i> <input checked="" type="checkbox"/> Buildings <input type="checkbox"/> Utilities <input checked="" type="checkbox"/> Parking <input checked="" type="checkbox"/> Septic/Well <input type="checkbox"/> Stormwater <input 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 type="checkbox"/> Other: _____			
Wetland and Buffer Impact Type: <i>(Check all that apply)</i> <input type="checkbox"/> Dredge <input type="checkbox"/> Drain <input type="checkbox"/> Cut Vegetation <input type="checkbox"/> Stormwater <input checked="" type="checkbox"/> Trench/Fill <input type="checkbox"/> Other: _____			
Wetland Delineation Date(s):			

Wetland Improvements		Buffer Zone Improvements		Reason for Improvements	
Restoration:	s.f.	Restoration:	710 s.f.	<input type="checkbox"/> Correction of Violation	
Creation:	s.f.	Creation:	s.f.	<input checked="" type="checkbox"/> To offset permit impacts	
Enhancement:	s.f.	Enhancement:	s.f.	<input type="checkbox"/> Voluntary	
Conservation:	s.f.	Conservation:	s.f.		

Wetland Impact Fee Calculations: Round to the nearest square foot. Fees will auto-calculate.			
Total Wetland Impact <i>(minus linear clear, including ATF)</i>	square feet (s.f.)	Wetland Impact Fee: (\$0.75/sf)	\$ 0.00
Total Wetland Clearing <i>(qualified linear projects only)</i>	square feet (s.f.)	Wetland Clearing Fee: (\$0.25/sf)	\$ 0.00
After The Fact Wetland Impact <i>(to correct a violation)</i>	square feet (s.f.)	After the Fact Wetland Fee: (0.75/sf) <i>(Required for after the fact permit applications)</i>	\$ 0.00

Total Buffer Zone Impacts and Calculations: Round to the nearest square foot			
Total Buffer Zone Impact	550 square feet (s.f.)	Buffer Impact Fee: (\$0.25/sf)	\$ 137.50

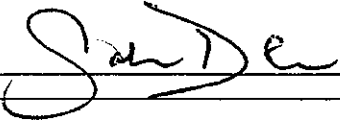
Additional Fees			
	Agricultural Crop Conversion <i>Check here:</i>	<input type="checkbox"/>	\$ 0.00 <i>(Flat fee of \$200.00)</i>
	Minimum Application Fee: (\$50.00) <i>Required when total impact fee is less than \$50.00</i>		\$ 0.00
	Administrative Fee:		\$ 240.00


Make Checks Payable to: State of Vermont	Total Check Amount:	\$ 377.50
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**Vermont Individual Wetland
Permit Application and
Determination Petition**
Under Sections 8 and 9
of the Vermont Wetland Rules



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

Applicant Information: <i>If the applicant is someone other than the landowner, the landowner information must be included below</i>			
Applicant Name: Sarsh H. Dole			
Address: P O Box 463	City/Town: Dorset	State: Vermont	Zip: 05251
Phone Number: 802-867-4459	Email Address: sarahdole@comcast.net		
Applicant Certification: By signing this application you are certifying that all of the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.			
Applicant Signature: 			Date: 7/14/16

Landowner Information: <i>Landowner must sign the application. If landowner is different from the applicant this section must be filled out</i>			
<input checked="" type="checkbox"/> Check this box if landowner is the same as the applicant			
Landowner Name:			
Address:	City/Town	State:	Zip:
Phone Number:	Email Address:		
Landowner Easement: <i>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:</i>			
Landowner Certification: By signing this application you are certifying that all the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.			
Landowner Signature: 			Date: 7/14/16

Application Preparer Information: <i>Consultant, engineer, or other representative that is responsible for filling out the application, if other than the applicant or landowner.</i>			
Application Preparer Name: Christian C. Heins		Organization/Company: WOODLAND SERVICES INC.	
Address: P O Box 1323	City/Town: Manchester CTR.	State: VT	Zip: 05255
Phone Number: 802-375-6970	Email Address: woodserv1@myfairpoint.net		
Application Preparer Certification: By signing this application you are certifying that all of the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.			
Application Preparer Signature: 			Date: 7/14/16

Handwritten signatures are also accepted

1. Location of wetland and project:
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.

99 Bond Lane Dorset VT 05251

2. Site visit date(s) and attendees:
A site visit is required before the application can be called complete

2.1 Date of Visit(s) with State District Wetland Ecologist	2.2. List of people present for site visit(s) including Ecologist, landowner, and representatives.
March 22, 2016	Ecologist, Zapata Courage and Christian C. Heins of WOODLAND SERVICES INC.

3. Wetland Classification:
For multiple wetlands fill out the multiple wetlands table for sections 1 and 3 through 1

3.1. The wetland is a Class II wetland because :
 The wetland is mapped on the VSWI

3.2. Section 4.6 Presumption
If the wetland meets the Section 4.6 Presumption, it does so primarily because:

<Choose One>
 <Choose One>
 <Choose One>

4. Description of the Entire Wetland:
Answer the following questions regarding the entire wetland, which includes all wetland areas connected to the wetland proposed for impact. Answers may be estimates based on desktop review when the wetland extends past the investigation area (parcel boundary). Specific questions about the wetland in the project area will follow. For multiple wetlands , fill out the multiple wetlands table.

4.1. Size of Complex in Acres:
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.

275 Acres

4.2. Vegetation Cover Types Present:
*List all wetland types in the wetland or wetland complex and their percent cover.
 For example: 50 acres of softwood forested swamp; or 30% scrub swamp, 70% emergent wetland*

70% Shrub scrub, 20% deciduous forested, 5% emergent vegetation and 5% open water.

4.3. Landscape Position:
*Where is the wetland located on the landscape?
 For example: Bottom of a basin, edge of a stream, shore of a lake, etc.*

The wetland is in the valley bottom at the headwaters of the West Branch of the Battenkill.

4.4. Hydrology:
Describe the main source of water for the entire wetland. List any river, stream, lakes, or ponds

The Wetland is fed by springs and small streams draining from the west half of the Town of Dorset.

4.4.1. Direction of Flow:
For example: Stream flows from north to south through the wetland complex, or the wetland drains generally to the southwest.

The stream flows generally from north to south.

4.4.2. Influence of Hydrology on the Entire Wetland:
For example: The river provides floodwater to the wetland in the spring.

Spring snow melt and its resulting spring flow provides the primary source of water to the Wetland. This is supplemented by rainfall events.

4.4.3. Relation of Entire Wetland to the Project Area:
The distance between the project area and any nearby surface waters

The project area is 100 feet from the small stream which connects Wetlands north and south of the house. A vernal pool is 30 feet east of the existing driveway and 48 feet from the replacement septic area..

<p>4.4.4. Entire Wetland Hydroperiod: <i>Discuss the frequency and duration of flooding, ponding, and/or soil saturation</i></p>	<input type="checkbox"/>
<p>Typical wet seasons are late Sept. - Nov. and March - April. Flooding has occurred in both periods. Soil saturation persists with spring seeps and periodic rainfall.</p>	
<p>4.5. Surrounding Landuse of the Entire Wetland: <i>For example: Rural residential and forested; Agricultural and undeveloped</i></p>	<input type="checkbox"/>
<p>The Dorset Marsh is surrounded by 70% residential development with varying lot sizes. Ten percent is in agricultural use and the remaining 20% is forested.</p>	
<p>4.6. Relation of the Entire Wetland to Other Nearby Wetlands: <i>Provide any information on wetlands or wetland complexes that are close enough to contribute to the overall function of the wetland in question.</i></p>	<input type="checkbox"/>
<p>Small isolated Wetlands stretch north and south from the Dorset Marsh. The headwaters of the Mettowee River begin to the north. A golf course and agricultural use along the Mettowee, going north, break the continuity of the wetland into a chain of small marshes. The West Branch continues south through an old stone quarry site where the wetlands become fragmented by development, old dams and road crossings.</p>	
<p>4.7. Pre-project Cumulative Impacts to the Entire Wetland: <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>	<input type="checkbox"/>
<p>The Marsh is surrounded by residential development. Small incremental developments by owners ignorant to the rules may be the biggest long term threat to the Wetland. The prior owner of this property was, in part responsible for the declaration which designated the Dorset Marsh as a class I Wetland. The restoration of wetland buffer included in this project will result in a net improvement to the buffers functions, funded by this applicant. No prior CUD or Vermont Wetland Permits have been issued to the current land owner. There is no record of permits for the previous owner.</p>	

<p>5. Description of Subject Wetland and Buffer: <i>Subject wetland is defined as the area of wetland in the project vicinity, but not limited to the portion of the wetland to be directly impacted by the project. For the purposes of this application, the subject wetland should encompass any portion of the wetland that could either be directly or indirectly impacted by the project, as defined by chemical, physical, or biological characteristics. This may include the entire wetland area, or wetland area off property. For multiple wetlands, fill out the multiple wetlands table.</i></p>	
<p>5.1. Context of Subject Wetland: <i>Describe where the subject wetland is in the context of the entire wetland described in section 4 above. For example: Upslope, narrow eastern "finger", 400 ft. from open water portion.</i></p>	<input type="checkbox"/>
<p>The subject wetland is located in an off stream headwater in a bisected kame terrace. Active springs discharge from a karst mountain geology providing a constant but variable throughput. Eroded channels and sink holes expose the active seeps. From this backwater the flow travels north and the east, counter to the valley slope, to the West Branch. The project site is on a prominent knoll with wetlands to the north and south. An isolated vernal pool exists in a natural sink east of the existing driveway. See the site plan sheet S-1 for details.</p>	
<p>5.2. Subject Wetland Land Use: <i>For example: Mowed lawn, old field, naturally vegetated. Describe any previous and ongoing disturbance in the subject wetland.</i></p>	<input type="checkbox"/>
<p>There is no disturbance in the Wetland on this property. No disturbance is proposed.</p>	
<p>5.3. Subject Wetland Vegetation: <i>List dominant wetland vegetation cover type and associated dominant plant species.</i></p>	<input type="checkbox"/>
<p>Dominant vegetation includes; Cornus stolonifera, Spirea latifolia, Onoclea sensibilis and Carex stricta.</p>	
<p>5.4. Subject Wetland Soils: <i>Use the USDA NRCS information where possible and use the ACOE Delineation Manual soil description</i></p>	<input type="checkbox"/>
<p>Soil borings found Histosol, Black Histic and Thick Dark Surface conditions.</p>	
<p>5.5. Subject Wetland Hydrology: <i>Use the description from the ACOE Delineation Manual</i></p>	<input type="checkbox"/>
<p>High water table and saturation from spring seeps were found at 8-10 inches.</p>	

5.6. Buffer Zone:
Describe the buffer zone of the subject wetland (50 foot envelope of land adjacent to wetland boundary).

5.6.1. Buffer Land Use:
For example: Mowed shoulder, forested, old field, paved road, and residential lawns, etc.
Describe any previous and ongoing disturbance in the buffer zone.

As depicted on the site plan, the buffer includes portions of the existing 2 bedroom house, the garage and all of the existing cottage. The power utility pole, gravel drive and existing trail west of the house are in the buffer as well. Twenty seven feet north of the cottage is an abandoned metal septic tank with the lid removed. Between the drive and the trail, flower gardens and lawn are maintained. Natural conditions exist in the remainder of the buffer.

5.6.2. Buffer Vegetation:
List the vegetation cover type and dominant plant species.

The dominant species include; Quercus rubra, Prunus serotina, Fraxinus americana and Acer saccharum.

5.6.3. Buffer Soils:
Use USDA NRCS information where possible, and the ACOE Delineation Manual soil description.

Buffer soil type is field confirmed as Copake, gravely sandy loam.

6. Entire Wetland Function and Value Summary (as defined in the Vermont Wetland Rules Section 5):
Check which functions are present in the entire wetland

<input checked="" type="checkbox"/> Flood/Storm Storage	<input checked="" type="checkbox"/> RTE Species
<input checked="" type="checkbox"/> Surface & Groundwater Protection	<input checked="" type="checkbox"/> Education & Research
<input checked="" type="checkbox"/> Fish Habitat	<input type="checkbox"/> Recreation/Economic
<input checked="" type="checkbox"/> Wildlife Habitat	<input checked="" type="checkbox"/> Open Space/Aesthetics
<input checked="" type="checkbox"/> Exemplary Natural Community	<input checked="" type="checkbox"/> Erosion Control

Functions and Values: *For each function and value:*

- Evaluate the entire wetland and check all that apply. Use Wetland Inventory Maps for offsite areas*
- Evaluate how the wetland in the project area contributes to the function.*
- Explain how the project will not result in adverse impacts to the function.*

Include any information on specific avoidance and minimization measures.

If more than one wetland complex is involved, provide a function and value checklist for each wetland complex. In addition fill out the Multiple Wetlands Table.

7. Water Storage for Flood Water and Storm Runoff

Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function

- Constricted outlet or no outlet and an unconstructed inlet.
- Physical space for floodwater expansion and dense, persistent, emergent vegetation or dense woody vegetation that slows down flood waters or stormwater runoff during peak flows and facilitates water removal by evaporation and transpiration.
- If a stream is present, it's course is sinuous and there is sufficient woody vegetation to intercept surface flows in the portion of the wetland that floods.
- Physical evidence of seasonal flooding or ponding such as water stained leaves, water marks on trees, drift rows, debris deposits, or standing water.
- Hydrologic or hydraulic study indicates wetland attenuates flooding

If any of the above boxes are checked, the wetland provides this function. Complete the following to determine if the wetland provides this function above or below a moderate level. If none of the following apply, the wetland provides this function at a moderate level.

Water Storage for Flood Water and Storm Runoff Continued...

- Check this box if any of the following conditions apply that may indicate the wetland provides this function at a **lower** level.
 - Significant flood storage capacity upstream of the wetland, and the wetland in question provides this function at a negligible level in comparison to upstream storage (unless the upstream storage is temporary such as a beaver impoundment).
 - Wetland is contiguous to a major lake or pond that provides storage benefits independently of the wetland.
 - Wetland's storage capacity is created primarily by recent beaver dams or other temporary structures.
 - Wetland is very small in size, not contiguous to a stream, and not part of a collection of small wetlands in the landscape that provide this function cumulatively.

- Check this box if any of the following conditions apply that may indicate the wetland provides this function at a **higher** level.
 - History of downstream flood damage to public or private property.
 - Any of the following conditions present downstream of the wetland, but upstream of a major lake or pond, could be impacted by loss or reduction of the water storage function.
 - Developed public or private property
 - Stream banks susceptible to scouring and erosion
 - Important habitat for aquatic life
 - The wetland is large in size and naturally vegetated.
 - Any of the following conditions present downstream of the wetland, but upstream of a major lake or pond, could be impacted by a loss or reduction of the water storage function.
 - Developed public or private property.
 - Stream banks susceptible to scouring and erosion.
 - Important habitat for aquatic life.
 - The wetland is large in size and naturally vegetated
 - Any of the following conditions present upstream of the wetland may indicate a large volume of runoff may reach the wetland.
 - A large amount of impervious surface in urbanized areas.
 - Relatively impervious soils.
 - Steep slopes in the adjacent areas.

7.1 Subject Wetland Contribution to Water Storage:

Explain how the subject wetland contributes to the function listed above

The meandering route and gentle slope of the outlet stream through shrub scrub wetlands allows retention and peak storage. The gravel bottom stream channels function as recharge basins to the valley aquifer when it is not already full. Sink holes in the kame terrace store water in vernal pools.

7.2 Statement of No Undue Adverse Impact to Water Storage for Flood Water and Storm Runoff:

Explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance, minimization, and compensation measures relevant to this function.

No work will take place in the Wetland. All building and driveway expansion will take place within 25 feet of the existing residence. A silt fence placed 20 feet from the addition will protect the remaining 75 feet of buffer from storm runoff during construction. To minimize impact to the buffer the addition has been designed so that 50% is in the limited upland portion of the site leaving 150 sq. ft. within the buffer. Removal of the cottage and filling in the old septic tank will restore 710 sq. ft. of buffer.

8. Surface and Ground Water Protection:

Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function.

- Constricted or no outlets.
- Low water velocity through dense, persistent vegetation.
- Hydroperiod permanently flooded or saturated.
- Wetlands in depositional environments with persistent vegetation wider than 20 feet.
- Wetlands with persistent vegetation comprising a defined delta, island, bar or peninsula.
- Presence of seeps or springs.
- Wetland contains a high amount of microtopography that helps slow and filter surface water.
- Position in the landscape indicates the wetland is a headwaters area.
- Wetland is adjacent to surface waters.
- Wetland recharges a drinking water source.
- Water sampling indicates removal of pollutants or nutrients.
- Water sampling indicates retention of sediments or organic matter.
- Fine mineral soils and alkalinity not low.
- The wetland provides an obvious filter between surface water or ground water and land uses that may contribute point or nonpoint sources of sediments, toxic substances or nutrients to the wetland, such as: steep erodible slopes; row crops; dumps; areas of pesticide, herbicide or fertilizer application; feed lots; parking lots or heavily traveled road; and septic systems.

If any of the above boxes are checked, the wetland provides this function. Complete the following to determine if the wetland provides this function above or below a moderate level. If none of the following apply, the wetland provides this function at a moderate level.

Check this box if any of the following conditions apply that may indicate the wetland provides function at a **lower** level.

- Presence of dead forest or shrub areas in sufficient amounts to result in diminished nutrient uptake.
- Presence of ditches or channels that confine water and restrict contact of water with vegetation.
- Wetland is very small in size, not contiguous to a stream, and not part of a collection of small wetlands in the landscape that provide this function cumulatively.
- Current use in the wetland results in disturbance that compromises this function.

Check this box if any of the following conditions apply that may indicate the wetland provides function at a **higher** level.

- The wetland is adjacent to a well head or source protection area, and provides ground water recharge.
- The wetland provides flows to Class A surface water. (Check ANR Atlas)
- The wetland contributes to the protection or improvement of water quality of any impaired waters.
- The wetland is large in size and naturally vegetated.

8.1. Subject Wetland Contribution to Water Protection: <i>Explain how the subject wetland contributes to the function listed above.</i>	<input type="checkbox"/>
The Wetland is in a headwater and is naturally vegetated.	
8.2. Statement of No Undue Adverse Impact to <u>Surface and Ground Water Protection</u>: <i>Explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance, minimization, or compensation measures relevant to this function.</i>	<input type="checkbox"/>
The very small permanent impact area (300sq. ft of building and parking) will have no effect on protection of surface and groundwater. Additional storm water run off from the additional impervious surface will be less than that of the cottage to be removed.	
9. Fish Habitat:	<input type="checkbox"/>
<input checked="" type="checkbox"/> Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function. <ul style="list-style-type: none"> <input type="checkbox"/> Contains woody vegetation that overhangs the banks of a stream or river and provides any of the following: shading that controls summer water temperature; cover including refuges created by overhanging branches or undercut banks; source of terrestrial insects as fish food; or streambank stability. <input type="checkbox"/> Provides spawning, nursery, feeding or cover habitat for fish (documented or professionally judged). Common habitat includes deep marsh and shallow marsh associates with lakes and streams, and seasonally flooded wetlands associated with streams and rivers. <input type="checkbox"/> Documented or professionally judged spawning habitat for northern pike. <input checked="" type="checkbox"/> Provides cold spring discharge that lowers the temperature of receiving waters and creates summer habitat for salmonoid species. <input checked="" type="checkbox"/> The wetland is located along a tributary that does not support fish, but contributes to a larger body of water that does support fish. The tributary supports downstream fish by providing cooler water and food sources. 	
9.1. Subject Wetland Contribution to Fish Habitat: <i>Explain how the subject wetland contributes to the function listed above.</i>	<input type="checkbox"/>
The spring seeps contribute cold water to the stream containing fish.	
9.2. Statement of No Undue Adverse Impact to <u>Fish Habitat</u>: <i>Explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance, minimization, or compensation measures relevant to this function.</i>	<input type="checkbox"/>
No activity is proposed which could impact fish habitat.	

10. Wildlife Habitat

- Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function.
- Provides resting, feeding staging or roosting habitat to support waterfowl migration, and feeding habitat for wading birds. Good habitats for these species include open water wetlands.
 - Habitat to support one or more breeding pairs or broods of waterfowl including all species of ducks, geese, and swans. Good habitats for these species include open water habitats adjacent shallow marsh, deep marsh, shrub wetland, forested wetland, or naturally vegetated buffer zone.
 - Provides a nest site, a buffer for a nest site or feeding habitat for wading birds including but not limited to: great blue heron, black-crowned night heron, green-backed heron, cattle egret, or snowy egret. Good habitats for these species include open water or deep marsh adjacent to forested wetlands, or standing dead trees.
 - Supports or has the habitat to support one or more breeding pairs of any migratory bird that requires wetland habitat for breeding, nesting, rearing of young, feeding, staging roosting, or migration, including: Virginia rail, common snipe, marsh wren, American bittern, northern water thrush, northern harrier, spruce grouse, Cerulean warbler, and common loon.
 - Supports winter habitat for white-tailed deer. Good habitats for this species include softwood swamps. Evidence of use includes browsing, bark stripping, worn trails, or pellet piles.
 - Provides important feeding habitat for black bear, bobcat, or moose based on an assessment of use. Good habitat for these types of species includes wetlands located in a forested mosaic.
 - Has the habitat to support muskrat, otter, or mink. Good habitats for these species include deep marshes, wetlands adjacent to bodies of water including lakes, ponds, rivers, and streams.
 - Supports an active beaver dam, one or more lodges, or evidence of use in two or more consecutive years by an adult beaver population.
 - Provides the following habitats that support the reproduction of uncommon Vermont amphibian species including:
 - Wood frog, Jefferson salamander, blue-spotted salamander, or spotted salamander. Breeding habitat for these species includes vernal pools and small ponds.
 - Northern dusky salamander and the spring salamander. Habitat for these species includes headwater seeps, springs, and streams.
 - The four-toed salamander, Fowler's toad, western or boreal chorus frog, or other amphibians, found in Vermont of similar significance.
 - Supports or has the habitat to support populations of Vermont amphibian species including, but not limited to, pickerel frog, northern leopard frog, mink frog, and others found in Vermont of similar significance. Good habitat for these types of species include large marsh systems with open water components.
 - Supports or has the habitat to support populations of uncommon Vermont reptile species including: wood turtle, northern map turtle, eastern musk turtle, spotted turtle, spiny softshell, eastern ribbonsnake, northern watersnake, and others found in Vermont of similar significance.
 - Supports or has the habitat to support significant populations of Vermont reptile species, including smooth greensnake, DeKay's brownsnake, or other more common wetland-associated species.
 - Meets four or more of the following conditions indicative of wildlife habitat diversity:
 - Three or more wetland vegetation classes (greater than 1/2 acre) present including but not

Wildlife Habitat Continued...

limited to: open water contiguous to, but not necessarily part of, the wetland, deep marsh, shallow marsh, shrub swamp, forested swamp, fen, or bog.

- The dominant vegetation class is one of the following types: deep marsh, shallow marsh, shrub swamp or, forested swamp.
- Located adjacent to a lake, pond, river or stream.
- Fifty percent or more of surrounding habitat type is one or more of the following: forest, agricultural land, old field or open land.
- Emergent or woody vegetation occupies 26 to 75 percent of wetland, the rest is open water.
- One of the following:
 - Hydrologically connected to other wetlands of different dominant classes or open water within 1 mile.
 - Hydrologically connected to other wetlands of same dominant class within 1/2 mile.
 - Within 1/4 mile of other wetlands of different dominant classes or open water, but not hydrologically connected.
- Wetland or wetland complex is owned in whole or in part by state or federal government and managed for wildlife and habitat conservation.
- Contains evidence that it is used by wetland dependent wildlife species

If any of the above boxes are checked, the wetland provides this function. Complete the following to determine if the wetland provides this function above or below a moderate level. If none of the following apply, the wetland provides this function at a moderate level.

- Check box if any of the following conditions apply that may indicate the wetland provides this function at a **lower** level.
 - The wetland is small in size for its type and does not represent fugitive habitat in developed areas (vernal pools and seeps are generally small in size, so this does not apply).
 - The surrounding land use is densely developed enough to limit use by wildlife species (with the exception of wetlands with open water habitat). Can be negated by evidence of use.
 - The current use in the wetland results in frequent cutting, mowing or other disturbance.
 - The wetland hydrology and character is at a drier end of the scale and does not support wetland dependent species.
- Check box if any of the following conditions apply that may indicate the wetland provides this function at a **higher** level.
 - The wetland is large in size and high in quality.
 - The habitat has the potential to support several species based on the assessment above.
 - Wetland is associated with an important wildlife corridor.
 - The wetland has been identified as a locally important wildlife habitat by an ANR Wildlife Biologist.

<p>10.1. Subject Wetland Contribution to Wildlife Habitat Functions: <i>Explain how the subject wetland contributes to the function listed above.</i></p>	<input type="checkbox"/>
<p>The extent and diversity of the Dorset Marsh contributes greatly to its wildlife habitat function. Linkage to the mountains west of West Road allow animals to move between varied habitats.</p>	
<p>10.2. Statement of No Undue Adverse Impact to <i>Wildlife Habitat</i>: <i>Explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance, minimization, or compensation measures relevant to this function.</i></p>	<input type="checkbox"/>
<p>All construction activity is confined to the existing developed portion of the site. There will be no change to the wildlife function of the site.</p>	
<p>11. Exemplary Wetland Natural Community</p>	
<p><input checked="" type="checkbox"/> Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function.</p>	
<p><input type="checkbox"/> Wetlands that are identified as high quality examples of Vermont's natural community types recognized by the Natural Heritage Information Project of the Vermont Fish and Wildlife Department, including rare types such as dwarf shrub bogs, rich fens, alpine peatlands, red maple-black gum swamps and the more common types including deep bulrush marshes, cattail marshes, northern white cedar swamps, spruce-fir-tamarack swamps, and red maple-black ash seepage swamps are automatically significant for this function</p>	
<p>The wetland is also likely to be significant if any of the following conditions are met:</p>	
<p><input checked="" type="checkbox"/> Is an example of a wetland natural community type that has been identified and mapped by, or meets the ranking and mapping standards of, the Natural Heritage Information Project of the Vermont Fish and Wildlife Department.</p>	
<p><input checked="" type="checkbox"/> Contains ecological features that contribute to Vermont's natural heritage, including, but not limited to:</p>	
<p><input type="checkbox"/> Deep peat accumulation reflecting a long history of wetland formation;</p>	
<p><input type="checkbox"/> Forested wetlands displaying very old trees and other old growth characteristics;</p>	
<p><input type="checkbox"/> A wetland natural community that is at the edge of the normal range for that type;</p>	
<p><input type="checkbox"/> A wetland mosaic containing examples of several to many wetland community types; or</p>	
<p><input checked="" type="checkbox"/> A large wetland complex containing examples of several wetland community types.</p>	
<p>List species or communities of concern:</p>	
<p>Natural Community element occurrence ID:1972, State rank S4.</p>	
<p>11.1. Subject Wetland Proximity to Exemplary Natural Communities</p>	<input type="checkbox"/>
<p>The subject wetland is over 1500 feet from the Alder Swamp identified as ID; 1972.</p>	
<p>11.2. Statement of No Undue Adverse Impact to <u>Exemplary Wetland Natural Community</u>: <i>Explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance, minimization, or compensation measures relevant to this function.</i></p>	<input type="checkbox"/>
<p>No impact to the Alder Swamp will occur from our activities more than 1500 feet away.</p>	

12. Rare, Threatened, and Endangered Species Habitat:

Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function.

- Wetlands that contain one or more species on the federal or state threatened or endangered lists, as well as species that are rare in Vermont, are automatically significant for this function.

The wetland is also likely to be significant if any of the following apply:

- There is credible documentation that the wetland provides important habitat for any species on the federal or state threatened or endangered species lists;
- There is credible documentation that threatened or endangered species have been present in past 10 years;
- There is credible documentation that the wetland provides important habitat for any species listed as rare in Vermont (S1 or S2 ranks), state historic (SH rank), or rare to uncommon globally (G1, G2, or G3 ranks) by the Natural Heritage Information Project of the Vermont Fish and Wildlife Department;
- There is credible documentation that the wetland provides habitat for multiple uncommon species of plants or animals (S3 rank).

List name of species and ranking:

Prentiss Pond Element occurrence ID:2239 State and Federal protection.
 South of site, Multiple features Element occurrence ID: 5577 State and Federal protection.
 South of site, Uncommon species SFID: 3919 Vascular plant Rank S-3.

12.1. Subject Wetland Contribution to RTE Habitat:

Explain how the subject wetland contributes to the function listed above.

Spring seeps in the subject wetland flow into the marsh which feeds both north and south to each of these features.

12.2 Statement of No Undue Adverse Impact to Rare, Threatened, or Endangered Species Habitat:

Explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance, minimization, or compensation measures relevant to this function.

No activity in our plan will impact these fragile natural areas. The project area is over 1500 feet from the listed significant features.

13. Education and Research in Natural Sciences:

- Function is present and likely to be significant: Any of the following characteristics indicate the wetland provides this function.
 - Owned by or leased to a public entity dedicated to education or research.
 - History of use for education or research.
 - Has one or more characteristics making it valuable for education or research.

13.1. Subject Wetland Education and Research Potential:
Explain how the subject wetland contributes to the function listed above.

The Dorset Marsh has been the subject of study leading to petition of the Water Resources Board to designate it the first locally driven Class I Wetland in the State of Vermont. The access provided to the marsh by existing roads and trails create opportunities for study.

13.2 Statement of No Undue Adverse Impact to Education and Research in Natural Sciences:
Explain how the proposed project will not result in any undue, adverse impact to this value. Include any avoidance, minimization, or compensation measures relevant to this value.

This building addition will have no impact on Education or Research values.

14. Recreational Value and Economic Benefits:

- Function is present and likely to be significant: Any of the following characteristics indicate the wetland provides this function.
 - Used for, or contributes to, recreational activities.
 - Provides economic benefits.
 - Provides important habitat for fish or wildlife which can be fished, hunted or trapped under applicable state law.
 - Used for harvesting of wild foods.

Comments:

14.1. Subject Wetland Recreational and Economic Value:
Explain how the subject wetland contributes to the value listed above.

The West Branch of the Battenkill is a trout stream. Foraging for leeks and ostrich fern fiddle heads is common.

14.2. Statement of No Undue Adverse Impact to Recreational Value and Economic Benefits:
Explain how the proposed project will not result in any undue, adverse impact to this value. Include any avoidance, minimization, or compensation measures relevant to this value.

Our small construction area will have no impact on Recreation Value of Economic Benefits.

15. Open Space and Aesthetics:

Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function.

- Can be readily observed by the public; and
 - Possesses special or unique aesthetic qualities; or
 - Has prominence as a distinct feature in the surrounding landscape;
- Has been identified as important open space in a municipal, regional or state plan.

Comments:

15.1. Subject Wetland Aesthetic Value:

Explain how the subject wetland contributes to the value listed above.

The Dorset Marsh has been designated in Town and Regional plans as a Significant Natural Area. It forms the backdrop for nearly 100 residential properties along West Road, Route 30 and a dozen development roads that access houses on both banks of the West Branch.

15.2. Statement of No Undue Adverse Impact to Open Space and Aesthetics:

Explain how the proposed project will not result in any undue, adverse impact to this value. Include any avoidance, minimization, or compensation measures relevant to this value.

Removal of the run down cottage and filling of the old septic tank will be a substantial improvement to the buffer on our site, reducing the footprint of disturbance. The proposed building addition and widening of the existing parking area will have no impact beyond the immediate site. The existing house can not be seen from the roadway and is more than 400 feet from the nearest residence.

16. Erosion Control Through Binding and Stabilizing

Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function.

- Erosive forces such as wave or current energy are present and any of the following are present as well:
 - Dense, persistent vegetation along a shoreline or stream bank that reduces an adjacent erosive force.
 - Good interspersions of persistent emergent vegetation and water along course of water flow.
 - Studies show that wetlands of similar size, vegetation type, and hydrology are important for erosion control.

What type of erosive forces are present?

- Lake fetch and waves
- High current velocities:
- Water level influenced by upstream impoundment

Erosion Control Through Binding and Stabilization Continued...

If any of the above boxes are checked, the wetland provides this function. Complete the following to determine if the wetland provides this function above or below a moderate level. If none of the following apply, the wetland provides this function at a moderate level.

- Check box if any of the following conditions apply that may indicate the wetland provides this function at a lower level.
 - The stream is artificially channelized and/or lacks vegetation that contributes to controlling the erosive force.
- Check box if any of the following conditions apply that may indicate the wetland provides this function at a higher level.
 - The stream contains high sinuosity.
 - Has been identified through fluvial geomorphic assessment to be important in maintaining the natural condition of the stream or river corridor.

16.1. Subject Wetland Contribution to Erosion Control:

Explain how the subject wetland contributes to the function listed above.

Successive marsh, stream, marsh flow pattern allows deposition of eroded material in portions of the headwater.

16.2. Statement of No Undue Adverse Impact to Erosion Control:

Explain how the proposed project will not result in any undue, adverse impact to this function. include any avoidance, minimization, or compensation measures relevant to this function.

The small impact area we propose will have no effect on the the value of erosion control. We will control runoff from our construction site 75 feet from the Wetland.

17. Project Description:

17.1. Overall Project Purpose:

Description of the basic project and why it is needed. Partial projects with no clear purpose will not be accepted.

For example: six-lot residential subdivision; expansion of an existing commercial building, building a single family residence.

The project includes the renovation and minor expansion of an existing 2 bedroom 1410 sq. ft. house at 99 Bond Lane in Dorset VT. Renovations include; replacement of the dry well with a 6' x 40' wastewater disposal bed, a 300 sq. ft. building addition and 150 sq. ft. of parking area. Of the 300 sq. ft. building addition, 150 sq. ft. is in the 100' Wetland Buffer. The building addition will enable the owner to relocate a stairway to the second level which is currently in an unprotected space. The stairway relocation will improve fire safety to the second level.

17.2. Description of Project Component Impacting Wetland or Buffer:

Explain in general terms which portions of the project will impact wetlands or buffer zones.

For example: Cross the wetland with a driveway to construct a residential subdivision, upgrade existing road through buffer to improve access, extend a trail system.

There will be NO IMPACT to the WETLAND. Impact in the buffer is as follows:

1. 150 sq. ft. addition to gravel parking allowing access to garage offset.
2. 150 sq. ft. building addition (1/2 of 300 sq. ft. addition)
3. Temporary 60 sq. ft. impact to install wastewater disposal bed.
4. Place 190 sq. ft. of fill around addition, restore to lawn.

Restoration in the Wetland Buffer will include; Hand filling of open metal septic tank 20 sq. ft. and removal of the cottage 690 sq. ft. Restoration total is 710 sq. ft.

17.3. Acreage of Parcel(s) or Easements(s): <i>Acreage of subject property.</i>	<input type="checkbox"/>
20.0 ac.	
17.4. Acreage of Project Area: <i>Acreage of area involved in the project.</i>	<input type="checkbox"/>
.1 ac.	

18. Project Details:
Provide details regarding specific impacts to the wetland and buffer zone.

For multiple wetlands fill out the multiple wetland table.

18.1. Specific Impacts to Wetland and Buffer Zone Dimensions:
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; addition of Stormwater outfall which directs flow to northern portion of wetland

There will be no Wetland Impact. Wetland buffer impact will be: 1. 150 sq. ft. gravel parking addition, 2. 150 sq. ft. building addition, 3. 60 sq. ft. temporary impact to install the wastewater disposal bed, 4. Fill and restore to lawn 190 sq. ft. adjacent to building addition.

18.2. Bridges and Culverts:
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.

None

18.3. Construction Sequence:
Describe any details pertaining to the work planned in the wetland and buffer in terms of sequence or phasing that is relevant. Describe the construction limits of disturbance, how those will be marked, and check to ensure these are shown on the site plans as well.

Removal of the cottage will precede the construction of the addition and septic system. The metal septic tank north of the cottage will be filled in using wheel barrow and hand tools to avoid tracking heavy equipment beyond the perimeter of the cottage. The silt fence depicted on the site plan will define the limits of disturbance. The existing driveway will function as the limit of disturbance east of the house.

18.4. Stormwater Design**
*List any stormwater permits obtained or applied for. Describe stormwater and/or erosion controls proposed. ** Erosion prevention is required in order to prevent sediment from entering the wetland.*

No storm water permit is required for this work as the disturbed area is just .1 acres. Silt fence will be used for erosion control in the construction area. The contractor will follow the Handbook for Erosion and Sediment Control from Construction Sites in excavating and backfilling the site work.

18.5. Permanent Demarcation of Limit of Impacts**
*Describe any boulders, fencing, signage, or other memorialization that provides permanent on-the-ground boundaries for the limits of disturbance for ongoing uses. **Permanent demarcations are required for projects with ongoing activities in or near wetlands or buffer zones such as houses, yards, woody clearing or parking areas, and needs to be depicted on the site plans.*

The site plan depicts the existing limits of impact for lawn and trails. No expansion is proposed beyond this application. The applicant agrees to maintain the site consistent with the site plan. The existing driveway and trail define the managed residential site. This will remain unchanged.

19. Wetland and Buffer Zone Impacts:

For multiple wetlands provide narrative overview for each section below, and fill out the Multiple Wetland Tables

19.1. Wetland Impacts:

Summarize the square footage of impact in the appropriate category. Add After-the-Fact impacts here too. Round to the nearest square foot

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

General narrative required here even for projects with multiple wetlands and impacts

19.2. Buffer Zone Impacts:

Summarize the square footage of impact in the appropriate category.

Temporary Buffer Impact	250	s.f.
Permanent Buffer Impact	300	s.f.
Total Buffer Impact:	550	s.f.

Describe in detail the proposed impact to buffer zones

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

General narrative required here even for projects with multiple wetlands and impacts.

1. 150 sq. ft. parking area addition.
2. 150 sq. ft. building addition.
3. 190 sq. ft. fill slope adjacent to building, restore to lawn.
4. Temporary 60 sq. ft. excavation to place wastewater disposal system.

19.3. Cumulative Impacts:

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 is no cumulative or ongoing negative impact to any function of the wetland. Land use and occupancy remains the same as today. Removal of the Cottage and filling in the metal septic tank will be a significant improvement to the integrity of the Wetland Buffer. Consolidating the building addition with the existing structure will minimize impact during construction and ongoing.

20. Mitigation Sequence:
<i>Before you begin, please read all of Section 20 to respond most appropriately to specific questions. Questions specifically related to Section 9.5b of the Vermont Wetland Rules.</i>
20.1. Avoidance of Wetland Impacts: <input type="checkbox"/>
<p>20.1.1. 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 owns no other site which is suitable for this project. The minor addition to this existing dwelling might be arguably an "Allowed Use" under the Vermont Wetland Rules. Rather than pursue this approach, we have applied for approval because we believe that our request is reasonable and justified.</p>
<p>20.1.2. 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>We have placed the addition as close to the upland portion of the site as possible adding just 9 feet of width to the existing garage. This connects to the remainder of the addition (50%) to be built in the upland. Since the existing house is already in the buffer any addition meeting the needs of the project was found to impact the buffer. Construction of a new garage, over the existing parking area would have been entirely in the Buffer and cover 625 sq. ft. Following many design attempts to minimize impact, the plan we present has evolved. The size of the addition is 300 sq. ft. with 150 sq. ft. within the buffer.</p>
20.2. Avoidance to the Impact to Functions and Values: <input type="checkbox"/>
<p>20.2.1. 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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>20.2.2. What design alternatives were examined to avoid impacts to wetland function? <i>For example: Use of matting, relocation of footprint, etc.</i></p> <p>Prior design plans were considered which located the addition north of the existing garage entirely in the Wetland Buffer. While the new garage would be on top of an existing gravel parking area, we discovered that additional expansion of the parking area in the Buffer would be necessary to enable the driveway to function. The need to reduce the mass and locate as much of the addition in the upland as was possible lead to the design we present in this application.</p>
<p>20.2.3. 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 garage addition has been reduced from 625 sq. ft. to 300 sq. ft., with just 150 sq. ft. in the Buffer. Expansion of the parking, to realign the entrance to the garage, is limited to 150 sq. ft. By marrying the addition to the existing building the need for excavation is reduced substantially and the impact area reduced to just one side of the excavation.</p>
<p>20.2.4. Explain how the proposed project represents the least impact alternative design. Explain why other alternatives, which you described above, were not chosen.</p> <p><small>The design chosen has evolved from many attempts to not only reduce impact to the Wetland Buffer but to encompass as much of the existing building footprint as possible, thereby reducing the overall size of the project. Removal of the run down cottage and filling of the open septic tank will restore over 700 sq. ft. of Buffer. The Agency agreed to consider an addition up to the equivalent size if it were located in the existing gravel parking area. We found this option to be unworkable as expansion of the parking area would be needed to provide adequate circulation. Other design options either interfered with the replacement septic system location or required additional grading and construction activity in the buffer. The garage needed to stay at the north end of the house for use of the existing drive and maintain a logical flow within the building. By marrying the addition to the existing building we reduce area to be excavated and the resulting Buffer area in need of protection by half. The size of the addition is reduced from 625 sq. ft. to 300 sq. ft. with just 150 sq. ft. in the buffer. Including the 150 sq. ft. addition to the parking area, our permanent impact area is just 300 sq. ft. Our restoration of 705 sq. ft. is our mitigation.</small></p>
20.3. Minimization and Restoration: <input type="checkbox"/>
<p>20.3.1. If avoidance of adverse effects on protected functions cannot be practically achieved, has the proposed activity been planned to minimize adverse impacts on the protected function? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>20.3.2. What measures will be used during construction and on an ongoing basis to protect the wetland and buffer zone? <i>For example: Stormwater treatment, signs, fencing, etc.</i></p> <p>Silt fence and proper construction practice will protect the Wetland and buffer zone during construction. Once new vegetation in the project area has been established no further protection will be needed.</p>

Minimization and Restoration Continued...

20.3.3. Has a plan been developed for the prompt restoration of any adverse impacts on protected functions? Yes No N/A

Restoration Narrative:

For example: Planting along the stream.

Quantification of Restoration:

Wetland Area (sqft)	Buffer Area (sqft)	Functions/Value s Addressed

20.4. Compensation:

*Please refer to Section 9.5c of the Vermont Wetland Rules for compensation, which is required when the project will result in net adverse impact to wetland function. Not all functions are presumed to be compensable. **All projects requiring compensation need prior consultation with the Vermont Wetlands Program.***

If compensation is proposed please include a summary here. Also list any supporting documents you may have attached to the application including In-Lieu-Fee proposal or detailed compensation plan.

21. Wetland Determination:

If the application involves a wetland determination please answer the following. For multiple wetlands provide narrative overview for each section below, and fill out the Multiple Wetland Tables.

- 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

21.1. Reason for Petition:

Please choose one from the dropdown menu.

<Choose One>

21.2. Determination Narrative:

Please provide any narrative to support the petition for a wetland determination here, including previous decisions by the Secretary or Water Board.

22. Supporting Materials:

****ADDITIONAL MATERIAL REQUIRED TO CALL APPLICATION COMPLETE**

22.1. **Location Map:

Provide a location map that is 8 1/2" 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 at a minimum.

Date	Title
July 12, 2016	Dole property 99 Bond LN Dorset

22.2. **Site Plan(s):

List as specified below. Plans must be legible and include wetland delineation and buffer zones, limits of disturbance, erosion controls, building envelopes, and any permanent memorialization.

Title	Author	Date	Date of Last Revision
Replacement Septic System Design and Wetland Impact Plan by: Woodland Services, Inc. 7/6/16 revised 8/23/16			

22.3. **U.S. Army Corps of Engineer Wetland Delineation Forms:

List attachment names, dates data was collected, cover types sampled, and number of paired plots included

Attachment #/Title	Range of Collection Dates	Vegetation Cover Types	# of Paired Plots
A-1 pages 1-3	3/20/16	Northern Hardwood forest	2
A-2 pages 1-3	3/20/16	Shrub/scrub marsh	2

22.4. Other Supporting Documents:

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
7/7/16		ANR	VT Permit WW-8-1753

23. Abutting Landowners
 Please provide abutting landowner information so that all persons owning property within, or adjacent to, the affected wetland area of buffer zone can be notified during the public notice period. **Please use additional sheets if necessary.**

23.1. Abutting Land Owner Information: Please list as first names first followed by last name

1. Name: Nancy E. White Street/Road: 2620 Dorset West Rd City/State/Zip: Dorset, VT 05251	16. Name: Street/Road: City/State/Zip:
2. Name: Elizabet Wyatt Alden Street/Road: 97 Bond Ln City/State/Zip: Dorset VT 05251	17. Name: Street/Road: City/State/Zip:
3. Name: Michael and Madeleine Saraceni Street/Road: 20 Fifth AV apt. 13C City/State/Zip: New York, NY 10011	18. Name: Street/Road: City/State/Zip:
4. Name: Robert E. & Joan Campbell Street/Road: P O Box 864 Dorset VT 05251 City/State/Zip:	19. Name: Street/Road: City/State/Zip:
5. Name: Street/Road: City/State/Zip:	20. Name: Street/Road: City/State/Zip:
6. Name: Street/Road: City/State/Zip:	21. Name: Street/Road: City/State/Zip:
7. Name: Street/Road: City/State/Zip:	22. Name: Street/Road: City/State/Zip:
8. Name: Street/Road: City/State/Zip:	23. Name: Street/Road: City/State/Zip:
9. Name: Street/Road: City/State/Zip:	24. Name: Street/Road: City/State/Zip:
10. Name: Street/Road: City/State/Zip:	25. Name: Street/Road: City/State/Zip:
11. Name: Street/Road: City/State/Zip:	26. Name: Street/Road: City/State/Zip:
12. Name: Street/Road: City/State/Zip:	27. Name: Street/Road: City/State/Zip:
13. Name: Street/Road: City/State/Zip:	28. Name: Street/Road: City/State/Zip:
14. Name: Street/Road: City/State/Zip:	29. Name: Street/Road: City/State/Zip:
15. Name: Street/Road: City/State/Zip:	30. Name: Street/Road: City/State/Zip:

24. Modified Distribution (Newspaper Notification): In situations where there is an application within a large wetland or buffer zone that has a large number of landowners, applicants can choose to limit the distribution list with a supplemental newspaper notification. At a minimum the applicant must 1) provide notice to immediate abutters, 2) provide notice to all persons owning property containing the wetland or buffer within 500 ft. of the project area, and 3) shall have the VWP publish notice of the application in a local newspaper generally circulating in the area where the wetland is located. ****The applicant will be billed directly by the newspaper listed. Use of newspaper notification may extend the notice period, depending on when the notice posts in the newspaper****

Name of Newspaper(s)
Bennington Banner

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region 1 of 3

Project/Site: 99 BOND LN City/County: DORSET/BENNINGTON Sampling Date: 3/20/16
 Applicant/Owner: MEACHUM / DOLE State: VT Sampling Point: A-1
 Investigator(s): CHRISTIAN C. HEINS Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): TERRACE Local relief (concave, convex, none): CONVEX
 Slope (%): 8% Lat: 43.24679 Long: -73.10349 Datum: 976
 Soil Map Unit Name: COPAKE NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.) ^①
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation , Soil , or Hydrology 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> if yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center"><i>MIXED NORTHERN HARDWOOD FOREST</i></p>	

HYDROLOGY

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

Remarks: ^① *NO SNOW COVER PRESENT*

VEGETATION - Use scientific names of plants. DOLE/MERCURIUM 99 BOND LN Sampling Point: A-1

Tree Stratum (Plot size: <u>.10 Ac</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Quercus rubra</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>
2. <u>Prunus serotina</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>
3. <u>Acer rubrum</u>	<u>20</u>	<u>N</u>	<u>FAC</u>
4.			
5.			
6.			
7.			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

100 = Total Cover

Sapling/Shrub Stratum (Plot size: <u>10'R</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Fraxinus americana</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>
2. <u>Acer saccharum</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>
3. <u>Fagus grandifolia</u>	<u>10</u>	<u>N</u>	<u>FACU</u>
4.			
5.			
6.			
7.			

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 = _____

_____ = Total Cover

Herb Stratum (Plot size: <u>10'R</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>0</u>			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is $\leq 3.0^1$

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.

_____ = Total Cover

Woody Vine Stratum (Plot size: <u>10'R</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>0</u>			
2.			
3.			
4.			

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 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

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

SOIL

MEACHUM (DAVE 99 BOND LN

Sampling Point: A-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/3	100		0			LMS	
4-20	10YR 4/6	100		0			CSL	NO ROOT FEATURES

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- | | | | |
|---|--|--|--|
| Hydric Soil Indicators: | | Indicators for Problematic Hydric Soils³: | |
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) | |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) | |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) | |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Dark Surface (S7) (LRR K, L) | |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) | |
| <input type="checkbox"/> Sandy Redox (S5) | | <input type="checkbox"/> Red Parent Material (TF2) | |
| <input type="checkbox"/> Stripped Matrix (S6) | | <input type="checkbox"/> Very Shallow Dark Surface (TF12) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | | <input type="checkbox"/> Other (Explain in Remarks) | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):		Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type:	<u>NONE</u>	
Depth (inches):		

Remarks:
WELL DRAINED GRAVELLY SANDY LOAM

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region 1053

Project/Site: 99 BOND LN City/County: DORSET / BENNINGTON Sampling Date: 3/20/16
 Applicant/Owner: MEACHAM / DOLE State: VT Sampling Point: A-2
 Investigator(s): CHRISTIAN C. HEIMS Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): DEPRESSION EDGE OF O/W Local relief (concave, convex, none): CONVEX
 Slope (%): 0 Lat: 43.24668 Long: -73.10353 Datum: _____
 Soil Map Unit Name: COPAKE (NOT CORRECT) NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? NO Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) 	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) _____ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) _____ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>10</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>B</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: ① NO SNOW COVER - LITTLE ICE.
 WETLAND 1: SOUTH OF HOUSE FLAGS 1-1 TO 1-10 BEGINNING ON THE EAST END
 WETLAND 2: NORTH OF HOUSE FLAGS 2-1 TO 2-11 BEGINNING ON THE WEST END
 WETLAND 3: BASIN A EAST OF HOUSE FLAGS 3-1 TO 3-6 COUNTER CLOCKWISE
 WETLAND 4: BASIN B EAST OF HOUSE FLAGS 4-1 TO 4-7 COUNTER CLOCKWISE

20F3

VEGETATION - Use scientific names of plants.

MEADOWS/DOLE 99 BOND LN

Sampling Point: A-2

Tree Stratum (Plot size: <u>1/4c</u>)				Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>0</u>					
2.						
3.						
4.						
5.						
6.						
7.						
				_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10'R</u>)				Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Cornus stolonifera</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>		
2.	<u>Spiraea latifolia</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>		
3.	<u>Prunus virginiana</u>	<u>20</u>	<u>N</u>	<u>FACU</u>		
4.						
5.						
6.						
7.						
				<u>90</u> = Total Cover		
Herb Stratum (Plot size: <u>10'R</u>)				Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Onoclea sensibilis</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>		
2.	<u>Carex stricta</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>		
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
				_____ = Total Cover		
Woody Vine Stratum (Plot size: <u>10'</u>)				Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>0</u>					
2.						
3.						
4.						
				_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (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:

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0¹

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 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

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

SOIL

DOLE/MERCHAM

99 Bond LN

30F3

Sampling Point: A-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	90	10YR 4/3	10	D	M	SILT	HIGH ORGANIC CONTENT
4-14	10YR 3/2	70	10YR 4/2	30	D	M	SILT	HIGH ORGANIC CONTENT

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: NONE

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

SATURATED @ 8" WATER @ 10"

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: Sarah H. Dole
P.O. Box 463
Dorset, VT 05251
Permit Number: WW-8-1753

This permit affects the following property in Dorset, VT:

<i>Lot</i>	<i>Parcel</i>	<i>SPAN</i>	<i>Acres</i>	<i>Deed Book/Page</i>
22-21-80	000664	180-057-10893	20.00	Book:179 / Pages:453-454

This project, consisting of the proposed installation of a replacement in-ground absorption bed-type wastewater disposal system, to serve an existing two (2) bedroom single family residence, with an existing drilled bedrock water supply well, on an improved +/- 20.0 acre parcel, located at 99 Bond Lane in Dorset, Vermont, is hereby approved under the requirements of the regulations named above subject to the following conditions.

1. GENERAL

- 1.1 This project shall be completed as shown on the application, plans and/or documents prepared by Christian C. Heins of Woodland Services with the plan stamped by the Drinking Water and Groundwater Protection Division listed as follows:

<i>Sheet Number</i>	<i>Title</i>	<i>Plan Date</i>	<i>Revision Date</i>
<i>S-1</i>	<i>Replacement Septic System Design & Wetland buffer Impact Plan</i>	<i>06/17/2016</i>	

- 1.2 This permit does not relieve the landowner from obtaining all other approvals and permits PRIOR to construction including, but not limited to, those that may be required from the Act 250 Environmental Commission; the Drinking Water and Groundwater Protection Division; the Watershed Management Division; the Division of Fire Safety; the Vermont Department of Health; the Family Services Division; or other State departments and local officials.
- 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 Dorset 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 Dorset 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 replacement wastewater disposal system until the Secretary receives a signed and dated certification from a qualified Vermont Licensed Designer 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 replacement wastewater disposal system was installed in accordance with the permitted design and all the permit conditions, was inspected, was properly tested, and has successfully met those performance tests"



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

- 1.6 This project is approved with an existing two (2) bedroom single family residence. No alterations to the existing building other than those indicated in this permit that would change or affect the water supply or wastewater disposal systems shall be allowed without prior approval by the Drinking Water and Groundwater Protection Division. 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.
- 1.7 This permit shall in no way relieve the landowner of the obligations of Title 10, Chapter 48, Subchapter 4, for the protection of groundwater.
- 1.8 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 plan, if applicable, prior to conveyance of any portion of the project to that purchaser.
- 1.9 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.
- 1.10 Any person aggrieved by this permit may appeal to the Environmental Court within thirty (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 This project is approved with an existing on-site drilled bedrock water supply well having a maximum design flow capacity of **280 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 existing potable water supply system in a manner that keeps the supply free from contamination.
- 2.2 No changes shall be made to the existing water supply 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 This project is approved for the disposal of wastewater in accordance with the in-ground absorption bed-type system design depicted on the stamped plan for a maximum design flow capacity of **280 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. Should the system 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.
- 3.2 The components of the replacement wastewater disposal 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.
- 3.3 The corners of the proposed replacement wastewater disposal system shall be accurately staked out and flagged prior to construction with the flagging/staking being maintained until construction is complete.
- 3.4 A variance for the replacement wastewater disposal system for the purpose of eliminating a health hazard is granted from the Technical Standards in accordance with the Wastewater System and Potable Water Supply Rules, Subchapter 1-806(a). Certain design aspects of the approved replacement wastewater disposal system may not adhere to the minimum standards required by the Wastewater System and Potable Water Supply Rules. The design flows for this building may not be increased until a fully complying wastewater disposal system design prepared by a qualified Vermont Licensed Designer is submitted for review and approved by the Drinking Water and Groundwater Protection Division.

- 3.5 The Landowners shall have the removal/abandonment of the existing wastewater disposal system routinely and reliably inspected by a licensed designer. The Landowners shall submit the designer's written report to the Drinking Water and Groundwater Protection Division certifying that the removal/abandonment was accomplished in accordance with the approved plans and permit conditions. Any waste stone and/or soil removed from the system shall be disposed of in compliance with section 1-924 of the 2007 Wastewater System and Potable Water Supply Rules.
- 3.6 The replacement wastewater disposal system for this project is 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.
- 3.7 No buildings, roads, water lines, earthwork, re-grading, excavation or other construction that might interfere with the installation or operation of the wastewater disposal system is allowed on or near the site-specific replacement area depicted on the stamped plans. All applicable isolation distances that are set forth in the Wastewater System and Potable Water Supply Rules shall be maintained and will be incorporated into the construction and installation of the replacement wastewater disposal field.

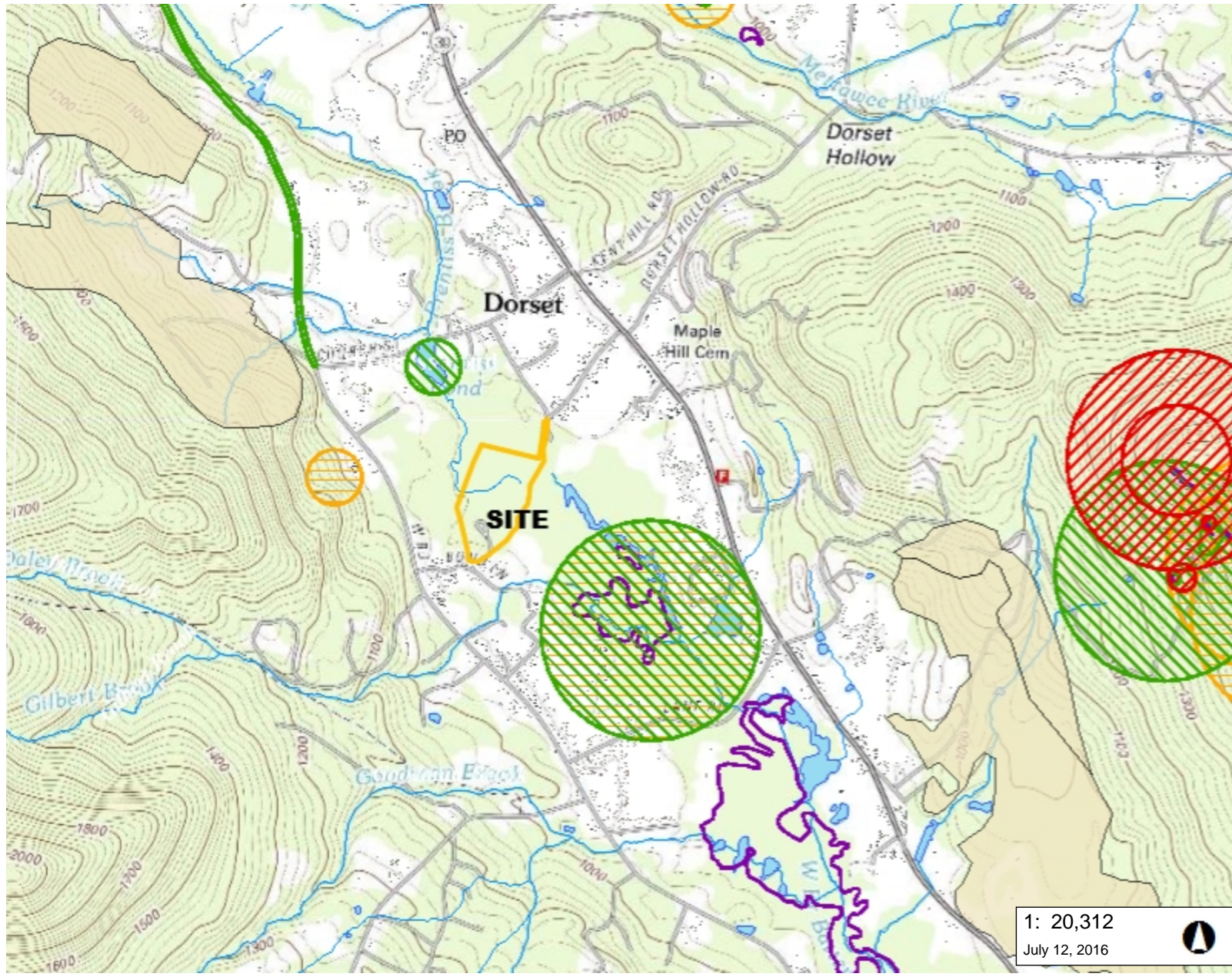
Alyssa B. Schuren, Commissioner
Department of Environmental Conservation

By 

Dated July 7, 2016

Elias J. Erwin, Assistant Regional Engineer
Rutland Regional Office
Drinking Water and Groundwater Protection Division

cc: Christian C. Heins
Dorset Planning Commission
Watershed Management Division – Wetlands Program



LEGEND

- Wetlands - VSWI**
 - Class 1 Wetland
 - Class 2 Wetland
- Rare Threatened Endangered**
 - Threatened or Endangered
 - Rare
- Significant Natural Community Uncommon Species and Other**
 - Animal
 - Plant
 - Natural Community
- Deer Wintering Areas
- Waterbody
- Stream
- Town Boundary

1: 20,312
July 12, 2016



NOTES

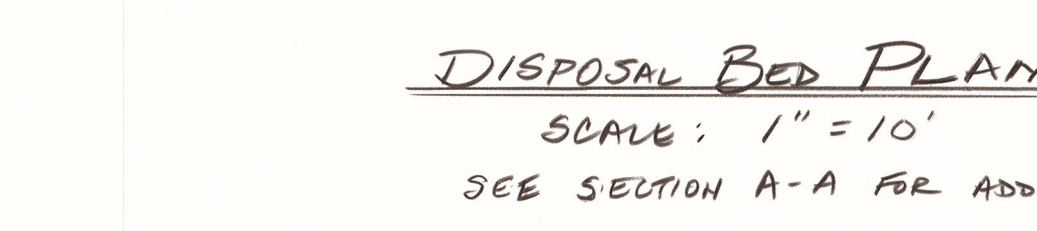
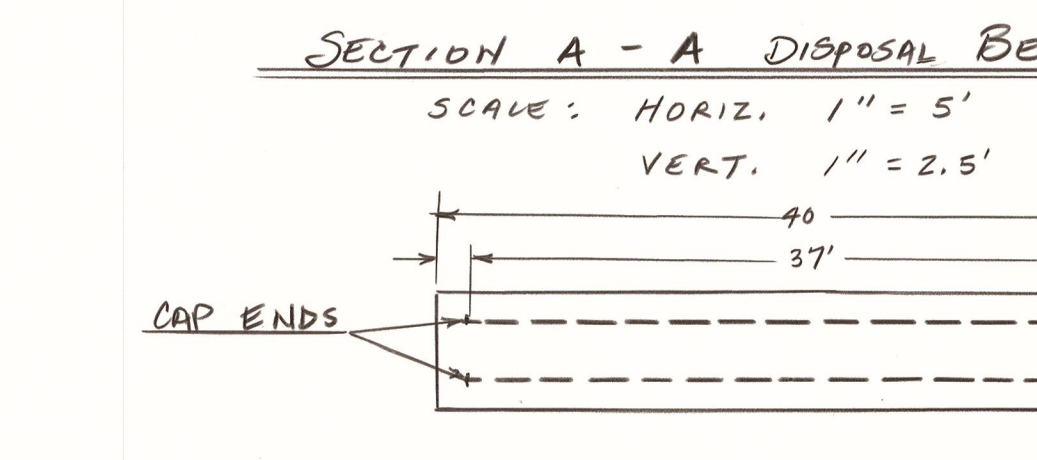
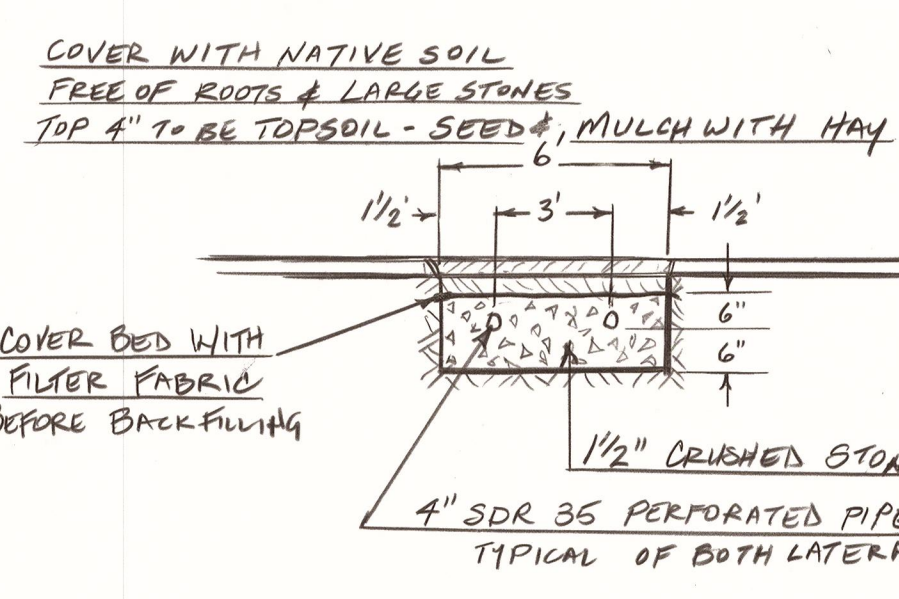
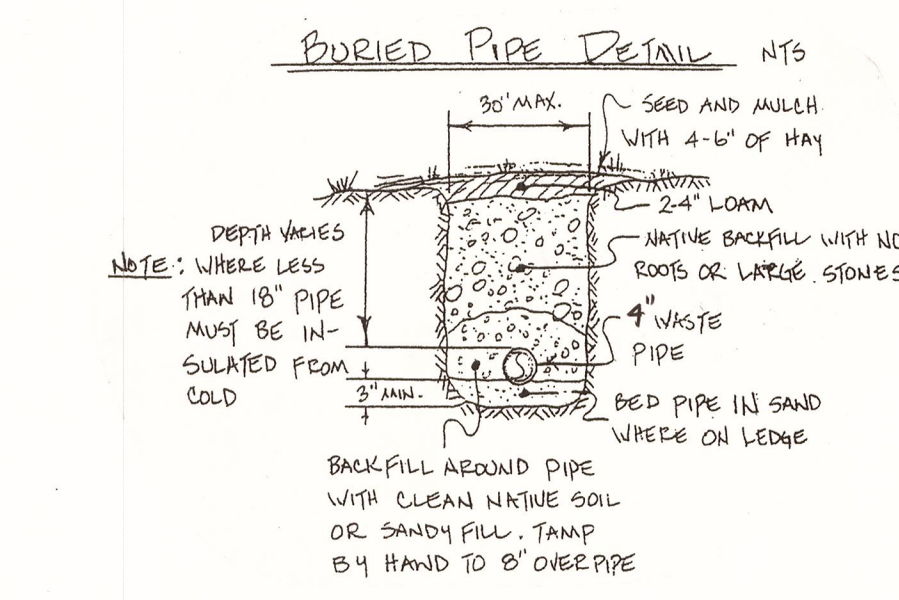
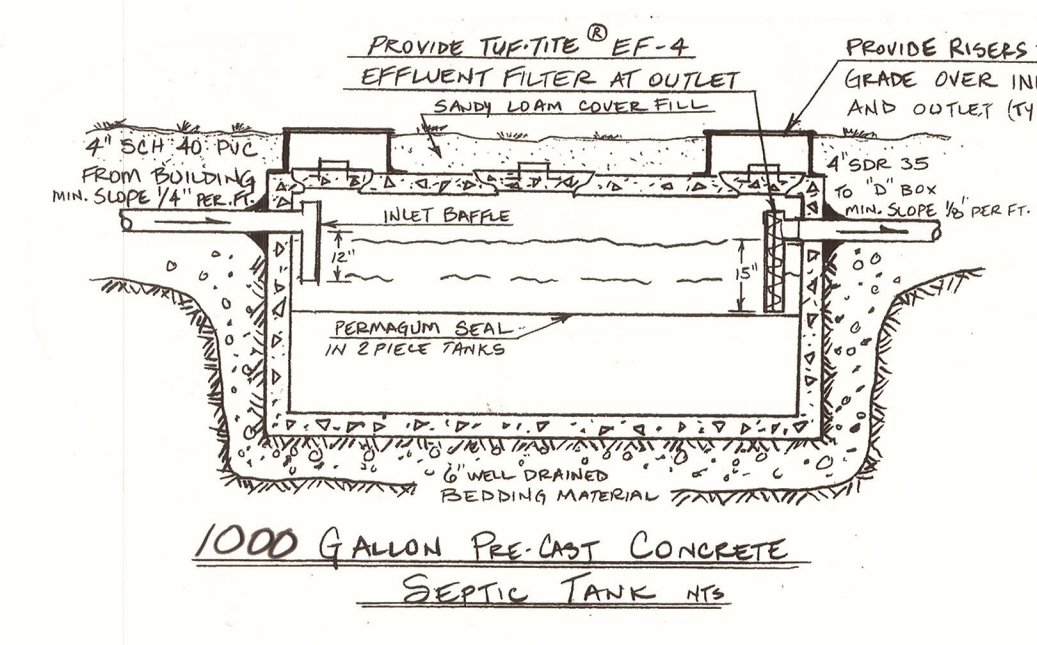
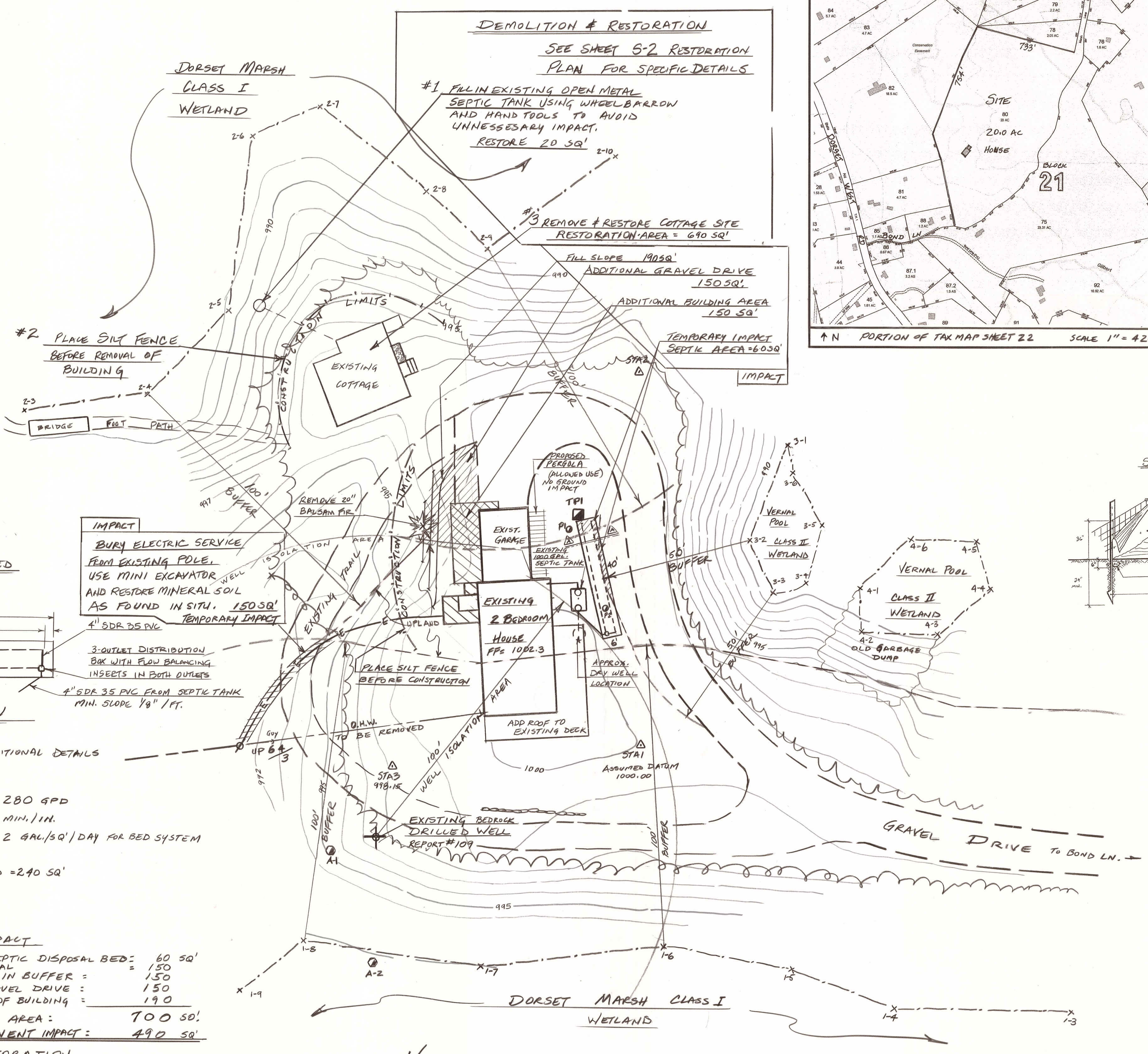
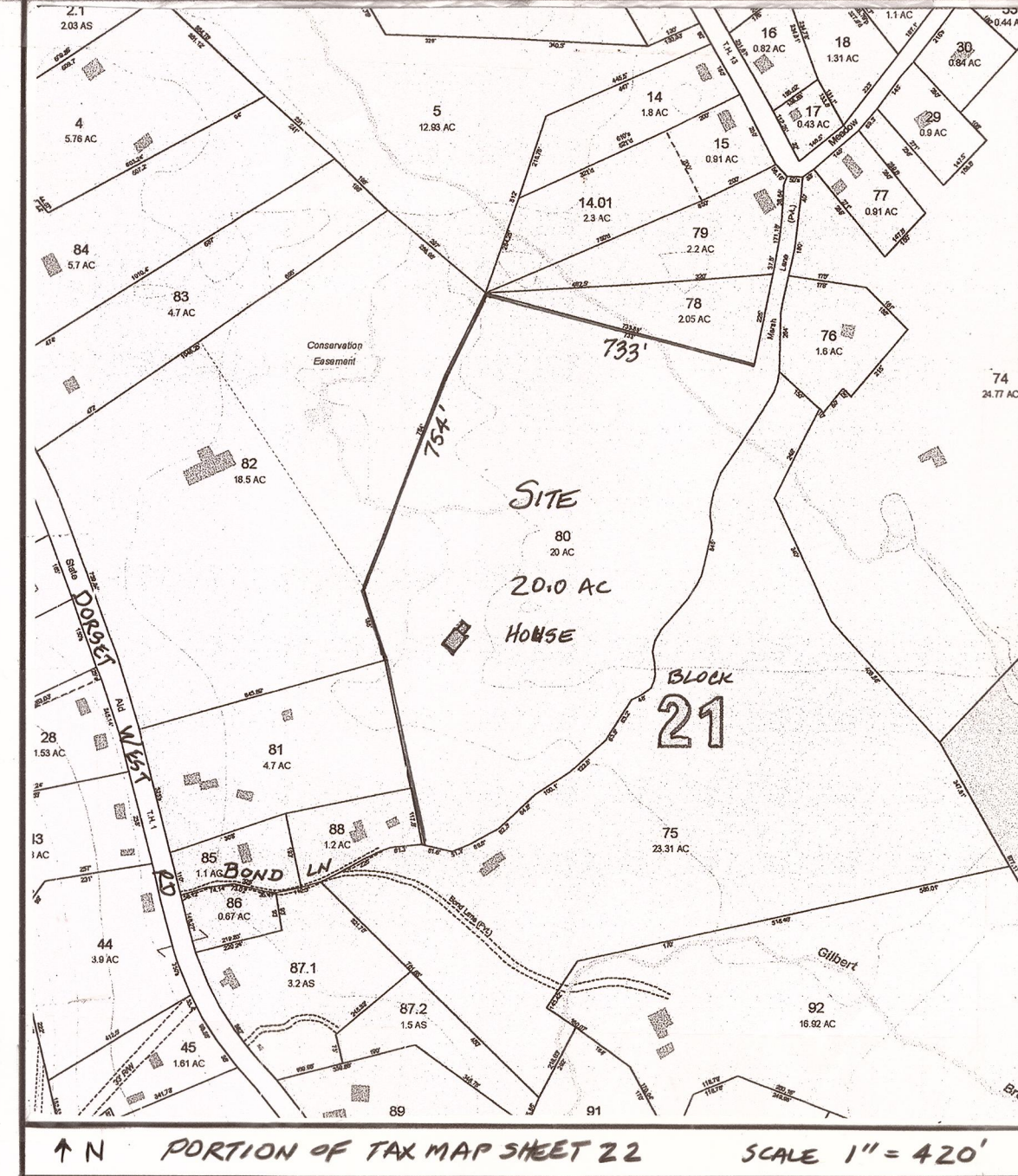
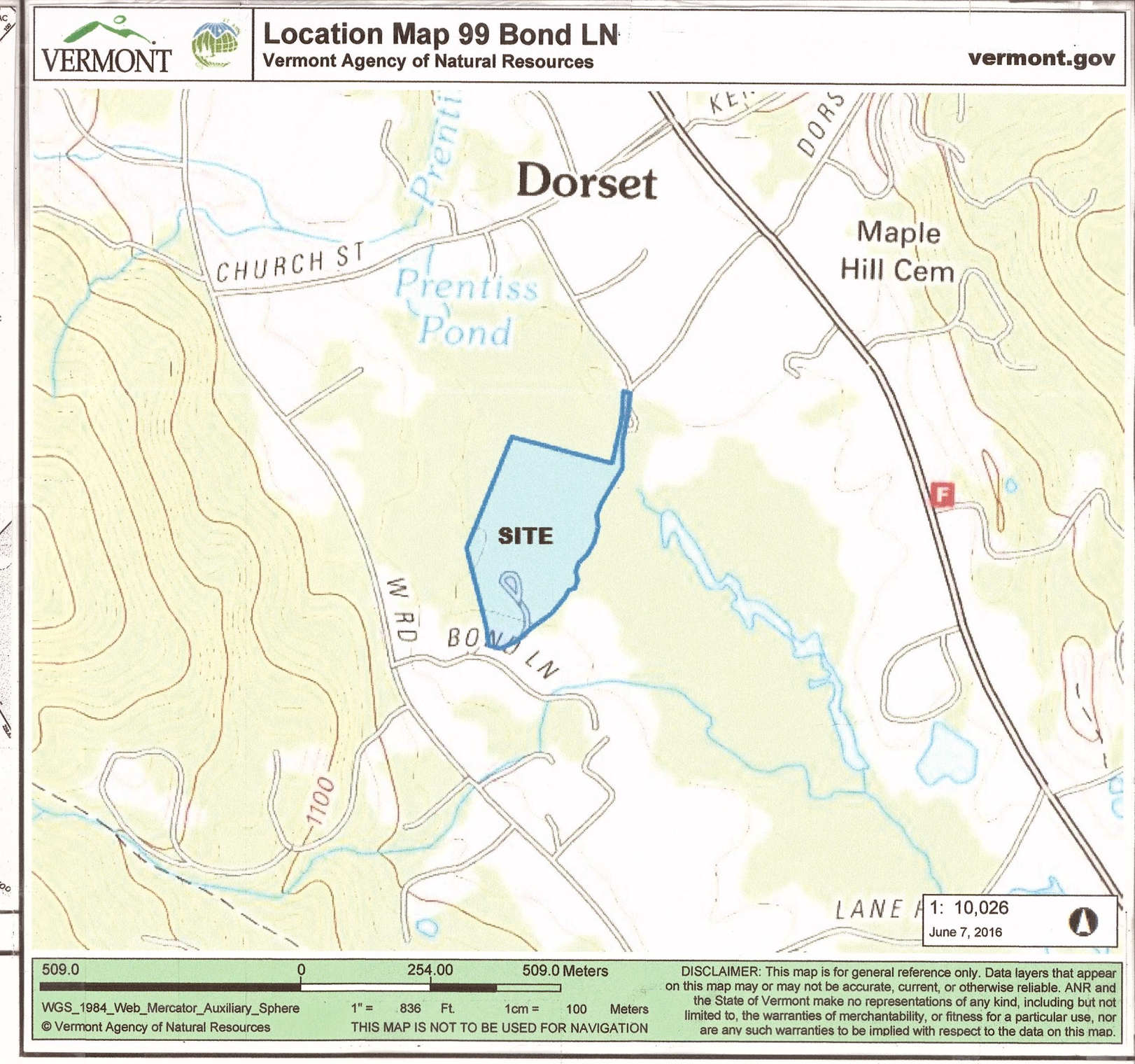
By Woodland Services, INC.

1,032.0 0 516.00 1,032.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 1693 Ft. 1cm = 203 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.



DESIGN CRITERIA
 FLOWS: 2 BEDROOMS (4 PERSONS) = 280 GPD
 PERCOLATION TEST RESULTS: 4.2, 3.9 MIN./IN.
 APPLICATION RATE: (8) $\frac{1}{2}$ " = 1.46 \therefore USE 1.2 GAL./SQ./DAY FOR BED SYSTEM
 DISPOSAL FIELD REQUIRED: 233 SQ'.
 DISPOSAL FIELD PROVIDED: 6' x 40' BED = 240 SQ'

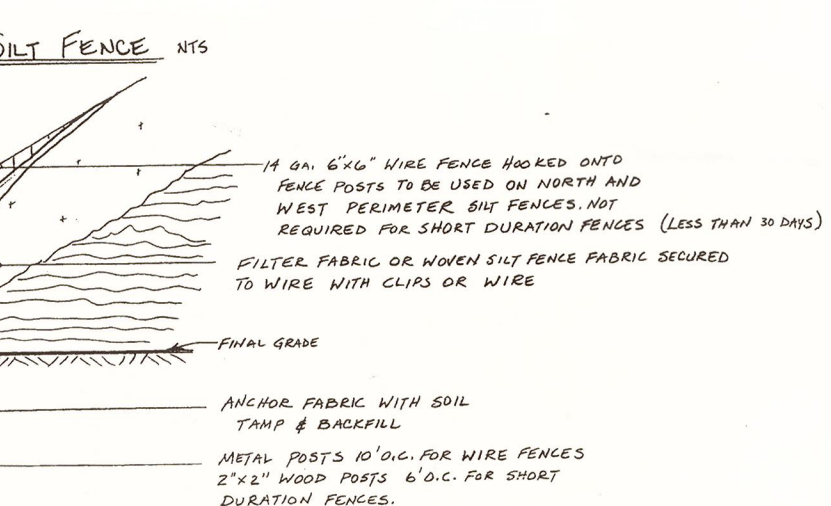
WETLAND BUFFER IMPACT
 TEMPORARY IMPACT = REPLACEMENT SEPTIC DISPOSAL BED = 60 SQ'
 POWER LINE BURIAL = 150
 BUILDING AREA IN BUFFER = 150
 ADDITIONAL GRAVEL DRIVE = 150
 FILL SLOPE WEST OF BUILDING = 190
 TOTAL IMPACT AREA = 700 SQ'
 PERMANENT IMPACT = 490 SQ'

WETLAND BUFFER RESTORATION
 FILLING EXISTING SEPTIC TANK = 20 SQ'
 EXISTING COTTAGE REMOVAL = 690
 IN SUMMARY: TOTAL RESTORATION 710 SQ'
 THIS DESIGN CONSOLIDATES IMPACT AT THE EXISTING HOUSE SITE. AVOIDANCE OF THE BUFFER HAS BEEN EMPLOYED IN BOTH BUILDING ADDITION AND SEPTIC REPLACEMENT FIELD. REMOVAL OF THE COTTAGE IS A SIGNIFICANT MITIGATION EVENT.

DEMOLITION & RESTORATION
 SEE SHEET S-2 RESTORATION PLAN FOR SPECIFIC DETAILS
 #1 FILL EXISTING OPEN METAL SEPTIC TANK USING WHEELBARROW AND HAND TOOLS TO AVOID UNNECESSARY IMPACT. RESTORE 20 SQ'
 #2 PLACE SILT FENCE BEFORE REMOVAL OF BUILDING
 #3 REMOVE & RESTORE COTTAGE SITE RESTORATION AREA = 690 SQ'

FILL SLOPE 190 SQ'
 ADDITIONAL GRAVEL DRIVE 150 SQ'
 ADDITIONAL BUILDING AREA 150 SQ'
 TEMPORARY IMPACT SEPTIC AREA = 60 SQ'
 IMPACT

IMPACT
 BURY ELECTRIC SERVICE FROM EXISTING POLE. USE MINI EXCAVATOR AND RESTORE MINERAL SOIL AS FOUND IN SITU. 150 SQ'
 TEMPORARY IMPACT



LOT INFORMATION:
 ID NUMBER: 000 664
 TAX MAP ID: 22-21-80
 DEED: BK 179 PG 453-4
 LOT AREA: 20.0 AC
 SPAN NO.: 180-057-10893

- LEGEND**
- SILT FENCE
 - WETLAND DATA POINT
 - WETLAND DELINEATION FLAG
 - WETLAND LIMITS
 - SURVEY STATION/BENCH MARK
 - SOIL TEST PIT
 - PERCOLATION TEST
 - UTILITY POLE
 - OVERHEAD WIRES
 - NEW BUILDING CONSTRUCTION
 - WETLAND BUFFER LIMITS

- NOTES**
1. WATER SUPPLY AND SEPTIC SYSTEM MUST BE INSTALLED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
 2. ANY VARIATION MUST BE APPROVED PRIOR TO CONSTRUCTION, BY THE DESIGNER.
 3. NOTIFY THE DESIGNER PRIOR TO CONSTRUCTION AND SCHEDULE INSPECTION OF THE INSTALLATION. CERTIFICATION OF THE INSTALLATION IS REQUIRED BY VERMONT LAW.
 4. ADDITIONAL INSTALLATION INSTRUCTIONS ARE FOUND IN CHAPTER 1 OF THE ENVIRONMENTAL PROTECTION RULES.

I HEREBY CERTIFY THAT THE DESIGN-RELATED INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT, AND THAT, IN THE EXERCISE OF MY REASONABLE PROFESSIONAL JUDGMENT, 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.
 [Signature] 6/17/2016
 VT DESIGNER #182 DATE

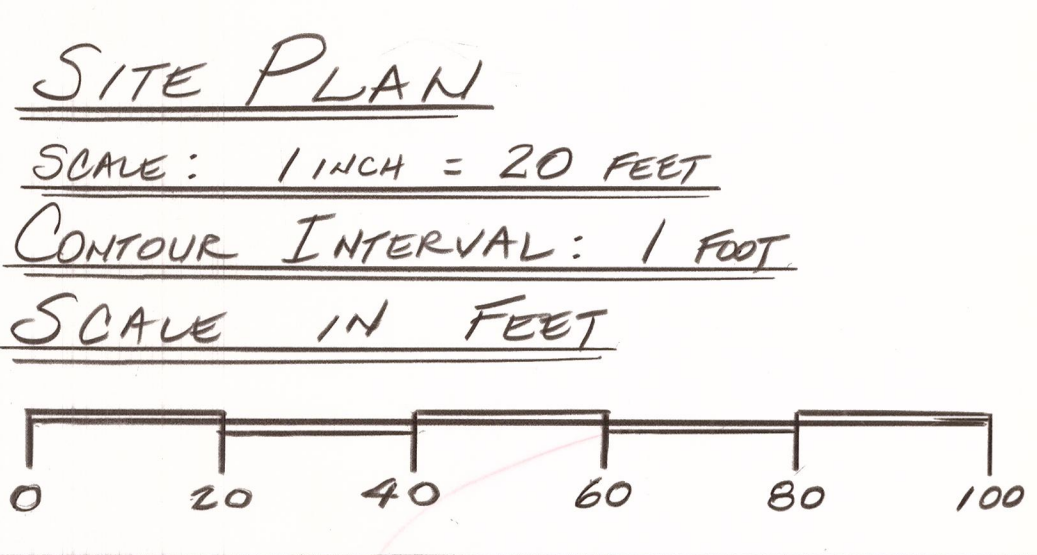
REPLACEMENT SEPTIC SYSTEM DESIGN AND WETLAND BUFFER IMPACT PLAN
 PROJECT # 3312016

PREPARED FOR
SARAH H. DOLE
 99 BOND LANE
 DORSET VERMONT

Woodland Services
 ENVIRONMENTAL PLANNING SITE - TECHNOLOGY
 P.O. Box 1323
 Manchester Center
 Vermont 05255
 802-375-6970

FIELD CREW: CCH SBC	REVISIONS/ISSUES 7/6/2016
DESIGNER: CCH	7/14/2016
DRAWN BY: CCH	7/15/2016
	8/23/2016 POWER BURIAL

DRAWING NO. **S-1**



Woodland Services, INC.
Mailing address, P O Box 1323
Manchester Ctr. VT 05255
802-375-6970

woodserv1@myfairpoint.net

July 15, 2016

Zapata Courage, District Wetland Ecologist
Agency of Natural Resources
450 Asa Bloomer Building
Rutland, Vermont 05701-5903

Re: Wetland Impact Project 3312016 at 99 Bond Lane, Dorset, Vermont. Property of Sarah H. Dole.

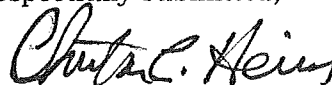
Demolition and Restoration Plan

This narrative and the attached drawing, S-2 Restoration Plan detail the sequence and action to demolish the old cottage and restore the area to a natural state. The numbered events are in the expected construction sequence. Some elements will take place concurrently to provide efficiency of effort.

1. The open 4' diameter septic tank, 27' to the north of the cottage, will be filled in with clean sandy soil using wheelbarrows and hand tools to avoid putting equipment in the buffer beyond the building area. Soil will be hand tamped and covered with forest litter collected from the immediate area. If the septic tank lid is found, it will be disposed of with other debris.
2. Prior to any excavation, install Silt fences at both location shown on sheet S-1. These will demarcate the limits of heavy equipment use on site. Be sure to bury the silt fence below grade 6" and tamp the trench. The exceptionally well drained native soil is not prone to erosion. Our properly installed silt fence and small impact area will protect the site.
3. The cottage will be removed from the existing parking area to the south. Debris, including the concrete portion of the foundation will be trucked off site to an approved disposal site in an upland. The foundation hole will be filled with native soil from new foundation and septic system construction. The top 12' of fill will be forest soil. No topsoil with sod pieces may be used.
4. The Restoration Plan sheet S-2 shows the placement of 6 trees 2-3" cal. In the restored area. The species: *Quercus rubra*, *Prunus serotina* and *Acer saccharum* are common dominant trees on this property. I did not include *Fraxinus americana* due to the threat from the emerald ash borer. The surface under the trees will be covered in mulch raked from leaf litter on site this fall. By using native mulch the introduction of foreign seed may be avoided.

Please let me know if you need additional information.

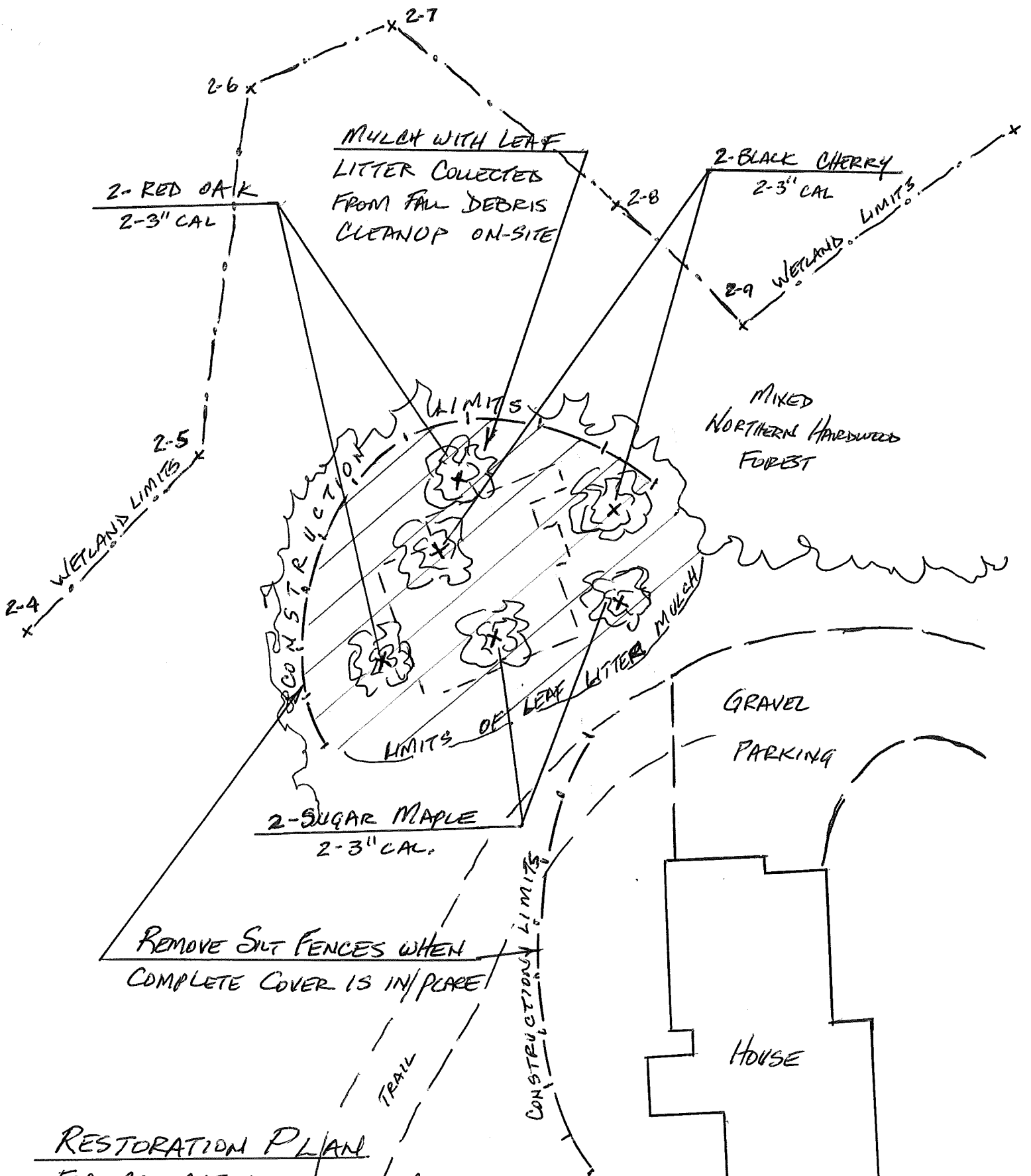
Respectfully submitted,



Christian C. Heins
Wetland Consultant

Attachment: Restoration Plan S-2





RESTORATION PLAN

FOR COTTAGE DEMOLITION AT
 99 BOND LN, DORSET, VT
 LANDS OF SARAH H. DOLE

WETLAND PERMIT APPLICATION # 3312016

SCALE: 1" = 20'

BY: CC HEINS
 WOODLAND SERVICES INC.
 PO BOX 1323
 MANCHESTER CTR VT 05255

SHEET
 5-2