

February 1, 2016

Vermont Department of Environmental Conservation
Watershed Management
1 National Life
Main Bldg., 2nd Fl.
Montpelier, VT 05620



Subject: Pop the Trunk, LLC, 912 Lake Road – Vermont Wetland Permit Application – TCE
Project # 11-019

Dear Ms. Heath:

Trudell Consulting Engineers (TCE) was asked by Pop the Trunk, LLC (c/o David Shlansky, 360 Main Street, Vergennes, VT 05491) to prepare a Vermont Wetland Permit Application for wetland and buffer impacts associated with a residential building site with on-site sewer and water.

Impacts to wetlands will be the result of placing fill material in wetlands in order to construct a driveway, single family home, and trenching for the septic mound. The property has an existing developed driveway that accesses the single family home that currently exists on the parcel. A series of site plan revisions (4) submitted to the Army Corps in 2011 and 2012 resulted in the attached site plan that we re-submit to you today. Total impacts to waters of the U.S. (wetlands) were reduced to (10,648 sq ft of permanent impact, and an additional 3,822 sq ft of temporary impact).

Most of the parcel is classified as a wetland except for a 1/2 acre of upland, which is long and narrow. There is very little land that is outside the wetland buffer line. An existing septic system for Lot 1 and 1/2 of the proposed septic system for this parcel are located within this upland island including the wetland buffer. The mound location is critical for the disposal system design based on soil types. Access to the mound area will be infrequent, and usually only for the purposes of mowing, maintenance, and/or inspections. The remaining wetlands on the lot will be "naturalized" with no management, and the remaining wetland boundary will be permanently memorialized from future encroachments. Additionally, a fee will be paid to the Vermont In-Lieu Fee Program via Ducks Unlimited in order to mitigate for the wetland impact.

Please review the submitted information and determine if the proposed actions can be authorized under a Vermont Wetland Permit Application.

Should you have any questions, please do not hesitate to contact me directly.

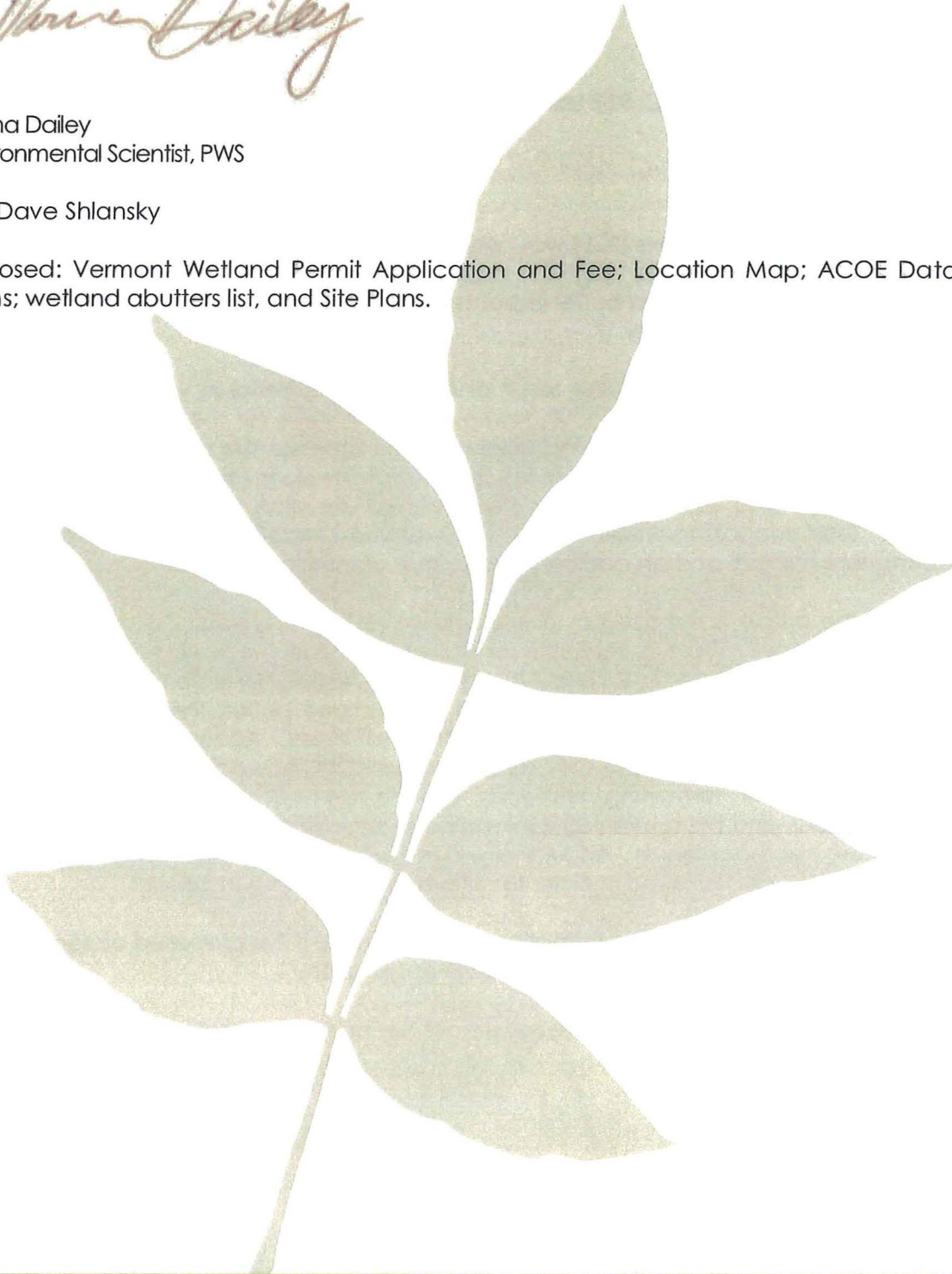
Regards,

Karina Dailey

Karina Dailey
Environmental Scientist, PWS

cc: Dave Shlansky

Enclosed: Vermont Wetland Permit Application and Fee; Location Map; ACOE Data forms; wetland abutters list, and Site Plans.








Vermont Wetland Section Wetland Application Database Form (AFFIX TO THE FRONT OF THE APPLICATION)

Applicant Name: Pop the Trunk, LLC		Representative Name: Karina Dailey - Trudell	
Town where project is located: Charlotte		County: Chittenden	
Project Location Description: The wetland is located approximatley 500ft to the north of 912 Lake Road. <i>911 Street Address or direction from nearest intersection</i>			
Project Summary: The overall project involves the construction of a house, driveway, and septic.			
Permit Type Requested (check all that apply)			
<input type="checkbox"/> Vermont General Permit Coverage <input type="checkbox"/> Wetland Determination <input checked="" type="checkbox"/> Vermont Wetland Permit			
Impact Calculations: Total up proposed impacts from wetland tables listed below			
Total Wetland Impact		Total Buffer Zone Impact	
14470square feet (s.f.)		5191square feet (s.f.)	
Total Wetland Clearing (qualified linear projects only)		Total Buffer Zone Clearing (qualified linear projects only)	
square feet (s.f.)		square feet (s.f.)	
Permit Fees: Make check payable to - State of Vermont			
Wetland Impact Fee: (\$0.75/sf)		Administrative Fee:	
\$10,852.50		\$240	
Buffer Impact Fee: (\$0.25/sf)		Total Check Amount:	
\$1,297.75		\$12390.25	
Clearing Fee: (\$0.25/sf)		\$	
Existing Land Use Type: (check all that apply)			
<input type="checkbox"/> Forestry <input type="checkbox"/> Residential (Subdivision) <input type="checkbox"/> Industrial/ commercial <input type="checkbox"/> Agriculture <input type="checkbox"/> Transportation <input type="checkbox"/> Parks/Rec/Trail <input checked="" type="checkbox"/> Residential (Single Family) <input type="checkbox"/> Institutional <input type="checkbox"/> Undeveloped			
Proposed Land Use Type: (check all that apply)			
<input type="checkbox"/> Forestry <input type="checkbox"/> Residential (Subdivision) <input type="checkbox"/> Industrial/ commercial <input type="checkbox"/> Agriculture <input type="checkbox"/> Transportation <input type="checkbox"/> Parks/Rec/Trail <input checked="" type="checkbox"/> Residential (Single Family) <input type="checkbox"/> Institutional <input type="checkbox"/> No Change			
Proposed Impact Type: (check all that apply)			
<input checked="" type="checkbox"/> Buildings <input type="checkbox"/> Utilities <input type="checkbox"/> Parking <input checked="" type="checkbox"/> Septic/Well <input type="checkbox"/> Stormwater <input checked="" type="checkbox"/> Driveway <input type="checkbox"/> Road <input type="checkbox"/> Parks/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"/> Aesthetics <input type="checkbox"/> Other <input type="checkbox"/> No Impact			
Wetland 1: (Label using Wetland ID from application if applicable, use supplemental sheets if more than one wetland is being impacted)		Location:	
Wetland Type: PEM/PSS/PFO		WL Size Class : 5-10 acres	
Proposed Alterations			
Wetland Alteration:		Wetland Alteration Type (check all that apply)	
Wetland Fill: 14470s.f.		<input type="checkbox"/> Dredge <input type="checkbox"/> Drain	
Temporary: 3822s.f.		Temporary: s.f. <input checked="" type="checkbox"/> Cut Vegetation <input checked="" type="checkbox"/> Stormwater	
Permanent: 10648s.f.		Permanent: 5191 s.f. <input checked="" type="checkbox"/> Trench/Fill <input type="checkbox"/> Other	
Mitigation			
Avoidance and Minimization (s.f. of wetland NOT impacted):		Wetland: 348480s.f. Buffer Zone 12480s.f.	
Wetland Mitigation: (s.f. Gained)		Buffer Zone Mitigation (s.f. Gained):	
Restoration s.f. Enhancement s.f.		Restoration s.f. Enhancement s.f.	
Creation s.f. Conservation 348480s.f..		Creation s.f. Conservation s.f.	
Reason for Mitigation:		<input checked="" type="checkbox"/> Mitigation to offset permit impacts <input type="checkbox"/> Voluntary	
<input type="checkbox"/> Correction of Violation			

Vermont Wetland Permit Application/Determination Petition

QUESTION	INSTRUCTIONS AND APPLICANT ANSWER	STAFF NOTE
1. Applicant	If the applicant is someone other than the landowner, the landowner information must also be included below.	
1.1. Applicant Name	Pop the Trunk, LLC c/o David J. Shlansky	
1.2. Applicant Address	360 Main Street, Vergennes, VT 05491	
1.3. Applicant Phone Number	802-870-0685	
1.4. Applicant Email	djs@burchfieldcompany.com	
1.5. Applicant Signature (original signature required)	<p>By signing this application you are certifying that all the information contained within is true, accurate, and complete to the best of your knowledge.</p> <p>X  David J. Shlansky, Manager, as corporate officer and not individually Date: 01/28/2016</p>	
2. Representative	Consultant, engineer, or other representative that is responsible for filling out this application, if other than the applicant or landowner	
2.1. Representative Name	Karina Dailey - Trudell Consulting	
2.2. Representative Address	478 Blair Park Road, Williston, VT 05495	
2.3. Representative Phone Number	802-879-6331x110	
2.4. Applicant Email	karina.dailey@tcevt.com	
2.5. Representative Signature (original signature required)	<p>By signing this application you are certifying that all the information contained within is true, accurate, and complete to the best of your knowledge.</p> <p>X  Date: 2/1/16</p>	
3. Landowner	Landowner must sign the application. Use this space if landowner is different from the applicant	
3.1. Landowner Name	Pop the Trunk, LLC c/o David J. Shlansky	
3.2. Landowner Address	360 Main Street, Vergennes, VT 05491	
3.3. Landowner Phone Number	802-870-0685	
3.4. Landowner Email	djs@burchfieldcompany.com	
3.5. Landowner Easement	Attach copies of any easements, agreements or other documents conveying permission, and agreement with the landowner stating who will be responsible for meeting the terms and conditions of the permit. List the attachment for this information in this section.	
3.6. Landowner Signature (original signature required)	<p>By signing this application you are certifying that all the information contained within is true, accurate, and complete to the best of your knowledge.</p> <p>X  David J. Shlansky, Manager, as corporate officer and not individually Date: 01/28/2016</p>	
4. Location of Wetland and Project	<p>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 geographic features.</p> <p>The project is located at 912 Lake Road in Charlotte, VT. Access to the property from the town of Charlotte is gained by following Greenbush Road</p>	

	north from the town center for approximately 1.5 mi, turning west onto Lake Road for 0.8 mi, before turning north again onto an improved gravel access road that transitions to an unimproved access (0.10 mi) that enters the southern portion of the property.		
5. Site Visit Date and Attendees	Date of visit with District Wetlands Ecologist	List people present for site visits including Ecologist, landowner, and representatives.	
	7/20/2011, 11/08/2011	Karina Dailey and Julie Foley; Karina Dailey and Alan Quackenbush	
6. Wetland Classification	The wetland is a Class II wetland because (Choose one): The wetland is contiguous to a VSWI mapped wetland		
7. Description of Entire Wetland or Wetland Complex	Answer the following questions regarding the entire wetland or wetland complex. A wetland complex is generally defined as two or more wetland types that are contiguous and interrelated. Specific questions about the wetland in the project area will follow.		
7.1. Size of Wetland Complex in Acres	Can be obtained from the Environmental Interest Locator Map for mapped wetlands >10 Acre (estimated)		
7.2. Natural Community Types Present	List all wetland types in the wetland or wetland complex and their abundance or relative abundance. For example: 50 acres of softwood forested swamp; or 30% scrub swamp, 70% emergent wetland 50% emergent wetland; scrub shrub wetland 40%; 30% forested swamp		
7.3. Landscape Position	Where is the wetland located on the landscape? Examples: bottom of a basin, edge of a stream, shore of a lake, etc. The wetland is riparian and clayplain along an unnamed tributary to Holmes Creek.		
7.4. Wetland Hydrology	Describe the main source of wetland hydrology for the wetland complex. List any river, streams, lakes and ponds. The wetland hydrology is a combination of ground water discharge and surface water. Include answers to the following where appropriate:		
7.4.1. Direction of flow	For example: stream flows from north to south through the wetland complex. The tributary flows from north to south through the wetland complex.		
7.4.2. Influence of hydrology on wetland complex	For example: The river provides flood water to the wetland in the spring. The lower portions of this wetland are likely flooded during portions of spring runoff.		
7.4.3. Relation to the project area	Distance between the project area and any nearby surface waters. The wetland is adjacent to an unnamed tributary to Holmes Creek which flows directly into Lake Champlain approximately 0.5 mi downstream.		
7.4.4. Hydroperiod	Discuss frequency and duration of flooding, ponding, and/or soil saturation. Partial inundation is possible during spring runoff, and soil saturation is present during most of the growing season.		
7.5. Surrounding Landuse of the Wetland Complex	For example: rural residential and forested; agricultural and undeveloped, The wetland is bounded by residential and/or agricultural land on three sides and is reverting to old field associations and shrub growth.		
7.6. Relation to Other Nearby Wetlands	Provide any information on wetlands or wetland complexes that are close enough to contribute to the overall function of the wetland in question. Subject wetland abuts 47ac Class II wet clayplain forest located to the north.		
7.7. Pre-project Cumulative Impacts to the Wetland	Identify any cumulative ongoing impacts outside of the project that may influence the wetland. Examples include but are not limited to wetland encroachments off the subject property, land management in or surrounding the wetland, or development that influences hydrology or water quality. None identified.		
8. Description of Subject	Subject Wetland is defined as the area of wetland in the project area, but not		

Wetland	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 larger wetland or wetland complex that could be directly or indirectly impacted by the project, as defined by hydrology, vegetation and/or physical characteristics.	
8.1. Context of Subject Wetland	Describe where the subject wetland is in the context of the larger wetland or wetland complex described above. Subject wetland area is riparian and wet clayplain and surrounds a tributary to Holmes Creek.	
8.2. Wetland Landuse	For example: mowed lawn; old field; naturally vegetated. Describe any previous and ongoing disturbance in the subject wetland. Mowed yard and shrubs, some old field.	
8.3. Wetland Vegetation	List dominant wetland community type and associated dominant plant species. Cornus stolonifera, Cornus foemina, Fraxinus pennsylvanica, Ulmus americana, Phalaris arundinacea, and Agrostis stolonifera.	
8.4. Wetland Soils	Use USDA NRCS information where possible and use the ACOE Delineation Manual soil description Vergennes clay 2-6% slopes and Covington silty clay. Depleted matrix.	
8.5. Wetland Hydrology	Use descriptions from the ACOE Delineation Manual. High water table, Surface water, and Saturation.	
8.6. Buffer Zone	Describe the buffer zone of the subject wetland including:	
8.6.1. General landuse	For example: mowed road shoulder; forested; old field; paved road and residential lawns etc. Describe any previous and ongoing disturbance in the buffer zone. The buffer zone is located on a slightly elevated 1/2 acre island surrounded by wetland upon which is located an existing septic mound for the existing home to the south. The northern third is forested and the remaining 2/3th is old field.	
8.6.2. Buffer vegetation	List community type and dominant plant species Tree: Populus tremuloides with a shrub story of: Lonicera morrowii, Cornus foemina, over Poa pratensis and Solidago canadensis.	
8.6.3. Buffer soils	Use USDA NRCS information where possible, and the ACOE Delineation Manual soil description Vergennes clay and Covington silty clay and Redox depressions.	

9. Wetland Determination	If the application involves a wetland determination please answer the following. If not, skip to Section 10.	
9.1. Reason for Petition	Please choose one from the dropdown menu: Add a Section 4.6 presumed wetland to the VSWI map	
9.2. Previous Decisions	Please list all determinations and decisions, if any, issued by the Secretary, Panel or former Water Resources Board, pertaining to the wetland or buffer at issue:	
9.3. Narrative	Please provide any narrative to support the petition for a wetland determination here. This section is not required for petitions to add a Section 4.6 presumed wetland to the VSWI map, but is required for all other petitions.	

If the application is only for a Wetland Determination only, skip to Section 13

10. Project Description		
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<p>10.1.Overall Project</p>	<p>Description of the project. For example: six-lot residential subdivision; expansion of an existing commercial building, access drive to a single family residence. Access drive, septic and building envelope for a single family residence.</p>	
<p>10.2.Project Purpose</p>	<p>For example: To construct a residential subdivision, upgrade existing road to improve access, extend a trail system Residential building site with on-site sewer and water.</p>	
<p>10.3.Acres Owned by Applicant</p>	<p>Acreege of subject property. 11 acres</p>	
<p>10.4.Acres Involved in the Project</p>	<p>Acreege of area involved in the project. Approximately 0.5 acres</p>	
<p>11.Project Details</p>	<p>Provide details regarding specific impacts to the wetland and buffer zone</p>	
<p>11.1.Specific Impacts to Wetland and Buffer Zone</p>	<p>List portions of the project that will specifically impact the wetland or buffer zone. Impacts to wetlands will be the result of placing fill material in wetlands in order to construct a driveway, single family home, and trenching for the septic mound.</p>	
<p>11.2.Dimension Details</p>	<p>Square footage of buildings, dimension of roads including fill footprint.</p>	
<p>11.3.Bridges and Culverts</p>	<p>Culvert circumference, length, placement and shapes, or bridge details. 15 inch PVC culvert, 24 feet long.</p>	
<p>11.4.Construction Sequence</p>	<p>Describe any details pertaining to the worked planned in the wetland and buffer in terms of sequence or phasing that is relevant Install limits of disturbance demarcation and then silt fence. 2. Cut vegetation. 3. Install culvert. 4. Construct driveway to house site. 5. Topsoil, seed, & mulch side slopes. 6. Plow mound area. 7. Construct diversion swales for mound. 8. Topsoil, seed & mulch swales. 9. Place fill for mound and construct septic field. 10.Topsoil, seed & mulch mound. 11. Install forcemain during period when little or no rain is anticipated within 3 days. 12. Excavate trench, install forcemain, and backfill. 13. Topsoil, seed and mulch forcemain. 14. Construct house and garage. 15. Install fill around house to limits of distrubance. 16. Topsoil, seed and mulch all disturbed areas. 17. Remove limits of disturbance and silt fence after vegetation is established. 18. Install fence around the house lawn area and posts around septic mound as permanent limits of disturbance.</p>	
<p>11.5.Stormwater Design</p>	<p>List any stormwater permits obtained or applied for. Describe any stormwater and/or erosion controls proposed to prevent discharges to the wetland and buffer zone. There will be diversion ditches to redirect the existing natural flow around the mound and a culvert added under the proposed driveway at the low point. Silt fences will be placed at the limits of disturbance as shown on the site plan.</p>	
<p>11.6.Permanent Demarcation of Limits of Impact</p>	<p>Describe any plantings, fencing, signage, or other memorialization that provides permanent on-the-ground boundaries for the limits of disturbance for ongoing uses. 4"x4" wooden witness posts are proposed for demarcating the limits of the mound trench and fill area within buffer and wetland. The mound would be mowed to the limits of the post area to prevent woody vegetation from</p>	

	growing. A split rail fence will be placed at the limits of disturbance around the house site.							
12. Wetland and Buffer Zone Impacts								
12.1. Wetland Impacts	<p>Summarize the square footage of impact in the appropriate category. If more than one wetland is impacted, provide that information and use the supplemental wetland sheets.</p> <p>Totals</p> <table border="1" data-bbox="553 480 1377 579"> <tr> <td>Wetland Fill</td> <td>10648 s.f.</td> </tr> <tr> <td>Temporary Wetland Impact</td> <td>3822 s.f.</td> </tr> <tr> <td>Other Permanent Wetland Impact</td> <td>s.f.</td> </tr> </table> <p>Describe in detail the proposed impact.</p> <p>Wetland impacts will be comprised of fill for the driveway, house and associated lawn, fill to construct a portion of the proposed mound, excavation for one of the diversion ditches, and forcemain trench. Temporary impacts will include the trenching for the underground electric, telephone and cable lines that will be located adjacent to the driveway. The area of impact surrounding the house is under 1/2 acre, including the garage, the vehicle turnaround area, the well, the lawn, and the tanks associated with the septic system.</p>	Wetland Fill	10648 s.f.	Temporary Wetland Impact	3822 s.f.	Other Permanent Wetland Impact	s.f.	
Wetland Fill	10648 s.f.							
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12.2. Buffer Zone Impacts	<p>Summarize the square footage of impact in the appropriate category. If more than one wetland is impacted, provide that information and use the supplemental wetland sheets.</p> <p>Totals</p> <table border="1" data-bbox="553 1121 1370 1186"> <tr> <td>Temporary Buffer Impact</td> <td>5191 s.f.</td> </tr> <tr> <td>Permanent Buffer Impact</td> <td>s.f.</td> </tr> </table> <p>Describe in detail the proposed impact.</p> <p>The buffer zone impacts include the fill to construct the proposed mound.</p>	Temporary Buffer Impact	5191 s.f.	Permanent Buffer Impact	s.f.			
Temporary Buffer Impact	5191 s.f.							
Permanent Buffer Impact	s.f.							
12.3. Cumulative Impacts	List any potential cumulative or ongoing, direct and indirect impacts on the functions of the wetland that could result from the proposed project.							
12.4. Avoidance and Minimization	Please refer to Section 9.5b of the rules on Mitigation Sequencing for this section.							
12.4.1. Avoidance	<p>Can the proposed activity be practicably located outside the wetland/buffer zone, or on another site owned or controlled by the applicant or reasonably available to satisfy the basic project purpose? If not, indicate why. This answer should include any examination of alternatives that you have explored including using other properties, requesting easements, and altering the project design.</p> <p>Most of the parcel is classified as a wetland except for a 1/2 acre of upland, which is long and narrow. There is very little land that is outside the wetland buffer line. An existing septic system for Lot 1 and 1/2 of the proposed septic system for this parcel are located within this upland island including the wetland buffer. The proposed septic system has received a State Waste Water and Potable Water Supply Permit.</p>							
12.4.2. Minimization	If the proposed activity cannot practicably be located outside the wetland/buffer zone, have all practicable measures have been taken to avoid adverse impacts on protected functions? Please include any information on							

	<p>on-site alternatives that have been examined; minimizing the size and scope of the project to avoid impacts; or relocating portions of the project to avoid impacts</p> <p>A series of site plan revisions (4) submitted to the Army Corps in 2011 and 2012 resulted in the attached site plan that we re-submit to you today. Total impacts to waters of the U.S. (wetlands) were reduced to (10,648 sq ft of permanent impact, and an additional 3,822 sq ft of temporary impact). The mound location is critical for the disposal system design based on soil types. Access to the mound area will be infrequent, and usually only for the purposes of mowing, maintenance, and/or inspections.</p>	
<p>12.4.3. Mitigation</p>	<p>If avoidance of adverse effects on protected functions cannot be practically achieved, has the proposed activity has been planned to minimize adverse impacts on the protected functions and a plan has been developed for the prompt restoration of any adverse impacts on protected functions? Include any information on best management practices to be used for the project both for the initial construction and ongoing use. Also include any proposed restoration of temporary impacts, previously disturbed wetland or buffer zones or proposed conservation that are being used to offset the proposed impacts.</p> <p>The remaining wetlands on the lot will be "naturalized" with no management, and the remaining wetland boundary will be permanently memorialized from future encroachments. Posts will be installed along the base of the mound and a split rail will be installed on the north, east and south sides of the house site to demarcate the limits of mowing and future disturbance.</p>	
<p>12.4.4. Compensation</p>	<p>Please refer to Section 9.5c of the rules for compensation, which is appropriate when the project will result in an undue adverse impact. If compensation is proposed please include a summary here.</p> <p>A \$32,157.00 fee will be paid to the Vermont In-Lieu Fee Program via Ducks Unlimited in order to mitigate for the impact to the wetland.</p>	
<p>13. Supporting materials</p>	<p>Where appropriate list the accompanying material by title, author, date and last revision date. Submit these documents and plans with the application.</p>	
<p>13.1. Location map</p>	<p>Provide a project location map that is 8 1/2" x 11" and reproducible in black and white. An Environmental Interest Locator Map is appropriate using the USGS topography map base layer, roads, and VSWI wetlands at minimum.</p> <p>See attached TCE Location Map.</p>	
<p>13.2. Site Plans</p>	<p>List by title, author, date and last revision date. Plans should include wetland delineation and buffer zones, limits of disturbance, erosion controls, building envelopes and permanent memorialization.</p> <p>Title: Site Plan, C2.01, Author: TCE, Date: 3/08/2013 and last revised 11/30/15.</p>	
<p>13.3. ACOE Delineation Forms</p>	<p>List by author, location, and date. Required only for Individual Permits.</p> <p>Karina Dailey, 912 Lake Road Charlotte, May 7, 2011.</p>	
<p>13.4. Other Supporting Documents</p>	<p>Provide any other documentation that supports the application. List photographs; easements; agreements; may include a GIS-compatible wetland submittal for determinations; etc.</p> <p>11/20/2015 Email from Tina Heath.</p>	
<p>13.5. List of Abutters (Neighbors with land adjoining wetland or buffer zone)</p>	<p>Attach list of names and mailing addresses or submit as word mailing document.</p> <p>See attached abutters list.</p>	
<p>13.5.1. Newspaper Notification</p>	<p>If choosing the option to fulfill the notice requirement with a newspaper notice, list the newspaper to be used here. A list of names and addresses for immediately adjacent landowners (500 foot radius) of the project area is required for the List of Abutters. ***NOTE: The applicant will be billed directly by the newspaper you list here. Use of newspaper notification may extend the notice period, depending on when the notice posts in the newspaper.</p>	

<p>14. Check Which Functions are Present in the Subject Wetland and in the Wetland Complex.</p>	<p>Wetland Function Summary: (if more than one wetland use supplemental wetland sheets)</p> <table border="1"> <thead> <tr> <th>Functions & Values</th> <th>Subject Wetland</th> <th>Wetland Complex</th> <th>Functions & Values</th> <th>Subject Wetland</th> <th>Wetland Complex</th> </tr> </thead> <tbody> <tr> <td>Flood/Storm Storage</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>RTE Species</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Surface & Groundwater Protection</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>Education & Research</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Fish Habitat</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Recreation/Economic</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Wildlife Habitat</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td>Open Space/Aesthetics</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Exemplary Natural Community</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Erosion Control</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Functions & Values	Subject Wetland	Wetland Complex	Functions & Values	Subject Wetland	Wetland Complex	Flood/Storm Storage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RTE Species	<input type="checkbox"/>	<input type="checkbox"/>	Surface & Groundwater Protection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Education & Research	<input type="checkbox"/>	<input type="checkbox"/>	Fish Habitat	<input type="checkbox"/>	<input type="checkbox"/>	Recreation/Economic	<input type="checkbox"/>	<input type="checkbox"/>	Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Open Space/Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	Exemplary Natural Community	<input type="checkbox"/>	<input type="checkbox"/>	Erosion Control	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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Exemplary Natural Community	<input type="checkbox"/>	<input type="checkbox"/>	Erosion Control	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																	
<p>15. Coverage under Vermont General Wetland Permit</p>	<p>If applying for an Individual Vermont Wetland Permit or Determination, please proceed to number 16 and answer the remaining application questions.</p> <p>If applying for Coverage under the Vermont General Wetland Permit, please complete question 15.1 prior to submitting application.</p>																																					
<p>15.1.VWP Vermont General Permit eligibility checklist</p>	<p>If applying for coverage under the Vermont General Wetland Permit, please verify the following to complete the application:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The activity qualifies as an eligible activity for coverage under the Vermont General Wetland Permit <input type="checkbox"/> The proposed project will meet the conditions applicable to the proposed project in the Vermont Wetland General Permit <input type="checkbox"/> The activity does not qualify as an Allowed Use under Section 6 of the Vermont Wetland Rules. <input type="checkbox"/> The activity will not result in an undue adverse impact on protected wetland functions and values, nor does it need additional conditions to protect functions and values. <input type="checkbox"/> All impacts have been avoided and minimized to the greatest extent possible. <input type="checkbox"/> The wetland complex is not significant for Function 5.5 Exemplary Wetland Natural Community or 5.6 Rare, Threatened and Endangered Species Habitat. <input type="checkbox"/> The activity is not located in or adjacent to a vernal pool, fen, or bog. <input type="checkbox"/> The wetland is not at or above 2,500' in elevation (headwaters wetland). <input type="checkbox"/> The project is not located in a Class I wetland or associated buffer zone. <input type="checkbox"/> The activity is not an as-built project that constitutes a violation of the Vermont Wetland Rules. 																																					
<p>Stop here if applying for Coverage under the Vermont General Wetland Permit</p>																																						

Complete the following Functions and Values checklist if applying for an Individual Wetland Permit and/or a Wetland Determination

Functions and Values

For each Function and Value, first evaluate the entire wetland or **wetland complex** and check all that apply. Secondly, evaluate how the wetland in the project area contributes to that function. Thirdly explain how the project will not result in adverse impacts to this function. Include any information on specific avoidance and minimization measures.

If more than one wetland complex is involved, use the Supplemental Wetland Forms.

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

	<ul style="list-style-type: none"> <input type="checkbox"/> History of downstream flood damage to public or private property. <input type="checkbox"/> 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. <ul style="list-style-type: none"> <input type="checkbox"/> 1. Developed public or private property. <input type="checkbox"/> 2. Stream banks susceptible to scouring and erosion. <input type="checkbox"/> 3. Important habitat for aquatic life. <input checked="" type="checkbox"/> The wetland is large in size and naturally vegetated. <input type="checkbox"/> Any of the following conditions present upstream of the wetland may indicate a large volume of runoff may reach the wetland. <ul style="list-style-type: none"> <input type="checkbox"/> 1. A large amount of impervious surface in urbanized areas. <input type="checkbox"/> 2. Relatively impervious soils. <input type="checkbox"/> 3. Steep slopes in the adjacent areas. 	
<p>16.1. Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p> <p>The subject wetland has historically been used for agricultural practices that have manipulated the microtopography and natural forest succession. As a result this wetland does not reflect the same vegetative covertype as the supporting wetland complex to the north. Therefore, it provides this function to a lesser degree.</p>	
<p>16.2. Statement of no undue adverse impact</p>	<p>Please explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance and minimization measures relevant to this function.</p> <p>The project was designed to minimize wetland impact to the greatest extent practicable and was situated in an area of the wetland believed to be least utilized for flood storage.</p>	
<p>17. Surface and Ground Water Protection</p>	<ul style="list-style-type: none"> <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"/> Constricted or no outlets. <input type="checkbox"/> Low water velocity through dense, persistent vegetation. <input checked="" type="checkbox"/> Hydroperiod permanently flooded or saturated. <input type="checkbox"/> Wetlands in depositional environments with persistent vegetation wider than 20 feet. <input type="checkbox"/> Wetlands with persistent vegetation comprising a defined delta, island, bar or peninsula. <input type="checkbox"/> Presence of seeps or springs. <input type="checkbox"/> Wetland contains a high amount of microtopography that helps slow and filter surface water. <input type="checkbox"/> Position in the landscape indicates the wetland is a headwaters area. 	

	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Wetland is adjacent to surface waters. <input type="checkbox"/> Wetland recharges a drinking water source. <input type="checkbox"/> Water sampling indicates removal of pollutants or nutrients. <input type="checkbox"/> Water sampling indicates retention of sediments or organic matter. <input type="checkbox"/> Fine mineral soils and alkalinity not low. <input type="checkbox"/> 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. <p>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.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Check box if any of the following conditions apply that may indicate the wetland provides this function at a <i>lower</i> level. <ul style="list-style-type: none"> <input type="checkbox"/> Presence of dead forest or shrub areas in sufficient amounts to result in diminished nutrient uptake. <input checked="" type="checkbox"/> Presence of ditches or channels that confine water and restrict contact of water with vegetation. <input type="checkbox"/> 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. <input type="checkbox"/> Current use in the wetland results in disturbance that compromises this function. <input checked="" type="checkbox"/> Check box if any of the following conditions apply that may indicate the wetland provides this function at a <i>higher</i> level. <ul style="list-style-type: none"> <input type="checkbox"/> The wetland is adjacent to a well head or source protection area, and provides ground water recharge. <input type="checkbox"/> The wetland provides flows to Class A surface waters. <input type="checkbox"/> The wetland contributes to the protection or improvement of water quality of any impaired waters. <input checked="" type="checkbox"/> The wetland is large in size and naturally vegetated.
<p>17.1. Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p> <p>The wetland abuts the unnamed tributary to Holmes Creek and portions of the wetland are saturated for the majority of the growing season. However, a man-made ditch running east-west and located along the northern boundary of the parcel impedes this function to some extent.</p> <p>Land use in the vicinity of the subject wetland is unlikely to contribute pollutants to the wetland, therefore the wetland has the capacity but not the opportunity to perform this function.</p>

<p>17.2.Statement of no undue adverse impact</p>	<p>Please explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance and minimization measures relevant to this function.</p> <p>The wetland's capacity to perform this function will not be compromised.</p>	
<p>18.Fish Habitat</p>	<p><input 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> <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 type="checkbox"/> Provides cold spring discharge that lowers the temperature of receiving waters and creates summer habitat for salmonoid species. <input 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. 	
<p>18.1.Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p> <p>Although a portion of the subject wetland is riparian (wetlands abutting the unnamed tributary to Holmes Creek), the wetland provides no fisheries habitat. The wetland lacks appropriate fish cover and cool water temperatures, due to a limited forest canopy.</p>	
<p>18.2.Statement of no undue adverse impact</p>	<p>Please explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance and minimization measures relevant to this function.</p>	
<p>19.Wildlife Habitat</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> <ul style="list-style-type: none"> <input type="checkbox"/> 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. <input type="checkbox"/> 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 these species include softwood swamps. Evidence of use includes deer 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:
 - 1. Wood Frog, Jefferson Salamander, Blue-spotted Salamander, or Spotted Salamander. Breeding habitat for these species includes vernal pools and small ponds.
 - 2. Northern Dusky Salamander and the Spring Salamander. Habitat for these species includes headwater seeps, springs, and streams.
 - 3. 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 significant 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 includes 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:
- 1. Three or more wetland vegetation classes (greater than 1/2 acre) present including but not limited to: open water contiguous to, but not necessarily part of, the wetland, deep marsh, shallow marsh, shrub swamp, forested swamp, fen, or bog;
 - 2. The dominant vegetation class is one of the following types: deep marsh, shallow marsh, shrub swamp or, forested swamp;
 - 3. Located adjacent to a lake, pond, river or stream;
 - 4. Fifty percent or more of surrounding habitat type is one or more of the following: forest, agricultural land, old field or open land;
 - 5. Emergent or woody vegetation occupies 26 to 75 percent of wetland, the rest is open water;
 - 6. One of the following:
 - i. hydrologically connected to other wetlands of different dominant classes or open water within 1 mile;
 - ii. hydrologically connected to other wetlands of same dominant class within 1/2 mile;
 - iii. 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; and
- 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).

	<ul style="list-style-type: none"> <input type="checkbox"/> 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. <input checked="" type="checkbox"/> The current use in the wetland results in frequent cutting, mowing or other disturbance. <input checked="" type="checkbox"/> The wetland hydrology and character is at a drier end of the scale and does not support wetland dependent species. <input type="checkbox"/> Check box if any of the following conditions apply that may indicate the wetland provides this function at a <i>higher</i> level. <ul style="list-style-type: none"> <input type="checkbox"/> The wetland complex is large in size and high in quality. <input type="checkbox"/> The habitat has the potential to support several species based on the assessment above. <input type="checkbox"/> Wetland is associated with an important wildlife corridor. <input type="checkbox"/> The wetland has been identified as a locally important wildlife habitat by an ANR Wildlife Biologist. 	
<p>19.1. Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p> <p>The wetland is of some importance to wildlife, but is not exceptional as wildlife habitat.</p>	
<p>19.2. Statement of no undue adverse impact</p>	<p>Please explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance and minimization measures relevant to this function.</p> <p>The project will not result in any substantive changes to the habitat quality provided by this wetland. The project was designed to impact portions of the wetland believed to be least utilized by wildlife.</p>	
<p>20. Exemplary Wetland Natural Community</p>	<ul style="list-style-type: none"> <input 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"/> 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>The wetland is also likely to be significant if any of the following conditions are met:</p> <ul style="list-style-type: none"> <input 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. <input type="checkbox"/> Contains ecological features that contribute to Vermont's natural heritage, including, but not limited to: <ul style="list-style-type: none"> <input type="checkbox"/> Deep peat accumulation reflecting a long history of wetland formation; 	

	<ul style="list-style-type: none"> <input type="checkbox"/> Forested wetlands displaying very old trees and other old growth characteristics; <input type="checkbox"/> A wetland natural community that is at the edge of the normal range for that type; <input type="checkbox"/> A wetland mosaic containing examples of several to many wetland community types; or <input type="checkbox"/> A large wetland complex containing examples of several wetland community types. <p>List species or communities of concern:</p>	
<p>20.1. Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p>	
<p>20.2. Statement of no undue adverse impact</p>	<p>Please explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance and minimization measures relevant to this function.</p>	
<p>21. Rare, Threatened, and Endangered Species Habitat</p>	<ul style="list-style-type: none"> <input 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"/> 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. <p>The wetland is also likely to be significant if any of the following apply:</p> <ul style="list-style-type: none"> <input type="checkbox"/> There is credible documentation that the wetland provides important habitat for any species on the federal or state threatened or endangered species lists; <input type="checkbox"/> There is credible documentation that threatened or endangered species have been present in past 10 years; <input type="checkbox"/> 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; <input type="checkbox"/> There is credible documentation that the wetland provides habitat for multiple uncommon species of plants or animals (S3 rank). <p>List name of species and ranking:</p>	
<p>21.1. Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p>	
<p>21.2. Statement of no adverse impact</p>	<p>Please explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance and minimization measures relevant to this function.</p>	

<p>22. Education and Research in Natural Sciences</p>	<p><input type="checkbox"/> Function is present and likely to be significant: Any of the following characteristics indicate the wetland provides this function.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Owned by or leased to a public entity dedicated to education or research. <input type="checkbox"/> History of use for education or research. <input type="checkbox"/> Has one or more characteristics making it valuable for education or research. 	
<p>22.1. Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p>	
<p>22.2. Statement of no undue adverse impact</p>	<p>Please explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance and minimization measures relevant to this function.</p>	
<p>23. Recreational Value and Economic Benefits</p>	<p><input type="checkbox"/> Function is present and likely to be significant: Any of the following characteristics indicate the wetland provides this function.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Used for, or contributes to, recreational activities. <input type="checkbox"/> Provides economic benefits. <input type="checkbox"/> Provides important habitat for fish or wildlife which can be fished, hunted or trapped under applicable state law. <input type="checkbox"/> Used for harvesting of wild foods. <p>Comments:</p>	
<p>23.1. Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p>	
<p>23.2. Statement of no undue adverse impact</p>	<p>Please explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance and minimization measures relevant to this function.</p>	
<p>24. Open Space and Aesthetics</p>	<p><input 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> <ul style="list-style-type: none"> <input type="checkbox"/> Can be readily observed by the public; and <ul style="list-style-type: none"> <input type="checkbox"/> Possesses special or unique aesthetic qualities; or <input type="checkbox"/> Has prominence as a distinct feature in the surrounding landscape; <input type="checkbox"/> Has been identified as important open space in a municipal, regional or state plan. <p>Comments:</p>	

<p>24.1. Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p>	
<p>24.2. Statement of no undue adverse impact</p>	<p>Please explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance and minimization measures relevant to this function.</p>	
<p>25. Erosion Control through Binding and Stabilizing the Soil</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> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Erosive forces such as wave or current energy are present and any of the following are present as well: <ul style="list-style-type: none"> <input type="checkbox"/> Dense, persistent vegetation along a shoreline or stream bank that reduces an adjacent erosive force. <input checked="" type="checkbox"/> Good interspersion of persistent emergent vegetation and water along course of water flow. <input type="checkbox"/> Studies show that wetlands of similar size, vegetation type, and hydrology are important for erosion control. <p>What type of erosive forces are present:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lake fetch and waves <input checked="" type="checkbox"/> High current velocities: <input type="checkbox"/> Water level influenced by upstream impoundment <p>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.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Check box if any of the following conditions apply that may indicate the wetland provides this function at a <i>lower</i> level. <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The stream is artificially channelized and/or lacks vegetation that contributes to controlling the erosive force. <input type="checkbox"/> Check box if any of the following conditions apply that may indicate the wetland provides this function at a <i>higher</i> level. <ul style="list-style-type: none"> <input type="checkbox"/> The stream contains high sinuosity. <input type="checkbox"/> Has been identified through fluvial geomorphic assessment to be important in maintaining the natural condition of the stream or river corridor. 	
<p>25.1. Subject Wetland</p>	<p>Please explain how the subject wetland contributes to the function listed above</p> <p>The wetland abuts the unnamed tributary to Holmes Creek and portions of the wetland are saturated for the majority of the growing season. However, a man-made ditch running east-west and located along the northern boundary of the parcel impedes this function to some extent.</p> <p>The subject wetland has historically been used for agricultural practices that have manipulated the microtopography and natural forest succession. As a result this wetland does not reflect the same vegetative covertype as the supporting wetland complex to the north. Therefore, it provides this function</p>	

to a lesser degree.

25.2. Statement of no undue adverse impact

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

The wetland's capacity to perform this function will not be compromised.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 912 Lake Rd Charlotte City/County: Chittenden Sampling Date: 5/7/11
 Applicant/Owner: Pop the Trunk, LLC State: VT Sampling Point: T1-S1
 Investigator(s): K. Dailey Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none
 Slope (%): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Covington Silty Clay 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? 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 <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:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) <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) _____ 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)	_____ 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): <u>surface</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</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:

VEGETATION – Use scientific names of plants.

Sampling Point: T1-S1

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Ulnus Americana</u>	<u>30</u>	<u>x</u>	<u>FACW-</u>
2. <u>Fraxinus pennsylvanica</u>	<u>10</u>		<u>FACW</u>
3. <u>Populus tremula</u>	<u>10</u>		<u>FACU</u>
4. <u>Grey birch</u>	<u>10</u>		<u>FAC</u>
5. _____			
6. _____			
7. _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

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

60 = Total Cover

Sapling/Shrub Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cornus stolonifera</u>	<u>60</u>	<u>x</u>	<u>FACW+</u>
2. <u>Acer rubrum</u>	<u>trace</u>		<u>FAC</u>
3. <u>Fraxinus pennsylvanica</u>	<u>trace</u>		<u>FACW</u>
4. <u>Elm</u>	<u>5</u>		
5. <u>Salix spp.</u>	<u>30</u>	<u>x</u>	<u>>FAC</u>
6. _____			
7. _____			

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>190</u>	x 2 = <u>380</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = _____
Column Totals: <u>220</u> (A)	<u>460</u> (B)

Prevalence Index = B/A = 2.09

98 = Total Cover

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Phalaris arundinacea</u>	<u>50</u>	<u>x</u>	<u>FACW+</u>
2. <u>Typha angustifolia</u>	<u>10</u>		<u>OBL</u>
3. <u>Aster</u>	<u>trace</u>		<u>FAC</u>
4. <u>Solidago canadensis</u>	<u>trace</u>		<u>FACU</u>
5. <u>Agrostis stolonifera</u>	<u>20</u>	<u>x</u>	<u>FACW</u>
6. <u>Alopecurus pratensis</u>	<u>20</u>	<u>x</u>	<u>FACW</u>
7. <u>Poa pratensis</u>	<u>trace</u>		<u>FACU</u>
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

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.

100 = Total Cover

Woody Vine Stratum (Plot size: <u>None</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
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.)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 912 Lake Rd. Charlotte City/County: Chittenden Sampling Date: 5/7/11
 Applicant/Owner: Pop the Trunk, LLC State: VT Sampling Point: T1-S2
 Investigator(s): K. Dailey Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none
 Slope (%): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Covington silty clay 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? 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 <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	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.) 	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) _____ <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) _____ 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)	Secondary Indicators (minimum of two required) _____ 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): <u>8</u> Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>4</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: 	

VEGETATION – Use scientific names of plants.

Sampling Point: T1-S2

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30</u>)																		
1. <u>Ulnus americana</u>	10		FACW-	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	10	= Total Cover		Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species <u>65</u></td> <td>x 4 = <u>260</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>380</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.04</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = _____	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>0</u>	x 3 = _____	FACU species <u>65</u>	x 4 = <u>260</u>	UPL species <u>0</u>	x 5 = _____	Column Totals: <u>125</u> (A)	<u>380</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = _____																	
FACW species <u>60</u>	x 2 = <u>120</u>																	
FAC species <u>0</u>	x 3 = _____																	
FACU species <u>65</u>	x 4 = <u>260</u>																	
UPL species <u>0</u>	x 5 = _____																	
Column Totals: <u>125</u> (A)	<u>380</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15</u>)																		
1. <u>Lonicera japonica</u>	50	x	NI	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. <u>Fraxinus pennsylvanica</u>	20	x	FACW															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	70	= Total Cover																
Herb Stratum (Plot size: <u>5</u>)																		
1. <u>Dactylis glomerata</u>	35	x	FACU	¹ Indicators 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.														
2. <u>Solidago canadensis</u>	20	x	FACU															
3. <u>Carex cristatelle</u>	10		FACW															
4. <u>Poa pratensis</u>	10		FACU															
5. <u>Alopecurus pratensis</u>	20	x	FACW															
6. <u>Trifoleum pratense</u>	trace		FACU-															
7. <u>Bedstraw</u>	trace																	
8. <u>Cinqfoil</u>	trace																	
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	95	= Total Cover																
Woody Vine Stratum (Plot size: <u>None</u>)																		
1. _____				Hydrophytic Vegetation Present? Yes _____ No <u>x</u>														
2. _____																		
3. _____																		
4. _____																		
		= Total Cover																
Remarks: (Include photo numbers here or on a separate sheet.)																		

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 912 Lake Rd. Charlotte City/County: Chittenden Sampling Date: 5/7/11
 Applicant/Owner: Pop the Trunk, LLC State: VT Sampling Point: T1-S3
 Investigator(s): K. Dailey Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none
 Slope (%): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Vergennes clay 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? 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.) 	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>16in</u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>16in</u> (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: T1-S3

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
1. <u>Betula populifolia</u>	<u>5%</u>		<u>FAC</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
<u>5</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = _____ FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>5</u> x 3 = <u>15</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species _____ x 5 = _____ Column Totals: <u>65</u> (A) <u>195</u> (B) Prevalence Index = B/A = <u>3</u>
Sapling/Shrub Stratum (Plot size: <u>None</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>5</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Urtica dioica</u>	<u>30</u>	<u>x</u>	<u>FACU</u>	
2. <u>Phalaris arundinacea</u>	<u>30</u>	<u>x</u>	<u>FACW+</u>	
3. <u>Solidago canadensis</u>	<u>30</u>	<u>x</u>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
<u>90</u> = Total Cover				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.
Woody Vine Stratum (Plot size: <u>None</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Remarks: (Include photo numbers here or on a separate sheet.)				

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 912 -Lake Rd Charlotte City/County: Chittenden Sampling Date: 5/7/11
 Applicant/Owner: Pop the Trunk, LLC State: VT Sampling Point: T1-S4
 Investigator(s): K. Dailey Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): _____
 Slope (%): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Palatine silt loam 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? 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 <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> ___ Surface Water (A1) ___ Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> 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)
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Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>16in</u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3in</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: T1-S4

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>None</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = _____ FACW species <u>120</u> x 2 = <u>240</u> FAC species <u>0</u> x 3 = _____ FACU species <u>50</u> x 4 = <u>200</u> UPL species <u>0</u> x 5 = _____ Column Totals: <u>170</u> (A) <u>640</u> (B) Prevalence Index = B/A = <u>3.76</u>
Sapling/Shrub Stratum (Plot size: <u>15ft</u>)				
1. <u>Cornus stolonifera</u>	<u>50</u>	<u>x</u>	<u>FACW+</u>	
2. <u>Fraxinus pennsylvanica</u>	<u>30</u>	<u>x</u>	<u>FACW</u>	
3. <u>Lonicera japonica</u>	<u>10</u>		<u>NI</u>	
4. <u>Ulnus americana</u>	<u>10</u>		<u>FACW-</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: <u>5ft</u>)				
1. <u>Geum macrophyllum</u>	<u>trace</u>			
2. <u>Solidago canadensis</u>	<u>30</u>	<u>x</u>	<u>FACU</u>	
3. <u>Bestraw</u>	<u>10</u>			
4. <u>Carex cristatelle</u>	<u>10</u>		<u>FACW</u>	
5. <u>Poa pratensis</u>	<u>10</u>		<u>FACU</u>	
6. <u>Trifolium pratense</u>	<u>10</u>		<u>FACU-</u>	
7. <u>Agrostis stolonifera</u>	<u>10</u>		<u>FACW</u>	
8. <u>Alopecurus pratensis</u>	<u>10</u>		<u>FACW</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
_____ = Total Cover				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.
Woody Vine Stratum (Plot size: <u>None</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) 				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 912 -Lake Rd Charlotte City/County: Chittenden Sampling Date: 5/7/11
 Applicant/Owner: Pop the Trunk, LLC State: VT Sampling Point: T1-S5
 Investigator(s): K. Dailey Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): _____
 Slope (%): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Vergennes clay 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? 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.) 	

HYDROLOGY

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

VEGETATION – Use scientific names of plants.

Sampling Point: T1-S5

Tree Stratum (Plot size: <u>30ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Ulnus americana</u>	<u>10</u>		<u>FACW-</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Sapling/Shrub Stratum (Plot size: <u>15ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera japonica</u>	<u>60</u>	<u>x</u>	<u>FACU</u>
2. <u>Fraxinus pennsylvanica</u>	<u>25</u>	<u>x</u>	<u>FACW</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = _____
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>0</u>	x 3 = _____
FACU species <u>130</u>	x 4 = <u>520</u>
UPL species <u>0</u>	x 5 = _____
Column Totals: <u>195</u> (A)	<u>650</u> (B)

Prevalence Index = B/A = 3.3

Herb Stratum (Plot size: <u>5ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Dactylis glomerata</u>	<u>25</u>	<u>x</u>	<u>FACU</u>
2. <u>Solidago canadensis</u>	<u>35</u>	<u>x</u>	<u>FACU</u>
3. <u>Galium boreale</u>	<u>10</u>		<u>FACU</u>
4. <u>cinquefoil</u>	<u>trace</u>		
5. <u>Trifolium pratense</u>	<u>trace</u>		<u>FACU-</u>
6. <u>Phalaris arundinacea</u>	<u>20</u>	<u>x</u>	<u>FACW+</u>
7. <u>Agrostis stolonifera</u>	<u>10</u>		<u>FACW</u>
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____

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.

Woody Vine Stratum (Plot size: <u>None</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
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 X

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

Karina E. Dailey, PWS

From: Heath, Tina <Tina.Heath@vermont.gov>
Sent: Friday, November 20, 2015 11:58 AM
To: Karina E. Dailey, PWS; Foley, Julie; Lapierre, Laura
Cc: Jeremy Matosky, P.E.; 'Heidi Mahoney (ham@burchfieldcompany.com)'
Subject: RE: Pop the Trunk, LLC - NAE-2011-2035

Hi Karina,

I appreciate your research efforts. I spoke with Laura Lapierre on this matter, and she had some additional emails from Alan expressing his concern about the lot being mostly wetland. However, there appears to be no written letter on the approval or disapproval of the proposed project. In this case, the Wetlands Program will be requiring additional mitigation efforts because of the substantial half acre impacts to wetlands and buffer. These mitigation efforts would include the remaining wetlands on the lot to be "naturalized" with no management, and permanently memorializing the wetland and buffer from any future encroachments.

I will be out the week of Thanksgiving, and will be returning on Monday the 30th. Any correspondence over the next week related to this project can be directed to Laura Lapierre.

Enjoy the Thanksgiving holiday,
Tina

-----Original Message-----

From: Karina E. Dailey, PWS [mailto:Karina.Dailey@tcevt.com]
Sent: Thursday, November 19, 2015 12:52 PM
To: Heath, Tina <Tina.Heath@vermont.gov>; Foley, Julie <Julie.Foley@vermont.gov>; Lapierre, Laura <Laura.Lapierre@vermont.gov>
Cc: Jeremy Matosky, P.E. <Jeremy.Matosky@tcevt.com>; Heidi Mahoney (ham@burchfieldcompany.com) <ham@burchfieldcompany.com>
Subject: RE: Pop the Trunk, LLC - NAE-2011-2035

Hi Tina,

I did some more digging on this project and all I could find was the attached email that I sent to Alan requesting something in writing from him).

Also, I reached out to the client asking them if they had anything, as I recalled that they had two phone conversations with Alan, but they never received anything in writing either.

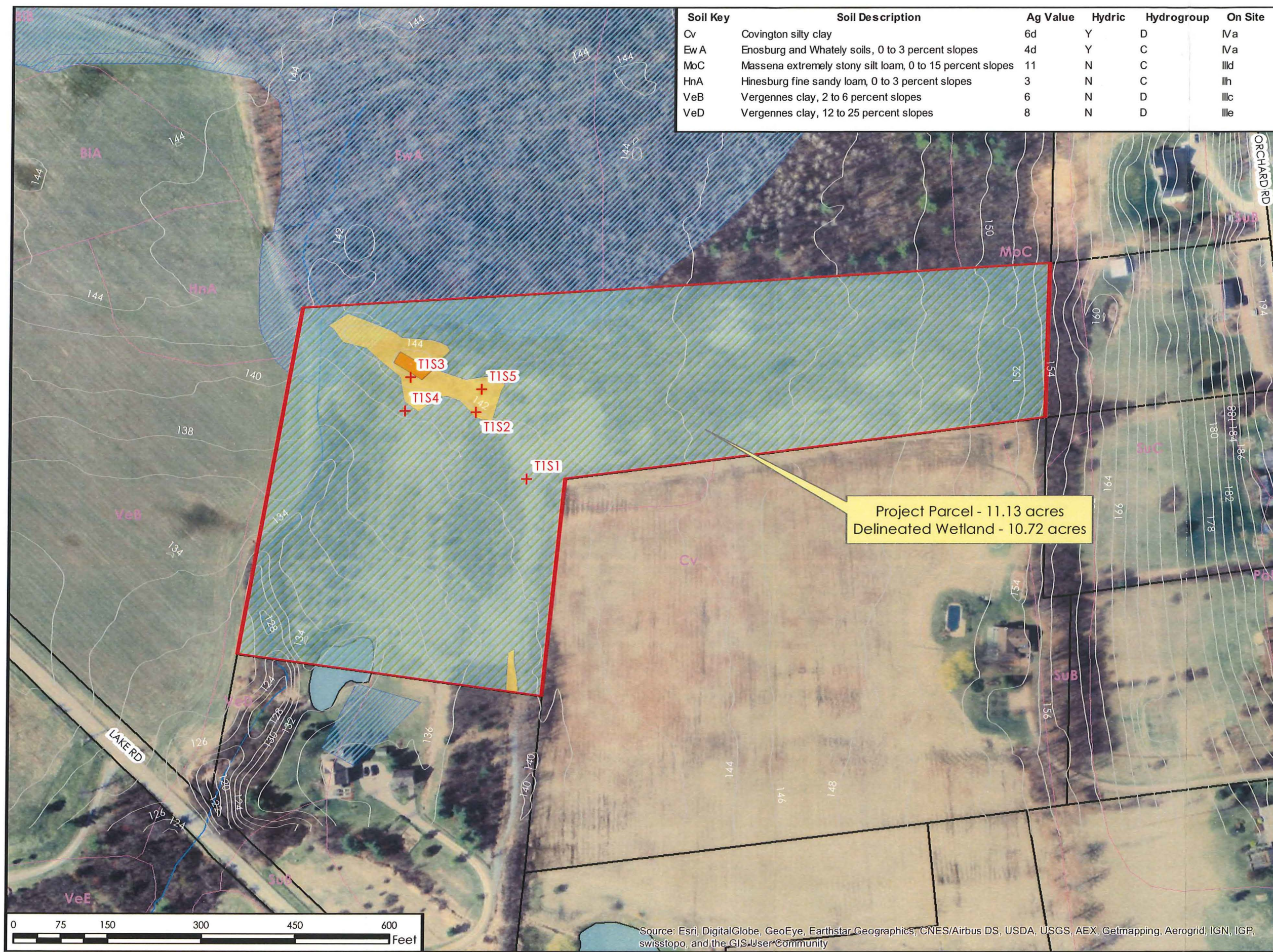
Best,

Karina E. Dailey, P.W.S.
Environmental Scientist

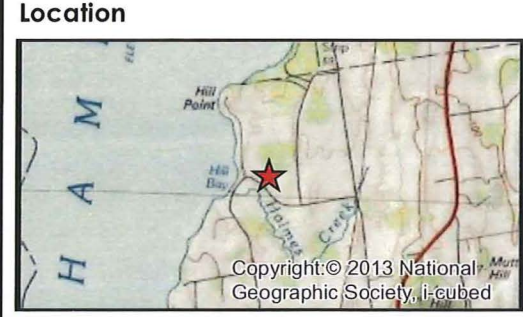
e. Karina.Dailey@tcevt.com
p. 802.879.6331 x110
f. 802.879.0060

Civil Engineering Land Surveying Landscape Architecture Environmental Services

478 Blair Park Road, Williston, Vermont 05495 www.tcevt.com



Soil Key	Soil Description	Ag Value	Hydric	Hydrogroup	On Site
Cv	Covington silty clay	6d	Y	D	Iva
EwA	Enosburg and Whately soils, 0 to 3 percent slopes	4d	Y	C	Iva
MoC	Massena extremely stony silt loam, 0 to 15 percent slopes	11	N	C	IIId
HnA	Hinesburg fine sandy loam, 0 to 3 percent slopes	3	N	C	IIh
VeB	Vergennes clay, 2 to 6 percent slopes	6	N	D	IIc
VeD	Vergennes clay, 12 to 25 percent slopes	8	N	D	IIe



- Legend**
- Project Parcel (Delineation Extent)
 - + Sample Points
 - Existing Septic Mound
 - Contour (2')
 - Delineated Wetland (Class II)
 - Delineated Wetland Buffer (50')
 - Tax Parcel Boundary
 - Soil
 - State Significant Wetland
 - VHD Open Water
 - VHD Stream

The Wetland Delineation shown on this plan was performed on 05/07/2011, according to the standards of the 1987 US Army Corps of Engineers Regional Supplement. This delineation was performed by Karina Dailey, P.W.S.

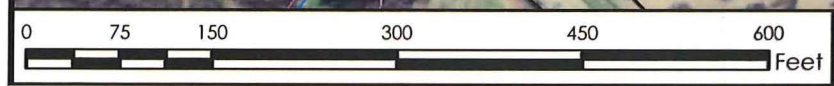
Sources: Bing Basemap Imagery (2015); Streams by VHD (2013); Project Area by TCE (2015); VT E911 Roads (2015); VT Significant Wetland by ANR (2010); Soils by NRCS (2011); Contours by VCGI (2012); Tax Parcel Boundary compiled by VCGI;

Disclaimer: The accuracy of information presented is determined by its sources. TCE is not responsible for any errors or omissions that may exist. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not a replacement for surveyed information or engineering studies.

Pop the Trunk
 912 Lake Road
 Charlotte, VT

Wetland Delineation Map

Project: 11-019
 Prepared By: LJW
 01/25/2016
 1 inch = 150 feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

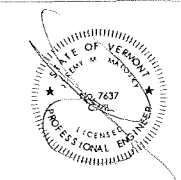


TRUDELL CONSULTING ENGINEERS
 478 BLAIR PARK ROAD | WILLISTON, VERMONT 05495
 802.879.6331 | WWW.TCEVT.COM

Revisions	No.	Description	Date	By
△	1	Reduce Wetland Impact 1	02/17/17	JMM
△	2	Reduce Wetland Impact 2	03/09/17	JMM
△	3	Reduce Wetland Impact 3	03/14/17	JMM
△	4	Reduce Wetland Impact 4	04/16/17	JMM
△		Changes as per Army Corps of Engineers	11/30/15	KED

Use of These Drawings:

- Unless otherwise noted, these Drawings are intended for preliminary planning, coordination with other disciplines or utilities, and/or approval from the regulatory authority. They are not intended as construction drawings unless noted as such or marked approved by a regulatory authority.
- By use of these drawings for construction of the Project, the Owner represents that they have reviewed, approved, and accepted the drawings, obtained all necessary permits, and have met with all applicable professional disciplines including but not limited to, the Engineer and the Architect, to insure these plans are properly coordinated including, but not limited to, contract documents, specifications, owner/contractor agreements, building and mechanical plans, private and public utilities, and other pertinent permits for construction.
- Owner and Architect are responsible for final design and location of buildings shown, including an area measured a minimum five (5) feet around any building and coordinating final utility connections shown on these plans.
- Prior to using these plans for construction layout, the user shall contact TCE to ensure the plan contains the most current revisions.
- These Drawings are specific to the Project and are not transferable. As instruments of service, these drawings and copies thereof, furnished by TCE are its exclusive property. Changes to the drawings may only be made by TCE. If errors or omissions are discovered, they shall be brought to the attention of TCE immediately.
- It is the User's responsibility to ensure this copy contains the most current revisions. If unsure, please contact TCE.



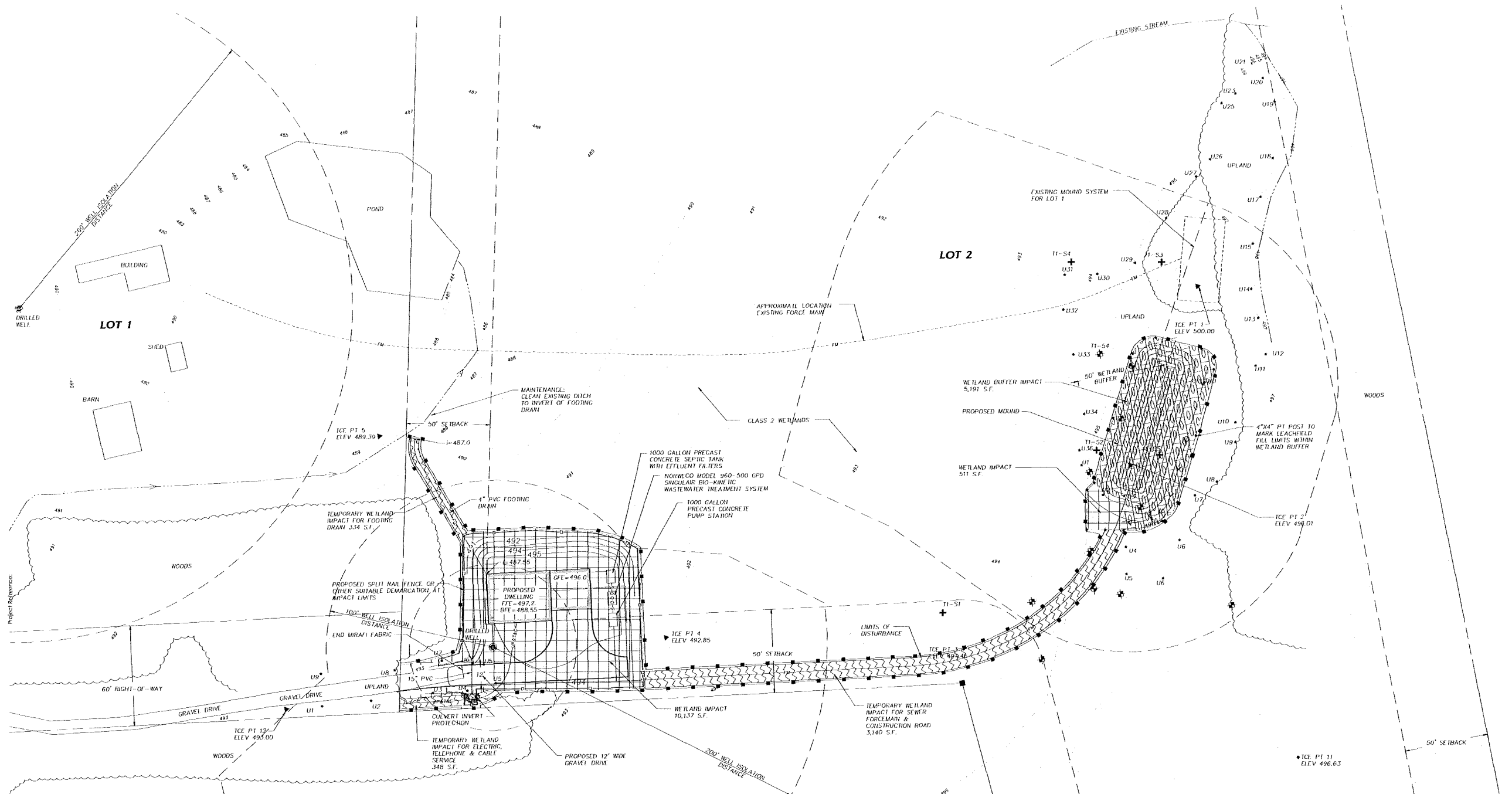
Project Name
POP THE TRUNK, LLC

912 Lake Road
 Charlotte, Vermont

Sheet Title
Site Plan

Date: 03/08/2012
 Scale: 1" = 30'
 Project Number: 2011019-51
 Drawn By: RMP/AAL
 Project Engineer: JMM
 Approved By: [Signature]
 Field Book: 298

C2.01



	EXISTING	PROPOSED	REMOVED
SEWER FORCEMAIN	---	---	---
WATER MAINS AND SERVICES	---	---	---
UNDERGROUND POWER	---	---	---
UNDERGROUND POWER & TELEPHONE & CABLE	---	---	---
TOPOGRAPHIC CONTOURS	124	124	
PAVED DRIVE OR ROAD	---	---	---
GRAVEL DRIVE OR ROAD	---	---	---
DRAINAGE DITCH	---	---	---
PROPERTY LINE	---	---	---
RIGHT-OF-WAY LINE	---	---	---
EASEMENTS	---	---	---
BUILDING SETBACKS	---	---	---
WETLAND LIMIT	---	---	---
FENCE	---	---	---
TRAIL LINE	---	---	---
SILT FENCE	---	---	---

	EXISTING	PROPOSED	REMOVED
OUTLET OR END SECTION	>	>	>
WATER SUPPLY WELL	⊕	⊕	⊕
UTILITY POLE	⊖	⊖	⊖
WETLAND FLAG	•	•	•
TEST PIT	⊕	⊕	⊕
CONCRETE MONUMENT (FOUND)	■	■	■
TCE CONTROL POINT STEEL REBAR	▲	▲	▲
TCE CONTROL POINT PK NAIL	•	•	•
STONE CHECK DAM	⌒	⌒	⌒
STONE INLET PROTECTION	⊕	⊕	⊕
SPLIT RAIL FENCE	---	---	---
LIMITS OF DISTURBANCE	---	---	---
WETLAND IMPACT	---	---	---
TEMPORARY WETLAND IMPACT	---	---	---
WETLAND BUFFER IMPACT	---	---	---

SOIL TESTING RESULTS:

TEST PITS PERFORMED 3/13/07 & 10/8/07 BY JEFF KEENEY & SPENCER HARRIS

TP#1 SHWT=14"
 0-13" TOPSOIL, DARK BROWN, FRIABLE
 13-30" VERY FINE SANDY LOAM, ORANGE BROWN, FRIABLE
 30-36" SILT LOAM, GRAY, FIRM
 MOTILES 14"

TP#2 SHWT=15"
 0-2" TOPSOIL, DARK BROWN, FRIABLE
 2-15" COARSE SAND & GRAVEL, ORANGE BROWN, FRIABLE
 15" SILT LOAM, GRAY, FIRM
 MOTILES 15"

TP#5 SHWT=16"
 0-13" TOPSOIL, DARK BROWN, FRIABLE
 13-30" VERY FINE SANDY LOAM, ORANGE BROWN, FRIABLE
 30-56" SILT LOAM, GRAY, FIRM
 MOTILES 16"

TP#8 SHWT=12"
 0-10" TOPSOIL, DARK BROWN, FRIABLE
 10-17" VERY FINE SANDY LOAM, ORANGE BROWN, FRIABLE
 17-36" SILT LOAM, GRAY, FIRM
 MOTILES 12"

TP#9 SHWT=12"
 0-10" TOPSOIL, DARK BROWN, FRIABLE
 10-30" VERY FINE SANDY LOAM, ORANGE BROWN, FRIABLE
 30+ SILT LOAM, GRAY, FIRM
 MOTILES 12"

TP#101 SHWT=12"
 0-6" TOPSOIL
 6"-24" VERY FINE SANDY LOAM, LIGHT BROWN, FRIABLE
 24+ SILT LOAM, GRAY BROWN, FIRM
 MOTILES 12"

TP#102 SHWT=11"
 0-10" TOPSOIL
 10"-20" VERY FINE SANDY LOAM, LIGHT BROWN, FRIABLE
 20+ SILT LOAM, GRAY BROWN, FIRM
 MOTILES 11"

SOL BORINGS 10/31/07 BY JEFF KEENEY USING AUGER
 SB#1 SHWT=12"
 0-6" TOPSOIL
 6"-24" VERY FINE SANDY LOAM, LIGHT BROWN, FRIABLE
 24+ SILT LOAM, GRAY BROWN, FIRM
 MOTILES 12"

SB#1 SHWT=12"
 0-6" TOPSOIL
 6"-24" VERY FINE SANDY LOAM, LIGHT BROWN, FRIABLE
 24+ SILT LOAM, GRAY BROWN, FIRM
 MOTILES 12"

SB#2 SHWT=12"
 0-6" TOPSOIL
 6"-24" VERY FINE SANDY LOAM, LIGHT BROWN, FRIABLE
 24+ SILT LOAM, GRAY BROWN, FIRM
 MOTILES 12"

ALL PROPOSED DWELLING SIZE, SHAPE, LOCATION, AND DRIVEWAYS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. (UNLESS NOTED OTHERWISE ON SITE PLAN) THE EXACT SIZE, SHAPE, AND LOCATION IS BY OWNERS IN ACCORDANCE WITH LOCAL ZONING REGULATIONS.

NOTE:
 SEED TEMPORARY IMPACT AREAS WITH ANNUAL RYEGRASS. THE SEED MIX FOR THE HOUSE LAWN WILL BE A SUNNY LAWN MIX WITH BLUEGRASS SUCH AS PLAYGROUND MIX FROM OLIVER SEED CO. THE SEED MIX FOR THE MOUND SYSTEM AND RELATED DITCH WILL BE A SHADE TOLERANT MIX WITH FESCUE SUCH AS P.E. PREMIER SHADE MIX BY OLIVER SEED CO.

IMPACTS:	TEMPORARY	PERMANENT	WETLAND	WEIRLAND	WETLAND	WEIRLAND	WETLAND	WEIRLAND
	3,822 S.F.	10,648 S.F.	0.25 AC.	5,191 S.F.	0.1 AC.	5,191 S.F.	0.1 AC.	0.1 AC.
	0.1 AC.	0.35 AC.	0.25 AC.	0.1 AC.	0.1 AC.	0.1 AC.	0.1 AC.	0.1 AC.

