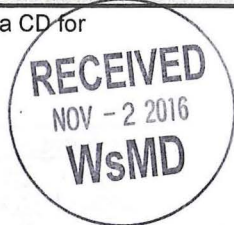


Vermont Wetlands Program Permit Application Database Form

Under Sections 8 and 9
of the Vermont Wetland Rules



Application Submittal Instructions	
<ul style="list-style-type: none"> ■ If submitting via US post, include a check in the correct fee amount made payable to the "State of Vermont," and a CD for applications that contain large files (1 MB or greater). <div style="margin-left: 40px;"> Mail to: Vermont Wetlands Program Watershed Management Division One National Life Drive, Main 2 Montpelier, VT 05620-3522 </div> ■ Applications can also be submitted via email to the following address: anr.wsmdwetlands@vermont.gov <ul style="list-style-type: none"> ■ If submitting via email, please mail a check in the correct fee amount, made payable to the "State of Vermont," and a copy of the Vermont Wetlands Program Application Database Form (this page) to the address provided above. <i>It is not necessary to mail in a copy of the complete application.</i> 	

Applicant Name: Village of Poultney	Application Preparer Name: Patricia E. Greene-Swift
Town where project is located: Poultney	County: Rutland
Span#:	Vermont Wetlands Project (VWP)# if Known: 2015-011
Project Location Description: <i>911 street address or direction from nearest intersection</i> Field west of York Street and east of the wastewater treatment plant access drive.	
Brief Project Summary: To construct a new stormwater treatment facility independent of the wastewater facility on village owned land.	
Application Type: <input type="checkbox"/> Individual Permit (multiple wetlands) <input type="checkbox"/> After the Fact Permit <input type="checkbox"/> Wetland Determination <input checked="" type="checkbox"/> Individual Permit (single wetland) <input type="checkbox"/> General Permit Coverage Authorization <input type="checkbox"/> Permit Amendment: VWP Project # _____	
Existing Land Use Type(s): <i>(Check all that apply)</i> <input checked="" type="checkbox"/> Residential (single family) <input type="checkbox"/> Residential (subdivision) <input checked="" type="checkbox"/> Undeveloped <input checked="" type="checkbox"/> Agriculture <input type="checkbox"/> Transportation <input type="checkbox"/> Forestry <input checked="" type="checkbox"/> Parks/Rec/Trail <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Industrial/Commercial	
Proposed Land Use Type(s): <i>(Check all that apply)</i> <input type="checkbox"/> Residential (single family) <input type="checkbox"/> Residential (subdivision) <input type="checkbox"/> Undeveloped <input type="checkbox"/> Agriculture <input type="checkbox"/> Transportation <input type="checkbox"/> Forestry <input type="checkbox"/> Parks/Rec/Trail <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Industrial/Commercial	
Proposed Impact Type(s): <i>(Check all that apply)</i> <input type="checkbox"/> Buildings <input type="checkbox"/> Utilities <input type="checkbox"/> Parking <input type="checkbox"/> Septic/Well <input checked="" type="checkbox"/> Stormwater <input type="checkbox"/> Driveway <input type="checkbox"/> Park/Path <input type="checkbox"/> Agriculture <input type="checkbox"/> Pond <input type="checkbox"/> Lawn <input type="checkbox"/> Dry Hydrant <input type="checkbox"/> Beaver Dam Alteration <input type="checkbox"/> Silviculture <input type="checkbox"/> Road <input type="checkbox"/> Aesthetics <input type="checkbox"/> No Impact <input type="checkbox"/> Other: <u>Emergency spillway for stormwater</u>	
Wetland and Buffer Impact Type: <i>(Check all that apply)</i> <input type="checkbox"/> Dredge <input type="checkbox"/> Drain <input type="checkbox"/> Cut Vegetation <input checked="" type="checkbox"/> Stormwater <input type="checkbox"/> Trench/Fill <input type="checkbox"/> Other: <u>Construct an emergency spillway in the wetland buffer</u>	

Wetland Delineation Date(s):		
Wetland Improvements	Buffer Zone Improvements	Reason for Improvements
Restoration: s.f.	Restoration: s.f.	<input type="checkbox"/> Correction of Violation
Creation: s.f.	Creation: s.f.	<input type="checkbox"/> To offset permit impacts
Enhancement: s.f.	Enhancement: s.f.	<input checked="" type="checkbox"/> Voluntary
Conservation: s.f.	Conservation: Possible town effort s.f.	

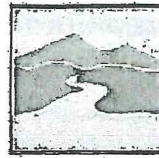
Wetland Impact Fee Calculations: Round to the nearest square foot. Fees will auto-calculate.		
Total Wetland Impact (minus linear clear, including ATF)	0 square feet (s.f.)	Wetland Impact Fee: (\$0.75/sf) \$ 0.00
Total Wetland Clearing (qualified linear projects only)	0 square feet (s.f.)	Wetland Clearing Fee: (\$0.25/sf) \$ 0.00
After The Fact Wetland Impact (to correct a violation)	0 square feet (s.f.)	After the Fact Wetland Fee: (0.75/sf) \$ 0.00 <i>(Required for after the fact permit applications)</i>

Total Buffer Zone Impacts and Calculations: Round to the nearest square foot		
Total Buffer Zone Impact	2000 square feet (s.f.)	Buffer Impact Fee: (\$0.25/sf) \$ 500.00

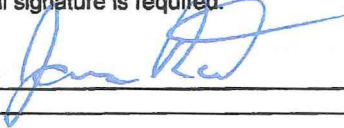
Additional Fees	
Agricultural Crop Conversion <i>Check here:</i> <input type="checkbox"/>	\$ 0.00 <i>(Flat fee of \$200.00)</i>
Minimum Application Fee: (\$50.00) <i>Required when total impact fee is less than \$50.00</i>	\$ 0.00
Administrative Fee:	\$ 240.00

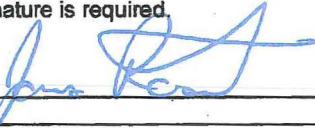
Make Checks Payable to: State of Vermont	Total Check Amount: \$ 740.00
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**Vermont Individual Wetland
Permit Application and
Determination Petition**
Under Sections 8 and 9
of the Vermont Wetland Rules



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

Applicant Information: <i>If the applicant is someone other than the landowner, the landowner information must be included below</i>			
Applicant Name: Village of Poultney, Jonas Rosenthal Manager			
Address: P.O. Box 121	City/Town: Poultney	State: VT	Zip: 05764
Phone Number: 802-287-9751	Email Address: poultneymanager@comcast.net		
Applicant Certification: By signing this application you are certifying that all of the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.			
Applicant Signature: 			Date: 10/21/16

Landowner Information: <i>Landowner must sign the application. If landowner is different from the applicant this section must be filled out</i>			
<input checked="" type="checkbox"/> Check this box if landowner is the same as the applicant			
Landowner Name: Village of Poultney Jonas Rosenthal Manager			
Address: P.O. Box 121	City/Town: Poultney	State: VT	Zip: 05764
Phone Number: 802-287-9751	Email Address: poultneymanager@comcast.net		
Landowner Easement: <i>Attach copies of any easements, agreements, or other documents conveying permission, and agreement with the landowner stating who will be responsible for meeting the terms and conditions of the permit. List the attachment for this information in this section. Describe the nature of the agreement or easement in the space provided below:</i>			
Village of Poultney land.			
Landowner Certification: By signing this application you are certifying that all the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.			
Landowner Signature: 			Date: 10/21/16

Application Preparer Information: <i>Consultant, engineer, or other representative that is responsible for filling out the application, if other than the applicant or landowner</i>			
Application Preparer Name: Patricia E. Greene-Swift		Organization/Company: Gilman & Briggs Environmental	
Address: 1 Conti Circle	City/Town: Barre	State: VT	Zip: 05641
Phone Number: 802-479-7480	Email Address: gbenvironmental@earthlink.net		
Application Preparer Certification: By signing this application you are certifying that all of the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.			
Application Preparer Signature: Patricia E. Greene-Swift		Digitally signed by Patricia E. Greene-Swift Date: 2016.10.18 09:29:18 -05'00'	
Application Preparer Signature: _____			Date: _____

Handwritten signatures are also accepted

1. Location of wetland and project:
Location description should include the road the wetland is located on, the compass direction of the wetland in relation to the road, 911 street address if available, and any other distinguishing features.

South and southeast of 185 York Street (the villages wastewater treatment plant).

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

2.1 Date of Visit(s) with State District Wetland Ecologist	2.2. List of people present for site visit(s) including Ecologist, landowner, and representatives.
September 22, 2016	Zapala Courage, VT Wetlands Ecologist, Doug Blodgett, VT Fish & Wildlife Biologist, Patricia Greene-Swift, Environmental Scientist/consultant for project, Gilman & Briggs Environmental

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

3.1. The wetland is a Class II wetland because :

The wetland is mapped on the VSWI

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

- b. The wetland contains woody vegetation and is adjacent to a stream, river, or open body of water.
- c. The wetland contains dense, persistent, non-woody vegetation, and is adjacent to a stream, river, or open body of water
- g. The wetland contains a species that appears in the NNHP database as rare, threatened, endangered, or uncommon; or is a natural community type that is rare or uncommon

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

4.1. Size of Complex in Acres:
The size of the complex can be obtained from the Wetland Inventory Map for mapped wetlands, or best estimation based on review of aerial photography or site visit. This is not the size of the of the delineated wetland on the subject property unless the entirety of the wetland is represented in the delineation.

25 +/- Acres wetland complex associated with the Poultney River.

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

70% Shrub swamp, 10% forested swamp, 15% emergent wetland, and 5% ponded (ponded in normal to high precipitation years).

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

Low topographic basin at the edge of the Poultney River at the wetlands west side, which is bisected by an old RR bed that is now a path with culverts underneath for connectivity.

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

Precipitation, snow melt, Poultney River, and groundwater.

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

The Poultney River flows south to north at the west edge of the wetland complex, and there are two small streams shown on the ANR Mapper that flow from the wetland into the River.

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

The river can provide floodwater to the wetland during years of high precipitation and/or during very high precipitation events.

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

The entire wetland is located south of the proposed project, only the wetland buffer is proposed to be impacted for an emergency spillway.

<p>4.4.4. Entire Wetland Hydroperiod: <i>Discuss the frequency and duration of flooding, ponding, and/or soil saturation</i></p>	<input type="checkbox"/>
<p>Permanently saturated, many small ponded areas that in drier years may be mucky without standing water and in wetter years ponded throughout the year. Flooding in the wetland may be associated with normal to high precipitation years.</p>	
<p>4.5. Surrounding Landuse of the Entire Wetland: <i>For example: Rural residential and forested; Agricultural and undeveloped</i></p>	<input type="checkbox"/>
<p>Surrounding land use includes a constructed path on an old railroad bed, forest patches, ditching in the wetland, York Street, recreation fields, State of New York on the west side of the Poultney River and wetland, residential neighborhood, residential lawns, a business, gardens, driveways, Green Mountain College recreation fields and parking lot, and outbuildings.</p>	
<p>4.6. Relation of the Entire Wetland to Other Nearby Wetlands: <i>Provide any information on wetlands or wetland complexes that are close enough to contribute to the overall function of the wetland in question.</i></p>	<input type="checkbox"/>
<p>There are other wetlands associated with the Poultney River nearby in both NY and VT, and they are close enough to contribute to the ribbon snake habitat (RTE habitat), wildlife habitat, flood storage/stormwater storage function, surface and groundwater protection, fish habitat, education and research, aesthetics function, and erosion control.</p>	
<p>4.7. Pre-project Cumulative Impacts to the Entire Wetland: <i>Identify any cumulative ongoing impacts outside of the proposed project that may influence the wetland. Examples include but are not limited to: Wetland encroachments on and off the subject property, land use management in or surrounding the wetland, or development that influences hydrology or water quality. List any past Vermont Wetland Permits or CUD's related to this property.</i></p>	<input type="checkbox"/>
<p>A walking path constructed on an old railroad bed, lawns, agricultural use and ditching, culverts under the walking path, wastewater and stormwater treatment plant, York Road, ditching around recreation fields for Green Mountain College. Project numbers associated with the wetland complex are as follows: 2009-049, 1998-525, 1991-006, 1994, 561, 1994-244. I do not believe that any of these project numbers are related to CUD's associated with this current property and project.</p>	
<p>5. Description of Subject Wetland and Buffer: <i>Subject wetland is defined as the area of wetland in the project vicinity, but not limited to the portion of the wetland to be directly impacted by the project. For the purposes of this application, the subject wetland should encompass any portion of the wetland that could either be directly or indirectly impacted by the project, as defined by chemical, physical, or biological characteristics. This may include the entire wetland area, or wetland area off property. For multiple wetlands, fill out the multiple wetlands table.</i></p>	
<p>5.1. Context of Subject Wetland: <i>Describe where the subject wetland is in the context of the entire wetland described in section 4 above. For example: Upslope, narrow eastern "finger", 400 ft. from open water portion.</i></p>	<input type="checkbox"/>
<p>The subject wetland is the north side of the wetland, it is contiguous to the larger wetland and not a finger or upslope from the open water portion (in higher precipitation years).</p>	
<p>5.2. Subject Wetland Land Use: <i>For example: Mowed lawn, old field, naturally vegetated. Describe any previous and ongoing disturbance in the subject wetland.</i></p>	<input type="checkbox"/>
<p>Naturally vegetated wetland with invasive species along the edge (<i>Lonicera tatarica</i>), stormwater input, a trail constructed on an old railroad bed, culverts to move water under the base of the RR bed.</p>	
<p>5.3. Subject Wetland Vegetation: <i>List dominant wetland vegetation cover type and associated dominant plant species.</i></p>	<input type="checkbox"/>
<p>Lemna minor, Ludwigia palustris, Calamagrostis canadensis.</p>	
<p>5.4. Subject Wetland Soils: <i>Use the USDA NRCS information where possible and use the ACOE Delineation Manual soil description</i></p>	<input type="checkbox"/>
<p>Saco mucky silt loam (Hydric) as mapped, with the texture muck.</p>	
<p>5.5. Subject Wetland Hydrology: <i>Use the description from the ACOE Delineation Manual</i></p>	<input type="checkbox"/>
<p>Surface water, high water table, saturation, water marks, iron deposits, inundation visible on aerial imagery, water-stained leaves, drainage patterns, geomorphic position - low topo, and microtopographic relief.</p>	

5.6. Buffer Zone: <i>Describe the buffer zone of the subject wetland (50 foot envelope of land adjacent to wetland boundary).</i>
5.6.1. Buffer Land Use: <i>For example: Mowed shoulder, forested, old field, paved road, and residential lawns, etc.</i> <input style="float: right;" type="checkbox"/> <i>Describe any previous and ongoing disturbance in the buffer zone.</i>
Grassy field, residential lawns, old RR bed and path; gardens, ditching, parking, and recreation fields at Green Mountain College, agricultural fields, forest.
5.6.2. Buffer Vegetation: <i>List the vegetation cover type and dominant plant species.</i> <input style="float: right;" type="checkbox"/>
Populus tremuloides, Lonicera tatarica, Galium mollugo, Rubus idaeus, Alliaria petiolata, Onoclea sensibilis.
5.6.3. Buffer Soils: <i>Use USDA NRCS information where possible, and the ACOE Delineation Manual soil description.</i> <input style="float: right;" type="checkbox"/>
Warwick quonset complex 0 - 3 percent slopes (Non-hydric), upland plot was as mapped soil, and had gravelly sandy loam.

6. Entire Wetland Function and Value Summary (as defined in the Vermont Wetland Rules Section 5): <i>Check which functions are present in the entire wetland</i> <input style="float: right;" type="checkbox"/>										
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;"><input checked="" type="checkbox"/> Flood/Storm Storage</td> <td style="width: 50%; padding: 2px;"><input checked="" type="checkbox"/> RTE Species</td> </tr> <tr> <td style="padding: 2px;"><input checked="" type="checkbox"/> Surface & Groundwater Protection</td> <td style="padding: 2px;"><input checked="" type="checkbox"/> Education & Research</td> </tr> <tr> <td style="padding: 2px;"><input checked="" type="checkbox"/> Fish Habitat</td> <td style="padding: 2px;"><input checked="" type="checkbox"/> Recreation/Economic</td> </tr> <tr> <td style="padding: 2px;"><input checked="" type="checkbox"/> Wildlife Habitat</td> <td style="padding: 2px;"><input checked="" type="checkbox"/> Open Space/Aesthetics</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> Exemplary Natural Community</td> <td style="padding: 2px;"><input checked="" type="checkbox"/> Erosion Control</td> </tr> </table>	<input checked="" type="checkbox"/> Flood/Storm Storage	<input checked="" type="checkbox"/> RTE Species	<input checked="" type="checkbox"/> Surface & Groundwater Protection	<input checked="" type="checkbox"/> Education & Research	<input checked="" type="checkbox"/> Fish Habitat	<input checked="" type="checkbox"/> Recreation/Economic	<input checked="" type="checkbox"/> Wildlife Habitat	<input checked="" type="checkbox"/> Open Space/Aesthetics	<input type="checkbox"/> Exemplary Natural Community	<input checked="" type="checkbox"/> Erosion Control
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<input checked="" type="checkbox"/> Wildlife Habitat	<input checked="" type="checkbox"/> Open Space/Aesthetics									
<input type="checkbox"/> Exemplary Natural Community	<input checked="" type="checkbox"/> Erosion Control									

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

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

Include any information on specific avoidance and minimization measures.

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

7. Water Storage for Flood Water and Storm Runoff <input style="float: right;" type="checkbox"/>
<input checked="" type="checkbox"/> Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Constricted outlet or no outlet and an unconstructed inlet. <input checked="" type="checkbox"/> 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. <input type="checkbox"/> If a stream is present, it's course is sinuous and there is sufficient woody vegetation to intercept surface flows in the portion of the wetland that floods. <input checked="" type="checkbox"/> Physical evidence of seasonal flooding or ponding such as water stained leaves, water marks on trees, drift rows, debris deposits, or standing water. <input type="checkbox"/> Hydrologic or hydraulic study indicates wetland attenuates flooding <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>

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

- Check this box if any of the following conditions apply that may indicate the wetland provides this function at a **lower** level.
 - Significant flood storage capacity upstream of the wetland, and the wetland in question provides this function at a negligible level in comparison to upstream storage (unless the upstream storage is temporary such as a beaver impoundment).
 - Wetland is contiguous to a major lake or pond that provides storage benefits independently of the wetland.
 - Wetland's storage capacity is created primarily by recent beaver dams or other temporary structures.
 - Wetland is very small in size, not contiguous to a stream, and not part of a collection of small wetlands in the landscape that provide this function cumulatively.
- Check this box if any of the following conditions apply that may indicate the wetland provides this function at a **higher** level.
 - History of downstream flood damage to public or private property.
 - Any of the following conditions present downstream of the wetland, but upstream of a major lake or pond, could be impacted by loss or reduction of the water storage function.
 - Developed public or private property
 - Stream banks susceptible to scouring and erosion
 - Important habitat for aquatic life
 - The wetland is large in size and naturally vegetated.
 - Any of the following conditions present downstream of the wetland, but upstream of a major lake or pond, could be impacted by a loss or reduction of the water storage function.
 - Developed public or private property.
 - Stream banks susceptible to scouring and erosion.
 - Important habitat for aquatic life.
 - The wetland is large in size and naturally vegetated
 - Any of the following conditions present upstream of the wetland may indicate a large volume of runoff may reach the wetland.
 - A large amount of impervious surface in urbanized areas.
 - Relatively impervious soils.
 - Steep slopes in the adjacent areas.

7.1 Subject Wetland Contribution to Water Storage:

Explain how the subject wetland contributes to the function listed above

The village of Poultney, located east of the wetland, is sloped approximately 20 feet higher in elevation than the wetland, and when the river floods it can move somewhat within its bed and footprint, but having the wetland able to store floodwater and stormwater for a time during high precipitation events has been a benefit to the village and Green Mountain College.

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

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

This stormwater treatment project will not involve any regular inputs to the wetland, and thus, only in a very extreme circumstance would use the wetland to receive emergency spillway waters that have been treated in its forebay treatment area and a large settlement pond, and then travel to the emergency spillway over 100 feet away from the stormwater treatment facility. Therefore, only under an extremely rare circumstance where the stormwater system becomes overwhelmed, would there be an adverse impact to the wetland. By design, the stormwater system has been formulated to clean water via two settlement ponds (a forebay and a pond) and keep untreated stormwater out of the wetland and river.

8. Surface and Ground Water Protection:

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

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

- Check this box if any of the following conditions apply that may indicate the wetland provides function at a lower level.
 - Presence of dead forest or shrub areas in sufficient amounts to result in diminished nutrient uptake.
 - Presence of ditches or channels that confine water and restrict contact of water with vegetation.
 - Wetland is very small in size, not contiguous to a stream, and not part of a collection of small wetlands in the landscape that provide this function cumulatively.
 - Current use in the wetland results in disturbance that compromises this function.
- Check this box if any of the following conditions apply that may indicate the wetland provides function at a higher level.
 - The wetland is adjacent to a well head or source protection area, and provides ground water recharge.
 - The wetland provides flows to Class A surface water. (Check ANR Atlas)
 - The wetland contributes to the protection or improvement of water quality of any impaired waters.
 - The wetland is large in size and naturally vegetated.

<p>8.1. Subject Wetland Contribution to Water Protection: <i>Explain how the subject wetland contributes to the function listed above.</i></p>	<input type="checkbox"/>
<p>The surface and groundwater protection largely exists due to the wetland being located near the Poultney River, which receives water from the wetland via two unnamed (one ditched) streams.</p>	
<p>8.2. Statement of No Undue Adverse Impact to <i>Surface and Ground Water Protection</i>: <i>Explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance, minimization, or compensation measures relevant to this function.</i></p>	<input type="checkbox"/>
<p>There will be no impact to the surface and groundwater protection function since the project's design is to improve waters that have stormwater impairments via the new stormwater treatment system. The well head source protection area boundary for Green Mountain College is located approximately 1240 feet to the south of the proposed project, and therefore the project as planned will have no impact to GMC's water source protection area.</p>	
<p>9. Fish Habitat:</p>	<input type="checkbox"/>
<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"/> 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 checked="" type="checkbox"/> The wetland is located along a tributary that does not support fish, but contributes to a larger body of water that does support fish. The tributary supports downstream fish by providing cooler water and food sources. 	
<p>9.1. Subject Wetland Contribution to Fish Habitat: <i>Explain how the subject wetland contributes to the function listed above.</i></p>	<input type="checkbox"/>
<p>The subject wetland does contribute waters to the Poultney River via two unnamed streams that flow through two different culverts, in spring through early summer during normal to high precipitation years. In that way, food may travel via the culverts and possibly cooler water into the Poultney River. The temperature of the wetland water (when water is present) is not known.</p>	
<p>9.2. Statement of No Undue Adverse Impact to <i>Fish Habitat</i>: <i>Explain how the proposed project will not result in any undue, adverse impact to this function. Include any avoidance, minimization, or compensation measures relevant to this function.</i></p>	<input type="checkbox"/>
<p>The project as planned will not change the configuration of either of the two culverts, and due to its location will not effect the food or cooler water (possibly cooler water) function for the benefit of fish.</p>	

10. Wildlife Habitat

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

Wildlife Habitat Continued...

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

- The dominant vegetation class is one of the following types: deep marsh, shallow marsh, shrub swamp or, forested swamp.
- Located adjacent to a lake, pond, river or stream.
- Fifty percent or more of surrounding habitat type is one or more of the following: forest, agricultural land, old field or open land.
- Emergent or woody vegetation occupies 26 to 75 percent of wetland, the rest is open water.
- One of the following:
 - Hydrologically connected to other wetlands of different dominant classes or open water within 1 mile.
 - Hydrologically connected to other wetlands of same dominant class within 1/2 mile.
 - Within 1/4 mile of other wetlands of different dominant classes or open water, but not hydrologically connected.

Wetland or wetland complex is owned in whole or in part by state or federal government and managed for wildlife and habitat conservation.

Contains evidence that it is used by wetland dependent wildlife species

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

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

The wetland is small in size for its type and does not represent fugitive habitat in developed areas (vernal pools and seeps are generally small in size, so this does not apply).

The surrounding land use is densely developed enough to limit use by wildlife species (with the exception of wetlands with open water habitat). Can be negated by evidence of use.

The current use in the wetland results in frequent cutting, mowing or other disturbance.

The wetland hydrology and character is at a drier end of the scale and does not support wetland dependent species.

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

The wetland is large in size and high in quality.

The habitat has the potential to support several species based on the assessment above.

Wetland is associated with an important wildlife corridor.

The wetland has been identified as a locally important wildlife habitat by an ANR Wildlife Biologist.

<p>10.1. Subject Wetland Contribution to Wildlife Habitat Functions: <i>Explain how the subject wetland contributes to the function listed above.</i></p>	<input type="checkbox"/>
<p>Due to the large wetland complex including open water, shrub swamp, forested swamp and emergent wetland not far from the Poultney River, the subject wetland likely contributes to a corridor for movement of wildlife species, even though to the east species movement is extremely limited due to residential streets, town infrastructure, driveways and institutional uses. Also, the wetland has an RTE circle on the ANR Interest Locator demarcating this area as Ribbon snake habitat (confirmed in 2001) and the VT F&W biologist Doug Blodgett informed Patricia and Zapata during the site visit that wood turtle has been recorded in this area (although it has not been mapped yet) by Green Mountain College.</p>	
<p>10.2. Statement of No Undue Adverse Impact to <u>Wildlife Habitat</u>: <i>Explain how the proposed project will not result in any undue, adverse impact to this function.</i> <i>Include any avoidance, minimization, or compensation measures relevant to this function.</i></p>	<input type="checkbox"/>
<p>The project as planned should not have any undue adverse impact to the ribbon snake/wildlife function as the project is located in what is now mowed lawn and field, and a small portion of the emergency spillway will be constructed in the wetland buffer. The construction area will have silt fencing around it during the construction phase which will help keep snakes and turtles out of the active project work area. Once the project is completed it is likely that ribbon snake will not be attracted to this area as the wetland and fields south and west of the wetland will provide better habitat, cover, and food sources. The chain link fence planned to enclose the emergency spillway, will protect wood and other turtles from entering the stormwater treatment facility, as it will be three inches off the ground. Ribbon snakes could still move into and out of the stormwater facility, however they should not be harmed by a passive stormwater system.</p>	
<p>11. Exemplary Wetland Natural Community</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> <p style="margin-left: 40px;"><input type="checkbox"/> Wetlands that are identified as high quality examples of Vermont's natural community types recognized by the Natural Heritage Information Project of the Vermont Fish and Wildlife Department, including rare types such as dwarf shrub bogs, rich fens, alpine peatlands, red maple-black gum swamps and the more common types including deep bulrush marshes, cattail marshes, northern white cedar swamps, spruce-fir-tamarack swamps, and red maple-black ash seepage swamps are automatically significant for this function</p> <p>The wetland is also likely to be significant if any of the following conditions are met:</p> <p><input type="checkbox"/> Is an example of a wetland natural community type that has been identified and mapped by, or meets the ranking and mapping standards of, the Natural Heritage Information Project of the Vermont Fish and Wildlife Department.</p> <p><input type="checkbox"/> Contains ecological features that contribute to Vermont's natural heritage, including, but not limited to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Deep peat accumulation reflecting a long history of wetland formation; <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 checked="" type="checkbox"/> A large wetland complex containing examples of several wetland community types. <p>List species or communities of concern:</p> <p>N/A the wetland is not an exemplary natural community</p>	
<p>11.1. Subject Wetland Proximity to Exemplary Natural Communities</p>	<input type="checkbox"/>
<p>No exemplary natural communities are mapped nearby, the closest is approximately three miles to the east (a red maple - seepage swamp). While the wetland does have more than one community type, it has many invasive plants (especially thick stands of Lonicera taterica), and is heavily impacted by the surrounding land uses.</p>	
<p>11.2. Statement of No Undue Adverse Impact to Exemplary Wetland Natural Community: <i>Explain how the proposed project will not result in any undue, adverse impact to this function.</i> <i>Include any avoidance, minimization, or compensation measures relevant to this function.</i></p>	<input type="checkbox"/>
<p>The project will have no impact to any exemplary natural community function, as the wetland is not one itself, and is not located in close proximity to another exemplary wetland natural community.</p>	

12. Rare, Threatened, and Endangered Species Habitat:

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

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

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

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

List name of species and ranking:

Ribbon snake (*thamnophis sauritus*), S2 State of Vermont
 Wood turtle (*Glyptemys insculpta*)

12.1. Subject Wetland Contribution to RTE Habitat:

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

The ribbon snake was documented in 2001 as present in a field adjacent to the wetland complex associated with this project. Also, Doug Blodgett of VT F&W, explained during the site visit with Patricia and Zapata that there is wood turtle present in the vicinity of the subject. Therefore we know that habitat exists for one S2 species (Ribbon snake) and one S3 species (Wood turtle).

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

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

Given that the area where the project is to occur is the northernmost edge of the wetland, and the project is planned to begin construction in late 2016 or early 2017 when the ribbon snake and turtle are likely to be in hibernation, and the primary project area is located on a mowed lawn, and will have silt fencing surrounding the project site, there should be no undue adverse impact to the ribbon snake or wood turtle habitat function. Since there have been no major changes to the fields and thickets and the wetland since that time the ribbon snake and wood turtle were document in this location, they should have little challenge persisting in the wetland south of the project's location.

13. Education and Research in Natural Sciences:	<input type="checkbox"/>
<p><input checked="" 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 checked="" type="checkbox"/> History of use for education or research. <input type="checkbox"/> Has one or more characteristics making it valuable for education or research. 	
13.1. Subject Wetland <u>Education and Research Potential:</u>	<input type="checkbox"/>
<p><i>Explain how the subject wetland contributes to the function listed above.</i></p> <p>Due to the wetlands proximity to Green Mountain College, and paths located behind the college leading into the fields and subject wetland complex where the ribbon snake was found, it is reasonable to assume the education and research function is present and has been for quite some time.</p>	
13.2 Statement of No Undue Adverse Impact to <u>Education and Research in Natural Sciences:</u>	<input type="checkbox"/>
<p><i>Explain how the proposed project will not result in any undue, adverse impact to this value. Include any avoidance, minimization, or compensation measures relevant to this value.</i></p> <p>The project will be located in a mowed lawn area, which is not a part of the wetland, Green Mountain College or another educational entity, and therefore there will be no undue adverse impact to the education and research function from the project as planned.</p>	
14. Recreational Value and Economic Benefits:	<input type="checkbox"/>
<p><input checked="" 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 checked="" 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>Recreation value is due to paths and an old railroad bed that bisects the wetland providing recreation and wildlife observation opportunities.</p>	
14.1. Subject Wetland <u>Recreational and Economic Value:</u>	<input type="checkbox"/>
<p><i>Explain how the subject wetland contributes to the value listed above.</i></p> <p>Recreation value is due to an old RR bed that bisects the wetland providing physical recreation and wildlife observation opportunities. Due to the proximity of the wetland to the York Street residential neighborhood and Green Mountain College to the south, hunting and trapping should not occur in this wetland or its immediate vicinity.</p>	
14.2. Statement of No Undue Adverse Impact to <u>Recreational Value and Economic Benefits:</u>	<input type="checkbox"/>
<p><i>Explain how the proposed project will not result in any undue, adverse impact to this value. Include any avoidance, minimization, or compensation measures relevant to this value.</i></p> <p>Since the wetland trail provides this opportunity well outside and more than 50 feet from the project area, and the project will have no impact to the trails or viewing opportunities for wildlife, there will be no undue adverse impact to the recreation function from the project as planned since people will still be able to see the entire wetland from trails in the wetlands immediate vicinity.</p>	

15. Open Space and Aesthetics:

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

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

Comments:

The neighborhood of York Street can view this wetland from their back lawns and Green Mountain College students walk trails in the wetland and college visitors can see the an area of the wetland complex at its south end since it is near the back parking lot and recreation fields.

15.1. Subject Wetland Aesthetic Value:
Explain how the subject wetland contributes to the value listed above.

The subject wetland can be viewed from neighborhood back lawns and the parking lot and recreation fields of Green Mountain College.

15.2. Statement of No Undue Adverse Impact to Open Space and Aesthetics:
Explain how the proposed project will not result in any undue, adverse impact to this value. Include any avoidance, minimization, or compensation measures relevant to this value.

The view from the homes on York Street will not change in any way due to the project as planned, nor will those of Green Mountain College, they will still be able to view the wetland as they had.

16. Erosion Control Through Binding and Stabilizing

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

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

What type of erosive forces are present?

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

Erosion Control Through Binding and Stabilization Continued...

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

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

16.1. Subject Wetland Contribution to Erosion Control:

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

The subject wetland buffer, with its dead trees and Lonicera likely helps manage erosion control via having an area where the small artificially channelized stream can flow without scouring the upland banks of the wetland buffer.

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

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

The project as planned will have an emergency spillway headwall in the wetland buffer, approximately 30 feet to a mapped, channelized stream. This small headwall structure will prevent slope erosion at the edge of the wetland, that is Warwick soil, which is a slight erosion hazard on slopes less than the 5 - 10 percent slopes present on the bank above the wetland. This headwall structure is designed to prevent erosion during high precipitation events. Therefore, there will be no adverse impact to the erosion control function of the wetland from the project as planned.

17. Project Description:

17.1. Overall Project Purpose:

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

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

To construct a new stormwater treatment system, that will divert stormwater from a direct outfall to the Poultney River and infiltrate stormwater in the infiltration basin to be constructed. This will reduce phosphorus loadings to the Poultney River.

17.2. Description of Project Component Impacting Wetland or Buffer:

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

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

The stormwater project involves an emergency spillway to be constructed in the wetland buffer.

<p>17.3. Acreage of Parcel(s) or Easements(s): <i>Acreage of subject property.</i></p>	<input type="checkbox"/>
<p>1.5 Acres +/-</p>	
<p>17.4. Acreage of Project Area: <i>Acreage of area involved in the project.</i></p>	<input type="checkbox"/>
<p>1.25 Acre +/- none of which is within the wetland.</p>	
<p>18. Project Details: <i>Provide details regarding specific impacts to the wetland and buffer zone.</i></p> <p>For multiple wetlands fill out the multiple wetland table.</p>	
<p>18.1. Specific Impacts to Wetland and Buffer Zone Dimensions: <i>List portions of the project that will specifically impact the wetland or buffer zone and their dimensions. For example: driveway crossing with 16' wide fill; installation of buried sewer force main with 5' trench including fill footprint; addition of Stormwater outfall which directs flow to northern portion of wetland</i></p>	<input type="checkbox"/>
<p>No permanent impact is proposed within the wetland. In the buffer zone, the end of the emergency spillway is planned to have a 2,000 square foot grassy (slightly concave) swale with a 24" concrete headwall at the end of the structure.</p>	
<p>18.2. Bridges and Culverts: <i>Culvert circumference, length, placement and shapes, or bridge details. List any stream alteration permits that are required or obtained where perennial streams or rivers are involved.</i></p>	<input type="checkbox"/>
<p>No bridges or culverts are associated with the project as planned.</p>	
<p>18.3. Construction Sequence: <i>Describe any details pertaining to the work planned in the wetland and buffer in terms of sequence or phasing that is relevant. Describe the construction limits of disturbance, how those will be marked, and check to ensure these are shown on the site plans as well.</i></p>	<input type="checkbox"/>
<p>Prior to construction silt fence will be installed, and during to post construction until the soil is stabilized with vegetation, the silt fence will be maintained in place.</p>	
<p>18.4. Stormwater Design** <i>List any stormwater permits obtained or applied for. Describe stormwater and/or erosion controls proposed. ** Erosion prevention is required in order to prevent sediment from entering the wetland.</i></p>	<input type="checkbox"/>
<p>No other permits are necessary for this stormwater treatment system as it falls under the stormwater general permit.</p>	
<p>18.5. Permanent Demarcation of Limit of Impacts** <i>Describe any boulders, fencing, signage, or other memorialization that provides permanent on-the-ground boundaries for the limits of disturbance for ongoing uses. **Permanent demarcations are required for projects with ongoing activities in or near wetlands or buffer zones such as houses, yards, woody clearing or parking areas, and needs to be depicted on the site plans.</i></p>	<input type="checkbox"/>
<p>A four foot tall chain link fence (set to finished grade) will completely surround the stormwater treatment facility as a required safety measure. However, the emergency spillway's grassy swale will not have a permanent fence as a demarcation of limits, allowing wildlife to move across the swale and around the concrete headwall.</p>	

19. Wetland and Buffer Zone Impacts:

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

19.1. Wetland Impacts:

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

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

Describe in detail the proposed impact to wetlands

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

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

N/A there is no wetland impact expected from the project as planned.

19.2. Buffer Zone Impacts:

Summarize the square footage of impact in the appropriate category.

Temporary Buffer Impact		s.f.
Permanent Buffer Impact	2,000	s.f.
Total Buffer Impact:	2	s.f.

Describe in detail the proposed impact to buffer zones

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

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

19.2 above should read 2,000 square feet of "Total Buffer Impact".

However the "Total Buffer Impact:" would not add up correctly and will only show a single number "2".

19.3. Cumulative Impacts:

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

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

The stormwater emergency spillway will require vegetation management to insure full size trees do not grow in the project area and compromise the stormwater emergency swale and outfall structure.

20. Mitigation Sequence: <i>Before you begin, please read all of Section 20 to respond most appropriately to specific questions. Questions specifically related to Section 9.5b of the Vermont Wetland Rules.</i>
20.1. Avoidance of Wetland Impacts: <input type="checkbox"/>
<p style="text-align: center;">20.1.1. Can the activity be located on another site owned or controlled by the applicant, or reasonably available to satisfy the basic project purpose? If not, indicate why. Cite any alternative sites and explain why they were not chosen.</p> <p>No, this area was necessary as the proposed project's purpose is to separate stormwater from wastewater (the location of the wastewater plant is approximately 175 +/- feet due west from this proposed stormwater facility). This project will help insure that both systems (once the stormwater system is in place) will function optimally. Other areas of this property are underlain with shallow bedrock and have exposed bedrock as well, which is not complementary for stormwater systems. Also, it is the area the town owns.</p>
<p style="text-align: center;">20.1.2. Can the proposed activity be practicably located outside the wetland/buffer zone? If not, indicate why. Explain the alternatives you have explored for avoiding the wetland and buffer onsite, And why they are not feasible.</p> <p>The project was designed be completely outside the wetland on this parcel, and as far outside the buffer as was practicable. However, the Village owns only a small parcel in this location, so the stormwater improvements (facility) were pushed to the very edge of the parcel , as far away from the wetland as possible. Due to stormwater entering the facility off York Road, the forebay has to be in that location, putting the infiltration basin at the westernmost side of the parcel, and the emergency spillway leading to the edge of the subject wetland buffer.</p>
20.2. Avoidance to the Impact to Functions and Values: <input type="checkbox"/>
<p style="text-align: center;">20.2.1. If the proposed activity cannot be practicably located outside the wetland/buffer zone, have all practicable measures been taken to avoid adverse impacts on protected functions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p style="text-align: center;">20.2.2. What design alternatives were examined to avoid impacts to wetland function? For example: Use of matting, relocation of footprint, etc.</p> <p>The design has been changed by removing rip-rap from the wetland buffer and replacing it with a grass swale.</p>
<p style="text-align: center;">20.2.3. What steps have been taken to minimize the size and scope of the project to avoid impacts to wetland functions and values? Include information on project size reduction and relocation.</p> <p>The grassy swale will make movement of wildlife (especially small wildlife species) easier than crushed rock rip-rap, and maintaining the emergency spillway swale as a grassy swale with native shrubs allowed to grow in for this area, should minimize the impacts to the wetland buffer.</p>
<p style="text-align: center;">20.2.4. Explain how the proposed project represents the least impact alternative design. Explain why other alternatives, which you described above, were not chosen.</p> <p>Other alternatives were not available given the site the Village of Poultney has to work with, for an improvement to their combined wastewater/stormwater system, which involves separating their wastewater from their stormwater system which necessitates a new stormwater facility. So the least impact to the wetland buffer was chosen, which involved removing the planned crushed stone swale, and replacing it with the grassy swale on the stormwater facilities emergency spillway.</p>
20.3. Minimization and Restoration: <input type="checkbox"/>
<p style="text-align: center;">20.3.1. If avoidance of adverse effects on protected functions cannot be practically achieved, has the proposed activity been planned to minimize adverse impacts on the protected function? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</p>
<p style="text-align: center;">20.3.2. What measures will be used during construction and on an ongoing basis to protect the wetland and buffer zone? For example: Stormwater treatment, signs, fencing, etc.</p> <p>Signs during construction for the project, silt fencing before/during/after the project is completed until vegetation is established on site, and permanent chain link fencing.</p>

Minimization and Restoration Continued...

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

Restoration Narrative:
For example: Planting along the stream.

Quantification of Restoration:

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

20.4. Compensation:

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

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

N/A no compensation is planned for the project as planned.

21. Wetland Determination: <i>If the application involves a wetland determination please answer the following. For multiple wetlands provide narrative overview for each section below, and fill out the Multiple Wetland Tables.</i>	<input type="checkbox"/>
<input type="checkbox"/> Wetland is mapped or contiguous to the Vermont Significant Wetland Inventory Map <input type="checkbox"/> Wetland is not mapped on or contiguous to the Vermont Significant Wetland Inventory Map	
21.1. Reason for Petition: <i>Please choose one from the dropdown menu.</i>	<input type="checkbox"/>
<Choose One>	
21.2. Determination Narrative: <i>Please provide any narrative to support the petition for a wetland determination here, including previous decisions by the Secretary or Water Board.</i>	<input type="checkbox"/>
N/A	

22. Supporting Materials:

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

22.1. **Location Map:

Provide a location map that is 8 1/2" x 11" and separate from any site plans.
The Vermont Natural Resources Atlas is appropriate using USGS topography map base layer, roads, and VSWI wetlands at a minimum.

Date	Title
11-18-2015	ANR Resource Atlas - Poultney York Street location map

22.2. **Site Plan(s):

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

Title	Author	Date	Date of Last Revision
Detention Basin Plan and Profile Station +00 to 5+73	Aldrich + Elliott, PC	September 2016	October 28, 2016
Stormwater Details	Aldrich + Elliott, PC	September 2016	October 28, 2016

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

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

Attachment #/Title	Range of Collection Dates	Vegetation Cover Types	# of Paired Plots
Poultney ACOE Upland form Nov 19 2015	11-19-2015	Shrub stand and old field	1
Poultney ACOE Wetland form Nov 19 2015	11-19-2015	Emergent and shrub wetland	1

22.4. Other Supporting Documents:

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

Date	Last Revision	Author	Title

23. Abutting Landowners

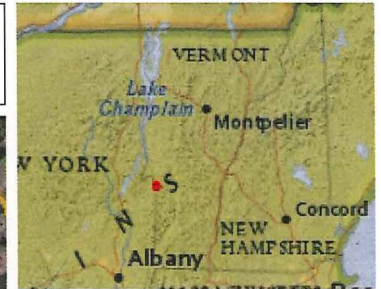
Please provide abutting landowner information so that all persons owning property within, or adjacent to, the affected wetland area of buffer zone can be notified during the public notice period. **Please use additional sheets if necessary.**

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

1. Name: Vickie Swenor Street/Road: 624 York Street City/State/Zip: Poultney, VT 05764	16. Name: Street/Road: City/State/Zip:
2. Name: Chrispin White Street/Road: 635 York Street City/State/Zip: Poultney, VT 05764	17. Name: Street/Road: City/State/Zip:
3. Name: Green Mountain Power Street/Road: 163 Acorn Lane City/State/Zip: Colchester, VT 05446	18. Name: Street/Road: City/State/Zip:
4. Name: N/A only two lines work in this writing space Street/Road: City/State/Zip:	19. Name: Street/Road: City/State/Zip:
5. Name: Village of Poultney, Jonas Rosenthal Mgr. Street/Road: P.O. Box 121 City/State/Zip: Poultney VT 05764	20. Name: Street/Road: City/State/Zip:
6. Name: Street/Road: City/State/Zip:	21. Name: Street/Road: City/State/Zip:
7. Name: Street/Road: City/State/Zip:	22. Name: Street/Road: City/State/Zip:
8. Name: Street/Road: City/State/Zip:	23. Name: Street/Road: City/State/Zip:
9. Name: Street/Road: City/State/Zip:	24. Name: Street/Road: City/State/Zip:
10. Name: Street/Road: City/State/Zip:	25. Name: Street/Road: City/State/Zip:
11. Name: Street/Road: City/State/Zip:	26. Name: Street/Road: City/State/Zip:
12. Name: Street/Road: City/State/Zip:	27. Name: Street/Road: City/State/Zip:
13. Name: Street/Road: City/State/Zip:	28. Name: Street/Road: City/State/Zip:
14. Name: Street/Road: City/State/Zip:	29. Name: Street/Road: City/State/Zip:
15. Name: Street/Road: City/State/Zip:	30. Name: Street/Road: City/State/Zip:

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

Name of Newspaper(s)



LEGEND

Wetlands - VSWI

- Class 1 Wetland
- Class 2 Wetland

NOTES

267.0 0 134.00 267.0 Meters
 WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 438 Ft. 1cm = 52 Meters
 © Vermont Agency of Natural Resources THIS MAP IS NOT TO BE USED FOR NAVIGATION

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

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Pipeline to WW Plant/York Street City/County: Poultney/Rutland Sampling Date: 19 Nov 2015

Applicant/Owner: Village of Poultney State: VT Sampling Point: Upland A

Investigator(s): Patricia Greene-Swift Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0%

Subregion (LRR or MLRA): LRR R Lat: 43.52298 Long: -73.24440 Datum: DD

Soil Map Unit Name: Warwick quonset complex 0 - 3% slopes NWI classification: Non-hydric

Are climatic / hydrologic conditions on the site typical for this time of year? Yes Yes No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes Yes No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <u>No</u> Hydric Soil Present? Yes _____ No <u>No</u> Wetland Hydrology Present? Yes _____ No <u>No</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>No</u> If yes, optional Wetland Site ID: <u>Upland plot is on the slope</u>
Remarks: (Explain alternative procedures here or in a separate report.) The upland has been invaded by garlic mustard (<i>Alliaria petiolata</i>), between the agricultural field and the wetland edge.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <ul style="list-style-type: none"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) 	Secondary Indicators (minimum of two required) <ul style="list-style-type: none"> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <u>No</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>No</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>No</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>No</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No wetland hydrology present in the upland plot.	

VEGETATION – Use scientific names of plants.

Sampling Point: Upland A

<u>Tree Stratum</u> (Plot size: <u>30' Radius</u>)	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>		
1. <u>Populus tremuloides</u>	<u>30%</u>	<u>Yes</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
2. <u>Prunus serotina</u>	<u>1%</u>	<u>Yes</u>	<u>FACU</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
<u>31%</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' Radius</u>)					
1. <u>Lonicera tatarica</u>	<u>80%</u>	<u>Yes</u>	<u>FACU</u>		Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
<u>80%</u> = Total Cover				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 or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.	
<u>Herb Stratum</u> (Plot size: <u>5' Radius</u>)					
1. <u>Galium mollugo</u>	<u>60%</u>	<u>Yes</u>	<u>FACU</u>		Hydrophytic Vegetation Present? Yes _____ No <u>No</u>
2. <u>Rubus idaeus</u>	<u>15%</u>		<u>FACU</u>		
3. <u>Alliaria petiolata</u>	<u>7%</u>		<u>FACU</u>		
4. <u>Onoclea sensibilis</u>	<u>7%</u>		<u>FACW</u>		
5. <u>Epilobium angustifolium</u>	<u>3%</u>		<u>FACU</u>		
6. <u>Rubus odorata</u>	<u>3%</u>		<u>FACU</u>		
7. <u>Taraxacum sp.</u>	<u>T</u>		<u>FACU</u>		
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
<u>95%</u> = Total Cover					
<u>Woody Vine Stratum</u> (Plot size: <u>15' Radius</u>)					
1. _____					
2. _____					
3. _____					
4. _____					
<u>0%</u> = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.) Plants confirm the upland plot designation.					

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Pipeline to WW Plant/York Street City/County: Poultney/Rutland Sampling Date: 19 Nov 2015

Applicant/Owner: Village of Poultney State: VT Sampling Point: Wetland A

Investigator(s): Patricia Greene-Swift Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0%

Subregion (LRR or MLRA): LRR R Lat: 43.52298 Long: -73.24440 Datum: DD

Soil Map Unit Name: Saco mucky silt loam NWI classification: Hydric

Are climatic / hydrologic conditions on the site typical for this time of year? Yes Yes No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes Yes No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>Yes</u> No _____ Hydric Soil Present? Yes <u>Yes</u> No _____ Wetland Hydrology Present? Yes <u>Yes</u> No _____	Is the Sampled Area within a Wetland? Yes <u>Yes</u> No _____ If yes, optional Wetland Site ID: <u>Near flag #15</u>
Remarks: (Explain alternative procedures here or in a separate report.) The wetland appears to be in good condition, and has an old railroad bed bisecting it south of the water treatment plant, that currently functions as a path.	

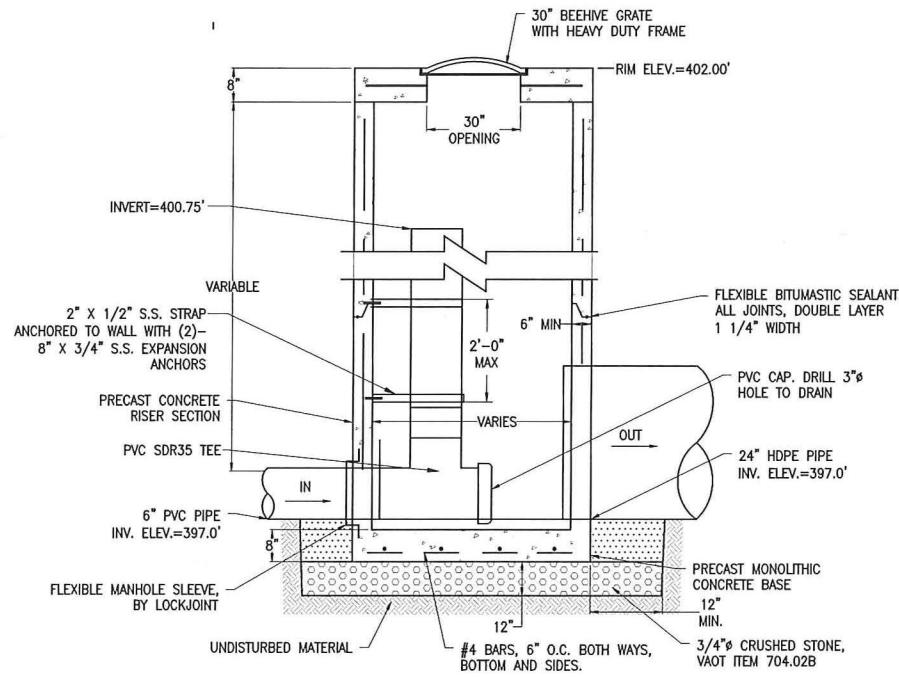
HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) _____ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) _____ Marl Deposits (B15) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> Iron Deposits (B5) _____ Thin Muck Surface (C7) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> Geomorphic Position (D2) _____ Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <u>Yes</u> No _____ Depth (inches): <u>13" +/-</u> Water Table Present? Yes <u>Yes</u> No _____ Depth (inches): <u>Surface</u> Saturation Present? (includes capillary fringe) Yes <u>Yes</u> No _____ Depth (inches): <u>Surface</u>	Wetland Hydrology Present? Yes <u>Yes</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: The water table is present at the surface in soil at the edge of the ponded area of the wetland. Saturation is present along the edges of the ponded areas of the wetland.	

VEGETATION – Use scientific names of plants.

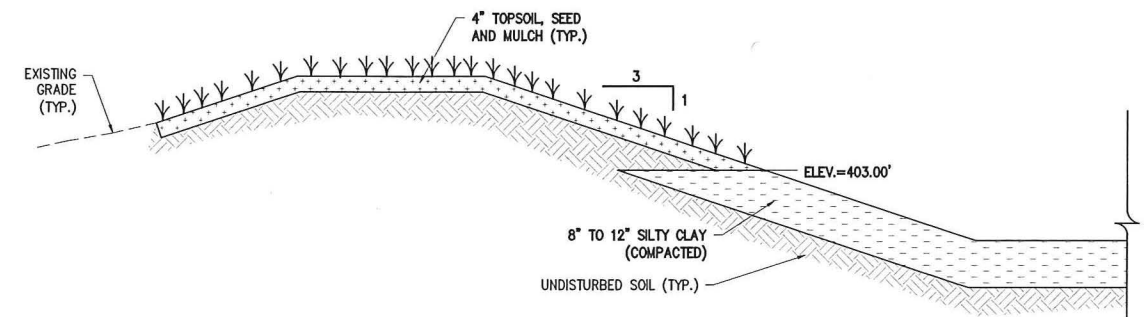
Sampling Point: Wetland A

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot size: <u>30' Radius</u>)					
1. <u>Populus tremuloides</u>	<u>10%</u>	<u>Yes</u>	<u>FACU</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)	
2. <u>Prunus serotina</u>	<u>1%</u>	<u>Yes</u>	<u>FACU</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>11%</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>80</u> x 1 = <u>80</u> FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>11</u> x 4 = <u>44</u> UPL species _____ x 5 = _____ Column Totals: <u>91</u> (A) <u>124</u> (B) Prevalence Index = B/A = <u>1.36</u>	
Sapling/Shrub Stratum (Plot size: <u>15' Radius</u>)					
1. <u>Lonicera tatarica</u>	<u>Trace</u>	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>Trace</u> = Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - 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>5' Radius</u>)					
1. <u>Lemna minor</u>	<u>80%</u>	<u>OBL</u>	<u>Yes</u>		
2. <u>Ludwigia palustris</u>	<u>5%</u>	<u>OBL</u>	_____		
3. <u>Calamagrostis canadensis</u>	<u>5%</u>	<u>OBL</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 or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.	
Woody Vine Stratum (Plot size: <u>15' Radius</u>)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
<u>0%</u> = Total Cover				Hydrophytic Vegetation Present? Yes <u>Yes</u> No _____	
Remarks: (Include photo numbers here or on a separate sheet.) 10% open water in the wetland. Trees noted above were on the slope above the wetland, in the wetland plot. No trees were located in the wetland area of the plot.					

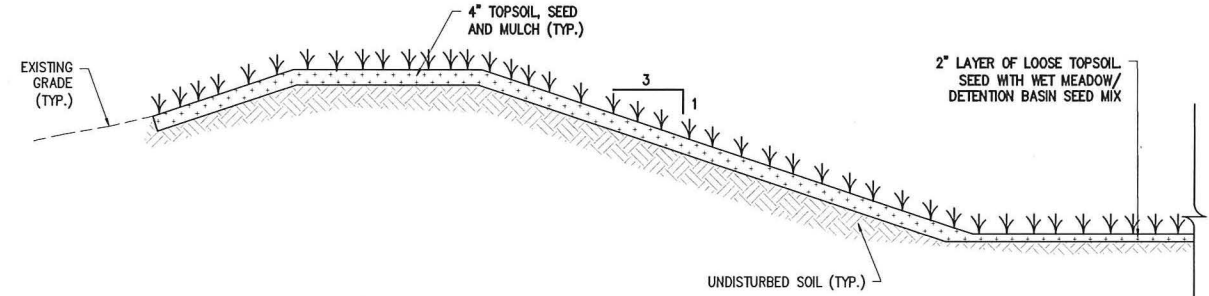


- NOTES:**
1. CONCRETE=4,000 psi; STEEL REBAR=40,000 psi
 2. STRUCTURE SHALL BE DESIGNED TO WITHSTAND AN H2O LOADING.

A
3 TYPICAL OVERFLOW STRUCTURE DETAIL
 SCALE: NONE

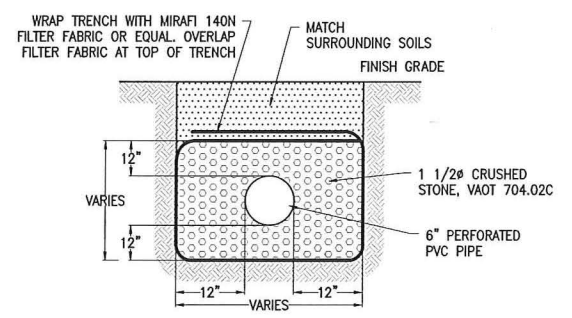


B
3 FOREBAY SECTION
 SCALE: NONE



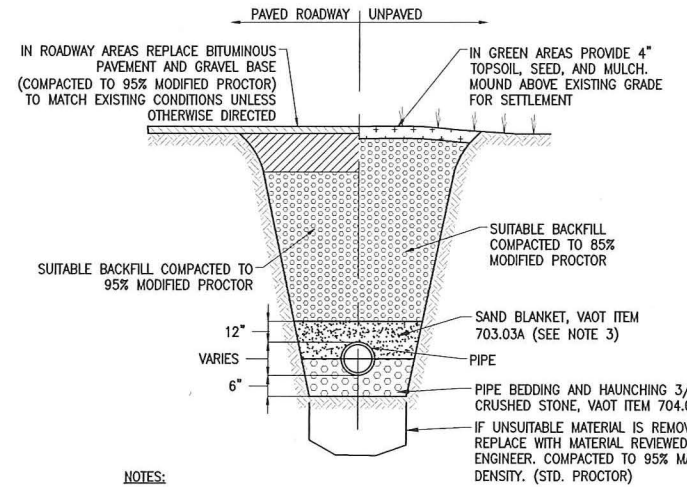
C
3 FILTRATION BASIN SECTION
 SCALE: NONE

- NOTES:**
1. CONTRACTOR SHALL EXERCISE CARE TO SHAPE BOTTOM OF INFILTRATION BASIN WITHOUT CONTAMINATING EXISTING SOILS WITH CLAY LAYER BELOW.
 2. CONTRACTOR SHALL NOT COMPACT SOILS.
 3. CONTRACTOR SHALL SCARIFY BASIN TO LOOSEN SOILS AS NEEDED (AS DIRECTED BY ENGINEER IN THE FIELD).
 4. CONTRACTOR MINIMIZE EQUIPMENT TRAVEL ALONG BASIN FLOOR.



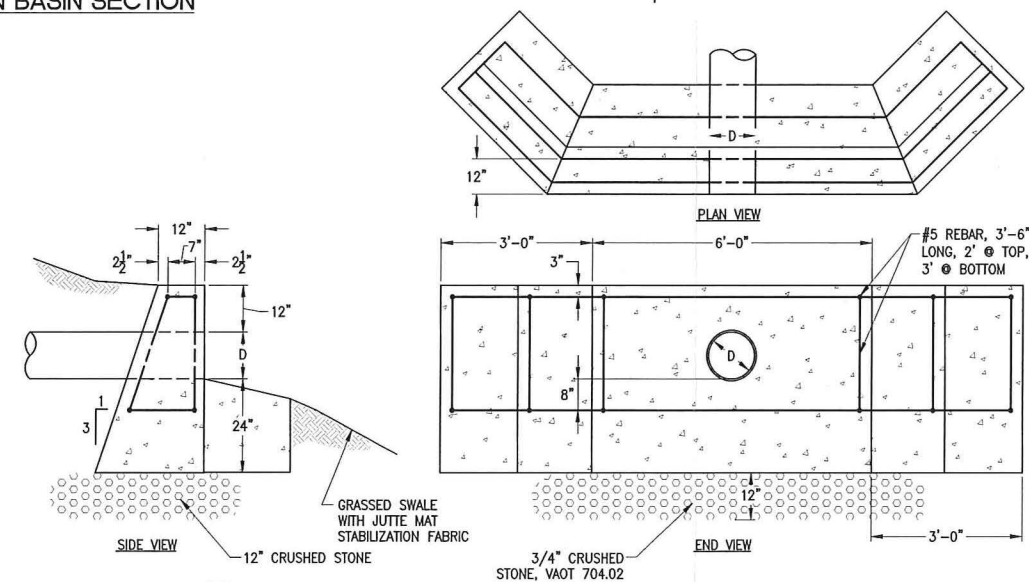
- NOTES:**
1. INSTALL PVC END CAP AT PIPE TERMINATION IN BASIN.

D
3 TYPICAL UNDERDRAIN PIPE DETAIL
 SCALE: NONE

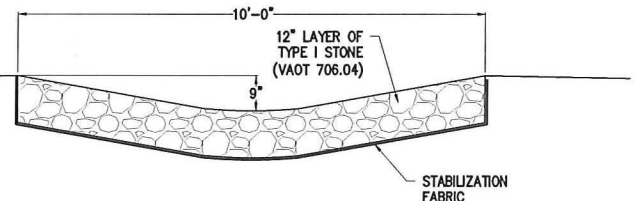


- NOTES:**
1. NO MECHANICAL TAMPERS SHALL BE USED DIRECTLY OVER HDPE PIPE TO ENSURE PIPE IS NOT DAMAGED.
 2. BEDDING TO PROVIDE A FIRM, STABLE, CONTINUOUS AND UNIFORM SUPPORT FOR THE FULL LENGTH OF THE PIPE.
 3. 3/4" CRUSHED STONE CAN BE USED FOR INITIAL BACKFILL.
 4. IF DEPTH OF COVER OVER PIPE IS LESS THAN 22 INCHES, GRAVEL SUBBASE, VAOT ITEM 704.04, SHALL BE USED AS BACKFILL OVER PIPE. PIPE BEDDING AND HAUNCHING SHALL REMAIN AS SHOWN.

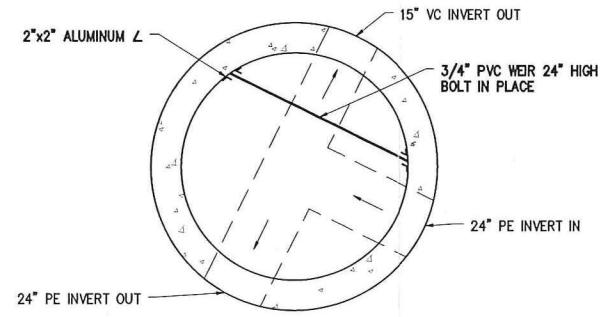
F
3 TYPICAL PIPE TRENCH DETAIL
 SCALE: NONE



G
3 STORM DRAIN-REINFORCED CONCRETE HEADWALL DETAIL
 SCALE: NONE



E
3 SPILLWAY
 SCALE: NONE



H
3 CATCH BASIN CB#1 WEIR DETAIL
 SCALE: NONE

CHECKED	DESCRIPTION	DATE	NO.
BFA	REVISION	10/28/16	1

VILLAGE OF POULTNEY, VERMONT

YORK STREET STORMWATER IMPROVEMENTS, PHASE II

STORMWATER DETAILS

DESIGNED JAB	PROJECT NO. 15084
DRAWN JEB	DRAWING 3
CHECKED BFA	DATE SEPT. 2016