

Vermont Wetlands Program Permit Application Database Form

Under Sections 8 and 9
of the Vermont Wetland Rules



| Application Submittal Instructions |
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| <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@state.vt.us <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> |

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| Applicant Name: | Application Preparer Name: |
| Town where project is located: | County: |
| Span#: | Vermont Wetlands Project (VWP)# if Known: |
| Project Location Description: <i>911 street address or direction from nearest intersection</i> | |
| Brief Project Summary: | |
| Application Type: <input type="checkbox"/> Individual Permit (multiple wetlands) <input type="checkbox"/> After the Fact Permit <input type="checkbox"/> Wetland Determination <input 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 type="checkbox"/> Residential (single family) <input type="checkbox"/> Residential (subdivision) <input type="checkbox"/> Undeveloped <input type="checkbox"/> Agriculture <input type="checkbox"/> Transportation <input type="checkbox"/> Forestry <input type="checkbox"/> Parks/Rec/Trail <input type="checkbox"/> Institutional <input type="checkbox"/> Industrial/Commercial | |
| Proposed Land Use Type(s): <i>(Check all that apply)</i> <input type="checkbox"/> Residential (single family) <input type="checkbox"/> Residential (subdivision) <input type="checkbox"/> Undeveloped <input type="checkbox"/> Agriculture <input type="checkbox"/> Transportation <input type="checkbox"/> Forestry <input type="checkbox"/> Parks/Rec/Trail <input type="checkbox"/> Institutional <input type="checkbox"/> Industrial/Commercial | |
| Proposed Impact Type(s): <i>(Check all that apply)</i> <input type="checkbox"/> Buildings <input type="checkbox"/> Utilities <input type="checkbox"/> Parking <input type="checkbox"/> Septic/Well <input type="checkbox"/> Stormwater <input type="checkbox"/> Driveway <input type="checkbox"/> Park/Path <input type="checkbox"/> Agriculture <input type="checkbox"/> Pond <input type="checkbox"/> Lawn <input type="checkbox"/> Dry Hydrant <input type="checkbox"/> Beaver Dam Alteration <input type="checkbox"/> Silviculture <input type="checkbox"/> Road <input type="checkbox"/> Aesthetics <input type="checkbox"/> No Impact <input type="checkbox"/> Other: _____ | |
| Wetland and Buffer Impact Type: <i>(Check all that apply)</i> <input type="checkbox"/> Dredge <input type="checkbox"/> Drain <input type="checkbox"/> Cut Vegetation <input type="checkbox"/> Stormwater <input type="checkbox"/> Trench/Fill <input type="checkbox"/> Other: _____ | |
| Wetland Delineation Date(s): | |

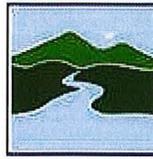
| Wetland Improvements | Buffer Zone Improvements | Reason for Improvements |
|----------------------|--------------------------|---|
| Restoration: s.f. | Restoration: s.f. | <input type="checkbox"/> Correction of Violation |
| Creation: s.f. | Creation: s.f. | <input type="checkbox"/> To offset permit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

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

| Additional Fees | |
|-----------------|---|
| | Agricultural Crop Conversion <i>Check here:</i> <i>(Flat fee of \$200.00)</i> \$ |
| | Minimum Application Fee: (\$50.00) <i>Required when total impact fee is less than \$50.00</i> \$ |
| | Administrative Fee: \$ |

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| Make Checks Payable to: State of Vermont | Total Check Amount: \$ |
|---|-------------------------------|

**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: Triland Partners LP | | | |
| Address: 44 Indian Rock Road, # 777 | City/Town: Windham | State: NH | Zip: 03087 |
| Phone Number: 617-413-7805 | Email Address: tgarden@trilandpartners.com | | |
| 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: <u>Thomas T. Garden</u> | Digitally signed by Thomas T. Garden Date: 2016.06.16 16:23:02 -04'00' | | Date: _____ |

| | | | |
|--|-----------------------------------|-----------|------------|
| Landowner Information: <i>Landowner must sign the application. If landowner is different from the applicant this section must be filled out</i> | | | |
| <input type="checkbox"/> Check this box if landowner is the same as the applicant | | | |
| Landowner Name: Crushed Rock, Inc. | | | |
| Address: c/o Russell Construction Services, 170 South Main Street | City/Town: Rutland | State: VT | Zip: 05071 |
| Phone Number: 802-775-3325 | Email Address: jrussell3@jarc.com | | |
| 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> | | | |
| Site lease between Crushed Rock Inc and Triland Partners LP for the subject property on Route 7B, Clarendon, VT containing easement rights for access and utilities. | | | |
| 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: <u>[Handwritten Signature]</u> | Date: <u>6/17/16</u> | | |

| | | | |
|--|--|---|------------|
| 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 Greene-Swift | | Organization/Company: Gilman and Briggs Environmental | |
| Address: 1 Conti Circle | City/Town: Barre | State: VT | Zip: 05641 |
| Phone Number: 802-479-7480 | Email Address: gbenvironmental@earthlink.com | | |
| Application Preparer Certification: By signing this application you are certifying that all of the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required. | | | |
| Application Preparer Signature: _____ | | Date: _____ | |

Handwritten signatures are also accepted

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| Address: c/o Russell Construction Services, 170 South Main Street | City/Town: Rutland | State: VT | Zip: 05071-4 |
| Phone Number: 802-775-3325 | Email Address: jrussell3@jarc.com | | |
| 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> | | | |
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| Landowner Signature: _____ | | Date: _____ | |

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| Phone Number: 802-479-7480 | Email Address: gbenvironmental@earthlink.com | | |
| 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: <u>Patricia E. Greene-Swift</u> | Digitally signed by Patricia E. Greene-Swift Date: 2016.06.21 09:31:48 -05'00' | | Date: _____ |

Handwritten signatures are also accepted

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| <p>1. Location of wetland and project: <i>Location description should include the road the wetland is located on, the compass direction of the wetland in relation to the road, 911 street address if available, and any other distinguishing features.</i></p> |
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| <p>2. Site visit date(s) and attendees: <i>A site visit is required before the application can be called complete</i></p> | |
| <p>2.1 Date of Visit(s) with State District Wetland Ecologist</p> | <p>2.2. List of people present for site visit(s) including Ecologist, landowner, and representatives.</p> |
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| <p>3. Wetland Classification: <i>For multiple wetlands fill out the multiple wetlands table for sections 1 and 3 through 1</i></p> |
| <p>3.1. The wetland is a Class II wetland because :</p> |
| |
| <p>3.2. Section 4.6 Presumption <i>If the wetland meets the Section 4.6 Presumption, it does so primarily because:</i></p> |
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| <p>4. Description of the Entire Wetland: <i>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.</i></p> |
| <p>4.1. Size of Complex in Acres: <i>The size of the complex can be obtained from the Wetland Inventory Map for mapped wetlands, or best estimation based on review of aerial photography or site visit. This is not the size of the of the delineated wetland on the subject property unless the entirety of the wetland is represented in the delineation.</i></p> |
| |
| <p>4.2. Vegetation Cover Types Present: <i>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</i></p> |
| |
| <p>4.3. Landscape Position: <i>Where is the wetland located on the landscape? For example: Bottom of a basin, edge of a stream, shore of a lake, etc.</i></p> |
| |
| <p>4.4. Hydrology: <i>Describe the main source of water for the entire wetland. List any river, stream, lakes, or ponds</i></p> |
| |
| <p>4.4.1. Direction of Flow: <i>For example: Stream flows from north to south through the wetland complex, or the wetland drains generally to the southwest.</i></p> |
| |
| <p>4.4.2. Influence of Hydrology on the Entire Wetland: <i>For example: The river provides floodwater to the wetland in the spring.</i></p> |
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| <p>4.4.3. Relation of Entire Wetland to the Project Area: <i>The distance between the project area and any nearby surface waters</i></p> |
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| <p>4.4.4. Entire Wetland Hydroperiod: <i>Discuss the frequency and duration of flooding, ponding, and/or soil saturation</i></p> |
| |
| <p>4.5. Surrounding Landuse of the Entire Wetland: <i>For example: Rural residential and forested; Agricultural and undeveloped</i></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> |
| |
| <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> |
| |
| <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> |
| |
| <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> |
| |
| <p>5.3. Subject Wetland Vegetation: <i>List dominant wetland vegetation cover type and associated dominant plant species.</i></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> |
| |
| <p>5.5. Subject Wetland Hydrology: <i>Use the description from the ACOE Delineation Manual</i></p> |
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| 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. Describe any previous and ongoing disturbance in the buffer zone.</i> |
| |
| 5.6.2. Buffer Vegetation: <i>List the vegetation cover type and dominant plant species.</i> |
| |
| 5.6.3. Buffer Soils: <i>Use USDA NRCS information where possible, and the ACOE Delineation Manual soil description.</i> |
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| 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 type="checkbox"/> Flood/Storm Storage | <input type="checkbox"/> RTE Species |
| <input type="checkbox"/> Surface & Groundwater Protection | <input type="checkbox"/> Education & Research |
| <input type="checkbox"/> Fish Habitat | <input type="checkbox"/> Recreation/Economic |
| <input type="checkbox"/> Wildlife Habitat | <input type="checkbox"/> Open Space/Aesthetics |
| <input type="checkbox"/> Exemplary Natural Community | <input type="checkbox"/> Erosion Control |

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| <p>Functions and Values: <i>For each function and value:</i></p> <ol style="list-style-type: none"> 1. <i>Evaluate the entire wetland and check all that apply. Use Wetland Inventory Maps for offsite areas</i> 2. <i>Evaluate how the wetland in the project area contributes to the function.</i> 3. <i>Explain how the project will not result in adverse impacts to the function.</i> <p><i>Include any information on specific avoidance and minimization measures.</i></p> <p><i>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.</i></p> |
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| 7. Water Storage for Flood Water and Storm Runoff |
| <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"/> Constricted outlet or no outlet and an unconstructed inlet. <input 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 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

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.

8. Surface and Ground Water Protection:

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

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

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

8.1. Subject Wetland Contribution to Water Protection:

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

8.2. Statement of No Undue Adverse Impact to Surface and Ground Water Protection:

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.

9. Fish Habitat:

- Function is present and likely to be significant: Any of the following physical and vegetative characteristics indicate the wetland provides this function.
 - 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.
 - 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.
 - Documented or professionally judged spawning habitat for northern pike.
 - Provides cold spring discharge that lowers the temperature of receiving waters and creates summer habitat for salmonoid species.
 - The wetland is located along a tributary that does not support fish, but contributes to a larger body of water that does support fish. The tributary supports downstream fish by providing cooler water and food sources.

9.1. Subject Wetland Contribution to Fish Habitat:

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

9.2. Statement of No Undue Adverse Impact to Fish 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.

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.

10.1. Subject Wetland Contribution to Wildlife Habitat Functions:

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

10.2. Statement of No Undue Adverse Impact to Wildlife 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.

11. Exemplary Wetland Natural Community

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

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

The wetland is also likely to be significant if any of the following conditions are met:

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.

Contains ecological features that contribute to Vermont's natural heritage, including, but not limited to:

Deep peat accumulation reflecting a long history of wetland formation;

Forested wetlands displaying very old trees and other old growth characteristics;

A wetland natural community that is at the edge of the normal range for that type;

A wetland mosaic containing examples of several to many wetland community types; or

A large wetland complex containing examples of several wetland community types.

List species or communities of concern:

11.1. Subject Wetland Proximity to Exemplary Natural Communities

11.2. Statement of No Undue Adverse Impact to Exemplary Wetland Natural Community:

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.

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:

12.1. Subject Wetland Contribution to RTE Habitat:

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

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.

13. Education and Research in Natural Sciences:

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

13.1. Subject Wetland Education and Research Potential:

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

13.2 Statement of No Undue Adverse Impact to Education and Research in Natural Sciences:

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

14. Recreational Value and Economic Benefits:

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

Comments:

14.1. Subject Wetland Recreational and Economic Value:

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

14.2. Statement of No Undue Adverse Impact to Recreational Value and Economic Benefits:

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

15. Open Space and Aesthetics:

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

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

Comments:

15.1. Subject Wetland Aesthetic Value:

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

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.

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.

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.

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.

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.

| |
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| <p>17.3. Acreage of Parcel(s) or Easements(s): <i>Acreage of subject property.</i></p> |
| |
| <p>17.4. Acreage of Project Area: <i>Acreage of area involved in the project.</i></p> |
| |

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|---|
| <p>18. Project Details: <i>Provide details regarding specific impacts to the wetland and buffer zone.</i></p> <p><i>For multiple wetlands fill out the multiple wetland table.</i></p> |
|---|

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| <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.</i> <i>For example:</i> <i>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> |
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| <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> |
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| <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> |
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| <p>18.4. Stormwater Design** <i>List any stormwater permits obtained or applied for. Describe stormwater and/or erosion controls proposed. ** Erosion prevention is <u>required</u> in order to prevent sediment from entering the wetland.</i></p> |
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|---|
| <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 <u>required</u> 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> |
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19. Wetland and Buffer Zone Impacts:

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

19.1. Wetland Impacts:

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

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

Describe in detail the proposed impact to wetlands

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

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

19.2. Buffer Zone Impacts:

Summarize the square footage of impact in the appropriate category.

| | |
|-------------------------|------|
| Temporary Buffer Impact | s.f. |
| Permanent Buffer Impact | s.f. |
| Total Buffer Impact: | 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.

19.3. 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.

20. Mitigation Sequence:

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.

20.1. Avoidance of Wetland Impacts:

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.

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.

20.2. Avoidance to the Impact to Functions and Values:

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? Yes No

20.2.2. What design alternatives were examined to avoid impacts to wetland function? *For example: Use of matting, relocation of footprint, etc.*

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.

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.

20.3. Minimization and Restoration:

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? Yes No N/A

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.*

Minimization and Restoration Continued...

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

Restoration Narrative:

For example: Planting along the stream.

Quantification of Restoration:

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

20.4. Compensation:

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

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

21. Wetland Determination:

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

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

21.1. Reason for Petition:

Please choose one from the dropdown menu.

21.2. Determination Narrative:

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

22. Supporting Materials:

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

22.1. **Location Map:

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

| Date | Title |
|------|-------|
| | |
| | |

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 |
|-------|--------|------|-----------------------|
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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 |
|--------------------|---------------------------|------------------------|-------------------|
| | | | |
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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 |
|------|---------------|--------|-------|
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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: Street/Road: City/State/Zip: | 16. Name: Street/Road: City/State/Zip: |
| 2. Name: Street/Road: City/State/Zip: | 17. Name: Street/Road: City/State/Zip: |
| 3. Name: Street/Road: City/State/Zip: | 18. Name: Street/Road: City/State/Zip: |
| 4. Name: Street/Road: City/State/Zip: | 19. Name: Street/Road: City/State/Zip: |
| 5. Name: Street/Road: City/State/Zip: | 20. Name: Street/Road: City/State/Zip: |
| 6. Name: Street/Road: City/State/Zip: | 21. Name: Street/Road: City/State/Zip: |
| 7. Name: Street/Road: City/State/Zip: | 22. Name: Street/Road: City/State/Zip: |
| 8. Name: Street/Road: City/State/Zip: | 23. Name: Street/Road: City/State/Zip: |
| 9. Name: Street/Road: City/State/Zip: | 24. Name: Street/Road: City/State/Zip: |
| 10. Name: Street/Road: City/State/Zip: | 25. Name: Street/Road: City/State/Zip: |
| 11. Name: Street/Road: City/State/Zip: | 26. Name: Street/Road: City/State/Zip: |
| 12. Name: Street/Road: City/State/Zip: | 27. Name: Street/Road: City/State/Zip: |
| 13. Name: Street/Road: City/State/Zip: | 28. Name: Street/Road: City/State/Zip: |
| 14. Name: Street/Road: City/State/Zip: | 29. Name: Street/Road: City/State/Zip: |
| 15. Name: Street/Road: City/State/Zip: | 30. Name: Street/Road: City/State/Zip: |

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

Name of Newspaper(s)

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WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: _____ City/County: _____ Sampling Date: _____
 Applicant/Owner: _____ State: _____ Sampling Point: _____
 Investigator(s): _____ Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ 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 _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____ | Is the Sampled Area within a Wetland? Yes _____ 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) ___ Saturation (A3) ___ Marl Deposits (B15) ___ Water Marks (B1) ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5) ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8) | <u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland Hydrology Present? Yes _____ No _____ |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | |
| Remarks: | |

VEGETATION – Use scientific names of plants.

Sampling Point: _____

| <u>Tree Stratum</u> (Plot size: _____) | <u>Absolute % Cover</u> | <u>Dominant Species?</u> | <u>Indicator Status</u> | |
|---|-------------------------|--------------------------|-------------------------|---|
| 1. _____ | _____ | _____ | _____ | Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B) |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| _____ = 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: _____) | | | | |
| 1. _____ | _____ | _____ | _____ | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| <u>Herb Stratum</u> (Plot size: _____) | | | | 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) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 1. _____ | _____ | _____ | _____ | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 9. _____ | _____ | _____ | _____ | |
| 10. _____ | _____ | _____ | _____ | |
| 11. _____ | _____ | _____ | _____ | |
| 12. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| <u>Woody Vine Stratum</u> (Plot size: _____) | | | | 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. |
| 1. _____ | _____ | _____ | _____ | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| _____ = Total Cover | | | | Hydrophytic Vegetation Present? Yes _____ No _____ |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

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. _____ | | | | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| | <u>0%</u> | = Total Cover | | |
| Sapling/Shrub Stratum (Plot size: <u>15' Radius</u>) | | | | |
| 1. _____ | | | | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| | <u>0%</u> | = Total Cover | | |
| Herb Stratum (Plot size: <u>5' Radius</u>) | | | | |
| 1. <u>Phalaris arundinacea</u> | <u>40%</u> | <u>Yes</u> | <u>FACW</u> | |
| 2. <u>Carex vulpinoidea</u> | <u>20%</u> | <u>Yes</u> | <u>FACW</u> | |
| 3. <u>Alopecurus pratensis</u> | <u>20%</u> | | <u>FAC</u> | |
| 4. <u>Agrostis gigantea</u> | <u>20%</u> | | <u>FACW</u> | |
| 5. <u>Scirpus hatterianus</u> | <u>2%</u> | | <u>OBL</u> | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 9. _____ | | | | |
| 10. _____ | | | | |
| 11. _____ | | | | |
| 12. _____ | | | | |
| | <u>102%</u> | = Total Cover | | |
| Woody Vine Stratum (Plot size: <u>15' Radius</u>) | | | | |
| 1. _____ | | | | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| | <u>0%</u> | = Total Cover | | |
| 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>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) | | | | |
| Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ | | | | |
| Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) | | | | |
| 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. | | | | |
| Hydrophytic Vegetation Present? Yes <u>Yes</u> No _____ | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) Plant species in the wetland transect support the designation of wetland for this sample site. | | | | |

LEASE

THIS LEASE ("Lease"), is dated this 29th day of January, 2016 (the "Effective Date"), by and between Crushed Rock, Inc., its successors and assigns ("Crushed Rock" or the "LESSOR") and Triland Partners, LP, a Massachusetts limited partnership registered in Vermont, its successors and assigns ("Triland" or the "LESSEE").

WHEREAS, LESSOR owns a 10.44 acre parcel of land at 2950 Route 7B Central in Clarendon, Vermont with a Parcel ID R96200 and a SPAN # 150-047-111057, and which is accessible from Route 7B (the "Property").

WHEREAS, LESSEE wishes to develop one or more solar photovoltaic electric generation facilities (the "Solar Facility") in Clarendon, Vermont on the surface area of a portion of the Property.

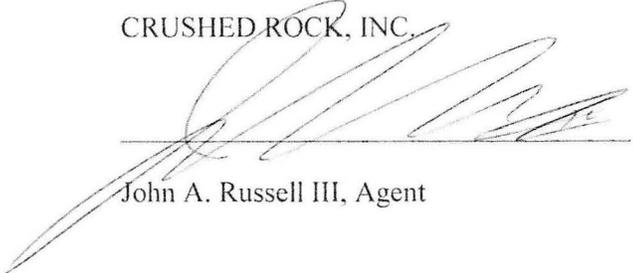
NOW THEREFORE, in consideration of the foregoing recitals, of mutual promises of LESSOR and LESSEE, and of other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, LESSOR and LESSEE agree as follows:

ARTICLE 1: Leased Premises

1.1 LEASED PREMISES: For the purpose of LESSEE to construct, own and operate the Solar Facility consistent with Article 3, LESSOR leases to LESSEE and LESSEE leases from LESSOR, the land (referred to in this Lease as the "Leased Premises") described in the attached Exhibit A – Leased Premises & Surrounding Property. Beginning on the Effective Date and continuing through the Permitting/Due Diligence Period this Lease shall be effective but the commencement of the Term shall be subject to the following conditions precedent:

- a) LESSEE's satisfaction (in its sole discretion) that it is reasonably protected against liabilities arising under applicable federal, state and local environmental laws, ordinances, rules and regulations, and such liabilities are due to the presence of contamination at the Leased Premises and the Property or otherwise are the result of LESSOR's use of the Leased Premises and the Property as further set forth in Article 8 of this Lease.
- b) LESSEE and LESSEE's consultants' continued access to the Leased Premises at reasonable times and upon reasonable prior notice for purposes of conducting LESSEE's Due Diligence and an environmental assessment of the Leased Premises, as LESSEE deems necessary, including but not limited to, inspections, structural analysis, interviews, surveys and environmental testing. Such access shall be free and unrestricted at all times.
- c) LESSEE's determination (in its sole discretion) that no conditions, encumbrances or any other limitations affecting the Leased Premises which would unreasonably interfere with LESSEE's proposed use of the Leased Premises for the Solar Facility.
- d) LESSOR's delivery of the Leased Premises to LESSEE free of all tenants and with all personal property removed.
- e) The LESSOR shall deliver the Leased Premises "as is."
- f) LESSEE's receipt of all final, non-appealable certificates, permits, licenses and other approvals and authorizations that may be required by any governmental authorities, including

CRUSHED ROCK, INC.



John A. Russell III, Agent

1/29/16
Date

)

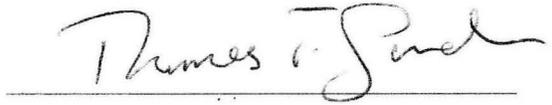
) SS

At Rutland, in Rutland County, this 29th day January, 2016,
John H. Russell III
personally appeared before me John A. Russell III, duly authorized agent of Crushed Rock, Inc., signer
and sealer of the foregoing written instrument and acknowledged the same to be his free act and deed and
the free act and deed of Crushed Rock, Inc.



Notary Public
My commission expires: 2/10/19

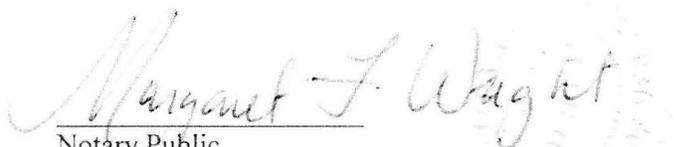
TRILAND PARTNERS LP



Mr. Thomas T. Garden, Managing General Partner

1/29/2016
Date

At Rutland, in Rutland County, this 29th day January, 2016,
Thomas T. Garden
personally appeared before me Thomas T. Garden, duly authorized agent of Triland Partners LP, signer
and sealer of the foregoing written instrument and acknowledged the same to be his free act and deed and
the free act and deed of Triland Partners LP.



Notary Public
My commission expires: 2/10/19

Exhibit A - Leased Premises & Surrounding Property

The following is a description of the Leased Premises and the rights of ingress, egress, parking and access attendant thereto:

The Leased Premises shall consist of approximately 4+/- acres on a portion of a parcel of land approximately 10.44 acres in size, said parcel to be described in detail on a survey plan provided by LESSEE and attached to this Agreement as Exhibit A-2. LESSOR hereby grants LESSEE the option to be executed by LESSEE prior to the commencement of the Lease Commencement Date to increase the size of the Leased Premises to accommodate an increase in the size of the Solar Facility.

During the Term, LESSOR shall grant temporary or permanent easements, or other rights of way across the Property, as requested by LESSEE and shown on Exhibit A-2, as is necessary for construction, operation, maintenance or repair of the Solar Facility, and which are related to the construction, operation, maintenance, repair and removal of the Solar Facility, or for access roads or utility distribution or transmission lines (above or below ground at the sole discretion of LESSEE). Such easements may include an easement for sunlight and a utility easement, and shall be delivered by LESSOR within fifteen (15) days of request by LESSEE.

LESSOR grants LESSEE the right, but not the obligation, from time to time to trim and to cut down and clear away or otherwise destroy any and all trees, vegetation and brush within one hundred fifty (150) yards of the solar array fence (the "Surrounding Property") and which LESSEE concludes may be a hazard to the Solar Facility, interfere with access of sunlight to the Solar Facility, or otherwise interfere with the generation of electrical power by the Solar Facility.

LESSOR shall not construct buildings or structures, or conduct activities on the Surrounding Property which, in the opinion of LESSEE, may be a hazard to the Solar Facility, interfere with access of sunlight to the Solar Facility, or otherwise interfere with the generation of electrical power by the Solar Facility, or the exercise of LESSEE's rights under this Lease. LESSEE and LESSOR acknowledge that LESSEE shall have the right (but not the obligation) to remove, at LESSOR's cost, any such buildings or other structures in violation of the preceding sentence. Notwithstanding anything contained to the contrary in this Lease, LESSEE shall be permitted to a reimbursement of such costs as an abatement of Basic Rent.

LESSOR grants to LESSEE the right, privilege, and non-exclusive easement to be located at a mutually acceptable location on a portion of the Surrounding Property to be used for temporary (i) storage and staging of tools, materials and equipment, (ii) construction laydown, (iii) parking of construction crew vehicles and temporary construction trailers, (iv) vehicular and pedestrian access and access for rigging and material handling, and (v) other facilities reasonably necessary to construct or remove the Solar Facility.

In the event LESSOR sells or otherwise transfers ownership of any of the Surrounding Property, LESSOR shall contain a description of such easements and prohibitions in any instrument evidencing such transfer. Moreover, upon the request of LESSEE, LESSOR will execute and record a memorandum giving notice of any easement or other right way granted by LESSOR to LESSEE pursuant to this Lease.

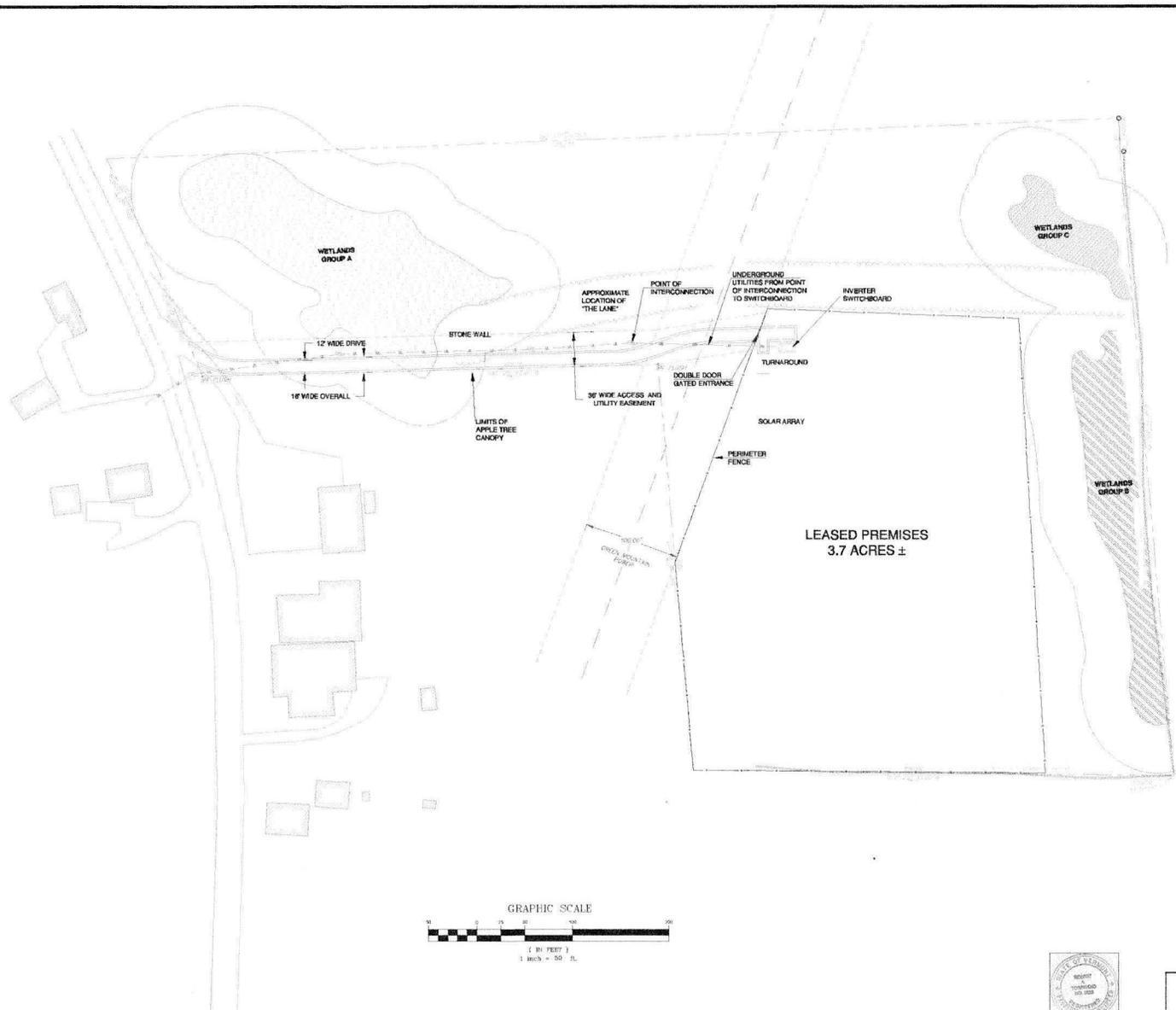
Upon request of LESSEE, LESSOR will grant LESSEE one or more separate easements enumerating the easement rights specified in this section, and at no further cost to the LESSEE. Any such new easement shall be in form and substance satisfactory to LESSEE, its successors, assigns, sub lessees and Leasehold Mortgagees and on terms consistent with those in this Lease, including, without limitation, term and

termination, lender protection, removal and restoration, and the choice of law and attorney's fees provisions. LESSEE may record any such easement in the appropriate municipal real property records.

The parties hereto agree that upon completion and approval of said Exhibit A-2 survey, as it may be modified under the terms herein, this Lease shall be amended accordingly to include Exhibit A-2, initialed and dated by both parties, and thereafter incorporated and made a part hereof

Exhibit A-2 Survey of Leased Premises and Surrounding Property

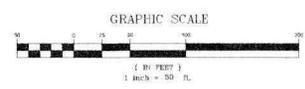
[see next page]



NOTE
 BASE PLAN COMPILED BY
 FAIRBANKS SURVEYS DONE FOR JOHN
 A. RUSSELL, CORP., DATED 1/30/1987

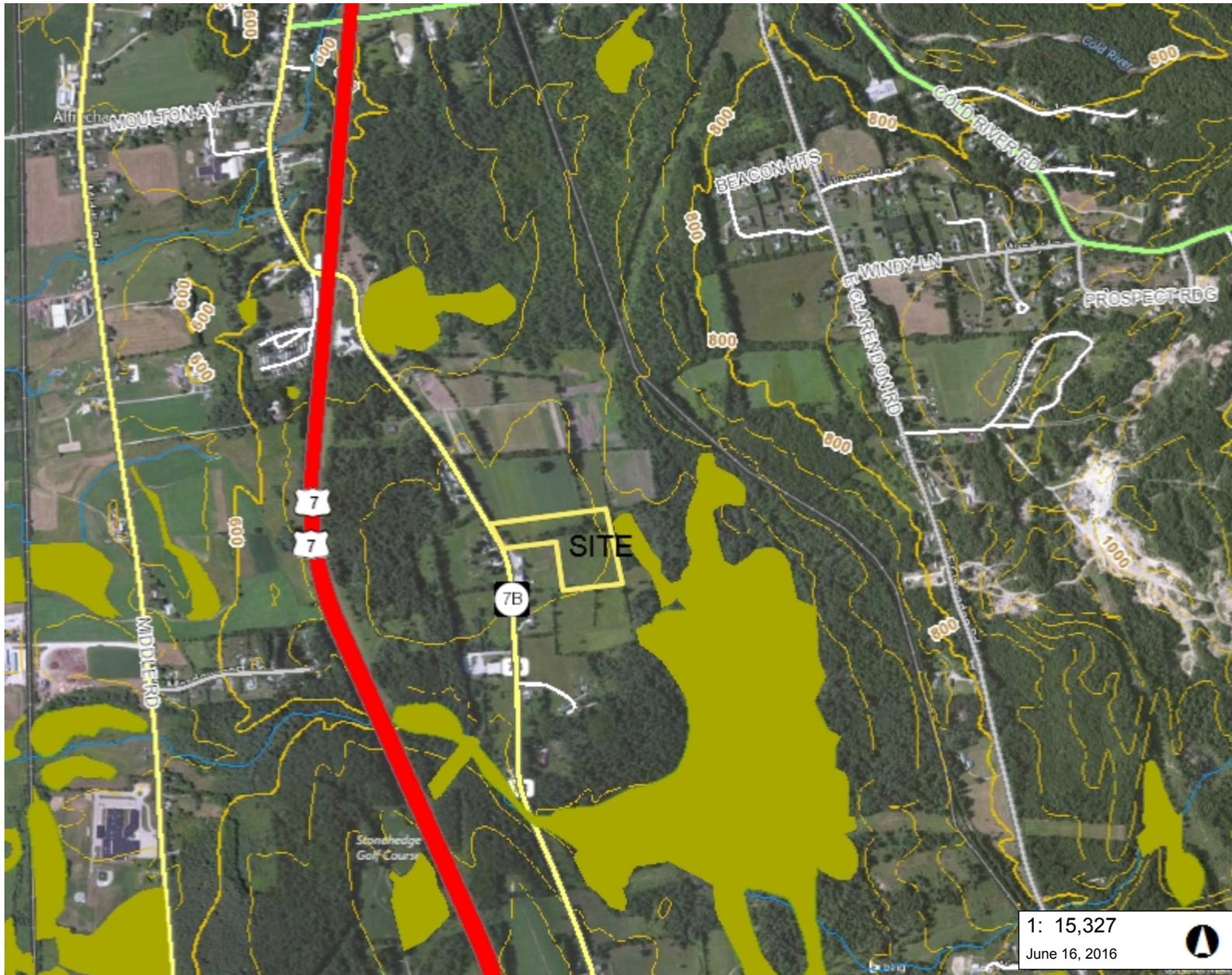
LEGEND

- IRON PIPE FOUND ○
- UTILITY POLE □
- PROPOSED EDGE OF TRAVEL ---
- WET LAND BUFFER ----
- CHAIN LINK FENCE - - - - -
- STONEWALL REMNANTS |||||
- WET LANDS ~~~~~
- UTILITY LINE - - - - -



Robert J. Townsend

| | | | |
|---------------------------|--|---|----------------|
| TRILAND PARTNERS | | AMERICAN CONSULTING ENGINEERS AND SURVEYORS | |
| VT ROUTE 7B | | SCALE: AS NOTED DATE: JUNE 10, 2016 | |
| CLARENDON, VT | | DRAWN BY: RT | APPROVED: R.T. |
| SOLAR ARRAY LEASE EXHIBIT | | | |



LEGEND

- Wetlands - VSWI**
 - Class 1 Wetland (Orange)
 - Class 2 Wetland (Yellow)
- Wetlands Advisory Layer (Light Green)
- Roads**
 - Principal Arterial (Red)
 - Minor Arterial (Orange)
 - Rural Major Collector (Yellow)
 - Rural Minor Collector (Light Green)
 - Urban Collector (Grey)
 - Local (Thin Grey)
 - Not part of the Functional Classification (Dashed Grey)
- Stream (Blue)
- Parcels (where available) (Red outline)
- Town Boundary (White outline)

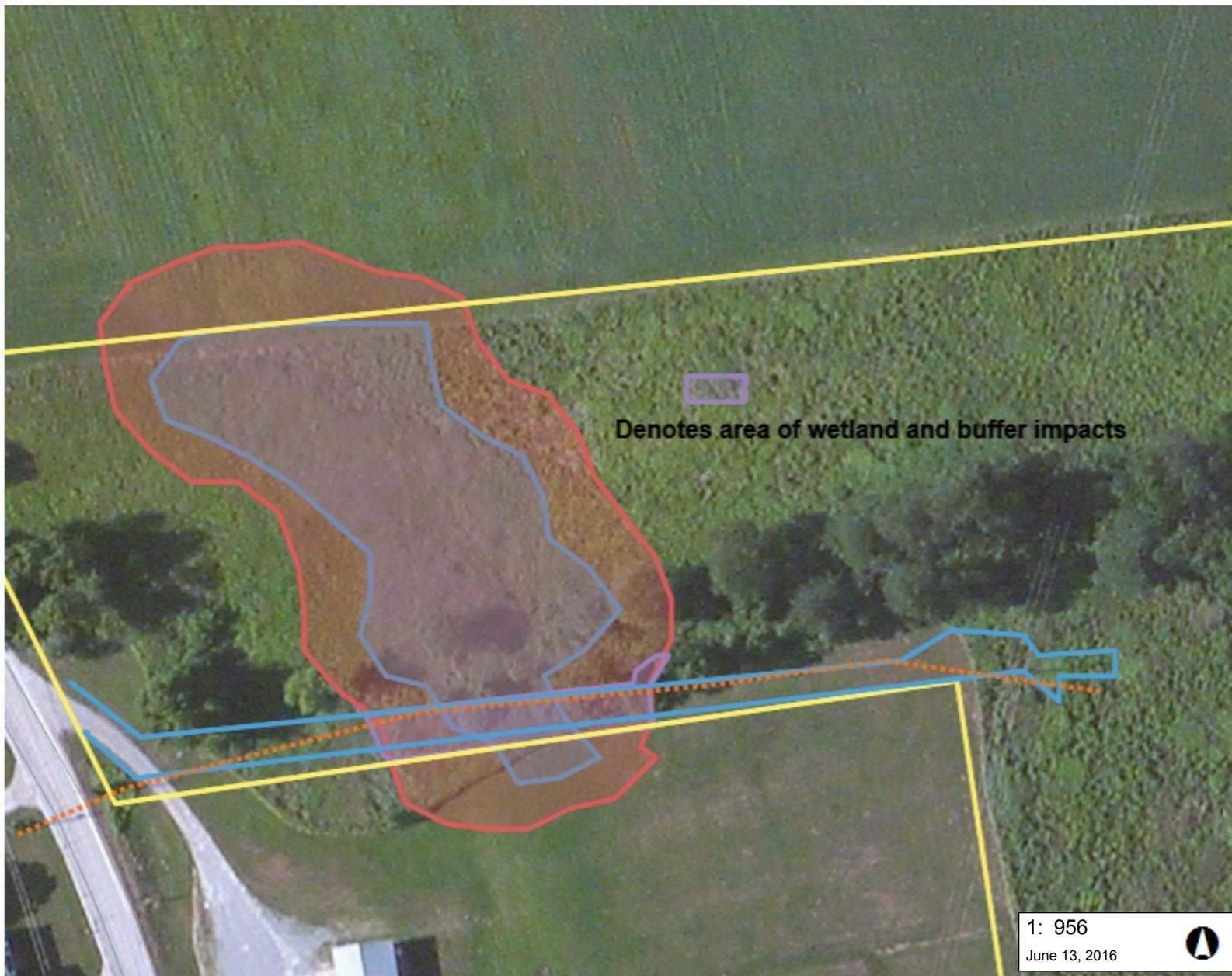
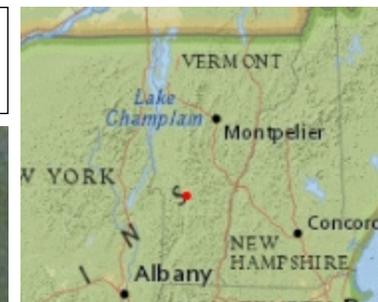
1: 15,327
June 16, 2016

779.0 0 390.00 779.0 Meters
 WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 1277 Ft. 1cm = 153 Meters
 © Vermont Agency of Natural Resources THIS MAP IS NOT TO BE USED FOR NAVIGATION

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

NOTES

Map created using ANR's Natural Resources Atlas



LEGEND

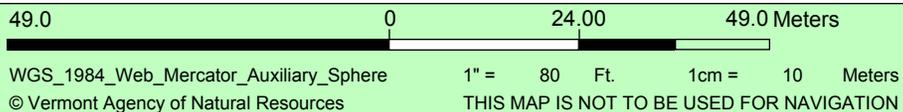
- Wetlands - VSWI
 - Class 1 Wetland
 - Class 2 Wetland
- Stream
- Town Boundary

1: 956
June 13, 2016



NOTES

Map created using ANR's Natural Resources Atlas



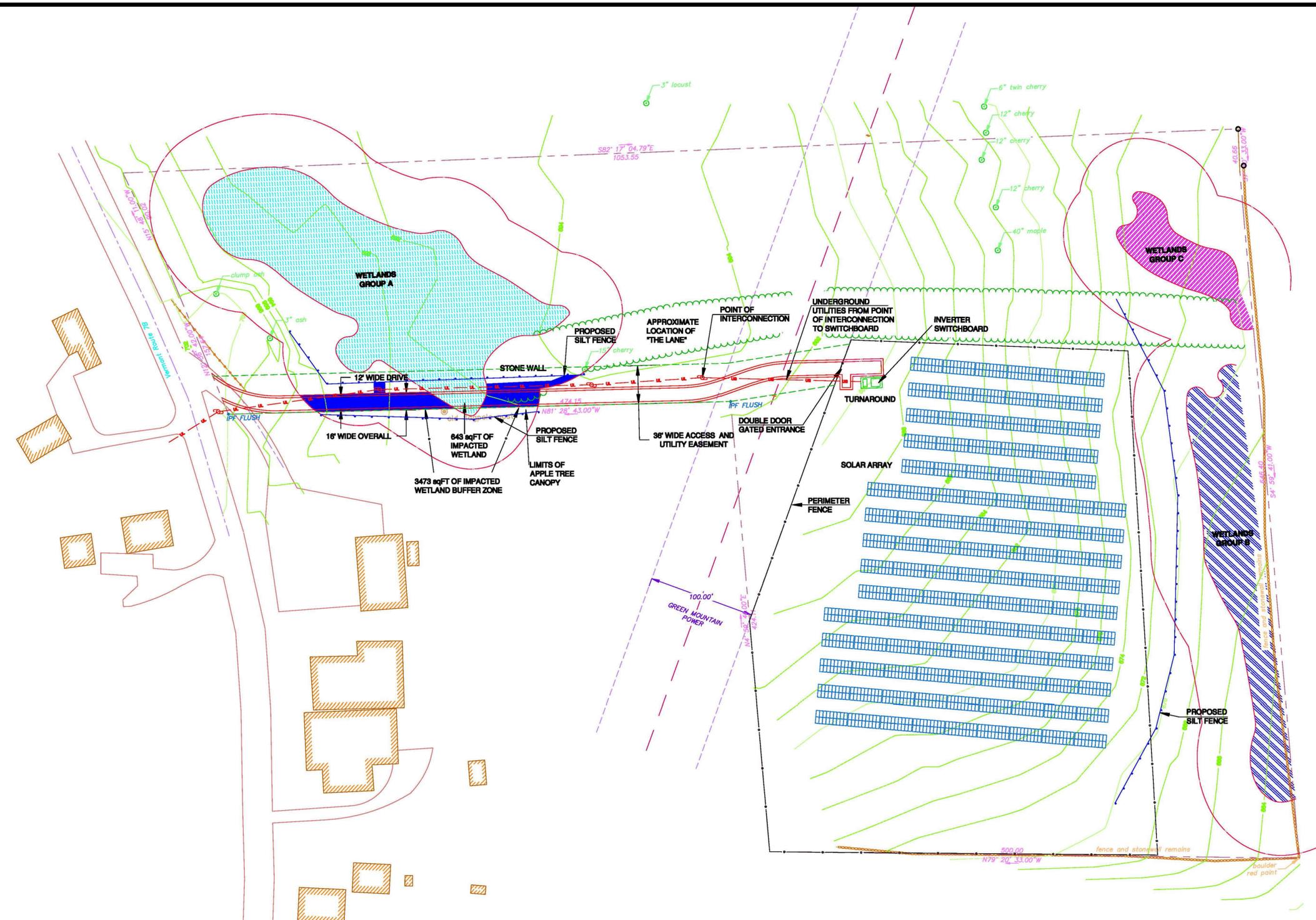
DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular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



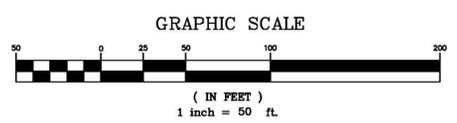
NOTE
BASE PLAN COMPLETED BY
FARNSWORTH SURVEYS DONE FOR JOHN
A. RUSSELL, CORP. DATED 1/30/1997

LEGEND

| | |
|-------------------------|---|
| IRON PIPE FOUND | ○ |
| UTILITY POLE | ⊕ |
| PROPOSED EDGE OF TRAVEL | — |
| WET LAND BUFFER | — |
| CHAIN LINK FENCE | — |
| STONEWALL REMNANTS | ○ |
| WET LANDS | — |
| UTILITY LINE | — |



WETLAND DELINEATION BY
GILMAN & BRIGGS IN JULY, 2015.



Robert Townsend

| | | |
|----------------------------|---|---------------------|
| TRILAND PARTNERS | AMERICAN CONSULTING ENGINEERS AND SURVEYORS | |
| VT ROUTE 7B | SCALE: AS NOTED | DATE: JUNE 10, 2016 |
| CLARENDON, VT | DRAWN BY: RT | APPROVED: R. T. |
| WETLAND PERMIT APPLICATION | | |