



# **Regulatory Program**

# INTERIM APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in the Interim Approved Jurisdictional Determination Form User Manual.

#### **SECTION I: BACKGROUND INFORMATION**

A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD): 08 January 2019

B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ): NAE-2016-00884

C. PROJECT LOCATION AND BACKGROUND INFORMATION: State:Vermont County/parish/borough: Chittenden City: South Burlington Center coordinates of site (lat/long in degree decimal format): Lat. 44.445978, Long73.140323.  Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are: ⊠attached ☐ in report/map titled  ☐ Other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different jurisdictional determination (JD) form. List JD form ID numbers (e.g., HQ-2015-00001-SMJ-1):
<ul> <li>D. REVIEW PERFORMED FOR SITE EVALUATION:</li> <li>☐ Office (Desk) Determination Only. Date:</li> <li>☐ Office (Desk) and Field Determination. Office/Desk Dates: 19 and 20 November 2018, 19 and 20 December 2018 Field Date(s): 14 August 2018.</li> </ul>
SECTION II: DATA SOURCES  Check all that were used to aid in the determination and attach data/maps to this AJD form and/or references/citations
in the administrative record, as appropriate.
Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date: "Site Location Map"
(dated "October 02, 2018") and "Wetland/Waters Delineation Map" (dated "September 28, 2018").
Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date: "WETLAND
DETERMINATION DATA FORM - Northcentral and Northeast Region", dated "5/25/2018" and "5/23/2018".
☐ Data sheets/delineation report are not sufficient for purposes of AJD form. Summarize rationale and include
information on revised data sheets/delineation report that this AJD form has relied upon:
Revised Title/Date: .
Data sheets prepared by the Corps. Title/Date:
Corps navigable waters study. Title/Date:
☐ CorpsMap ORM map layers. Title/Date:
□ USGS Hydrologic Atlas. Title/Date: "STREAM STATS", dated "11/20/2018".
☐ USGS, NHD, or WBD data/maps. Title/Date:
☐ USGS 8, 10 and/or 12 digit HUC maps. HUC number: .
☑ USGS maps. Scale & quad name and date: 1:24000, BURLINGTON, titled "VICINTY MAP", dated "11/20/18".
USDA NRCS Soil Survey. Citation:
USFWS National Wetlands Inventory maps. Citation:
State/Local wetland inventory maps. Citation: "Natural Resources Atlas - Technology Park AJD", dated
"November 20, 2018".
FEMA/FIRM maps. Citation: "National Flood Hazard Layer FIRMette", dated "11/20/2018".
Photographs: Aerial. Citation: Google earth 2018, 2015, and 2010. or Other. Citation: Photos taken during
14 August 2018 site visit

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"South Burlington Tech Park Wetland/Waters Delineation Photographs South Burlington, Vermont", dated November 2015, April 2016 and May 2018.  LiDAR data/maps. Citation:  Previous JDs. File no. and date of JD letter:  Applicable/supporting case law:  Applicable/supporting scientific literature:  Other information (please specify):
SECTION III: SUMMARY OF FINDINGS
A. RIVERS AND HARBORS ACT (RHA) SECTION 10 DETERMINATION OF JURISDICTION:  "navigable waters of the U.S." within RHA jurisdiction (as defined by 33 CFR part 329) in the review area.  • Complete Table 1 - Required  NOTE: If the povigable waters is not subject to the oble and flow of the tide or included on the District's list of Section
NOTE: If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Section 10 navigable waters list, DO NOT USE THIS FORM TO MAKE THE DETERMINATION. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Section 10 RHA navigability determination.
B. CLEAN WATER ACT (CWA) SECTION 404 DETERMINATION OF JURISDICTION: "waters of the U.S." within CWA jurisdiction (as defined by 33 CFR part 328.3) in the review area. Check all that apply.  (a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable Waters (TNWs))
<ul> <li>Complete Table 1 - Required</li> <li>This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW determination is attached.</li> </ul>
<ul> <li>(a)(2): All interstate waters, including interstate wetlands.</li> <li>Complete Table 2 - Required</li> <li>(a)(3): The territorial seas.</li> </ul>
<ul> <li>Complete Table 3 - Required</li> <li>(a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.</li> <li>Complete Table 4 - Required</li> <li>(a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR</li> </ul>
part 328.3.  • Complete Table 5 - Required   (a)(6): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.  • Complete Table 6 - Required
<ul> <li>☑ Bordering/Contiguous.</li> <li>Neighboring:</li> <li>(c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.</li> <li>☑ (c)(2)(ii): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 and not more than 1,500 feet of the OHWM of such water.</li> <li>□ (c)(2)(iii): All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(b) of 32 CFR part 328.3 and hell waters within 4.500 feet of the All WMM of the Occapitation.</li> </ul>
<ul> <li>(a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.</li> <li>(a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.</li> <li>Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE</li> </ul>
watershed boundary with (a)(7) waters identified in the similarly situated analysis Required  ☐ Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.  ☐ (a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33  CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or
OHWM of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

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<ul> <li>Complete Table 8 for the significant nexus determination. Attach a map delineating the SPOE</li> </ul>	
watershed boundary with (a)(8) waters identified in the similarly situated analysis Required	
Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for establishe	d,
normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.	
and require a case-specific significant flexus determination.	
C. NON-WATERS OF THE U.S. FINDINGS:	
Check all that apply.	
The review area is comprised entirely of dry land.	
Potential-(a)(7) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-	
(a)(3) of 33 CFR part 328.3.	
Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential	
(a)(7) waters identified in the similarly situated analysis Required	
Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for establishe	a,
normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.	
Description: Note that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-	
(a)(3) of 33 CFR part 328.3.	
Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential	
(a)(8) waters identified in the similarly situated analysis Required	
Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for establishe	d,
normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent	
and require a case-specific significant nexus determination.	
Excluded Waters (Non-Waters of U.S.), even where they otherwise meet the terms of paragraphs (a)(4)-(a)(8):	
<ul> <li>Complete Table 10 - Required</li> <li>(b)(1): Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of</li> </ul>	
the CWA.	
(b)(2): Prior converted cropland.	
$\Box$ (b)(3)(i): Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.	
(b)(3)(ii): Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain	
wetlands.	
(b)(3)(iii): Ditches that do not flow, either directly or through another water, into a water identified in	
paragraphs (a)(1)-(a)(3).	
(b)(4)(i): Artificially irrigated areas that would revert to dry land should application of water to that area cease. (b)(4)(ii): Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds,	
irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds.	
(b)(4)(iii): Artificial reflecting pools or swimming pools created in dry land.	
(b)(4)(iv): Small ornamental waters created in dry land. <sup>1</sup>	
(b)(4)(v): Water-filled depressions created in dry land incidental to mining or construction activity, including	
pits excavated for obtaining fill, sand, or gravel that fill with water.	
(b)(4)(vi): Erosional features, including gullies, rills, and other ephemeral features that do not meet the	
definition of tributary, non-wetland swales, and lawfully constructed grassed waterways.	
(b)(4)(vii): Puddles. <sup>1</sup>	
(b)(5): Groundwater, including groundwater drained through subsurface drainage systems. <sup>1</sup> (b)(6): Stormwater control features constructed to convey, treat, or store stormwater that are created in dry	
land. <sup>1</sup>	
(b)(7): Wastewater recycling structures created in dry land; detention and retention basins built for wastewate	r
recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water	•
distributary structures built for wastewater recycling.	
Other non-jurisdictional waters/features within review area that do not meet the definitions in 33 CFR 328.3 of	
(a)(1)-(a)(8) waters and are not excluded waters identified in (b)(1)-(b)(7).	
Complete Table 11 - Required.	
D. ADDITIONAL COMMENTS TO SUDDODT A ID.	
D. ADDITIONAL COMMENTS TO SUPPORT AJD: .	

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<sup>&</sup>lt;sup>1</sup> In many cases these excluded features will not be specifically identified on the AJD form, unless specifically requested. Corps Districts may, in case-by-case instances, choose to identify some or all of these features within the review area.

### **Jurisdictional Waters of the U.S.**

# Table 1. (a)(1) Traditional Navigable Waters

(a)(1) Waters Name	(a)(1) Criteria	Rationale to Support (a)(1) Designation Include High Tide Line or Ordinary High Water Mark indicators, when applicable.
N/A	Choose an item.	N/A

### Table 2. (a)(2) Interstate Waters

(a)(2) Waters Name	Rationale to Support (a)(2) Designation	
N/A	N/A	

#### Table 3. (a)(3) Territorial Seas

(a)(3) Waters Name	Rationale to Support (a)(3) Designation	
N/A	N/A	

## Table 4. (a)(4) Impoundments

(a)(4) Waters Name	Rationale to Support (a)(4) Designation	
N/A	N/A	

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# Table 5. (a)(5)Tributaries

(a)(5) Waters Name	Flow Regime	(a)(1)-(a)(3) Water Name to which this (a)(5) Tributary Flows		Rationale for (a)(5) Designation and Additional Discussion. Identify flowpath to (a)(1)-(a)(3) water or attach map identifying the flowpath; explain any breaks or flow through excluded/non-jurisdictional features, etc.
Muddy Brook	Perennial	Winooski River	No	Muddy Brook is a perennial waterway. The flow path of Muddy Brook to the Winooski River, the nearest (a)(1) water, is shown on attached map, titled "FLOW PATH OF MUDDY BROOK TO WINOOSKI RIVER", dated "11/20/18". There are no breaks in flow between Muddy Brook and the Winooski River.
2015-SC2 (E)	Ephemeral Winooski River		No	2015-SC2 (E), an unnamed ephemeral stream, flows into Muddy Brook, another a(5) water. Muddy Brook then flows into the Winooski River, an a(1) water (see above). There are no breaks in flow between the ephemeral tributary, Muddy Brook, and ultimately the Winooski River.

## Table 6. (a)(6) Adjacent Waters

(a)(6) Waters Name	(a)(1)-(a)(5) Water Name to which this Water is Adjacent	Rationale for (a)(6) Designation and Additional Discussion. Identify the type of water and how the limits of jurisdiction were established (e.g., wetland, 87 Manual/Regional Supplement); explain how the 100-year floodplain and/or the distance threshold was determined; whether this water extends beyond a threshold; explain if the water is part of a mosaic, etc.
2015-5	Muddy Brook	This wetland was delineated using the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.  Wetland 2015-5 is a palustine forested wetland that is 104,742 square feet in size. The wetland is bordering/contiguous with the ordinary high water mark of Muddy Brook, an a(5) water, and is therefore adjacent to Muddy Brook.
2015-4	Muddy Brook	This wetland was delineated using the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.  Wetland 2015-4 is a palustrine emergent wetland that is 1,060 square feet in size. The wetland is 75' away from of the ordinary high water mark of Muddy Brook, an a(5) water. Therefore, this wetland is neighboring to Muddy Brook.

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2018-6	Muddy Brook	This wetland was delineated using the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.  Wetland 2018-6 is a palustrine emergent wetland dominated by <i>Lolium perenne</i> and is18,942 square feet in size. The soils within this wetland met the A11 and F3 hydric soil indicators and are comprised of clay loam. The wetland is mowed seasoanly and the surrounding upland field is mowed on a regular cycle throughout the growing season. An upland walking trail bisects this wetland, however it remains hydrologically connected by way of a culvert.  The wetland hydrology is primarily driven by precipitation. Water received by this wetland partially infiltrates into the ground but also reaches Muddy Brook by way of 2015-SC2 (E), an unnamed tributary to Muddy Brook. The wetland is therefore hydrologically connected to Muddy Brook, and ultimately the Winooski River, an a(1) water. The primary function of this wetland is to provide water quality treatment.  Wetland 2018-6 directly abuts 2015-SC2 (E), an a(5) water, and is therefore adjacent to this waterway. The wetland is also partially located within the 100-year floodplain of Muddy Brook, another a(5) water, and is therefore considered neighboring to this waterway.
2018-7	Muddy Brook	This wetland was delineated using the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.  Wetland 2018-7 is a palustrine emergent wetland that is dominated by <i>Phalaris arundinacea</i> and is 31,883 square feet in size. The soils within this wetland met the A11 and F3 hydric soil indicators and are comprised of clay loam. The wetland is mowed seasonly and the surrounding upland field is mowed on a regular cycle throughout the growing season. An upland walking trail bisects this wetland, however it remains hydrologically connected by way of a culvert.  The wetland hydrology is primarily driven by precipitation. Water received by this wetland partially infiltrates into the ground but also likely reaches Muddy Brook via sheetflow. The primary function of this wetland is to provide water quality treatment.  Wetland 2018-7 is partially located within the 100-year floodplain of Muddy Brook, an a(5) water, and is therefore considered neighboring to this waterway.

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### Table 7. (a)(7) Waters

SPOE Name	(a)(7) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; discuss whether any similarly situated waters were present and aggregated for SND; discuss data, provide analysis, and summarize how the waters have more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

# Table 8. (a)(8) Waters

SPOE Name	(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus	Significant Nexus Determination Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to subject water and aggregated for SND; discuss data, provide analysis, and then summarize how the waters have more than speculative or insubstantial effect the on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

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## **Non-Jurisdictional Waters**

Table 9. Non-Waters/No Significant Nexus

SPOE Name	Non-(a)(7)/(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water DOES NOT have a Significant Nexus	Basis for Determination that the Functions DO NOT Contribute Significantly to the Chemical, Physical, or Biological Integrity of the (a)(1)-(a)(3) Water. Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to the subject water; discuss data, provide analysis, and summarize how the waters did not have more than a speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water.
SPOE A (Muddy Brook Watershed)	2015-1	Winooski River	This wetland was delineated using the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.  Wetland 2015-1 is dominated <i>Phalaris arundinacea</i> . Representative datasheets were completed for Wetland 2018-3 and 2018-100. This palustine emergent wetland is 8,025 square feet in size. The soils within the wetland met the A11 and F3 hydric soil indicators and are comprised of clay loam. Wetland 2015-1 is located over 1,000 linear feet to the west of Muddy Brook, an a(5) water.  This wetland is located within a slight depression within a large open field that is bisected by walking trails. The wetland is mowed seasonly and the surrounding upland field is mowed on a regular cycle throughout the growing season. The wetland hydrology is primarily driven by precipitation. Water received by this wetland likely infiltrates into the ground rather than flowing elsewhere via sheetflow.  The primary function of this wetland is to provide water quality treatment through sediment/nutrient trapping of runoff from the surrounding field. The wetland functions at a very minimal level. The wetland does not function to retain and attenuate floodwaters nor does it contribute to the export of organic matter or food resources or provide wildlife habitat.  The Single Point of Entry (SPOE) A is defined by the Muddy Brook watershed which flows into the Winooski River, the nearest a(1) water. SPOE A is 32.1 square miles in size. The approved jurisdictional determination (AJD) area is located at the western fringe of the Muddy Brook Watershed.  The potential for a significant nexus between Wetland 2015-1 and the Winooski River was evaluated relative to the individual and cumulative function of Similarly Situated waters in SPOE A to affect the chemical, physical or biological integrity of the Winooski River. Similarly Situated waters were identified as occurring within the same soil type, landform and cover type. The subject wetlands are

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			Vergennes Clay (VeB) soils, which is moderately drained and generally a non-hydric soil. VeB may contain Covington inclusions, which are hydric and depressional. The wetlands are located within the "Irregular Plains" landform type and "Agricultural Vegetation" cover type.  Wetlands 2015-1, 2018-100, 2018-3, 2018-1, and 2015-9 were determined to be similarly situated waters within the AJD review area. In addition, one small PEM wetland was identified as similarly situated to these waters within the Muddy Brook Watershed (see "Similarly Situated Wetlands Evaluation Maps") and is expected to function similarly to these wetlands. Five other PEM wetlands within SPOE A had the same landform and cover type, but were subsequently eliminated due to different soils and expected wetland function.  There is no hydrological connection between this wetland and Muddy Brook, which flows into the Winooski River, the nearest a(1) water. The wetland is clearly non-navigable, isolated and intrastate. The Winooski River is located approximately one mile away "as the crow flies" from the wetland. This wetland in conjunction with other similarly situated waters located within SPOE A do not rise to a level beyond a speculative or insubstantial impact to the Winooski River. Also, the use, degradation or loss of this wetland will not affect other waters of the United States or affect interstate or foreign commerce.
SPOE A (Muddy Brook Watershed)	2018-100	Winooski River	This wetland was delineated using the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.  Wetland 2018-100 is dominated by <i>Phalaris arundinacea</i> . This palustine emergent wetland is 2,145 square feet in size. The soils within the wetland met the A11 and F3 hydric soil indicators and are comprised of clay loam. Wetland 2018-100 is located over 1,000 linear feet to the west of Muddy Brook, an a(5) water.  Wetland 2018-100 is located within the same setting and functions similarly as Wetland 2015-1, above.  The potential for a significant nexus between Wetland 2018-100 and the Winooski River was evaluated relative to the individual and cumulative function of Similarly Situated waters in SPOE A to affect the chemical, physical or biological integrity of the Winooski River. This wetland in conjunction with other similarly situated waters located within SPOE A do not rise to a level beyond a speculative or insubstantial impact to the Winooski River. See evaluation for Wetland 2015-1 (above) for more detail.
SPOE A (Muddy Brook Watershed)	2018-3	Winooski River	This wetland was delineated using the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.

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			Wetland 2018-3 is dominated by <i>Lolium perenne</i> and <i>Phalaris arundinacea</i> . This palustine emergent wetland is 6,308 square feet in size. The soils within the wetland met the A11 and F3 hydric soil indicators and are comprised of clay loam. Wetland 2018-3 is located over 700 linear feet to the west of Muddy Brook, an a(5) water.  Wetland 2018-3 is located within the same setting and functions similarly as Wetland 2015-1, above.  The potential for a significant nexus between Wetland 2018-3 and the Winooski River was evaluated relative to the individual and cumulative function of Similarly Situated waters in SPOE A to affect the chemical, physical or biological integrity of the Winooski River. This wetland in conjunction with other similarly situated waters located within SPOE A do not rise to a level beyond a speculative or insubstantial impact to the Winooski River. See evaluation for Wetland 2015-1 (above) for more detail.
SPOE A (Muddy Brook Watershed)	2018-1	Winooski River	This wetland was delineated using the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.  Wetland 2018-1 is dominated <i>Phalaris arundinacea</i> . Representative datasheets were completed for Wetland 2018-3 and 2018-100. This palustine emergent wetland is 1,456 square feet in size. The soils within the wetland met the A11 and F3 hydric soil indicators and are comprised of clay loam. An upland walking trail crosses this wetland, however it remains hydrologically connected. Wetland 2018-1 is located approximately 1,000 linear feet to the west of Muddy Brook, an a(5) water.  Wetland 2018-1 is located within the same setting and functions similarly as Wetland 2015-1, above.  The potential for a significant nexus between Wetland 2018-1 and the Winooski River was evaluated relative to the individual and cumulative function of Similarly Situated waters in SPOE A to affect the chemical, physical or biological integrity of the Winooski River. This wetland in conjunction with other similarly situated waters located within SPOE A do not rise to a level beyond a speculative or insubstantial impact to the Winooski River. See evaluation for Wetland 2015-1 (above) for more detail.
SPOE A (Muddy Brook Watershed)	2015-9	Winooski River	This wetland was delineated using the Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region.  Wetland 2015-9 is dominated by <i>Phalaris arundinacea</i> . Representative datasheets were completed for Wetland 2018-3 and 2018-100. This palustine emergent wetland is 7,848 square feet in size. The soils within the wetland met the A11 and F3 hydric soil indicators and are comprised of clay loam. Wetland 2015-9 is located over 800 linear feet to the west of Muddy Brook, an a(5) water.

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Wetland 2015-9 is located within the same setting and functions similarly as Wetland 2015-1, above.
The potential for a significant nexus between Wetland 2015-9 and the Winooski River was evaluated relative to the individual and cumulative function of Similarly Situated waters in SPOE A to affect the chemical, physical or biological integrity of the Winooski River. This wetland in conjunction with other similarly situated waters located within SPOE A do not rise to a level beyond a speculative or insubstantial impact to the Winooski River. See evaluation for Wetland 2015-1 (above) for more detail.

## Table 10. Non-Waters/Excluded Waters and Features

Paragraph (b) Excluded Feature/Water Name	Rationale for Paragraph (b) Excluded Feature/Water and Additional Discussion.
N/A	N/A
N/A	N/A

## Table 11. Non-Waters/Other

Other Non-Waters of U.S. Feature/Water Name	Rationale for Non-Waters of U.S. Feature/Water and Additional Discussion.
N/A	N/A

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