

State of Vermont
Agency of Natural Resources
Department of Environmental Conservation
Watershed Management Division

Vermont Wetland Rules Contiguous Wetlands Procedure

August 2017

I. Introduction

This document is intended to clarify the Agency of Natural Resources' process for determining when wetland areas are contiguous to Vermont Significant Wetland Inventory (VSWI) mapped wetlands. Contiguous wetlands are considered Class II wetlands under the Vermont Wetland Rules (VWR).

The Vermont Wetland Rules (VWR) state that all wetlands identified on the Vermont Significant Wetland Inventory (VSWI) maps or *contiguous* to wetlands shown on the VSWI maps are Class II wetlands, unless identified as Class I or III wetlands (Section 4.6 VWR). Contiguous wetlands are not separate entities from the VSWI mapped wetlands, but rather an unmapped portion of that VSWI wetland. In other words, there is a continuum of the three parameters identifying wetlands (wetlands vegetation, hydric soils and wetland hydrology) extending from the mapped wetland to the contiguous wetland.

II. Definition

Contiguous shall mean sharing a boundary or touching. This shall include situations where a structure, such as a road or railroad, divides a wetland and there is surface water connection over, through or under that structure. (VWR Section 2.10).

III. Methodology

While viewing wetlands remotely by looking at hydric soils, NWI maps, and aerial photos is a helpful tool in determining overall wetland connectivity, connectivity should be confirmed in the field using the guidelines described in Section 3.2 of the VWR. Confirmation may be completed by ANR staff or a wetland scientist. Staff are prohibited from accessing properties to inspect contiguity without landowner permission. Visual observations from a public road or other publicly accessible area may be used to collect information indicating contiguity when unable to access land, but this method may not be appropriate for marginally wet sites.

The boundaries of mapped and unmapped Class II wetlands are determined in the field in accordance with the methodology in the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* and the *Regional Supplement to the Corps of Engineers Wetland*

Delineation Manual: Northcentral and Northeast Region. This methodology requires the presence of three parameters: hydrophytic vegetation (water-loving plants), hydric soils, and wetland hydrology, unless one or more of these parameters is considered a “**difficult wetland situation**” as defined in Chapter 5 of the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (USACE-Chapter 5). Difficult wetland situations include: lands used for agricultural and silvicultural, problematic hydrophytic vegetation, soils with faint or no indicators, soils with relict hydric soil indicators, drought conditions, and wetland/non-wetland mosaics. These documents are used to determine if there is wetland area contiguous to a mapped Class II area.

IV. Considerations in Determining Contiguity

VSWI maps were developed to display the approximate extent of wetlands. In most cases the VSWI maps do not accurately display the extent of the wetland or the precise location of wetland boundaries; they only display a limited extent of the overall wetland when compared to the actual boundaries identified in the field. The mapping was created using aerial photographs with minimal field review and did not rely on the official delineation protocol cited in the last section above.

ANR shall consider any portion of the wetland adjacent to the mapped wetlands that extends beyond the VSWI mapped boundaries contiguous to the VSWI mapped wetland. Wetlands are not considered contiguous if there is a natural break between wetland areas, commonly called “upland”. However, manmade structures or difficult wetland situations that bisect wetlands do not usually constitute a break in contiguity. In general, the parameters the Wetlands Program uses for determining contiguity are as follows:

1. If any portion of the subject wetland contains an area appearing on the VSWI maps, the entire wetland is considered contiguous and Class II. The boundary of the wetland is determined in the field using the federal delineation methods cited above. Boundary delineations are made by the detection of all three wetland parameters, except in areas that qualify as difficult wetland situation (ie. Cut vegetation, recently drained, drought, plowed soils, red parent material).
2. Natural breaks (of natural upland areas or wide water bodies) constitute breaks in contiguity between wetlands, whether they are mapped on VSWI or unmapped.

Appendix A includes hypothetical case scenarios of how this procedure will be applied to determine contiguity.

Signed this 31 of August 2017

By 
Emily Boedecker, Commissioner
Department of Environmental Conservation

APPENDIX A.

Examples of Contiguous Wetlands

CASE 1: Wetland is not mapped, but the three wetland parameters continue from mapped area to unmapped area.

The wetland is a contiguous Class II because it shares a boundary with a mapped Class II wetland and there is a continuum of the three parameters (hydrophytic vegetation, hydric soils and wetland hydrology) extending between the wetlands (Figure 1).

Mapped wetland in teal, contiguous unmapped wetland is shown in pink.



Figure 1

CASE 2: Wetland narrows to a stream channel and after the narrowing point there is no dominance of wetland vegetation or hydric soils outside the channel or beyond the limits of the stream channel and bank before the next wetland.

The wetlands are not contiguous because the three wetland parameters are not continuous between them. There is a natural break between the two wetlands. (Fig. 2). Wetland functions and values should be evaluated separately.

The illustration to the right (fig. 2) shows the wetlands are hydrologically connected, but not contiguous.



Figure 2

CASE 3: Wetland is divided by a man-made structure (e.g. ditch, railroad, highway, paved road, gravel road, agricultural feature) and;

3a. the structure contains properly sized culverts or a bridge to allow the free flow of surface water from one side to the other.

The wetlands are contiguous because they exhibit a continuation of hydrology, wetland soils and vegetation (Fig. 3).

3b. the structure contains an undersized culvert or culvert that is blocked or culvert is perched above the water surface.



Figure 3

The wetlands are contiguous if they exhibit a continuation of wetland vegetation and soils on each side. The dysfunctional culvert should not be considered a natural break in hydrology. The culvert should be repaired and hydrology restored by project applicant or land owner.

3c. there are no culverts, bridges, tiles or ditches to connect either side of the road/railroad to each other and the structure is located in a natural upland area or is so high as to prevent seasonal flooding from occurring over the road.

The wetlands are not contiguous because there is a natural break or the road height prevents water from flowing over the road, hydrologically connecting the wetlands.

3d. there are no culverts, bridges, tiles or ditches to connect either side of the road/railroad to each other, the structure is not located in a natural upland and the road is not substantially higher than the native ground.

The wetlands are contiguous unless there is evidence that the road does not seasonally flood.

CASE 4: The wetland is cut by a four-lane or larger highway that:

4a. is elevated and spans the entire wetland complex and hydrology or vegetation is the same on either side of the highway.

It is most likely that water is flowing under the highway. The wetlands are contiguous because they exhibit a continuation of the three wetland parameters (Fig. 4).

4b. crosses through the wetland on fill, there are no culverts or bridges allowing the free flow of water.

It is unlikely that the water is flowing under the highway. The wetlands are not contiguous because they do not exhibit a continuation of three like wetland parameters and are no longer hydrologically connected.

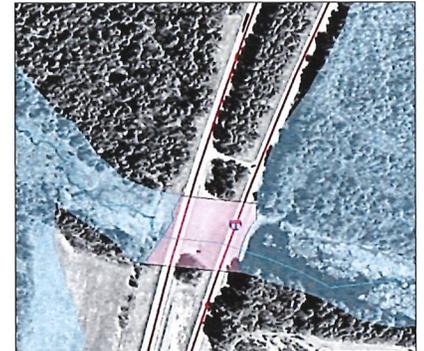


Figure 4

CASE 5: Wetland is directly adjacent to a river or stream and is mapped on only one side.

The wetlands are contiguous if the Ecologist would consider the system a wetland with a stream running through it (Fig. 5), versus a river or large stream with wetlands on both sides (Fig. 6). This is based largely on the size of the open body of water.



Figure 5

CASE 6: Wetland is associated with a lake or pond and

6a. spans the circumference of the lake extending into the lake with wetland emergent and floating-leaved plants.

The wetlands are contiguous if they exhibit a continuation of the three wetland parameters throughout the length of the shoreline. The wetland emergent and floating-leaved sections of the wetland are contiguous to



Figure 7

the shoreline wetland if there is no obvious break in the three parameters during the growing season (Fig. 7).

6b. has wetlands that are separated by landforms (i.e. stream, bedrock outcrop, upland shoreland) that constitute natural breaks and create isolated occurrences of wetlands that may be scattered along the shoreline.

b1: The wetlands are not contiguous if they do not exhibit a continuation of the three wetland parameters. There may be one wetland at the inflow and a second wetland at the outflow, but if they do not exhibit a continuation of the three wetland parameters, they are not contiguous (Fig. 8).

b2: The wetlands are contiguous if they exhibit the continuation of the three wetland parameters (Fig. 9). Use guidance for river contiguity (case 5) if the wetlands are separated by a stream or river.

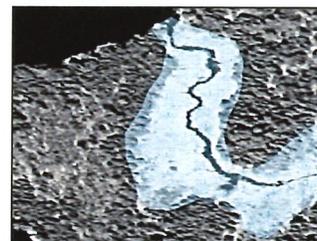


Figure 6



Figure 8



Figure 9

CASE 7. If the wetland is connected to a ditch or swale and

7a. there is a continuation of the three wetland parameters throughout or along the ditch length or the ditch is located within a wetland, or the ditch or swale is non-recognizable as a ditch (shallow slope) and has all three parameters of a wetland.

a: contiguous. The ditch does not constitute a wide waterbody or upland break.

7b. the ditch is located in a natural upland break, where either side of the ditch is non-wetland upland.

b: non-contiguous. There is an upland area breaking contiguity.

CASE 8. The wetland is part of a disturbed landscape where one or more of the wetland parameters have been altered.

The wetland is contiguous throughout the disturbed landscape if there is a continuation of two or three of the wetland parameters as covered in the Army Corp of Engineers (ACOE) delineation manual (Chapter 5). Some agricultural lands are considered difficult situations. It is considered a difficult situation where hydrology may be altered by ditching and tiling; the vegetation* by mowing or planting; and the soils by tilling. In these cases the wetland ecologist will refer to the most current ACOE delineation manual for guidance.



*In cases where the vegetation has been mowed before the site visit use only two parameters for wetland determination, as outlined in the ACOE manual; Chapter 5.

Case 9: A non-wetland break between two wetland areas is the result of a non-permitted activity which took place after February 23, 1990. Only one of the two wetland areas is mapped.

The non-mapped area is considered contiguous. Historical records will be needed to be used in order to determine that a non-permitted activity occurred. This may include past site visit notes, aerial photo interpretation, LiDAR, and affidavits.
