

NOVEMBER 13, 2025

[www.bscgroup.com](http://www.bscgroup.com)

Bloomfield Conservation Commission  
Town Hall  
800 Bloomfield Avenue  
Bloomfield, Connecticut 06002

## **RE: Wetland Delineation Report – The First Cathedral Church, Bloomfield, Connecticut**

To the Bloomfield Conservation Commission:

On December 3<sup>rd</sup> and 4<sup>th</sup> 2024, BSC group Inc. conducted a Wetlands and Watercourse delineation at the First Cathedral Church in Bloomfield, CT. The delineation was completed in accordance with the Connecticut Inland Wetlands and Watercourses Act (Connecticut General Statutes [CGS] Chapter 440, Sections 22a-36 through 22a-45), the Town of Bloomfield Inland Wetlands and Watercourses Regulations, and the methodologies outlined in the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (1987), together with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0 (2012).

### **General Site Description:**

The First Cathedral Church property is located within a suburban portion of Bloomfield, Connecticut, characterized by a mix of developed land, agricultural fields, and forested open space. Surrounding land use consists largely of low- to moderate-density residential development, institutional properties, and maintained roadways, with substantial undeveloped areas remaining along the broader landscape.

Topography across the site is gently sloping, with elevations that direct surface water toward the interior wetland systems identified during the delineation. Vegetation within the surrounding uplands includes a mix of early-successional field species, cultivated or maintained grasses, and patches of mixed hardwood forest. Forested areas predominantly contain species typical of southern New England uplands, while the grass portions of the landscape remain largely open and maintained.

### **Wetland and Watercourse Descriptions:**

Wetland soils observed within W1 and W2 correspond closely with the mapped Scitico, Shaker, and Maybid soil series, which are characteristic of poorly to very poorly drained landscapes on low-gradient terrain. Field evaluation identified low-chroma matrix colors (10YR 3/2 to 10YR 5/2) and frequent redox concentrations throughout the upper horizons. Textures consisting of silty loam and silty clay loam match the fine-textured parent materials typical of Scitico and Maybid soils. W1 contains an intermittent watercourse (SB1) that traverses the wetland and flows north toward the onsite pond. W2 contains an intermittent watercourse (SB2) that flows west toward the same pond.

**Wetland #1 Plot #1**

Soils in Wetland W1 consist of silty loam and silty clay loam textures. The surface horizon (0-11 inches) contains a 10YR 3/2 matrix with redox concentrations of 5YR 4/6. The subsurface horizon (11-16 inches) contains a 10YR 4/3 matrix with similar concentrations. The lower horizon (16-22 inches) consists of a 10YR 5/2 matrix with redox concentrations of 5YR 4/6 and includes areas of 10% 10YR 6/3.

Vegetation observed within W1 includes hydrophytic tree and shrub species. The canopy is dominated by pin oak (*Quercus palustris*) and includes weeping willow (*Salix babylonica*). The shrub and sapling layers include speckled alder (*Alnus incana*), silky dogwood (*Cornus amomum*), and juvenile pin oak (*Quercus palustris*). The herbaceous layer contains reed canary grass (*Phalaris arundinacea*). Vegetation along the associated streambank includes speckled alder, meadowsweet (*Spiraea alba*), and cattail (*Typha latifolia*).

Hydrology in W1 is influenced by two intermittent watercourses (SB1 and SB2) that flow north and west toward the onsite pond. SB1 exhibits a fine silt and clay substrate with a bankfull width of approximately 4 feet and a bankfull depth of approximately 6 inches. The watercourse was observed dry during the site visit, with diffuse flow indicators present both upslope and downslope of the delineated segment. SB2 has an approximate bankfull width of 5 feet and a bankfull depth of around 8 inches, with banks 8 to 10 inches in height. The banks of SB2 are vegetated with speckled alder, Meadowsweet, common reed, and cattail. A pond is located within W1, with a bank dominated by speckled alder, cattail, and common reed (*Phragmites australis*). Ordinary high-water indicators were present along the bank surface.

**Wetland #1 plot #2:**

Wetland W1 plot #2 contains silty loam and silty clay loam textures. The surface horizon (0-5 inches) has a 10YR 3/2 matrix with minor redox concentrations. The middle horizon (5-17 inches) has a 10YR 4/2 matrix with redox concentrations of 5YR 4/6. The lower horizon (17-22 inches) consists of a 10YR 5/3 matrix with 7.5YR 5/6 concentrations and a silty clay loam texture.

Vegetation observed within plot #2 includes pin oak, speckled alder, and silky dogwood in the tree and shrub layers. The herbaceous community includes reed canary grass, wrinkleleaf goldenrod (*Solidago rugosa*), and juvenile silky dogwood. Species composition is similar to W1 but with greater shrub-layer density.

**Watercourse #1(BL-SB1)**

SB1 is a small, low-gradient intermittent watercourse flowing north toward the onsite pond and hydrologically associated with Wetland W1. The channel is shallow and moderately defined, with an average bankfull width of approximately 4 feet and a bankfull depth of roughly 6 inches. No standing water was present at the time of observation, though diffuse surface flow indicators were visible both upslope and downslope of the delineated segment. Banks are approximately 6 inches in height with subtle but continuous definition. Bank vegetation is dominated by speckled alder, meadowsweet, and scattered cattail. The channel substrate consists of fine silt and clay. The feature conveys water during storm events and periods of higher groundwater, supplying hydrologic input to the downstream pond.

**Watercourse #2(BL-SB2)**

SB2 is an intermittent watercourse similar in form to SB1 but slightly larger and more developed along its length. The channel flows north toward the onsite pond and maintains hydrologic

connectivity with Wetland W1. SB2 exhibits an average bankfull width of approximately 5 feet and an estimated bankfull depth of approximately 8 inches. The channel was flowing during the inspection, high-water indicators, minor scour, and fine sediment deposits were also present. Banks range from 8 to 10 inches in height and are more distinctly defined than those observed along SB1. Bank vegetation is dominated by speckled alder, white meadowsweet, common reed, and cattail. The channel substrate consists primarily of fine silt and clay. SB2 conveys seasonal stormwater and contributes hydrologic movement toward the onsite pond as part of the site's drainage network.

### **Watercourse #3 (P01)**

A pond and associated bank are located within the W1 wetland system. The pond bank consists of low, gently sloping margins that transition directly into hydric soil conditions consistent with the surrounding wetland. Vegetation along the bank is dominated by speckled alder, cattail, and patches of common reed. Ordinary high-water indicators observed during the field assessment include staining on vegetation, minor wrack deposits, and exposed root zones. The pond bank is considered a regulated watercourse under the Connecticut Inland Wetlands and Watercourses Act and is part of the hydrologic and ecological continuity of the larger W1 wetland system.

### **Conclusion**

The December 2024 delineation identified two wetland systems, two intermittent watercourses, and a pond with an associated bank on the First Cathedral Church property. Wetland boundaries were determined using vegetation, soils, and hydrologic features in accordance with state and federal guidance. This delineation establishes the regulated resource areas to be considered in future planning and permitting.

Sincerely,  
BSC Group Inc.

Ethan Sneesby (RSS)





**Photo #1:** View of Wetland 1 in proximity to PO1 and SB2. *Facing west.*



**Photo #2:** View of Wetland 1 in proximity to SB1. *Facing south*



**Photo #3 :** View of SB1 showing a dry intermittent channel within W1. *Facing southeast.*



**Photo #4 :** View of SB2 showing a frozen intermittent channel within W2. *Facing east.*