

**Staff Report**  
**Application # IWW, WPL/E-11926-24**  
**15 Beechwood Lane**  
**Assessor's Map: E08 Tax Lot: 028**  
**Prepared May 20, 2024 revised to June 4, 2024**  
**Public Hearing: June 12, 2024**

**Receipt Date:** May 15, 2024

**Application Classification:** Plenary

**Application Request:**

Applicant is proposing to construct a pool, patio and associated features within the upland review area of wetlands associated with Pussy Willow Brook. The proposed residence is located outside the Waterway Protection Line (WPL).

**Plans Reviewed:**

- A. Improvement Location Survey**, Prepared for Baldino Homes, 15 Beechwood Lane, Westport, Connecticut, prepared by Land Surveying Services, LLC, dated June 04, 2021, last revised May 19, 2022. Scale: 1" =20'
- B. Site Plan**, prepared for Mary Wilson, 15 Beechwood Lane, Westport, Connecticut, prepared by Fairfield County Engineering, LLC, dated April 24, 2024, Scale: 1" =20', Sheet 1 of 2.
- C. Detail Sheet**, prepared for Mary Wilson, 15 Beechwood Lane, Westport, Connecticut, prepared by Fairfield County Engineering, LLC, dated April 24, 2024, Scale: 1" =20', Sheet 2 of 2.
- D. Environmental Assessment** (report), of the Watercourse Corridor, located at 15 Beechwood Lane, Westport, CT, prepared by Aleksandra Moch, Soil and Wetland Scientist, dated April 30, 2024.
- E. Soil Investigation Report**, 15 Beechwood Lane, Westport, Connecticut, prepared by Otto Theall, Soil and Wetland Science, LLC, dated May 2, 2013.

**Past Permits/Applications filed:**

AA-WPLE-11358-21: for a new single family residence

**IWW and WPLO Regulated Areas:**

The WPL is established 15' from the 25-year flood line associated with Pussy Willow Brook, as depicted on the Site Plan.

The Inland Wetland and Watercourse Regulations (IWW) setbacks determined for regulated activities on this property include:

- 35' upland review area for a pool and spa,
- 30' upland review area for a patio,
- 30' upland review area for a retaining wall.
- 25' upland review area for pool equipment.

The proposed inground swimming pool (14' x 30') will be located ~23' from the wetlands. The proposed spa will be located ~45' from the nearest wetland boundary. The proposed patio will be

installed ~25' from the nearest wetland boundary. The proposed retaining wall will be constructed ~21' from the nearest wetland boundary. The proposed pool equipment pad will be located ~54' from the nearest wetland boundary.

**Property Description and Facts Relative to the Application:**

- a. The existing house was built in 2022. It is served by public sanitary sewer.
- b. The property is 0.754 acres (32,828 sq.ft.) in size; located in Residential Zone A.
- c. The parcel is located within the Pussy Willow Brook Watershed.
- d. This property is situated within Flood Zone A as shown on F.I.R.M. Panel 09001C0413G Map revised to July 07, 2013.
- e. The property is not within the Aquifer Protection Overlay Zone.
- f. Property does not exist within the Coastal Areas Management Zone.
- g. The Waterway Protection Line (WPL) is established 15' landward from the 25-year flood boundary. The WPL is shown on the "Site Plan".
- h. Relevant information:
  - a. Base Lot Area: 24,940 sq. ft.
  - b. Existing Building Coverage: 9.5% (2,380 sq. ft.)
  - c. Existing Total Coverage: 16.3% (4,071 sq. ft.)
  - d. Proposed Total Coverage: 19.8% (4,942 sq. ft.)

**Wetlands Description:** Soil Investigation Report, 15 Beechwood Lane, Westport, Connecticut, prepared by Otto Theall, Soil and Wetland Science, LLC, dated May 2, 2013. The report describes the following soil types occurring on the property:

**Wetland Soils:**

**Ridgebury, Leicester, and Whitman soils, extremely stony (3):**

This soil unit consists of poorly drained and very poorly drained soils found in depressions and drainageways on uplands and in valleys. The soils have a seasonal high water table at or near the surface from fall to spring. The high water table, ponding, and the stones and boulders on the surface limit these soils for community development. Excavations are commonly filled with water.

**Non-Wetland Soils:**

**Udorthents- Urban Land Complex (306):** This complex consists of moderately well drained to excessively drained soils that have been disturbed by cutting or filling, and areas that are covered by buildings and pavement. The complex is approximately 70 percent Udorthents, 20 percent Urban land, and 10 percent other soils. Udorthents are in areas that have been cut to a depth of two feet or more or are on areas with more than two feet of fill. Udorthents consist primarily of moderately coarse textured soil material and a few small areas of medium textured material.

**Conformance to Section 6.1 General Standards of the Inland Wetlands and Watercourses Regulations**

- a) disturbance and pollution are minimized;
- b) height, width, and length of structures are limited to the minimum dimension to accomplish the intended function;
- c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
- d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;

- e) maintain conservation, economic, recreational and aesthetic qualities;
- f) consider historical sites

**Discussion:** The onsite resource consists of a perennial watercourse (Pussy Willow Brook) and a riparian wetland. The northern riparian wetland fringe is mostly maintained as lawn. The southern side of the watercourse is characterized as forested wetland. Pussy Willow Brook flows north to south across the eastern portion of the property. The current site improvements include a single family residence, driveway, patio, and stormwater management system.

The project proposes to construct a new 14' x 30' inground pool and retaining wall and patio a little more than 20' from the nearest wetland boundary. The spa and pool equipment are outside of their respective review areas. There is an existing system of 15 Cultec R-330XLHD stormwater retention units that serve the runoff from the existing impervious coverage. The site engineer found that the existing drainage system has the capacity to accommodate the Water Quality Volume (WQV) from the new pool, pool equipment pad, patio, spa and retaining wall.

Ms. Moch demonstrates in her environmental report that two other alternative locations and configurations for the pool have been considered. The application does not provide engineered plans for the alternative locations. The report states that with any of the three proposed locations for the pool, the level of disturbance and potential for adverse impacts was substantively similar. Staff feels with each of the alternatives provided, the applicant does not demonstrate that disturbance and the size of the structures are minimized. Staff questions why the size of the existing patio or the size of the proposed pool were not reduced to minimize encroachment into the upland review area. Staff recommends the Commission discuss alternative pool locations and configurations with the applicant.

Staff notes that no planted buffer or naturalized stream buffer were considered in the application. The slope will be modified with a retaining wall to level out the southern end of the swimming pool along the elevation 98' contour line. Staff sees potential to abandon maintained lawn and provide mitigation and stream protection measures by establishing dense buffer of vegetation upgradient of the wetland and watercourse. Staff recommends the homeowners cease mowing wetland area. Staff would consider a buffer planting or a designated no-mow area as an effort to reduce potential loss of fish and aquatic organisms and wildlife resulting from the new development.

**Conformance to Section 6.2 Water Quality of the Inland Wetlands and Watercourses Regulations**

- a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
- b) water stagnation will neither be contributed nor caused;
- c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
- d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
- e) all applicable state and local health codes shall be met;
- f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes;
- g) prevents pollution of surface water

## **Discussion:**

The surface water quality classification for Pussy Willow Brook (Connecticut Environmental Conditions Online, <http://www.cteco.uconn.edu/>), is Class A water for Inland Surface Water Class. The Class A designation indicates that the water is suitable habitat for fish and other aquatic life and wildlife and recreation.

Staff referenced UConn's CLEAR Local Watershed Assessment Tool. The local watershed basin (ID: 7000-18) for Pussy Willow Brook has a combined condition index (CCI) score of 0.18. A CCI score of less than 0.43 indicates the watershed basin may be significantly impaired. The Tool defines Pussy Willow Brook's Recovery Status as "Mitigation", identifying that the watershed condition can be improved with mitigation efforts such as restoring naturalized riparian zones.

Proposed site coverage is expected to increase to ~20% which is within the 10-25% cover that is expected to impact water quality. Coverage calculations are provided in the drainage report. The 2023 Connecticut Stormwater Manual provides research that water quality experiences degradation when coverage in a watershed exceeds 10%. As the Pussy Willow Brook watershed is densely developed, the coverage exceeds the percentage in which water quality can be assumed to be impacted. There is an existing stormwater storage area on the property that was installed at the time the new house was constructed. The drainage report demonstrates that additional runoff volume from the proposed new coverage will be detained within the existing drainage system. The available storage within the existing system can accommodate a volume of 1,192 cu. ft., which is greater than the 72 cu.ft. required. During intense storm events the stormwater galleries and proposed pool will overflow and discharge downgradient across the lawn towards the wetlands and watercourse.

Staff notes that the site plan and site survey do not indicate test pit locations or groundwater elevations across the site. The environmental report prepared by Ms. Moch states "No dewatering is shown on the map. It is expected the area has a very deep groundwater table and the pool will be shallow. No ground water encounter is being expected." The pool coping will be established around elev. 98'. The pool schematic submitted with the application demonstrates the pool depth will be 6'. The elevation of the surface water of Pussy Willow is elev. ~92'. Staff feels there is potential that the pool excavation may encounter ground water. Staff feels a potential dewatering method may be necessary for the pool excavation. Staff recommends the Commission discuss pool depth with the applicant.

Staff feels the highest risk of potential impacts to water quality would be temporary impacts due to potential sediment releases during excavation for the pool and retaining wall occurring with 25' of the closest wetland boundary. The moderate amount of excavation, grading, and stockpiling adjacent to the wetland boundary may cause releases of sediment or sediment laden water to be discharged into the surface water of Pussy Willow Brook during heavy storm events. Inadvertent pool-water discharge may affect surface water quality of the brook. With the existing stormwater system and a potential buffer planting both utilized, Staff does not anticipate adverse long-term impacts to water quality resulting from the proposed site development.

### **Conformance to Section 6.3 Erosion and Sediment of the Inland Wetlands and Watercourses Regulations**

- a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
- b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;
- c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
- d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
- e) applicable state, federal and local guidelines shall be met.

**Discussion:** Sedimentation and erosion controls are shown on the “Site Plan”. Silt fencing and a soil stockpile are indicated on the plan. The double row of silt fencing backed by haybales is proposed within the maintained lawn downgradient from the limit of proposed disturbance. Much of the potential for adverse impacts from erosion and sedimentation will be due to the temporary conditions created during the excavation, grading, and soil stockpiling associated with constructing the pool and retaining wall. An anti-mud tracking pad is shown at the construction entrance off of the existing driveway. Staff notes that the site plan and plan details do not specify a potential dewatering method or dewatering area for the excavation of the pool.

Staff feels these proposed Sediment & Erosion control measures should be an effective mitigating control if frequently inspected and maintained throughout site activity.

### **Conformance to Section 6.4 Natural Habitat Standards of the Inland Wetland and Watercourses Regulations**

- a) critical habitats areas,
- b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
- c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
- d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
- e) periods of seasonal fish runs and bird migrations shall not be impeded;
- f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats

### **Discussion:**

CT ECO map viewer shows there are no critical habitats or Natural Diversity Database areas on or adjacent to the subject property. Pussy Willow Brook is a perennial watercourse, which would imply the stream could provide habitat for fish and aquatic macroinvertebrates. Staff feels the greatest risk to the wetland and watercourse resource would be temporary impacts due to potential sediment release into the wetland during the excavation, grading and stockpiling phases of installing the pool and retaining wall. A release of sediment into the wetland could cause adverse impacts to amphibians and aquatic macroinvertebrate communities within the watercourse and associated riparian wetland.

Staff notes there is no buffer planting plan proposed along the wetland boundary. The wetland boundary

extends slightly into the maintained lawn. Staff recommends the Commission consider requiring a no mow buffer extending from the limit of the wetland extending to the base of the proposed retaining wall. A potential buffer planting of 10' wide consisting of native trees, shrubs, and herbaceous perennials could be beneficial to biofiltration of stormwater and helping trap suspended sediment and pollutants.

**Conformance to Section 6.5 Discharge and Runoff of the Inland Wetland and Watercourses Regulations**

- a) the potential for flood damage on adjacent or adjoining properties will not be increased;
- b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
- c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
- d) flooding upstream or downstream of the location site will not be significantly increased;
- e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

**Discussion:** The plan proposes to utilize the existing stormwater management system to retain the additional volume of stormwater runoff that would otherwise be conveyed downgradient toward the wetland. The system is sized to accommodate the stormwater discharge volume from ~800 sq. ft. of additional coverage. Overflow volume from the pool and system will discharge across the yard towards the wetlands. The existing stormwater management system is sized to handle the first inch of runoff for water quality as well as meet the Town of Westport Drainage Standards for a 25-year storm event. Staff feels utilizing the existing stormwater storage to manage runoff from the new development is the most efficient and least disturbing method of managing stormwater runoff. The proposed pool and retaining wall within 25' of the wetlands may minimally change how the property transmits and absorbs flood water during severe storm events. The project engineer states in the drainage report that “The proposed improvements will have no adverse impact on surrounding properties.”

**6.6 RECREATIONAL AND PUBLIC USES**

- a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
- b) navigable channels and or small craft navigation will not be obstructed;
- c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
- d) wetlands and watercourses held in public trust will not be adversely affected.

**Discussion:** The proposed activities will not significantly impact recreational and public uses.

**Data Gaps/ Errors/ Questions**

*Alternatives to Reduction of Impacts*

- 1. No construction alternative.
- 2. Approval of application with the following conditions:
  - a. Install erosion controls as shown on site plan, prior to construction commencement.
  - b. The applicant shall revise the site plan to indicate a proposed method and area for dewatering the pool excavation if dewatering is necessary.

- c. The applicant shall submit a plan for a planted buffer or mowing restricted area down gradient of the proposed retaining wall.
- d. The applicant shall submit a performance bond for the wetland planting plan and meadow maintenance plan, to be held one full growing season to ensure vitality of the plants. A portion of the bond shall be held for three years to ensure the success of the restoration of the wetland meadow. The bond shall be paid prior to the issuance of a Zoning Permit.