STAFF REPORT
1 Wynfromere Lane
Application # IWW, WPL-11947-24
Assessor's Map: F08 Tax Lot: 025
Prepared June 26, 2024, revised July 10, 2024
Public Hearing: July 17, 2024

Receipt Date: **June 12, 2024**

Application Classification: **Plenary**

Application Request: The applicant proposes to construct an in-ground pool, pool patio, deck, and spa with associated site improvements and stormwater management system. A portion of the work is within upland review area of onsite wetlands and WPLO boundary.

Plans reviewed:
1. "**Improvement / Location Survey**", Map of Property, prepared for Robert J. Newman & Valerie G. Newman, 1 Wynfromere Lane, Westport, Connecticut, prepared by Walter H. Skidd, Land Surveyor, LLC, dated July 19, 2016, last revised to February 28, 2024, Scale: 1" = 20'.
2. "**Site Development Plan**", 1 Wynfromere Lane, Westport, CT, prepared for Robert J. & Valerie G. Newman, prepared by Kousidis Engineering, LLC, dated June 13, 2024, Scale: 1" = 20'.
3. "**Wetland Planting Plan**", Newman Residence, 1 Wynfromere Lane, Westport, CT, prepared by Environmental Land Solutions, dated June 12, 2024.
4. "**Drainage Analysis**" (report), Located at 1 Wynfromere Lane, Westport, Connecticut, Robert J. & Valerie G. Newman, prepared by Kousidis Engineering, LLC, dated June 13, 2024

IWW and WPLO Regulated Areas:
The property is regulated by the Inland Wetland and Watercourse Regulations (IWW). The wetlands soils found on the property are associated with a lawned and forested wetland. The wetlands are associated with an offsite larger wetland located on the abutting property to the south. The wetland occurs within the Muddy Brook watershed. The West Parish Branch tributary is located ~75' north of the northern property boundary.

The IWW setbacks determined for this property include a:

35' upland review area for a swimming pool,
30' upland review area for a pool patio and deck,
25' upland review area for a pool fence, and a
20' upland review area for drainage installation, excavation, filling and grading.

The proposed pool is shown on the plan within the 35' upland review area. The proposed spa is shown on the plan within the 35' upland review area. A portion of the proposed pool patio is within the 30' upland review area. The proposed deck is shown outside the 30' upland review area. The plan demonstrates the pool equipment pad will be located outside the 25' upland review area. The proposed stormwater system is outside the 20' upland review area. Excavation of a sewer lateral will take place within the 20' upland

review area. A portion (1200 sq. ft.) of the existing driveway is being removed to accommodate increased coverage in the southern portion of the property.

The Waterway Protection Line Ordinance dictates that the WPL boundary be established 15 linear feet from the limit of wetland. The southern corner of the property falls within the WPL boundary. Staff notes a a portion of sanitary sewer lateral will be replaced within the WPLO area.

Background Information:
Property Description and Facts Relative to the Map Amendment Application:

1. The existing house was built in 1967. It is served by public sanitary sewer.
2. The property is 1.02 acres (44,407 sq. ft.) in size; located in Residential Zone AA.
3. The parcel is shown as located within the Muddy Brook Watershed. The West Parish Branch is located ~75' to the north. The wetland onsite is associated with a larger wetland located on the abutting properties to the south.
4. Property is situated in Flood Zone X as shown on F.I.R.M. Panel 09001C0414G Map revised to July 8, 2013.
5. The property **is not** within the Aquifer Protection Overlay Zone.
6. Property **is not** within the Coastal Area Management Zone.
7. The Waterway Protection Line is established 15' from the surveyed wetland boundary. The WPLO boundaries are shown on the site plan.

Previous Permits issued: AA-11894-24 - Addition

Property Description:

Gross Lot Area: 1.02 acres (44,407 sq. ft.)
Base Lot Area: 0.99 acres (43,498 sq. ft)
WPLO boundary: The southern corner of the property is within the WPLO boundary. The line is established 15' from the wetland boundary.
Proposed Pool Dimensions: 18' x 36' (648 sq. ft.)
Pool Depth: 8'
Existing Site Coverage: 24.64% (10,717 sq. ft.)
Proposed Site Coverage: 25.41% (11,053sq. ft.)
Existing Building Coverage: 2,609 sq. ft.
Proposed Building Coverage: 2,609 sq. ft.
Proposed Total Excavation or Fill: 261 cu. yd.

Wetlands Description:

Soils were characterized in "**Soil Report, 1 Wynfromere Lane, Westport, CT**", prepared by Steven Danzer, PhD Soil Scientist, Senior Professional Wetland Scientist, Arborist, dated November 14, 2022. The report findings are described herein.

Wetland soils *found on the property*

Raypol silt **loam (*12*):** The Raypol series consists of very deep, poorly drained soils formed in loamy over sandy and gravelly outwash. They are nearly level to gently sloping soils in shallow drainageways and low-lying positions on terraces and plains. Slope ranges from 0 to 5 percent. The soils have a water table at or

near the surface much of the year. Permeability of the Raypol soils is moderate in the surface layer and subsoil and rapid or very rapid in the substratum.

***Non-wetland** soils found on the property*

Urban land-Charlton Chatfield complex, rocky, 3 to 15 percent slopes (273C): The Charlton series consists of very deep, well drained loamy soils formed in till derived from parent materials that are very low in iron sulfides. They are nearly level to very steep soils on till plains and hills. Slope ranges from 0 to 50 percent. Saturated hydraulic conductivity is moderately high or high.

The Chatfield series consists of well drained and somewhat excessively drained soils formed in till derived from parent materials that are very low in iron sulfides. They are moderately deep to bedrock. They are nearly level through very steep soils on glaciated plains, hills, and ridges. Slope ranges from 0 through 70 percent. Crystalline bedrock is at depths of 20 to 40 inches (50 through 100 centimeters). Saturated hydraulic conductivity is moderately high or high in the mineral soil.

Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations
6.1 GENERAL STANDARDS

a) disturbance and pollution are minimized;
b) minimize height, width, 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 lawned and forested wetland which is associated with an offsite wetlands.

The applicant proposes to construct a pool (18’ x 36 x 8’ deep), pool patio, deck, and spa. Associated site improvements include installing stormwater retention units and a new sanitary sewer lateral. The pool, patio, spa, and sewer, and pool fence are proposed within the upland review area of the wetland. Three mature trees are proposed to be removed outside of the 20’ non-disturbance buffer. A Wetland Planting Plan is provided with the application. The plan proposes to use plantings to restore areas of lawned wetland as well establish a vegetated buffer (approximately 5-7’ wide). The existing deck will be replaced with the new deck, which represents a 99 sq. ft. increase in deck coverage. The patio will be located immediately south of the expanded deck representing a 500 sq. ft. increase in patio coverage. The pool and spa will be 712 sq. ft. of coverage. The new pool patio will be located ~25’ from the nearest wetland boundary. Staff feels removing driveway outside of review areas to increase coverage within review area does not represent effort to minimize the extents of development to accomplish build. Staff recommends the Commission discuss the size and configuration of the pool and deck to understand if alternative designs were considered to limit coverage within the upland review area. The development plan proposes a single row of 40’ of 18”-high concrete stormwater retention galleries. The plan demonstrates the retention units will be located immediately east of the proposed pool and patio, outside of the non-disturbance buffer. Staff sees replacing

the sewer lateral as necessary maintenance of an existing utility. The disturbance will be stabilized immediately after replacement.

6.2 WATER QUALITY

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 Muddy Brook (CT State waterbody ID: 7000-16) (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 other aquatic life and wildlife and recreation.

Staff referenced UConn's CLEAR Local Watershed Assessment Tool. The local watershed basin for Muddy Brook has a combined condition index (CCI) score of 0.19. A CCI score of less than 0.43 indicates the watershed basin may be significantly impaired. The Tool defines Muddy Brook's Recovery Status as "Mitigation", identifying that the watershed condition can be improved with mitigation efforts such as restoring naturalized riparian zones.

There is no existing site drainage. The existing site coverage is 24.64% (10,717 sq. ft.) and the proposed site coverage is 25.41% (11,053sq. ft.). The application proposes one new area of stormwater storage and several surface slot grate drain within the patio. The drainage report states the proposed stormwater management system is designed to accommodate the runoff from these structures during a 25-year storm (the water quality volume) and be able to store the first 1" of rainfall from all the proposed development. The proposed patio on constructed as impervious, but will feature a surface drain. Water collected within the surface drain will be conveyed to a retention area consisting of 40 linear feet of 18'-high pre-cast concrete stormwater galleries. The stormwater retention area is sized with a volume of 232 cu. ft., which is greater than the 200 cu. ft. required. The stormwater galleries will overflow at the eastern end of the patio and discharge downgradient across the lawn toward the wetland. Details for the drainage units are provided on the "Site Development Plan".

Staff feels the highest risk of potential impacts to water quality would be temporary impacts due to potential sediment releases during excavation of the existing pool and the associated grading around the stormwater system. Staff feels the moderate disturbance immediately adjacent to the wetland boundary poses significant risk of sedimentation without the proper E&S controls. The close proximity of excavation to the wetland boundary may cause destabilized areas to be inundated during storm events, facilitating erosion, accelerating sediment transport and expanding distribution of suspended sediment.

Staff recommends a wetland planting have a denser and wider (10-15 ft.) buffer. The buffer portion of the planting should function as a demarcation of the limit of lawn as well as a means of trapping suspended sediment and pollutants. The planting should help stabilize the base of the new grading and provide biofiltration and groundwater infiltration of stormwater runoff from water not captured by the stormwater retention units.

With the stormwater system and a planting plan both installed, Staff does not anticipate adverse long-term impacts to water quality resulting from the proposed site development.

6.3 EROSION AND SEDIMENT

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:

Staff feels the greatest risk of potential impacts from sedimentation is during the demolition of the existing pool and patio and material stockpiling. Stormwater can transport loose sediments downgradient towards the wetlands.

The applicant has provided sediment and erosion controls on the site plan, which incorporates the use of a single row of silt-fencing all along the limit of disturbance, a single row of silt fence around the temporary stockpile area, a dirtbag dewatering area, and an anti-mud tracking pad at the proposed construction entrance, extending north of the existing driveway entrance.

The excavation for the demo of the pool and patio, and the excavation of the proposed pool and drainage area will create displaced soil. The site plan identifies an area for soil stockpiling within maintained lawn, southwest of the pool area. Staff anticipates the work may encounter groundwater during the excavation for the pool and stormwater galleries. The pool excavation will be advanced to a depth greater than 96” inches below existing grade. Groundwater was encountered at 50” within the area of proposed pool excavation. Staff notes the site plan depicts a location for a dirtbag dewatering system, which should be adequate for controlling silt-laden water so long as the system is frequently monitored and maintained.

6.4 NATURAL HABITAT STANDARDS

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. The larger wooded wetland so the south could represent habitat for aquatic fauna and nesting and foraging habitat for small mammals and birds.

Staff feels the greatest risk to the wetland would be temporary impacts due to potential sediment release into the wetland during the excavation of the proposed pool and drainage system. A release of sediment into the wetland could cause adverse impacts to amphibians and aquatic macroinvertebrate communities within the forested wetland.

Staff notes the Wetland Planting plan proposes to restore the lawned wetland with 22 native shrubs consisting of shadbush, American holly, spicebush, and ninebark as well as 49 native perennials consisting of fern, switchgrass, and ironweed. This planting represents a potential boost of plant diversity and nesting habitat. The planting establishes a new limit of lawn and will provide biofiltration of stormwater runoff. Staff notes that the planting proposes a thin buffer of switch grass and fern. Staff feels the planting should increase the density of plants and expand the width of the buffer up to 10 - 15' feet along the entire limit of surveyed wetland boundary located on the property.

6.5 DISCHARGE AND RUNOFF
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:
A grassed lawn does not represent a condition which optimizes absorption and infiltration of stormwater into the ground. The proposed pool storage and stormwater management system retain and slowly infiltrate into groundwater, thus decreasing the among of stormwater runoff moving downgradient toward the wetland. The drain within the patio surface will collect stormwater from the patio surface and any potential overflow from the pool. The drain will direct the water to the stormwater retention galleries and the overflow volume will discharge across the yard towards the wetlands. The proposed stormwater management system is sized to handle the first inch of runoff for water quality as well as meeting the Town of Westport Drainage Standards for a 25-year storm event. Staff feels this proposed system will be an improvement over the existing site condition without drainage. Some of the wetland is being maintained as lawn upgradient from the wooded portion of wetland. Staff feels the provided wetland restoration and buffer plan will help facilitate sediment capture and stormwater infiltration.

Grading around the proposed pool and patio will be minimal and will maintain the existing site grades and therefore, it is not anticipated to have an impact to the adjacent or adjoining properties, as shown on the site plan. Some disturbance is necessary to accommodate the installation of the drainage system. The proposed

grading is too minimal to change how the stream transmits flood water, but the density of vegetation within the a restoration and buffer planting would provide some water quality treatment and energy dissipation through the top of riparian zone during flood conditions. The proposed planting may enhance the existing wetland and watercourse function.

The Flood & Erosion Control Board did not review the application at its July 10, 2024, meeting, because there were no permanent features or grading within the WPL proposed. In a memo from Town of Westport Engineering Department, dated July 10, 2024, Staff stated that the drainage substantially complies with Town Drainage Standards and that the grading complied with Town Zoning Regulations.

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.

Waterway Protection Line Ordinance

Section 148-9 of the Waterway Protection Line Ordinance states that the applicant shall submit information to the Conservation Commission showing that such activity will not cause water pollution, erosion and/or environmentally related hazards to life and property and will not have an adverse impact on the preservation of the natural resources and ecosystem of the waterway, including but not limited to impact on ground and surface water, aquifers, plant and aquatic life, nutrient exchange and supply, thermal energy flow, natural pollution filtration and decomposition, habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.

The WPLO boundary is located 15’ from the limit of wetlands. Staff identifies excavation for the installation for a new sanitary sewer lateral as the only proposed activity within the WPL.

Staff feels the activity does not create a permanent condition of potential adverse impact to the natural resources within the WPL. There will be some temporary earth disturbance within the WPL and wetland but Staff anticipates soil disturbance will be immediately stabilized after the replacement.

Information Gaps/ Errors/ Questions

1.) What is the reasoning for the size of the deck patio and pool. Were other configurations considered?
2.) Staff mostly agrees with the design and intent of the Wetland Planting Plan. Why is the upland buffer portion of the planting so narrow, when there is an opportunity to better protect existing and proposed wetland vegetation? Impervious coverage is expanding toward the wetland yet the limit of lawn is staying essentially the same outside of the wetland areas to be restored. Staff recommends a planted buffer extending 15’ upgradient from the limit of surveyed wetlands.

Alternatives for reduction of impacts:

1. No build alternative.
2. Approve Application with the following modifications to plans listed above:
   a) Install erosion control prior to construction commencement just outside the limit of disturbance as shown on the site plan.
   b) Conservation Department to be contacted 48 hours prior to construction commencement.
   c) The design engineer shall witness and certify the construction of all site drainage proposed for this project and submit said certification to the Conservation Department prior to the issuance of a Conservation Certificate of Compliance.
   d) Conformance to the standard conditions of approval for pools within upland review area
   e) A pool dewatering plan must be submitted to the Conservation Department prior to issuance of a zoning permit.
   f) A pool form as-built shall be submitted to the Conservation Department prior to the pouring of concrete. Pool depth shall be verified prior to the issuance of the Conservation Certificate of Compliance.
   g) The wetland planting plan shall be revised to increase the width of the upland buffer to 10-15 ft upgradient from the surveyed wetland boundary.
   h) All plantings proposed in the wetland shall be installed by hand. The plantings shall be installed prior to the issuance of a Conservation Certificate of Compliance.
   i) The applicant shall submit a planting bond to cover the cost of any proposed planting prior to the issuance of a Zoning Permit or a performance bond to cover the cost of plantings and sediment and erosion controls prior to the issuance of a Zoning Permit.