

STAFF REPORT
Application #WPL-11872-23
7 Sea Spray Road
Assessor's Map: C01 Tax Lot: 001
Prepared: January 25, 2024 and last revised February 6, 2024
Public Hearing: February 14, 2024

Application Request: The applicant is proposing to demolish the existing dwelling and associated development and construct a new residential dwelling, with a new driveway, covered patio, terrace, walkway, and steps. The proposed work is occurring within the WPLO (elevation 9') area of the Saugatuck River.

Plans Reviewed:

- a. **Plot Plan**, prepared for 7 Sea Spray LLC, 7 Sea Spray Road, Westport, Connecticut, prepared by Leonard Surveyors LLC, dated September 12, 2023, Scale: 1" = 20'.
- b. **Proposed Site Development Plan** of 5 Sea Spray Road, Westport, Connecticut, prepared for SevenSeaSpray, LLC, prepared by B&B Engineering, dated December 12, 2023, last revised to January 26, 2024, Scale: 1" = 10', 2 Sheets.
- c. **Architectural Renderings**, prepared for SevenSeasSpray, LLC, 7 Sea Spray Road, Westport, CT 06880, prepared by Peter Cadoux Architects P.C., dated December 15, 2023:
 - i. **Lower Level Flood Gate Plan** Sheet FL-1
 - ii. **Lower Level Plan** Sheet A-1
 - iii. **First Floor Plan** Sheet A-2
 - iv. **Proposed Second Floor Plan** Sheet A-3
 - v. **Proposed Elevations** Sheet A-4
 - vi. **Proposed Elevations** Sheet A-5

Past Permits

- **WPL-9019-12-** Generator

Property Description: The existing house was constructed in 1974. Serviced by public sewer. Residential Zone A.

Location of 25-year flood boundary: 9 ft. contour interval. The WPL is established 15 linear feet (LF) from the 9 ft. contour interval.

Property is situated in Flood Zones AE (el. 13') as shown on F.I.R.M. Panel 09001C0551G Map revised to July 8, 2013.

Existing First Floor Elevation: 9.8 ft.

Proposed First Floor Elevation: 18.5 ft.

Proposed Garage Elevation: 9.5 ft.

Proposed Air Conditioning Platform Elevation: 14.1 ft.

Proposed Generator Platform Elevation: 14.1 ft.

Proposed Pool Equipment Pad Elevation: 14.1 ft.

Existing Average Grade: Elev. 8.5 ft.

Proposed Average Site Grade: Elev. 8.5 ft.

Lot Area: 0.51 acres (22,314 sq. ft.)
Base Lot Area: 21,866 sq. ft.
Existing Site Coverage: 23.3% (5,095 sq. ft.)
Existing Building Coverage: 13.1% (2,865 sq. ft.)
Proposed Site Coverage: 24.97% (5,459 sq. ft.)
Proposed Building Coverage: 13% (2,836 sq. ft.)
Sewer Line: The property is serviced by municipal sewer.
Zoning: Property is located in Residential Zone A

Aquifer: Property underlain by Canfield Island Aquifer which is a coarse-grained stratified drift aquifer. The property is NOT within the Town's wellfield protection zone.

Coastal Area Management:

Coastal Area Management: Property located within CAM zone. The coastal resources are identified as: Near Shore Waters, Shellfish Area and Coastal Flood Hazard Area. Nearshore Waters are those waters and their substrates lying between mean high water and a depth approximately by the ten-meter contour. Shellfish Area areas support an important source of food, provide recreational shellfishing opportunities, provide economic opportunities for the shellfish industry, and provide employment through the shellfish industry. Coastal Flood Hazard Areas are defined as those land areas inundated during coastal storm events. A-zones are subject to still-water flooding during "100-year" flood events. Coastal Hazard Areas serve as flood storage areas. They are, by their nature, hazardous areas for structural development, especially residential type uses.

Proposed Storm Water Treatment: The applicant proposes to treat the first 1" of runoff with crushed stone reservoirs beneath pervious driveway surfaces. The application proposes two areas of driveway stormwater reservoirs. Stormwater runoff from the roof leaders of the proposed residence will be conveyed to the reservoirs by underground PVC pipes. The driveway runoff will infiltrate into the reservoirs. General site runoff and drainage overflow will drain downgradient towards the Cross Way and Sea Spray Road Roadways. Runoff from the existing rear development will continue to drain towards the tidal wetland. The lawn will be improved with a buffer planting, which will assist in management general site runoff towards the wetland.

Discussion:

The WPL Ordinance requires that the Conservation Commission consider the following when reviewing an application:

“ An 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 ecosystems 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 property lies within the WPLO boundary (elevation 9') of the Saugatuck River. The property abuts the portion of the Saugatuck River that comprises the Cedar Point Yacht Club basin. The "Site Development Plan" demonstrates that the surveyed tidal wetland boundary extends onto the property at the eastern end. The wetland boundary extends landward of the existing fenceline. The intertidal zone is beyond the property boundary to the east. The mean high-water line is established at elevation 3.3' (NAVD88) to the east of the property. There is no Coastal Jurisdiction Line (elevation 5.3') on the property.

Based on the existing spot elevations shown on the site plan, the topography is generally flat. The site gradually slopes from the center of the property to the western portion of the property towards the roadway. The project will perform grading around the house leveling out high and low elevations while maintaining the same average site grade of elevation 8.5 ft. Grading will not occur beyond the general envelope of the dwelling and associated improvements.

The project proposes to demolish the existing dwelling, rear deck, retaining walls, landings, walkways, and driveway. A new dwelling, new driveways, covered patio, underground propane tanks, generator pad, and landing extensions, and walkways will be constructed within the footprint of the existing footprint. The existing pool, and pool will remain. Overall site coverage is proposed to increase from 23.3% (5,095 sq. ft.) to 24.97% (5,459 sq. ft.). The surface of both driveways will be constructed of Unilock permeable concrete pavers and they will each have stormwater storage below. The proposed dwelling will be built to conform to FEMA standards with the first habitable floor (el. 18.5') established above the 100-year base flood elevation (el. 13'). The new generator platform, air conditioning platform, and pool equipment platform will be established at elevation 14.1'. The Town's Engineering Department found this design to be compliant. The Flood and Erosion Control Board approved the application on February 7, 2024 with no special conditions.

The proposed underground propane storage tanks will be located along the southern property boundary, east of the driveway. A tank detail provided on the site plans demonstrates that the two (2) 1000-gal. propane tanks will be anchored to a concrete counterweight with steel with straps and hold down rods, which is consistent with the FEMA guidance for installing underground tanks within a flood zone, "Principles and Practices for the Design and Construction of Flood Resistant Building Utility Systems".

Water Quality Considerations:

The potential for the proposed project to have an adverse impact on the preservation of natural resources and the ecosystem of the adjacent waterways should focus on stormwater quality impacts and percentage of impervious area. The proposed site coverage is ~25%, which is within the 10-25% cover that is expected to impact water quality. Coverage calculations are provided on the site plan. The 2023 Connecticut Stormwater Manual provides research that water quality experiences degradation when coverage in a watershed exceeds 10%. As the Saugatuck River Watershed is densely developed, the coverage exceeds the percentage in which water quality can be assumed to be impacted.

The site plan depicts one layer of perimeter silt fence beyond the limit of development with a secondary row of silt fence along the eastern portion closest to the natural resources. A detail for

a single and double row of silt fence installation is provided with the construction details and notes. The plan depicts minor grading across the center portion of the property to accommodate the new development. The site plan specifies the utilization of a soil stockpile area at the front of the property. The plan also demonstrates a location for a dewatering settling basin along the southern portion of the property near the proposed location for the underground storage tanks. An anti-mud tracking pad will be installed at the southwest corner of the property.

Stormwater calculations are provided on the “Proposed Site Development Plan”. The drainage calculations demonstrate that both driveway stormwater reservoirs have a combined storage volume of 712.1 cu. ft. which is greater than the 551.8 cu. ft. required by Town drainage standards for the first 1” of runoff from the new development. The site plan demonstrates that the stormwater runoff volume from the roof will be collected by roof leaders and driveway surface and stored within the driveway reservoirs. Calculations demonstrate that the applicant provides the required drainage to treat the first inch of runoff from the impervious areas proposed onsite, which is considered the Water Quality Volume (WQV). Staff considers the proposed additional drainage and stormwater storage as a benefit, and these features should improve the stormwater quality across the site from the existing conditions. Staff recommends that the design engineer witness and certify all site drainage and submit said certification to the Conservation Department prior to the issuance of a Conservation Certificate of Compliance.

The site plan demonstrates that groundwater was encountered at Test Pits #1, which was advanced to 102” deep, where water was found. Soil stratification and a tidally influenced water table indicate that ground water could potentially be encountered at 2-3 ft below ground surface in the area of the excavation for the propane tanks. The site plan demonstrates a location and method for dewatering the excavation, specifying the installation of a gravel well point. Any silt-laden water will be mechanically pumped from the well point to a settling basin. The basin will be a shallow excavation lined with riprap, and its edges will be reinforced with staked haybales. The settling basin will be located ~35’ from the tidal wetland boundary. Staff feels this is an adequate method for dewatering an excavation.

The architectural drawings demonstrate that the lower level (elev. 9.5) will include garage areas for two cars, a storage room, entryways, a foyer, a covered patio, and a rubbish storage area. The “Lower Level Plan” demonstrates the lower level will be outfitted with nine (9) flood vents, which is the number required for the 2,200 sq. ft. area to be FEMA-compliant.

Staff feels stormwater quality across the property has the potential to improve with the inclusion of the driveway drainage and roof runoff being conveyed to a stormwater detention area. Staff feels the new system represents a significant upgrade to existing conditions. The drainage features should help mitigate any potential impacts to surface water quality within the Saugatuck River from on-site runoff. Staff recommends the Commission requires a deed restriction to be filed on the land record stating that the installed drainage system be certified by the site engineer prior to the issuance of Conservation Certificate of Compliance. Staff feels that the new development may improve the way the site transmits flood waters by raising the first floor and installing the flood vents on the lower level.

Natural Habitat Considerations:

Conservation Staff performed a preliminary review of the State of Connecticut DEEP Natural Diversity Database (NDDDB) for potential presence of state-listed species on or adjacent to the subject property using the EZfile online tool. The review provided results of potential habitat for following state species of special concern; Northern diamondback terrapin (*Malaclemys terrapin terrapin*), yellow-crowned night-heron (*Nyctanassa violacea*), glossy ibis (*Plegadis falcinellus*), Atlantic seasnail (*Liparis atlanticus*), blueback herring (*Alosa aestivalis*) sand tiger shark (*Carcharias taurus*), radiated shanny (*Ulvaria subbifurcata*), and little blue heron (*Egretta caerulea*). The review listed two state threatened species: great egret (*Ardea alba*) and snowy egret (*Egretta thula*). Since there is no proposed work immediately adjacent to the water or within the water column, there is minimal potential impact to any listed aquatic species. Staff feels the existing vegetation around the home does not represent coastal bird nesting habitat, and Staff expects there will no impacts to listed coastal birds. The proposed development will not extend beyond the general footprint of existing development. Conservation Staff determined the proposed work will have minimal impact to adjacent intertidal areas. At present, Staff does not recommend further consultation to evaluate impact to listed species.

Staff anticipates there will be some landscape vegetation removal around the existing home to accommodate site work. The site plan indicates that ~8 trees will be removed to accommodate demolition, excavation, and construction. The planting provided on the site plan proposes to install a planted buffer 5'-wide by 100'-long about 3' upgradient from the tidal wetland boundary. The buffer will be planted with 44 native herbaceous perennials and 20 native shrubs. Staff feels the buffer should be a width of 10-15' to effective function as a buffer to protect the downgradient resources. Staff feels the density of plants should be increased. The number of plants, 64, is not enough to have a dense planting that has appreciable effect on enhancing water quality. Staff feels the plan should include trees to replace the trees that will be lost from development. Staff recommends the Commission require that the planting plan be revised to show a wider buffer and an increased density of plants with the inclusion of trees. The revised planting can be approved by staff following the Commission's potential approval of the permit application. Staff recommends a planting performance bond be submitted and held for one growing season to ensure the vitality of the plants.

Sediment release from loose soil is one of the most significant potential impacts from the proposed project activities. Sediment releases during storm or flood events can result in temporary and long-term impacts to water quality. Impacted water quality may negatively affect the shellfish and aquatic vegetative community of the Saugatuck River and tidal wetland.

The proposed limit of excavation and grading associated with the installation of the stormwater detention units is ~75' from the tidal wetland boundary and ~85' from the intertidal zone. Staff feels that the risk of sediment release into the resources is mitigated by the utilization of the rows of silt fence. With the mitigating controls and designs, the potential for short term and long term adverse impacts from the proposed development to the natural habitat is minimal.

Alternatives to Reduction of Impacts

1. No construction alternative.
2. Approval of application with the following conditions:
 - a) Conformance to Flood & Erosion Control Board **February 7, 2024** conditions of approval.
 - b) The design engineer shall witness and certify the construction of the stormwater management system and submit said certification to the Conservation Department prior to the issuance of a Conservation Certificate of Compliance.
 - c) The driveways shall remain permeable in perpetuity with said restriction placed on the land records prior to issuance of a Conservation Certificate of Compliance.
 - d) An “as-built” survey shall be submitted prior to the issuance of a Certificate of Compliance.
 - e) The applicant shall revise the planting plan to widen the planted buffer, increase the number of plants, and include trees. The revised plan shall be subject to Conservation Staff approval. The plan shall be submitted prior to the issuance of a Zoning Permit.
 - f) The applicant shall submit a performance bond for the planting plan to be held one full growing season to ensure vitality of the plants. The bond shall be paid prior to the issuance of a Zoning Permit.