

January 9, 2023

East Lyme Inland Wetlands Agency
108 Pennsylvania Avenue
Niantic, CT 06357

Re: Wetland Impact Assessment & Mitigation
Proposed Redevelopment
230 Flanders Road, Niantic, CT

Dear Members of the Agency:

William Kenny Associates (WKA) assessed the wetland impacts and mitigation that are associated with the proposed reconstruction of a car wash, asphalt drives and parking areas and other associated improvements at 230 Flanders Road in Niantic, Connecticut. Based on that review, we conclude that the proposed project will result in a net increase in wetland/watercourse area and functions and will have a net benefit.

The proposed project involves the redevelopment of the property, which has and will continue to serve as a car wash, with associated improvements such as expanded drives and parking areas and a stormwater detention basin. To accomplish this, and to construct a sidewalk along Industrial Park Road, which borders the site to the north, approximately 2,399 square feet of a drainage ditch along the northern property boundary and approximately 317 square feet of adjacent wetland will be eliminated. A primary function of the ditch is to convey surface water from Flanders Road to the Pattagansett River, which flows north to south along the western property boundary. A subsurface pipe will be installed to maintain this function. Furthermore, while some area of wetland is proposed to be eliminated, the proposed areas of mitigation offer significantly more wetland functional capacities than the existing drainage ditch, which serves to convey stormwater and export detritus, but does not provide storm and floodwater storage, modification of water quality, and provides little the contribution to the abundance and diversity of wetland flora and fauna.

The proposed stormwater detention basin will include approximately 1,206 square feet of new wetland meadow. The primary wetland functions of the basin wetland will be the modification of stormwater for quantity and quality, which will be accomplished by filtering stormwater runoff captured from the proposed development through underlying soils and through biofiltration from the wetland meadow groundcover mix proposed for the basin. The secondary functions it will serve are the contribution to the abundance and diversity of wetland flora and fauna through the introduction of a wetland meadow area to the property and the habitat that will serve for various species.

The proposed woodland wetland mitigation area is designed to serve as a wet upper terrace floodplain to the Pattagansett River, encompassing approximately 1,972 square feet of additional

new wetlands to that of the stormwater basin wetland. Under current conditions, the Pattagansett River which extends and flows north to south through the western portion of the property, has a very wet bordering woodland floodplain wetland and a smaller upper terrace overflow woodland wetland. The objective of the woodland wetland mitigation is to expand that upper terrace woodland wetland to provide additional storm and floodwater storage, water quality modification and contribution to the diversity and abundance of wetland flora and fauna. By expanding the current wetland area on the upper terrace, the flood storage potential of the wetland is increased, its surface area is increased and thus its ability to modify stormwater flowing into it before reaching the main river, and its habitat will be improved through the removal of invasive vegetation (specifically vines) and the planting of native trees, shrubs, and groundcovers. Additionally, the secondary functions this proposed woodland mitigation wetland will provide are a slight increase to the export of detritus to the river, which is important for nutrient export to downstream aquatic systems, and a slight increase to the ability for the wetland to affect the recharge of groundwater. Due to the sandy nature of soils at this site, groundwater recharge is more prevalent than discharge. To help maintain hydrologic conditions within the proposed woodland mitigation wetland due to its fast recharge time, a shallow loam cap is proposed at the soil surface to increase the time water stays within the top 20 inches of the system, supporting wetland plant growth. Water from the piped watercourse will flow into this new wetland and will be treated before it reaches the existing wetland and the Pattagansett River to the west.

Overall, the existing wetland functions and values provided by the drainage ditch wetland and watercourse are outweighed by the proposed wetland functions and values provided by the stormwater basin wetland and woodland wetland mitigation area. The new wetlands provide approximately 1,000 square feet excess habitat to that which will be eliminated, and the habitat will be of a higher quality than that under existing conditions. Invasive vines within the woodland wetland mitigation area will be removed and plantings of native trees, shrubs and groundcovers will be provided to revegetate this area. A three-year annual monitoring program will be put in place following the creation of these wetlands that will provide status updates on the effectiveness of controlling invasive vegetation and the establishment of native vegetation and to provide maintenance recommendations accordingly to meet these standards.

With the implementation of these recommendations, we conclude that the proposed project will result in no long-term adverse impacts to the onsite wetlands and watercourses and will in fact serve as a substantial improvement to the functional capacity of onsite wetlands and watercourses than under existing conditions.

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Please don't hesitate to contact me if you should have any questions or comments regarding our assessment. Thank you.

Sincerely,

A handwritten signature in black ink, reading "William L. Kenny". The signature is written in a cursive style with a large, prominent "W" and "K".

William L. Kenny, PWS, PLA
Principal

Ref. No. 5351