

**DETERMINATION OF NO REGULATED ACTIVITY OR, IN THE
ALTERNATIVE, REQUEST TO CONDUCT REGULATED
ACTIVITIES ASSOCIATED WITH PROPOSED PICKLEBALL
COURTS LOCATED AT 51 DANIELS AVENUE**

MAY 1, 2025

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- 5 Plan sheet CS101 showing proposed activities and upland review area, photo reduced to 11" x 17"
- 6 Wetland Assessment Map, prepared by All-Points Technology Corp., dated September 2024
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10. Notification letter to Waterford Utilities Commission/Water Company

SUBMITTED UNDER SEPARATE COVER

Application Fee

Full Size Plan Sets

Stormwater Management Report, prepared by Langan, dated May 1, 2025.

Environmental Assessment Report, prepared by All-Points Technology Corp., dated May 1, 2025

TAB 1

Matt Ranelli
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265 Church Street
Suite 1207
New Haven, CT 06510

May 1, 2024

Richard Muckle, Chair and Commission Members
Waterford Conservation Commission
15 Rope Ferry Road
Waterford, CT 06385

Maureen FitzGerald
Environmental Planner
15 Rope Ferry Road
Waterford, CT 06385

Re: Request For Determination Of No Regulated Activities Or, In The Alternative,
Request For Approval To Conduct Regulated Activities Associated With
Proposed Pickleball Courts; 51 Daniels Avenue, Waterford CT

Dear Chair Muckle and Commission Members:

On behalf of our client, LEARN Regional Education Service Center ("LEARN"), we are pleased to submit to the Conservation Commission the enclosed request for determination of no regulated activities or that such the proposed activities qualify as a non-regulated activity under Section 4.2 of the Commission's regulations. In the alternative, if the Commission determines regulated activities exist, LEARN requests approval to conduct regulated activities associated with the development of two pickleball courts on behalf of the property owner, the Town of Waterford.

As discussed in greater detail below, the proposed plan does not propose any direct wetland activities nor regulated activities within the 100-foot upland review area. The plans calls for LEARN to construct two pickleball courts for the Town of Waterford on a portion of the land located at 51 Daniels Avenue.¹ The propose pickleball courts will be located in the in the northeast corner of what is currently 51 Daniels Avenue and will be owned and operated by the Town for the use by residents.

The proposed courts will be located in an existing lawn area of the site that is outside of but nearby the 100-foot upland review area and will not result in any adverse impact to the wetland. There are no proposed direct wetland activities or activities in the 100-foot upland

¹ LEARN is going to purchase the balance of 51 Daniels Avenue for a new school facility, the Town will retain the portion of land that will house the proposed pickleball courts. The area of land retained by the Town will adjoin and expand existing Town-owned open space abutting 51 Daniel Avenue.

review area associated with the pickleball courts, except for a temporary disturbance at the edge of the area for grading and seeding. In addition, to the lack of adverse impact, the proposed courts are an outdoor recreational use that will not disturb or obstruct the natural character of the wetlands and as such qualify as a non-regulated use under Section 4.2 of the Commission's regulations.

The Proposed Project

As noted above, the Town of Waterford has agreed to sell a portion of the former Southwest School site located at 51 Daniels Avenue to LEARN² to construct a new school facility. That school facility is the subject of a separate but simultaneously filed wetland application pending before the Commission.³

The Town of Waterford is retaining a portion of the 51 Daniels Avenue site to add to and supplement existing and adjacent Town-owned open space and to maintain other Town interests such as the lease of the existing cell tower. LEARN will construct the two proposed pickleball courts for the Town on the Town-retained land. The areas to be sold to LEARN and the areas to be retained by the Town are shown on plan sheet CS100 (attached at Tab 4).

The two proposed pickleball courts will be located outside of the 100-foot upland review area. The location of the courts is shown on plan sheet CS101 (attached at Tab 5). As part of its planning process LEARN did evaluate an alternative configuration with the pickleball courts laid out to abut each other side-to-side (as is the more traditional layout) rather than end-to-end. On the recommendation of its wetland expert, LEARN decided to arrange the court end-to-end because that design avoided placing part of the courts in the upland review area.

The Wetlands

LEARN retained a leading wetland expert, Dean Gustafson of All-Points Technology Corp., with statewide and local experience to evaluate the site and the off-site wetlands and advise LEARN with regard to avoiding wetland impacts. See attached report (Tab 7).

All-Points identified and evaluated three wetlands (all off-site except a small area to the northeast) as shown on the wetlands inspection map attached at Tab 6. Wetland 1 is the largest of the three wetlands and is located to the northeast of the site and abutting Daniels Avenue. It is a mostly wooded wetland dominated by red maple and black gum trees. Wetland 1 contains an imbedded vernal pool that provides breeding habitat for wood frogs and spotted salamanders. Wetland 2 is located off the southeast corner of the site. It is a smaller wetland dominated by red maple trees and multiflora rose and green briar understory. Wetland 2 has been historically

² LEARN is a Connecticut regional educational service center² that provides educational resources, programs and services to help meet the needs of the towns it service, including Waterford.

³ As filed, neither of LEARN's two wetland applications warrant a public hearing under the Commission's regulations. However, if the Commission determines that a public hearing is needed for one application but not the other, LEARN respectfully request that the Commission not delay action on the application that does not require a hearing. If the Commission determines that a hearing is required for both applications, LEARN consents to the Commission conducting those hearing simultaneously, if it so chooses, provided it still votes on each application separately.

altered by the presence of a stonewall that alters the natural drainage. Wetland 3 is located off the southwest corner of the site (toward High Street) on a sloped hillside with rocky soils. Like the other wetlands, the canopy is dominated by red maple trees.

As detailed in All-Point's report, there are no proposed activities located in the wetlands or 100-foot upland review area or 100-foot vernal pool envelop except for a temporary disturbance for grading and seeding which will not adversely impact the wetland or vernal pool. All of All-Points' recommendations to enhance and protect the associated wetland and vernal pool are accepted and/or incorporated into the application for the pickleball courts. All-Point evaluation and report concludes that there will not be any adverse impact to the wetland or vernal pool from the proposed activities and that the recommended plantings will enhance the wetland and vernal pool functions.

Conclusion

Based on the above, LEARN respectfully requests that the Commission find that there are no regulated activities associated with the proposed pickleball courts or that such courts qualify as a non-regulated activity under Section 4.2 of the Commission's regulations. In the alternative, to the extent the Commission determines that a potential adverse impact exists, we request that the Commission approve such activity on the basis that LEARN has minimized or avoided adverse impact to the wetlands and that that no feasible and prudent alternative with less impact exist.

We have included an application fee of \$60 for the state fee; we did not include a local fee because the fee schedule lists "no fee" for non-regulated activities. If a different fee is due please let us know and we will pay it promptly.

We look forward to the opportunity to present LEARN's application to you at the Commission next meeting. Thank you for consideration.

Sincerely,

Matthew Ranelli

Matthew Ranelli

Enclosures

TAB 2

TOWN OF WATERFORD
Application for Inland Wetland / Watercourse Permit

Type of Application:

Permitted Use, Section 4.1 _____ ☒
 Unregulated Activities, Section 4.2 _____
 Regulated Activities, Section 6 _____ Fee: _____

Agency Use:

Date Received: _____
 Received By: _____
 Application Number: _____

1. Applicant: LEARN Regional Education Service Center		Phone: 860 434 4800 x1345	
Address: 44 Hatchetts Hill Road, Old Lyme		State: CT	Zip: 06371
Fax:		E-Mail: kericson@learn.k12.ct.us	
2. Owner/Co-applicant: Town of Waterford		Phone:	
Address: 15 Rope Ferry Road, Waterford		State: CT	Zip: 06385
Fax:		E-Mail:	
3. Agent: Shipman & Goodwin LLP Attn: Matt Ranelli		Phone: 860 251 5748	
Address: One Constitution Plaza, Hartford CT		State: CT	Zip: 06103-1919
Fax:		E-Mail: mranelli@goodwin.com	
4. Property Address: 51 Daniels Avenue			
5. Abutting Property Owners – Complete Attached Form			
6. Activity to be Reviewed and / or Licensed (attach sheet if necessary):			
No direct wetland activities or disturbance. Two pickleball courts are located outside the upland review area and are not regulated activiteis becuase (1) they will not adversely impact the wetlands and (2) they are a non-regulated use.			
7. Description of Proposed Activity (attach sheet if necessary):			
Construction activites related to two new pickleball courts on Town property and located outside the upland review area. They satisfy the requirments for non-regulated uses in section 4.2 and will not adversely impact the wetland			
8. Purpose of Activity (attach sheet if necessary): Recreational use - public pickle ball courts			
9a. Acreage of Property: Appox. 4.0 acres		9b. Acreage of Wetlands: No on-site wetlands	
10. Acreage of Wetlands Altered: 0			
11. Wetland Mitigation Proposed: Yes. See attached reports regarding soil and erosion control measures and wetlands			
12. Section 7 and sections 8.1 & 8.2 of the Town of Waterford "Inland Wetlands and Watercourse Regulations" have been complied with: (Review attached check list) Yes: ☒ No: _____			
The applicant / owner hereby gives the Commission, its agent and consultants the right of free access to any part of the property under consideration. The undersigned warrants the truth of all statements contained herein and in all supporting documents according to the best of his / her knowledge, information and belief.			
Applicant: Katherine Ericson		Date: 5/1/2025	
Owner: Robert Buile		Date: 4/22/2025	
Agent: [Signature]		Date: 5/1/25	

**Conservation Commission
Permit Application Attachment**

Properties Adjacent to:

Owner	Parcel ID#	Property Address	Mailing Address
APARICIO VIRGILIO M & CARLA	153200	50 DANIELS AVENUE WATERFORD, CT 06385	50 DANIELS AVE WATERFORD, CT 06385
GUIDO MARK A & PAULA A	305300	9 HIGH STREET WATERFORD, CT 06385	9 HIGH STREET WATERFORD, CT 06385
HUGHES SEAN P + PEREIRA ALYSSA B	153100	48 DANIELS AVENUE WATERFORD, CT 06385	48 DANIELS AVENUE WATERFORD, CT 06385
KELLERSTEDT ROY & CYNTHIA L	153500	54 DANIELS AVENUE WATERFORD, CT 06385	54 DANIELS AVENUE WATERFORD, CT 06385
LATHROP TODD R & VICKIE L	305200	7 HIGH STREET WATERFORD, CT 06385	7 HIGH STREET WATERFORD, CT 06385
MAHEU SPENCER & KIRDZIK MELISSA	153920	63 DANIELS AVENUE WATERFORD, CT 06385	63 DANIELS AVENUE WATERFORD, CT 06385
OPEN SPACE	153950	63R DANIELS AVENUE WATERFORD, CT 06385	
OPEN SPACE & MACKENZIE FARM HOMEOWNERS ASSOCIATION INC	662299	21 SEA VIEW TERRACE WATERFORD, CT 06385	21 SEA VIEW TERRACE WATERFORD, CT 06385
PARIS JASON	154300	52A DANIELS AVENUE WATERFORD, CT 06385	PO BOX 919 WATERFORD, CT 06385

PARIS JASON M	153400		52 DANIELS AVENUE WATERFORD, CT 06385	PO BOX 919 WATERFORD, CT 06385
PERKINS BARBARA & MORANGE KELCEY	153600		56 DANIELS AVENUE WATERFORD, CT 06385	56 DANIELS AVENUE WATERFORD, CT 06385
SAPIA MELISSA J & JOHN	305100		5 HIGH STREET WATERFORD, CT 06385	5 HIGH STREET WATERFORD, CT 06385
SGANDURRA JAMES J	305700		15 HIGH STREET WATERFORD, CT 06385	11 HIGH STREET WATERFORD, CT 06385
SGANDURRA JAMES J	305500		11 HIGH STREET WATERFORD, CT 06385	11 HIGH STREET WATERFORD, CT 06385
WATERFORD TOWN OF	153300		51 DANIELS AVENUE WATERFORD, CT 06385	15 ROPE FERRY ROAD WATERFORD, CT 06385
WATERFORD TOWN OF	304500		33 HIGH RIDGE DRIVE WATERFORD, CT 06385	15 ROPE FERRY DRIVE WATERFORD, CT 06385



51 Daniel Ave Adjacent

4/16/2025 12:59:55 PM

Scale: 1"=376'

Scale is approximate

The information depicted on this map is for planning purposes only.
It is not adequate for legal boundary definition, regulatory
interpretation, or parcel-level analyses.



TAB 3



Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:

DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106

Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: _____ month: _____
2. ACTION TAKEN (see instructions - one code only): _____
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
(print name) _____ (signature) _____

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): Town of Waterford
does this project cross municipal boundaries (check one)? yes ☐ no ☒
if yes, list the other town(s) in which the activity is occurring (print name(s)): _____
6. LOCATION (see instructions for information): USGS quad name: Niantic or number: 101
subregional drainage basin number: 2204
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): LEARN Regional Education Service Center
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): 51 Daniels Avenue
briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☒ description: Public recreation pickleball courts with no wetland activities or disturbance
9. ACTIVITY PURPOSE CODE (see instructions - one code only): E
10. ACTIVITY TYPE CODE(S) (see instructions for codes): 12, 14, _____, _____
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):
wetlands: 0 acres open water body: 0 acres stream: 0 linear feet
12. UPLAND AREA ALTERED (must provide acres): <0.1 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0 acres

DATE RECEIVED:

PART III: To Be Completed By The DEEP

DATE RETURNED TO DEEP:

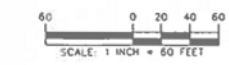
FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

TAB 4

ZONING CHART					
ZONE: LOW DENSITY RESIDENTIAL DISTRICT (R-40)					
LAND USE: PUBLIC SCHOOL					
PARCEL AREA: ±15.36 ACRES		TOTAL BUILDING FOOTPRINT: ±86,900 SF			
CRITERIA	REQUIRED	EXISTING	PROPOSED	SECTION	
LOT/BUILDING					
MIN. LOT AREA [SQ. FT.]	40,000	854,656	669,075	5.1	
MIN. FRONTAGE [FT.]	100	348	348	5.3	
MIN. LOT WIDTH [FT.]	125	568	409	5.3	
FRONT YARD SETBACK [FT.]	50	139	317	5.4.1	
SIDE YARD SETBACK [FT.]	25	125	52	5.4.2	
REAR YARD SETBACK [FT.]	50	712	464	5.4.3	
MAX. BUILDING COVERAGE [%]	20	4.90%	12.99%	5.5	
MAX. BUILDING HEIGHT [FT.]	35	—	<35	5.6	
PARKING					
MIN. STANDARD SPACE DIMENSIONS [FT.]	9 x 18	—	9 x 18	20.2a	
MIN. NUMBER OF STANDARD SPACES	66.1 ²	89	233	20.3a	
MIN. NUMBER OF ACCESSIBLE SPACES	7 (2 VAN)	—	7 (6 VAN)	2010 ADA STANDARD	
MIN. NUMBER OF CY SPACES	47 ³	—	47	CT CLEAN AIR ACT	

3. PROVIDE LEVEL TWO EV CHARGERS IN AT LEAST 20% OF PARKING SPOTS.



DRAWING NUMBER

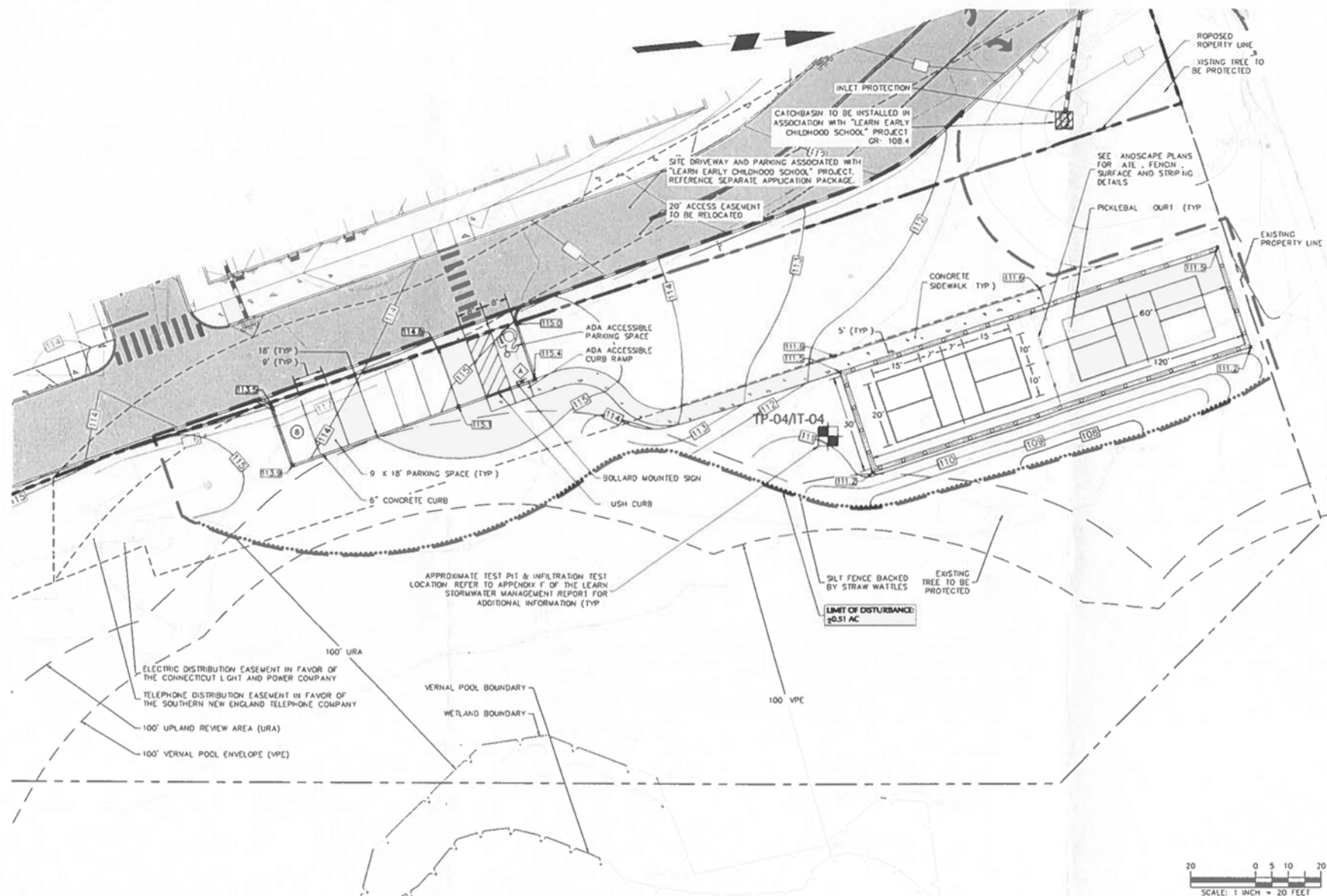
CS100

TAB 5

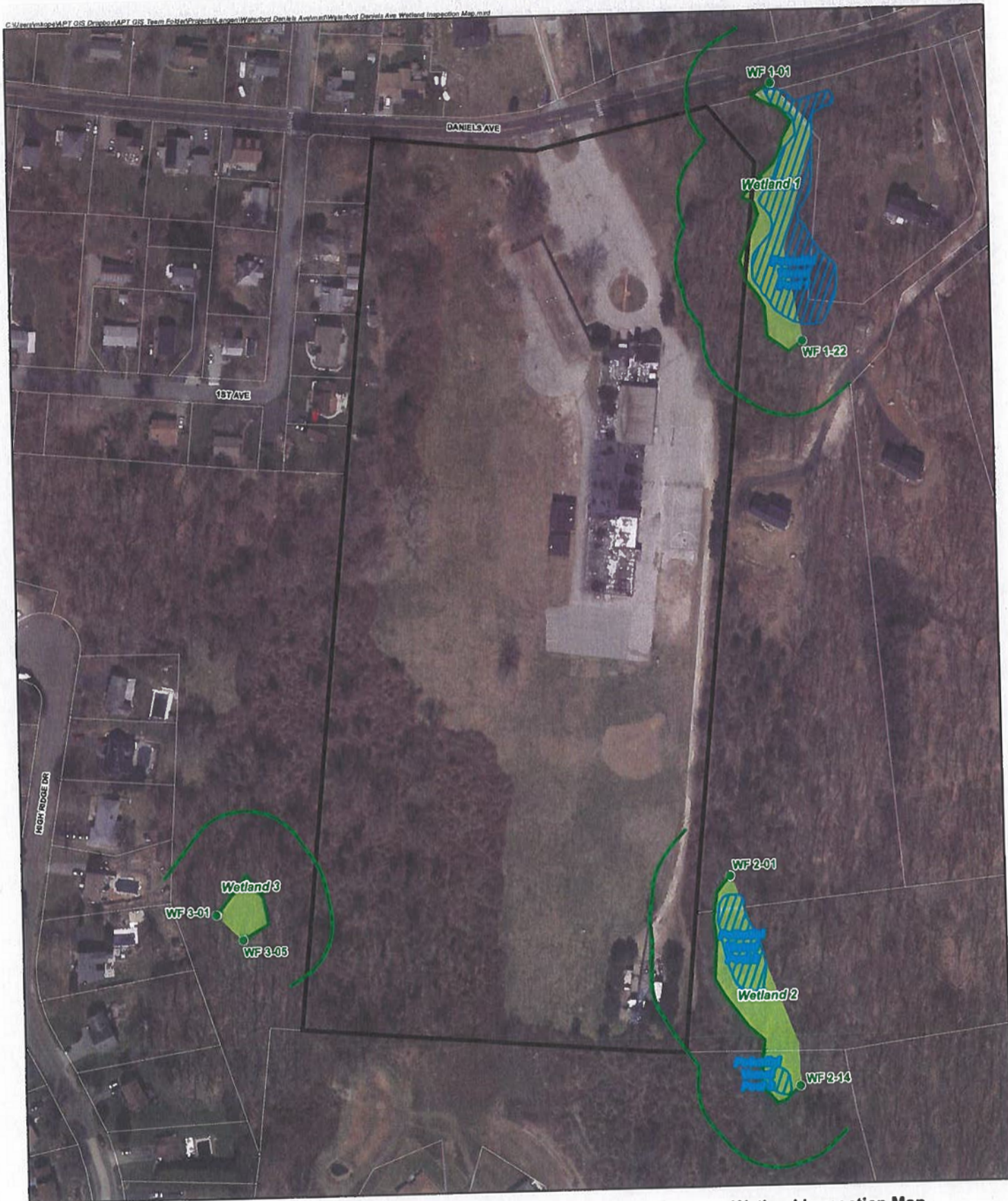
OVERALL LEGEND		
	EXISTING	PROPOSED
PROPERTY LINE		
WETLAND LIMIT		
VERNAL POOL LIMIT		
UPLAND REVIEW AREA LIMIT		
VERNAL POOL ENVELOPE LIMIT		
CURB LINE		
FLUSH CURB LINE		
TRAFFIC SIGN		
CONCRETE SIDEWALK		
MINOR CONTOUR		
MAJOR CONTOUR		
SPOT GRADE		
STORM LINE		
CATCH BASIN		
LIMIT OF DISTURBANCE		
SILT FENCE & STRAW MATS		
EXISTING INLET PROTECTION		

GENERAL NOTES	
1.	EXISTING AND TOPOGRAPHIC INFORMATION OBTAINED FROM A PLAN TITLED "LOT LINE MODIFICATION SURVEY" PREPARED BY BENESCH, DATED MARCH 28, 2024.
2.	THE SITE IS LOCATED WITHIN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FEMA MAP 09011C0483J FOR NEW LONDON COUNTY, EFFECTIVE DATE AUGUST 5, 2013.
3.	THE PROPOSED BUILDING FOOTPRINT WAS RECEIVED ELECTRONICALLY FROM NEWMAN ARCHITECTS IN APRIL 2025.
4.	VERNAL POOL DELINEATION WAS RECEIVED ELECTRONICALLY FROM ALL POINTS TECHNOLOGY IN APRIL 2025.

ZONING CHART				
ZONE: LOW DENSITY RESIDENTIAL DISTRICT (R-40)				
LAND USE: PUBLIC PARK				
PARCEL AREA: 4.26 ACRES				
CRITERIA	REQUIRED	EXISTING	PROPOSED	SECTION
LOT/BUILDING				
MIN. LOT AREA [SQ. FT.]	40,000	854,656	185,581	5.1
MIN. FRONTAGE [FT.]	100	534	186	5.3
MIN. LOT WIDTH [FT.]	125	568	211	5.3
FRONT YARD SETBACK [FT.]	50	139	N/A	5.4.1
SIDE YARD SETBACK [FT.]	25	125	N/A	5.4.2
REAR YARD SETBACK [FT.]	50	712	N/A	5.4.3
MAX. BUILDING COVERAGE [%]	20	4.90%	0%	5.5
MAX. BUILDING HEIGHT [FT.]	35	-	N/A	5.6
PARKING				
MIN. STANDARD SPACE DIMENSIONS [FT.]	9 X 18	-	9 X 18	20.2a
MIN. NUMBER OF STANDARD SPACES	N/A	-	8	-
MIN. NUMBER OF ACCESSIBLE SPACES	1	-	1 VAN	2010 ADA STANDARDS



TAB 6



Legend

- Site
- Wetland Flag
- 100' Upland Review Area
- Delineated Wetland Boundary
- Approximate Wetland Area
- Approximate Parcel Boundary

Map Notes:
Base Map Source: 2019 CT Aerial Imagery (CTECO)
Map Scale: 1 inch = 200 feet
Map Date: September 2024



Wetland Inspection Map
51 Daniels Avenue
Waterford, Connecticut

TAB 7



WETLAND ASSESSMENT

May 1, 2025

Katy Gagnon, Senior Project Manager
Langan Engineering and Environmental Services
Long Wharf Maritime Center
555 Long Wharf Drive
New Haven, CT 06511

Re: Waterford Pickleball Courts and Parking
51 Daniels Avenue, Waterford, Connecticut
APT Job No: CT3611350

Dear Ms. Gagnon,

All-Points Technology Corporation, P.C. ("APT") understands that the Town of Waterford is acquiring ± 3.96 acres of a ± 19.32 -acre parcel at 51 Daniels Avenue in Waterford, Connecticut to be utilized for two pickleball courts, eight (8) associated parking space and a concrete sidewalk to provide pedestrian access to the proposed courts (the "Project"). This wetland and vernal pool assessment report supplements other materials submitted under separate cover by others as part of the Waterford Conservation Commission ("WCC") Application for Permit ("Application"). This document provides an assessment of one (1) wetland and embedded vernal pool located proximate to the Project, which includes a description of the functions and values of the wetland and vernal pool, a discussion of the Project's proposed activities located in the upland review area and nearby, and an analysis of potential resource impacts associated with the proposed regulated activities. The findings of this report are based on inspections performed of the Project area and nearby wetland/vernal pool resource on September 24, 2024 and April 12, 2025 and review of project site plans prepared by Langan Engineering, dated May 1, 2025, for the Application.

The Project area consists of a ± 3.96 -acre area comprised primarily of maintained lawn immediately east of existing bituminous paved parking and access associated with the vacant school. The eastern edge of the Project area just encroaches into an upland forest that buffers the nearby wetland. A single wetland complex, Wetland 1, and imbedded vernal pool, Vernal Pool 1, are mainly off the eastern property boundary with the majority of the resource located site on abutting parcels. The proposed Project's development activities will avoid any direct impact to this resource area.

Wetland Resources

Matthew Gustafson and Emily Perko, Connecticut registered Soil Scientists with APT, performed a wetland inspection of the subject property on September 24, 2024 to identify and delineate wetland resources located on and immediately proximate to the subject property. The wetland delineation methodology was performed in accordance with the Connecticut Inland Wetlands and Watercourses Act. A copy of the Wetland Inspection report, dated October 18, 2024, is enclosed along with representative photographs of the wetland features

Wetland 1 was identified on the subject property located along the eastern property boundary with the majority of the resource located off-property. Imbedded within this system breeding of vernal pool species was also confirmed during a follow-up investigation performed on April 12, 2025. This area was surveyed based on the limits of inundation observed during the spring inspection. A detailed description of wetland and vernal pool resources identified is provided below.

Wetland Description

Wetland 1 is located in the northeastern portion of the subject property, primarily located on the adjacent parcel, consisting of a forested complex dominated by red maple and black gum, with co-dominant of swamp white oak. The understory contains sweet pepperbush and highbush blueberry with multiflora rose along the delineated wetland boundary. The complex is characterized by seasonally saturated edges with a distinct slope break separation to the abutting upland forest to the west that is located on the property. A relatively large depressional area located entirely off the subject property is present within the interior of the wetland generally devoid of vegetation and presents indicators that a foot or more of inundation is present during peak flooding periods. Indicators include buttressed roots and moss trim lines. This depressional area was re-evaluated during the April 12, 2025 inspection to verify vernal pool breeding activity, during which time two (2) vernal pool indicator species spotted salamander (*Ambystoma maculatum*) and wood frog (*Lithobates sylvaticus*) were observed breeding within the flooded extents. Two distinct pockets of breeding within the central and southern portions of the flooded areas were observed with water depths ranging from 1.5 to 3 feet.

Soil Classification

Soil survey information obtained from the Natural Resources Conservation Service ("NRCS") did not identify wetland soil types either within or proximate to the Project area. However, wetlands were encountered during the wetland investigation along the eastern property boundary near the Project area. Based on available information collected during the wetland investigation the mapped wetland soil associated with the wetlands are predominately Ridgebury, Leicester and Whitman soils. Upland soils were examined along the wetland boundary and more distant upland areas during the site investigation. Those soils are dominated by the Udorthents-Urban land complex within existing developed associated with the vacant school and Charlton-Chatfield complex in the undeveloped areas. Detailed descriptions of wetland and upland soil types are provided below.

Wetland Soils:

Ridgebury, Leicester and Whitman (Soil Unit 3) soils consist of very deep, poorly to very drained soils formed in coarse-loamy or lodgement till. They are nearly level or gently sloping soils in depressions, drainageways, and low-lying positions on hills. A perched water table, or excess seepage water, is at or near the surface much of the year.

Upland Soils:

Charlton-Chatfield Complex (73) consists of very deep, well drained soils formed in loamy melt-out till. They are moderately deep to bedrock. They are nearly level to very steep soils on moraines, hills, and ridges.

Udorthents-Urban Land Complex (306) is a miscellaneous land type consisting mostly of disturbed soils (cutting, filling & grading) such that the original soil profile can no longer be discerned, buildings, paved roads and parking lots.

Wetland Evaluation

There are many methods of evaluating wetlands, all incorporating different parameters to assess these resources. This study uses methodology recommended by the Corps, *The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach* issued by the Corps, dated September 1999. This evaluation provides a qualitative approach in which wetland functions can be considered Principal, Secondary, or unlikely to be provided at a significant level. Functions and values can be Principal if they are an important physical component of a wetland ecosystem (function only), and/or are considered of special value to society, from a local, regional, and/or national perspective. The Corps recommends that wetland values and functions be determined through "best professional judgment" based on a qualitative description of the physical attributes of wetlands and the functions and values exhibited.

The basis for APT's determination of this qualitative approach relies on over 35 years of field experience and extensive knowledge of other scientific methods used for wetland evaluation purposes.

These functions and values can be grouped into four basic categories as follows:

Biological Functions

Fish and Shellfish Habitat — This function considers the effectiveness of seasonal or permanent waterbodies associated with the wetland in question for fish and shellfish habitat.

Wildlife Habitat — This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge.

Production Export (Nutrient) — This function relates to the effectiveness of the wetland to produce food or usable products for humans or other living organisms.

Hydrologic Functions

Floodflow Alteration (Storage & Desynchronization) — This function considers the effectiveness of the wetland in reducing flood damage by attenuation of floodwaters for prolonged periods following precipitation events.

Groundwater Recharge/Discharge — This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. Recharge should relate to the potential for the wetland to contribute water to an aquifer. Discharge should relate to the potential for the wetland to serve as an area where groundwater can be discharged to the surface.

Water Quality Functions

Sediment/Toxicant/Pathogen Retention — This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens.

Nutrient Removal/Retention/Transformation — This function relates to the effectiveness of the wetland to prevent adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.

Sediment/Shoreline Stabilization — This function relates to the effectiveness of a wetland to stabilize streambanks and shorelines against erosion.

Societal Values

Recreation (Consumptive and Non-Consumptive) — This value considers the effectiveness of the wetland and associated watercourses to provide recreational opportunities such as canoeing, boating, fishing, hunting, and other active or passive recreational activities. Consumptive activities consume or diminish the plants, animals, or other resources that are intrinsic to the wetland, whereas non-consumptive activities do not.

Educational/Scientific Value — This value considers the effectiveness of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.

Uniqueness/Heritage — This value relates to the effectiveness of the wetland or its associated waterbodies to produce certain special values. Special values may include such things as archaeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geologic features.

Visual Quality/Aesthetics — This value relates to the visual and aesthetic qualities of the wetland.

Threatened or Endangered Species Habitat — This value relates to the effectiveness of the wetland or associated waterbodies to support threatened, endangered or special concern species.

The degree to which a wetland provides each of these functions is determined by one or more of the following factors: landscape position, substrate, hydrology, vegetation, history of disturbance, and size. Each wetland may provide one or more of the listed functions at Principal levels.

The determining factors that affect the level of function provided by a wetland can often be broken into two categories. The effectiveness of a wetland to provide a specified function is generally dependent on factors within the wetland whereas the opportunity to provide a function is often influenced by the wetland's position in the landscape and adjacent land uses. For example, a depressed wetland with a restricted outlet may be considered highly effective in trapping sediment due to the long residence time of runoff water passing through the system. If this wetland is located in gently sloping woodland, however, there is no significant source of sediment in the runoff therefore the wetland is considered to have a small opportunity of providing this function.

A summary description of functions and values is provided below.

Biological Functions:

The ecological integrity of Wetland 1 has been compromised due to proximity to developed areas indicative of the bordering invasive species. Fragmented upland habitat buffering this wetland has occurred with the existing school development to the west, Daniels Avenue to the north and residential properties to the east. As a result, wildlife utilization would largely be used by generalists and species habituated to the high level of human activity that exists both on the subject property and in the surrounding area. This wetland maintains sufficient hydrology to support vernal pool breeding habitat throughout the complex but does not maintain permanent inundation to support finfish habitat. Although the ecological integrity has been compromised, wildlife habitat function is supported within Wetland 1 at a Principal level due largely to confirmed breeding by two obligate vernal pool species.

The wetland consists of a common vegetative class of palustrine forest cover type with shrub and herbaceous understory. However, there is not a large diversity of wetland cover types so there is a limited potential to produce food for several different types of wildlife that require diverse or specific wetland habitats beyond the forest habitat that is present. Therefore, this wetland is assessed as supporting the production export (nutrient) function at a Secondary level based on the fruit bearing shrubs observed in the resource.

Hydrologic Functions:

Wetland 1 does not border a perennial watercourse with an active floodplain, floodflow alteration is only supported at a Secondary level within Wetland 1 due to the potential for this system to support flood storage from stormwater runoff since it essentially functions as a confined basin. This wetland receives groundwater discharges from hillside seepage providing the potential for both water discharge and recharge to the local groundwater. Due to this factor, the wetland was assessed as supporting the groundwater discharge/recharge function at a Principal level.

Water Quality:

The developed surrounding environment provides an opportunity for this wetland to provide sediment/toxicant/pathogen retention and nutrient removal/retention/transformation functions. This wetland currently receives some stormwater flow from the subject property and adjacent school development through sheet flow. Based on the resource size and location of Wetland 1 there is a potential to support these water quality functions but the size limits the function to a Secondary level. Wetland 1 does not have the potential for sediment/shoreline stabilization since it does not border on a perennial stream or open water body that would generate high flow velocities during storm events or wave action.

Societal Values:

Wetland 1, consisting of a forested wetland type that supports vernal pool habitat is easily accessible by the public, and is associated with a school, supports an opportunity for various societal values. However, due to a lack of hunting or fishing opportunities, this wetland supports recreation value at a Secondary level. This wetland supports educational/scientific value at a Principal level due to the ease of access, proximity to a unique wetland habitat with breeding by vernal pool species, and future use of the property as a public school. In addition, this wetland supports visual/aesthetics value at a Secondary level due to the proximity of development and obstructive intervening vegetation from any publicly viewable areas. The uniqueness/heritage value of this wetland is diminished by the lack of: archaeological sites; unusual aesthetic quality; historical events; or unique plants, animals, or geologic features. As such, Wetland 1 does not support the uniqueness/heritage value at a Principle or Secondary level.

Urban wetland quality values are supported by Wetland 1 at a Secondary level, since this wetland is generally surrounded by development but does support some habitat for wildlife particularly for vernal pool species.

Threatened or Endangered Species Habitat:

No State-listed Threatened, Endangered or Special Concern species are known to utilize the subject property, or its wetlands based on available mapping (December 2024) from the Connecticut Department of Energy & Environmental Protection ("DEEP") Natural Diversity Data Base ("NDDB"). The nearest NDDB buffer area is located ± 0.18 mile to the northeast in nearby Millstone Brook riparian corridor. As such, consultation with DEEP NDDB is not required for this project. Due to the relatively small forest patch size, limited size of the wetland resource, development on the subject property and abutting properties, the potential wildlife habitat value for rare species would be limited and is not considered to be supported at either a Principle or Secondary level.

Proposed Activities

The following section summarizes development activities. The WCC regulates activities in wetland and watercourses and upland areas within 100 feet of wetlands and watercourses, known as an upland review area ("URA") that are likely to impact wetlands and watercourses and not otherwise deemed as-of-right or non-regulated activities.

The proposed development will avoid direct impacts to Wetland 1 and Vernal Pool 1. However, the proposed Project will require temporary disturbances in the URA such as limited vegetation clearing, grubbing, and grading to accommodate the pickleball courts and parking area. Such activities will result in $\pm 3,870$ SF of work within the 100-foot URA with the closest activity ± 63 feet from the nearest wetland area. Please note that proposed activities in the URA do not include any impervious surfaces or stormwater management features and are limited mainly to minor grading activities. Those areas will be restored with native trees, shrubs and herbaceous plants and grasses as discussed in detail in the mitigation section of this report. In addition, minimal disturbance would result within 100 feet of the vernal pool edge, also known as the vernal pool envelope ("VPE"). Although there is a slight encroachment into the VPE, the development would not impact primary migratory corridors of two identified vernal pool species; this topic is discussed in greater detail in the subsequent section.

Wetland and Vernal Pool Impact Analysis

The fundamental concept of wetland and vernal pool impact analysis is based on the precept that wetland and vernal pool impacts should first be avoided where possible. Secondly, if practicable alternatives do not exist to avoid wetland impacts, then impacts should be minimized. Thirdly, mitigation should be considered for unavoidable wetland impacts, with consideration given to the loss of wetland functions and values that are important to the local region.

As previously discussed, the pickleball court development will avoid any direct impact to wetland or vernal pool resources. Areas of proposed activity within the 100-foot URA to Wetland 1 consist of vegetation clearing, grubbing and regrading needed for the installation of eight (8) parking spaces, two pickleball courts, and a concrete sidewalk. The parking area, sidewalk, and courts, both impervious surfaces, are located outside of the 100-foot URA. Upland review areas can serve a number of important functions that support wetlands and watercourses including water quality protection (erosion control and sediment, nutrient, biological and toxics removal), hydrologic event modification and wildlife habitat. While portions of the upland edge forest will be removed to accommodate for the development, the majority of the development area consists of maintained lawn which experiences routine disturbance and maintenance, such functions are not being supported in a significant capacity.

Construction and operation of the courts would not result in direct physical impact to Vernal Pool 1; however, minor grading will just encroach within 100 feet of the vernal pool edge, also known as the vernal pool envelope ("VPE"). It is widely documented that vernal pool dependent amphibians are not solely reliant upon the actual vernal pool, which is limited to use for breeding and egg/larval development, and require surrounding upland forest habitat for most of their adult lives. Intact forest represents the highest value, or optimal, habitat within the VPE and adjacent areas to support breeding opportunities for the various obligate vernal pool indicator species that rely on forested habitat (e.g., wood frog and spotted salamander). The US Army Corps of Engineers New England District's *Vernal Pool Best Management Practices* ("BMPs") also establish the concept of "directional corridors" (identified herein as "Migratory Corridors"). Identification of Migratory Corridors allow a project to evaluate potential impacts to optimal pool-breeding amphibian habitat that focuses on conserving the most essential habitats which link breeding pools, forested wetlands, and forested uplands. These interrelated habitats form essential migratory corridors at a landscape scale level. The location of Migratory Corridors is established through an evaluation of both wetland and terrestrial habitat structure qualities (e.g., vegetative cover types, width of vegetated buffer, soil surface moisture, thickness of duff layer, abundance of cover objects, etc.) that determines the locations of "Suitable Non-Breeding Habitat" and "Non-Habitat" in proximity to the vernal pool. Non-habitat areas such as developed areas, maintained lawn, and large expanses of impervious surface do not support Migratory Corridors due to the lack of sufficient vegetative conditions which are often associated with higher levels of predation and high level of human activity that can result in direct mortality. For the subject property which is dominated by the existing school development and includes the school building, relatively large areas of paved parking and access, and regularly maintained athletic fields and lawn, represents a large area of Non-Habitat located west of Vernal Pool 1. This large area of Non-Habitat provides no vegetative cover for migratory wood frogs or salamanders, which would expose these amphibians to desiccation and high levels of predation. This existing development separates the vernal pool habitat from other forested areas thereby eliminating a potential Migratory Corridor to the west.

Migratory Corridors occur in areas that link vernal pools and Suitable Non-Breeding Habitat, which consists of both forested wetland and upland habitats. The principal Migratory Corridors associated with Vernal Pool 1 are located to the south and east of the resource area linking adjacent and somewhat continuous upland and wetland forested habitats. Although residential properties are located proximate to these principal Migratory Corridors, there is significantly less landscape-level anthropogenic changes when compared to the expansive school development, that still maintains a relatively large forested habitat block to accommodate these Migratory Corridors. The proposed redevelopment does not intercept this Migratory Corridor.

There is the potential for short term wetland impacts during construction due to the proximity of wetland resources and proposed site work associated with grading and vegetation removal activities. The potential for these short-term impacts is mitigated with the implementation and maintenance of a comprehensive soil erosion and sediment control plan, as detailed on the separately attached project site plans that were developed in accordance with *2024 Connecticut Guidelines For Soil Erosion and Sediment Control*. The installation of silt fence and employment of additional erosion control Best Management Practices ("BMPs") would function as an effective isolation barrier for possible migrating herpetofauna from encountering construction. Additionally, a Wetland and Vernal Pool Protection Plan will include contractor education and awareness signage of the nearby sensitive wetland resources, including the vernal pool habitat and associated herpetofauna (i.e., wood frog, salamanders, turtles, snakes, etc.) that could be encountered.

Mitigation

Due to the proposed development located in proximity to Wetland and Vernal Pool 1 and encroaching into the URA, an upland review area/vernal pool terrestrial enhancement area is proposed. Careful consideration has been given to devising a mitigation plan that enhances the wetlands functions and values, particularly wildlife habitat that would most benefit the vernal pool habitat, through enhancing critical upland. To compensate for the unavoidable temporary URA activities totaling $\pm 3,870$ SF, a mitigation plan consisting of planting areas that will be altered with grading activities and associated vegetation removal is proposed. Enhancement of $\pm 8,000$ SF of the 100-foot URA and adjacent areas will consist of planting with various native trees and shrubs that will be under sown with a native conservation/wildlife seed mix. The proposed planting plan not only improves wildlife habitat functions it also provides both good erosion control. This mitigation plan will support a variety of wetland functions and values with a primary focus on improving wildlife habitat and providing wooded terrestrial habitat to support the vernal pool habitat contained within Wetland 1. The variety of native shrubs selected for the enhancement area produce flowers that are attractive to pollinator species (also enhances the aesthetic value) and fruits that provides a wildlife food source. Water quality functions will also be enhanced in a secondary capacity along with aesthetics value with use of a wide variety of flowering plants. With the enhancement area supporting important functions and values to the URA, both Wetland 1 and its associated vernal pool habitat functions and values will be improved.

The URA proposed for enhancement is depicted in the separately attached project site plans. A summary of the mitigation plan is provided below, including planting schedules, construction sequencing notes, and construction and long-term post construction monitoring of the mitigation area.

Table 1: Planting Schedule - Upland Review/Vernal Pool Terrestrial Enhancement Area

Quantity	Botanical Name	Common Name	Size	Spacing
10	<i>Acer rubra</i>	Red Maple	6-8'	10-20 feet
20	<i>Amelanchier canadensis</i>	Serviceberry	3-4'	7-10 feet
40	<i>Cornus racemosa</i>	Gray Dogwood	3-4'	7-10 feet
40	<i>Morella pensylvanica</i>	Bayberry	3-4'	7-10 feet
40	<i>Photinia melanocarpa</i>	Black chokeberry	3-4'	7-10 feet
40	<i>Viburnum lentago</i>	Nannyberry	3-4'	7-10 feet

Planting Schedule Notes:

1. The $\pm 8,000$ SF enhancement area will consist of planting with select native shrubs and trees following grading activities and placement of topsoil to establish a dense buffer of woody plants that will enhance water quality and wildlife habitat functions for the adjacent wetland and vernal pool habitat.
2. Planting stock used in the enhancement area shall be inspected for pests, disease and overall health to ensure suitable specimens are used. Unsuitable specimens will be rejected and replaced with suitable specimens. Any planting substitutions must be approved by the Project Wetland Scientist. All woody plant stock shall be container-grown or burlap balled. Deviations to the planting plan must be approved by the Project Wetland Scientist. Only plant materials native and indigenous to Connecticut shall be used. Invasive plant species will not be used in the mitigation area.
3. Under sow enhancement area with a New England Conservation/Wildlife Seed Mix (New England Wetland Plants, Inc., or approved equivalent). Seed mix shall be applied at the manufacturer's recommended seeding rate and protected with a weed-free straw mulch or hydroseeded with a

bonded fiber matrix. Permanent cover of native grasses and forbs will provide both good erosion control and wildlife habitat value.

4. All plant materials installed shall meet or exceed the specifications of the "American Standards for Nursery Stock" by the American Association of Nurserymen. All plant materials shall be guaranteed for one year following date of final acceptance. No cultivars of the native plants identified in the planting schedule shall be used unless approved by the Project Wetland Scientist.
5. Tree and shrub spacing is provided for general purposes. Actual locations of plants to be adjusted in the field based on available space. The Project Wetland Scientist will assist in selecting planting locations and spacing to simulate nature growth patterns.
6. Plant black chokeberry, serviceberry, and bayberry along edge of clearing as species prefer full sun in order to set heavier fruit. All other trees and shrubs are shade tolerant.

Mitigation Monitoring Success Standards and Reporting Notes:

1. The buffer enhancement area will be assessed using three success standards as described; Success standard 1: any soils disturbed by enhancement activities are stabilized and no significant erosion or sediment deposition is observed 2: at least 75% of the aerial surface of the enhancement areas are established with native species, including 50% aerial cover by native shrubs and 75% herbaceous species 3: control of non-native invasive woody shrub species with less than 10% total aerial coverage by the end of the monitoring period.
2. A report will be prepared documenting implementation of the upland enhancement plan, including planting of native species.
3. Monitoring of the upland enhancement area will be performed for period of two years starting the first full growing season following project completion and native planting activities. Monitoring will occur once each growing season, once in the spring and again in the late summer/early fall. An annual monitoring report will provide an assessment of the conditions of the enhancement area, measuring success against the three success standards. The monitoring report will include representative photographs, the percent survival of planted tree and shrubs and will also include observations of vegetation health and development along with any wildlife observations. The report will also document corrective actions taken to address non-compliance with the success standards. If following completion of this two-year monitoring period not all of the success standards are satisfied, recommendations for additional monitoring/corrective actions will be included in the final report.

Wetland and Vernal Pool Protection Plan

As a result of the proposed development's location in the vicinity of wetlands and vernal pool, the following protection plan is provided to avoid unintentional impact to wetland and vernal pool habitats and associated herpetofauna during construction activities. Complete details of the recommended wetland and vernal pool are enclosed with a summary provided below. Upon permit approval, this protection plan will be incorporated into the construction drawings to ensure the Contractor is fully aware of the project's environmentally sensitive setting and the required protection measures.

A wetland scientist from APT experienced in compliance monitoring of construction activities will serve as the Environmental Monitor for this project to ensure that the following BMPs are implemented properly. The proposed wetland and vernal pool protection program consists of several components including: periodic inspection and maintenance of erosion controls and isolation structures; education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; wildlife sweeps to remove any wildlife from work areas; and reporting.

APT recommends establishing a wetland and vernal pool protection program consisting of contractor awareness training prior to initiation of construction activities. The contractor training session would stress the sensitive nature of the project, what species might be encountered and what to do if they are present. In addition, the wetland protection program would include an initial inspection of the silt fence erosion and sedimentation controls that will serve double duty as a restrictive barrier to possible species dispersal into the construction site from the nearby wetland and vernal pool. Provided the wetland protection program is properly implemented during construction, it is APT's opinion that potential short-term impacts to nearby wetland and vernal pool resources would not occur.

Summary and Conclusion

The proposed pickleball court development will not directly impact wetland or vernal pool resources. In addition, activities proposed in the 100-foot URA will be limited to minor grading and vegetation removal activities primarily located in areas immediately adjacent to the existing school development. A comprehensive suite of erosion and sedimentation control measures in addition to a Wetland and Vernal Pool Protection Plan will be implemented during construction to prevent direct and indirect impacts to nearby wetland and vernal pool resources during construction. In addition, to compensate for the temporary encroachment of $\pm 3,870$ SF into the 100-foot URA, a comprehensive mitigation plan that will provide $\pm 8,000$ SF of an upland review/vernal pool terrestrial enhancement area will improve functions and values supporting the nearby wetland and vernal pool habitat.

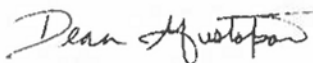
Considering the proposed development activities avoid any direct wetland and vernal pool impact, work is limited to the outer URA, and extensive protection, conservation, and mitigation measures will be employed both during and following construction activities, it is our professional opinion that no likely adverse impact to wetland and vernal pool resources would result.

Based on the findings of this assessment, we respectfully request that the Town of Waterford Conservation Commission serving as the Inland Wetlands Agency find this project and the various conservation and mitigation measures are adequately protective of the interests contained in the Town of Waterford Inland Wetlands and Watercourses Regulations and issue a wetland permit approving the proposed regulated activity.

If you have any questions regarding the above-referenced information, please feel free to contact me by telephone at (860) 552-2033 or at dgustafson@allpointstech.com.

Sincerely,

All-Points Technology Corporation, P.C.



Dean Gustafson
Professional Soil Scientist
Senior Wetland Scientist

Enclosures

Wetland and Vernal Pool Protection Program

ENVIRONMENTAL NOTES - RESOURCES PROTECTION PROGRAM

WETLAND AND VERNAL POOL PROTECTION MEASURES

As a result of the project's location in the vicinity of sensitive habitats including wetland resources and vernal pool habitat, the following Protection Program shall be implemented by the Contractor to avoid unintentional impacts to proximate wetland and vernal pool resources during construction activities. Details of protection measures to be implemented in association with construction and maintenance of the facility are provided below.

It is of the utmost importance that the Contractor complies with the requirement for the installation of protective measures and the education of its employees and subcontractors performing work on the project site. The protection measures shall be implemented and maintained throughout the duration of construction activities until permanent stabilization of site soils has occurred.

All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that these protection measures are implemented properly and will provide an education session on the project's proximity to sensitive wetlands prior to the start of construction activities. The Contractor shall contact Dean Gustafson, Senior Wetland Scientist at APT, at least 5 business days prior to the pre-construction meeting. Mr. Gustafson can be reached by phone at (860) 552-2033 or via email at dgustafson@allpointstech.com.

This resources protection program consists of several components including: education of all contractors and sub-contractors prior to initiation of work on the site; installation of erosion controls; petroleum materials storage and spill prevention; protective measures; wetland and vernal pool protection measures; herbicide, pesticide, and salt restrictions; and reporting.

1. Contractor Education:

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with APT. This orientation and educational session will consist of an introductory meeting with APT to emphasize the environmentally sensitive nature of the project, the various wetland and vernal pool resources, and the requirement to diligently follow the Protective Measures as described in sections below. Workers will also be provided information regarding the identification of turtles, snakes, and common herpetofauna that could be encountered. The meeting will further emphasize the non-aggressive nature of these species, the absence of need to destroy such animals and the need to follow Protective Measures as described in following sections.
- b. The Town of Waterford Environmental Planner will be notified a minimum of 72 hours in advance of the pre-construction meeting with an invitation to attend.
- c. The Contractor will designate a member of its crew as the Project Monitor to be responsible for the periodic "sweeps" for turtles and other herpetofauna within the construction zone each morning and for any ground disturbance work. This individual will receive more intense training from APT on the identification and protection of herpetofauna in order to perform sweeps. Any herpetofauna

discovered would be translocated outside the work zone in the general direction the animal was oriented.

- d. The Contractor's Project Monitor will be provided with cell phone and email contacts for APT personnel. Educational poster materials will be provided by APT and displayed on the job site to maintain worker awareness as the project progresses.
- e. APT will also post Caution Signs throughout the project site for the duration of the construction project providing notice of the environmentally sensitive nature of the work area, the potential for encountering various amphibians and reptiles and precautions to be taken to avoid injury to or mortality of these animals.
- f. If any rare species are encountered, the Contractor shall immediately cease all work, avoid any disturbance to the species, and contact APT.

2. Erosion and Sedimentation Controls/Isolation Barriers

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds and small mammals. No permanent erosion control products or reinforced silt fence will be used on the project. Temporary erosion control products that will be exposed at the ground surface and represent a potential for wildlife entanglement will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- b. Exclusionary fencing shall be at least 20 inches tall and must be secured to and remain in contact with the ground and be regularly maintained by the contractor (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.
- c. The extent of the erosion controls will be as shown on the site plans. The Contractor shall have additional sedimentation and erosion controls stockpiled on site should field or construction conditions warrant extending devices. In addition to the Contractor making these determinations, requests for additional controls will also be at the discretion of the Environmental Monitor.
- d. Installation of sedimentation and erosion controls, required for erosion control compliance and creation of a barrier to possible migrating/dispersing turtles, shall be performed by the Contractor following clearing activities and prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following erosion control barrier installation to ensure the area is free of amphibians and reptiles and document barriers have been satisfactorily installed. The intent of the barrier is to segregate the majority of the work zone and isolate it from nesting/foraging/migrating/dispersing turtles, snakes and other herpetofauna. Oftentimes complete isolation of a work zone is not feasible due to accessibility needs and locations of staging/material storage areas, etc. Although the barriers may not completely isolate the work zone, they will be positioned to deflect

migrating/dispersal routes away from the work zone to minimize potential encounters with turtles, snakes and other herpetofauna.

- e. The Contractor shall be responsible for daily inspections of the sedimentation and erosion controls for tears or breaches and accumulation levels of sediment, particularly following storm events that generate a discharge, as defined by and in accordance with applicable local, state and federal regulations. The Contractor shall notify the APT Environmental Monitor within 24 hours of any breaches of the sedimentation and erosion controls and any sediment releases beyond the perimeter controls that impact wetlands, watercourses, or areas within 100 feet of wetlands. The APT Environmental Monitor will provide periodic inspections of the sedimentation and erosion controls throughout the duration of construction activities only as it pertains to their function to protect nearby wetlands. Such inspections will generally occur once per month. The frequency of monitoring may increase depending upon site conditions, level of construction activities in proximity to sensitive receptors, or at the request of regulatory agencies. If the Environmental Monitor is notified by the Contractor of a sediment release, an inspection will be scheduled specifically to investigate and evaluate possible impacts to wetland resources.
- f. Third party monitoring of sedimentation and erosion controls will be performed by other parties, as necessary, under applicable local, state and/or federal regulations and permit conditions.
- g. No equipment, vehicles or construction materials shall be stored within 100 feet of wetland or watercourse resources.
- h. All silt fencing and other erosion control devices shall be removed within 30 days of completion of work and permanent stabilization of site soils. If fiber rolls/wattles, straw bales, or other natural material erosion control products are used, such devices will not be left in place to biodegrade and shall be promptly removed after soils are stable so as not to create a barrier to wildlife movement. Seed from seeding of soils should not spread over fiber rolls/wattles as it makes them harder to remove once soils are stabilized by vegetation.

3. Petroleum Materials Storage and Spill Prevention

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill due to the project's location in proximity to wetland resources.
- b. If a Spill Prevention Control and Countermeasure (SPCC) Plan for this project, per the requirements of 40 CFR 112, has been developed for this facility, please refer to the SPCC for specific requirements. Basic requirements for petroleum materials storage and spill prevention are provided below. In the event these basic requirements contradict the SPCC, the Contractor shall rely on requirements provided in the SPCC.
- c. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site

throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.

- d. The service of machinery shall not occur within 100 feet of wetlands or watercourses.
- e. At a minimum, the following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.

- i. Petroleum and Hazardous Materials Storage and Refueling

- 1. Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands and shall take place on an impervious pad with secondary containment designed to contain fuels.
 - 2. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands.

- ii. Initial Spill Response Procedures

- 1. Stop operations and shut off equipment.
 - 2. Remove any sources of spark or flame.
 - 3. Contain the source of the spill.
 - 4. Determine the approximate volume of the spill.
 - 5. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby wetlands and vernal pool.
 - 6. Ensure that fellow workers are notified of the spill.

- iii. Spill Clean Up & Containment

- 1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
 - 2. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
 - 3. Isolate and eliminate the spill source.
 - 4. Contact appropriate local, state and/or federal agencies, as necessary.
 - 5. Contact a disposal company to properly dispose of contaminated materials.

- iv. Reporting

- 1. Complete an incident report.
 - 2. Submit a completed incident report to local, state and federal agencies, as necessary, including the Town of Waterford.

4. Wetland and Vernal Pool Protective Measures

- a. A thorough cover search of the construction area will be performed by APT's Environmental Monitor prior to and following installation of the silt fencing barrier to remove any wildlife from the work zone prior to the initiation of any vegetation removal and construction activities. Any wildlife discovered would be translocated outside the work zone in the general direction the animal was oriented. Periodic

inspections will be performed by APT's Environmental Monitor throughout the duration of the construction, generally on a monthly basis.

- b. Any stormwater management features, ruts or artificial depressions that could hold water created intentionally or unintentionally by site clearing/construction activities will be properly filled in and permanently stabilized with vegetation to avoid the creation of "decoy pools" that could intercept amphibians potentially moving through the project area. Stormwater management features such as level spreaders will be carefully reviewed in the field to ensure that standing water does not endure for more than a 24-hour period to avoid creation of decoy pools and may be subject to field design changes. Any such proposed design changes will be reviewed by the design engineer to ensure stormwater management functions are maintained.
- c. Erosion control measures will be removed no later than 30 days following final site stabilization so as not to impede wildlife movements.

5. Reporting

- a. A Compliance Monitoring Report (brief narrative and applicable photos) documenting each APT inspection will be submitted by APT to the Permittee and its Contractor for compliance verification of these protection measures. These reports are not to be used to document compliance with any other permit agency approval conditions (i.e., CTDEEP Stormwater Permit monitoring, etc.). Any non-compliance observations of erosion control measures or evidence of erosion or sediment release will be immediately reported to the Permittee and its Contractor and included in the reports. Any observations of rare species, resource impacts, or corrective actions will be included in the reports.
- a. Following completion of the construction project, APT will provide a final Compliance Monitoring Report to the Permittee documenting implementation of this wetland and vernal pool protection program and monitoring observations. The Permittee is responsible for providing a copy of the final Compliance Monitoring Report to the Town of Waterford Environmental Planner for compliance verification.
- b. Any observations of rare species will be reported to CTDEEP NDDb by APT on the appropriate reporting form, with photo-documentation (if possible) and specific information on the location and disposition of the animal.

Photo Documentation



Photo 1: Overview of Wetland 1 looking southeast.



Photo 2: View of southern portion of Wetland 1 looking south at potential vernal pool.



Photo 3: View of Wetland 1's southern vernal pool habitat looking south.

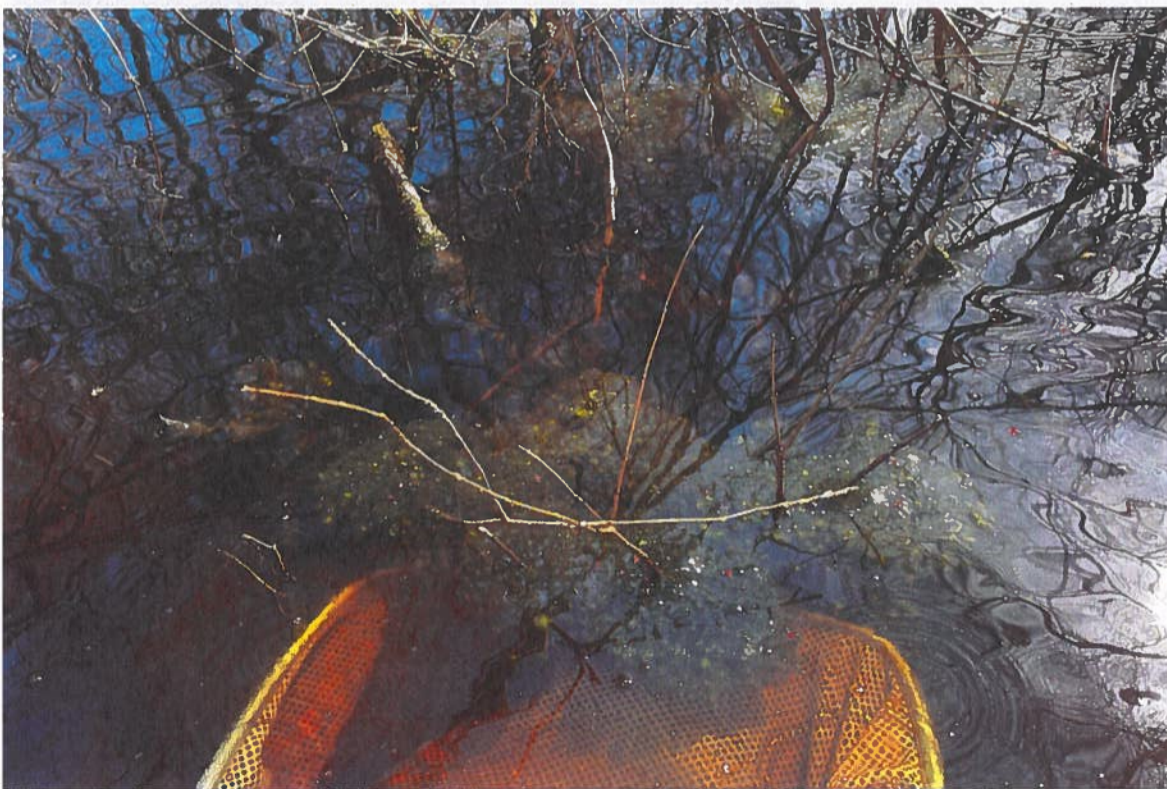


Photo 4: View of wood frog egg masses in Vernal Pool 1.



Photo 5: View of spotted salamander egg mass in Vernal Pool 1.



Photo 6: View of wetland and vernal pool upland enhancement area looking east;
Wetland 1 and Vernal Pool 1 in background in forested area.

General Background

Dean Gustafson has been the lead wetland and soil scientist on more than 1,500 development projects in Connecticut and Western Massachusetts since 1988. His background includes NEPA/CEPA documentation, wetlands, water-quality investigations, coastal-zone-management studies, and natural-resource and ecological evaluations. Mr. Gustafson has expertise in wetland identification, soil mapping, soil classification, vegetative and hydrology surveys, and wetland impact assessment, mitigation design, and mitigation construction oversight. He has extensive experience in local, state, and federal wetland permitting, including having worked on over 150 Connecticut Siting Council dockets and providing expert testimony at Council hearings. Mr. Gustafson has consulted on numerous projects that involve soils-related issues such as erosion and sediment control planning, vegetative soil stabilization and storm water management BMP evaluation and selection. Mr. Gustafson's water quality experience includes stormwater studies for compliance with National Pollution Discharge Elimination System (NPDES), Section 401 Water Quality Certification, and the 2004 Connecticut DEP Stormwater Quality Manual. He has also served as the Environmental Compliance Monitor on numerous construction projects to ensure compliance with wetland, vernal pool, and rare species protections as conditioned by various local, state and federal regulatory agency authorizations.

In addition to wetland consulting, his expertise as a wetland biologist includes the identification of flora and fauna and evaluation of wildlife habitat functions in both wetland and terrestrial systems, including focused avian, mammalian, invertebrate and herpetofauna surveys using both active and passive methods. Mr. Gustafson also performs targeted surveys for sensitive, rare and listed species that have resolved numerous potential rare species conflicts with proposed developments in coordination with state and federal agencies. In addition, Mr. Gustafson has extensive experience in performing herpetological surveys, including vernal pool investigations and evaluations.

Representative Projects

Industrial Developments, CT and MA

Managed wetland and rare species permitting for several large industrial developments for national Fortune 100 tenants in Connecticut and Massachusetts. Services included performing wetland, vernal pool, rare species and terrestrial impact evaluation studies, preparation of assessment documents, and development of mitigation plans. Responsible for preparation of local, state and federal wetland permits and securing agency authorizations. Projects also included conducting extensive rare species surveys, consultation with state wildlife agencies, preparation of conservation and mitigation plans, and securing agency authorizations. Permitted more than 6 million square feet of industrial warehouse space in Connecticut.

CT Commercial Solar Projects

Served as the lead wetland scientist and biologist for the development of numerous commercial-scale solar facilities throughout Connecticut. Project responsibilities included wetland delineation, function and value assessment, wetland mitigation design, federal wetland permit preparation, rare species surveys and consultations with the Connecticut Department of Energy & Environmental Protection Natural Diversity Data Base, vernal pool surveys, project impact evaluations, construction and wetland mitigation monitoring and Siting Council petition support.

Siting, Licensing and Permitting Consulting Services – Eversource Energy

Since 2016, Dean has assisted Eversource Energy in a variety of projects, providing and overseeing: natural resources inventories of existing flora and fauna, habitat evaluations, wetland delineations and impact analyses, vernal pool surveys, rare species surveys, archaeological and cultural investigations, visual analyses, preparation of technical documents (including applications to the Siting Council, municipalities, and state and federal regulatory agencies), and preparation of state and federal

underground utility installations, and existing facilities requiring upgrades. Dean assisted with pre-acquisition due diligence activities; site development feasibility assessments; natural resources inventories of existing flora and fauna; vernal pool studies and assessments; habitat evaluations; wetland delineations, assessments, mitigation designs, and permit compliance monitoring; site layout and design evaluations; erosion and sediment control planning and construction monitoring; vegetative soil stabilization and storm water management BMP evaluations and selection; preparation of technical documents; and, coordination with State and local agencies.

CPV Towantic Energy Center, Oxford, CT

Lead scientist responsible for performing wetland investigations, wetland evaluations, wetland mitigation design and rare species surveys for a proposed 785 MW dual-fueled combined cycle electric generating facility. Prepared the federal wetland permit application and secured Section 404 and 401 authorizations from the Army Corps of Engineers New England Division and Connecticut Department of Energy & Environmental Protection, respectively. Also responsible for developing a wetland mitigation plan, which consisted of two constructed stormwater wetland systems to compensate for the project's unavoidable wetland impacts, as well as coordinating regulatory approval for payment into the Audubon CT In Lieu Fee Wetland Mitigation Program. Also provided supporting application materials to the Connecticut Siting Council and expert testimony at numerous hearings.

National Retailer, Rocky Hill, CT

Responsible for wetland permitting of a multi-tenant retail development resulting in significant unavoidable wetland impacts and the creation of a wetland mitigation area exceeding 1 acre in size. Wetland permits were secured from the Rocky Hill Wetland Agency, CTDEP and U.S. Army Corps of Engineers for wetland impacts and wetland mitigation area.

Telecommunications Carrier Wetland Compliance Program

Project Manager for major telecommunications carrier's wetland compliance program. Responsible for wetland delineation, assessment, mitigation and alternatives analysis, habitat evaluations, vernal pool identification and assessment, design review for permit feasibility, and successful permitting of over 100 wireless telecommunications facilities with local wetland/conservation commissions in the Connecticut, Massachusetts, and Rhode Island market areas including Connecticut Siting Council application and hearing support. Responsible for erosion and sediment control planning and construction monitoring for projects in Connecticut and Massachusetts that represent a potential to impact sensitive wetland and rare species resources during construction.

Connecticut DOT West Haven/Orange Railroad Station, Environmental Assessment

Task manager for assessing natural resources, including wetlands, floodplain, aquatic habitats, and wildlife, associated with a proposed railroad station at one of two possible sites. Prepared technical documents in support of Draft Federal Environmental Assessment/Draft State Environmental Impact Evaluation.

Education

B.S. University of Massachusetts, Plant and Soil Sciences

Graduate coursework, University of New Hampshire

Affiliations

Member, Town of Lebanon, CT Inland Wetlands and Watercourses Commission (since 1995)

Registrations

Professional Soil Scientist, Society of Soil Scientists of Southern New England (since 1988)

Connecticut Association of Wetland Scientists

Association of Massachusetts Wetland Scientists

TAB 8

01 May 2025

Gary Schneider
Town of Waterford
1000 Hartford Turnpike
Waterford, CT 06385

**RE: Stormwater Management Report
Waterford Pickleball Courts and Parking
Waterford, Connecticut
Langan Project No.: 140310301**

Dear Mr. Schneider:

This report provides an analysis of the proposed peak runoff discharges and the engineering design for the proposed stormwater management design for the proposed pickleball courts and parking at 51 Daniels Avenue. This report and design of the pickleball courts and parking has been prepared in conjunction with the LEARN Early Childhood School Project. As such, the "existing conditions" this report describes assumes the LEARN school building, site and stormwater improvements have been constructed. Refer to the report titled "Stormwater Management Report" for the LEARN Early Childhood School Project for additional information.

PROJECT DESCRIPTION

Existing Conditions

The project site is located at 51 Daniels Avenue in Waterford, CT; see Figure 1. The existing overall parcel is approximately 19.32 acres. LEARN is acquiring 15.36 acres of the existing parcel to be utilized for a proposed elementary school. The remaining 3.96 acres will be retained by the Town of Waterford. The pickleball courts will be located on the northeastern corner of this revised 3.96 acre parcel. This portion of the site is currently occupied by existing grassy and wooded areas. The parcel is located within the Niantic River subregional drainage basin. The parcel area does not contain any known locations of State and Federal Listed Species and Critical Habitats per the CT Natural Diversity Data Base Areas map of Waterford, CT dated December 2024. To the north, the site is bordered by Daniels Avenue, to the east by wooded areas and residential properties, and to the south and west by the proposed LEARN school. All stormwater from this project site flows overland towards the off-site wetland pool to the west. No permanent site features will be located within the 100-ft upland review area and no direct impacts are proposed.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Study of New London County, Connecticut map number 09011C0483J with an effective date of August 5, 2013, the proposed development is located within Zone X (Unshaded). Zone X (Unshaded) is considered a Low-Risk Area and described by FEMA as areas outside the 0.2-percent-annual-chance flood. No base flood elevations or base flood depths are shown within these zones; see Figure 2.

According to the USDA Natural Resources Conservation Service Web Soil Survey, the site's soil type varies throughout. The site is mostly classified as either Urban land with a D hydrologic rating and Charlton-Chatfield complex with a B hydrologic rating.

Proposed Project

The proposed project consists of the construction of two pickleball courts with parking and sidewalk access. Additional improvements additional native plantings to provide an enhanced landscape buffer to the vernal pool. A summary of the change in impervious is shown below.

Project Site Impervious Cover [SF]

Existing Conditions	Proposed Conditions	Net Increase
±0	±4,750	±4,750

The site has been designed to maintain existing site hydrology to the maximum extent practicable. Stormwater runoff from the pickleball courts and sidewalk will continue to sheet flow towards the enhanced landscaped area before eventually continuing to discharge to the existing wetland. These impervious areas will be inaccessible to vehicular traffic.

See sheet titled "Site, grading, drainage, & sesc plan" for additional information.

PEAK RUNOFF ANALYSIS (See Appendices A & B)

The stormwater management system is designed to control the rate runoff from the site's watersheds to be equal or less than existing conditions up to, and including, a 100-year design storm event.

The peak runoff discharges for the existing and proposed conditions were analyzed using Soil Conservation Service (SCS) methodology which outlines procedures for calculating peak rates of runoff resulting from precipitation events as well as procedures for developing runoff hydrographs. The entire site was included in the analysis; see Figures EXWS and PRWS. Values for area, curve number (CN), and a time of concentration were calculated for the existing and proposed conditions.

The curve number is a land sensitive coefficient that dictates the relationship between total rainfall depth and direct storm runoff. The soils within the watershed are divided into hydrologic soil groups (A, B, C, and D). The SCS classification system evaluates the runoff potential of a soil according to its infiltration and transmission rates. "A" soils have the lowest runoff potential, while "D" soils have the greatest runoff potential. Soils within the project area are predominantly "B" and "D" hydrologic rating.

The time of concentration (Tc) is defined as the time for runoff to travel from the hydraulically most distant point in the watershed to a point of interest. Values of time of concentration were determined for existing and proposed conditions based on land cover and slope of the flow path using methods outlined in TR-55.

For this study, a 24-hour NOAA D rainfall distribution was used to determine the peak flow rate to all points of discharge from the site. Precipitation data used for the various storm events is based on the "NOAA Atlas 14 Point Precipitation Frequency Estimates: CT" for the location as shown in Graphic 1. A summary of all rainfall data utilized in the analysis for this site is provided below and a complete compilation of data provided by NOAA for this location is included in Appendix C.

Graphic 1. NOAA Rainfall Data Location Map



NOAA Precipitation Depth per Average Recurrence Interval [in]

Duration	2-Year	10-Year	25-Year	100-Year
24-hour	3.44	5.14	6.21	7.85

Existing Condition (See Appendix A)

The project area's existing drainage conditions were analyzed as a single watershed (See Drawing EXWS).

Existing Watershed 1 is approximately 1.07 acres and consists mostly of grassy and wooded areas. Stormwater runoff from this watershed flows overland to the east and towards the off-site wetland.

Proposed Condition (See Appendix B)

In the proposed condition, the site hydrology has been designed to match existing conditions to the maximum extent possible, and all watershed design points remain the same.

Proposed Watershed 1 is about 1.05 acres and consists mostly of grassy and wooded areas. Stormwater from these areas will continue to flow overland to the east and towards the off-site wetland.

On-site infiltration test was performed on April 16th, 2025, by Langan Engineering. Refer to Appendix D for test locations, results and test pit information.

Site Discharge Peak Flow Comparison for WS-1 (CF)

Storm	Current	Proposed	Delta	% Reduction
2-Year	1.27	1.27	-	-
10-Year	2.69	2.63	-0.06	-2%
25-Year	3.66	3.55	-0.11	-3%
100-Year	5.18	5.00	-0.13	-3%

As can be seen from the tables above, existing site hydrology has been maintained up to and including the 100-year storm.

STORMWATER QUALITY

All-Points Technology has identified an embedded vernal pool within the off-site wetland. The wetland assessment, see report titled "Wetland Assessment – Waterford Pickleball Courts and Parking" prepared by All-Points Technology, dated May 01, 2025, for additional information.

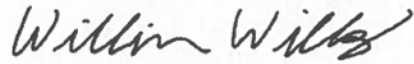
Per the recommendations of the Wetland Assessment, no *structural* water quality improvements are proposed for this project based on two considerations.: (1) the proposed pickleball courts will not introduce any pollution sources such as vehicles, sand or salt and (2) the increased environmental benefits of maintaining the 100-foot upland review areas and vernal pool envelope. This design prioritizes avoiding any disturbances within these areas, including the exclusion of stormwater structures, pipes, and detention systems. Instead, the project will implement LID improvements per Section 25.6.5.1 of the Town of Waterford Zoning Regulations. LID techniques such as directing flows to vegetated areas, encouraging sheet flow through vegetated areas, increasing vegetation, restricting ground disturbance, and maintain existing topography and drainage.

Stormwater runoff from the proposed pickleball courts is not expected to contribute pollutant loads, as the area will not support vehicular traffic and as such, no structural stormwater treatment devices are necessary. Additionally, it was recommended to avoid any stormwater basin within close proximity to the vernal pool due to the potential creation of a "decoy vernal pool". This would pose a significant risk to unsuccessful vernal species breeding.

CONCLUSION

The proposed project has been designed to maintain existing drainage patterns to the greatest extent practicable. Stormwater runoff from the site has mimics existing hydrology with no increase in peak flow rates. This Langan report confirms that the proposed project, as designed, effectively manages the stormwater runoff for the proposed development. Please refer to the Drawings for additional drainage information.

Sincerely,
Langan Engineering and Environmental Services, LLC



Bill Willsey, P.E.
Senior Staff Engineer



Kathryn Gagnon, P.E., LEED AP
Senior Project Manager

LIST OF FIGURES

Fig. 1	Location Map
Fig. 2	FEMA Flood Map
Fig. 3	NRCS Soil Map

LIST OF DRAWINGS

EXWS	Existing Watershed Map
PRWS	Proposed Watershed Map

REFERENCE DRAWINGS

CS101	Site, Grading, Drainage, & SESC Plan
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LIST OF APPENDICES

Appendix A	Existing Stormwater Discharge Calculations
Appendix B	Proposed Stormwater Discharge Calculations
Appendix C	NOAA Rainfall Data
Appendix D	Test Pit & Infiltration Logs



Legend

Approximate Site Boundary



NOTES:
1. BASEMAP ADAPTED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, NIAN TIC, CONNECTICUT, QUADRANGLE, DATED 2024.

LANGAN

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Langan Engineering, Environmental, Surveying
Landscape Architecture and Geology, D P C
Langan International LLC

Collectively known as Langan

Project

LEARN SCHOOL

51 DANIELS AVENUE

WATERFORD

CONNECTICUT

Figure Title

**SITE LOCATION
MAP**

Project No.

140310301

Date

3/18/2025

Scale

1"=2,000'

Drawn By

MG

Submission Date

Figure No.

1

TAB 9

**LEARN Response to Environmental Planner Comments
New School – 51 Daniels Avenue**

LEARN appreciates the opportunity to benefit from the Town of Waterford's pre-application review process. LEARN submitted draft plans to the Town professional staff on March 27, 2024. We received consolidated comments from the Waterford Environmental Planner, Maureen Fitzgerald on April 9, 2025 regarding LEARN's Preliminary Application for its proposed new school project and pickleball courts to be located at 51 Daniels Avenue. The Environmental Planner's comments are below followed by LEARN's narrative response to each comment and references to the updated plans and reports as needed.

For ease of review, the Town professional staff comments are in *italics* and the Learn responses are in **bold**.

1. *Recommend test holes be conducted in areas proposed for subsurface detention. Field percolation rate verifications for subsurface units and proposed bio-swale / bio-retention area.*

RESPONSE: Test pits and percolation tests were performed on 4/16/25 and results have been provided in Appendix F of the Stormwater Management Report submitted with the revised application materials. Based on the percolation test data the stormwater system as designed will achieve peak flow rate reduction of greater than 50 percent for the two-year storm in each of the three watersheds on site and for the site as a whole as recommended in the 2024 CT Stormwater Manual. Additionally, the proposed system will improve over existing conditions by providing significant reductions in peak flow rates for all storm events up to and including the 100-year storm.

2. *Soil hydrologic class D, soil infiltration not anticipated, so units basically detention*

RESPONSE: Test pits and percolation tests were performed in the areas of the proposed detention systems. The design is based on the test results, as detailed in the Stormwater Management Report. To be conservative, a 50 percent reduction was applied to the slowest percolation test results.

3. *What measures are proposed for water quality treatment and pre-treatment?*

RESPONSE: Proposed stormwater quality measures to improve the site include water quality units, catch basins with sumps, above and below-ground infiltration systems. The system will increase the stormwater quality.

4. *Any consideration of breaking up IA into smaller discharge or treatment points such as rain gardens before discharging towards municipal system? LID implementation?*

RESPONSE: The design has been optimized to address stormwater management needs while providing sufficient programming space for the school in light of the decreased acreage that LEARN is acquiring and to minimize disturbance to the extent possible.

5. *Plans will require design specifications/details for the bioswale construction. Recommend designing this a wet bioretention design to maximize pollutant renovation before discharge to municipal stormwater system. The receiving coastal water (Niantic River) is listed by the State as impaired for bacteria & nitrogen loading.*

RESPONSE: The western stormwater management area has been redesigned based on field data, investigation and the confirmation of the proposed property line. It is not designed as a wet basin due to it's proximity to the school. It primarily receives roof water. Detail of the basin is shown on CG503 and a description of the stormwater quality measures proposed is included as a section in the Stormwater Management Report.

6. *Detail should indicate elevations, typical cross-section, substrate material type and depth, seed mixture/planting plan, temporary erosion control measures proposed until vegetative cover is established.*

RESPONSE: The plans have been updated to include additional details regarding measures to install and stabilize the substrate materials. Details have been provided in the CG and CE series of plans and details as well as the construction sequence on CS003.

7. *Staff recommends examination of existing soil saturation in the area of the proposed swale as it will potentially affect available storage depth and duration of retention for water quality renovation.*

RESPONSE: As noted, percolation testing was performed and the design has been adjusted based on testing results.

8. *Concern with proposed new outlet at SW end of site from sub-surface detention chambers. Provide calculated peak flows and volumes for 2, 10, & 25-year storms and address measures to reduce concentrated flows down-gradient. From drainage report appendix printouts, discharge at this outlet for the 10 and 25-year storm events is 12 cfs and 16 cfs. Outlet controls needed. Receiving hillside is primarily a groundwater discharge zone with limited ability to absorb surface flows for a large part of the year. Recommend incorporating a level spreader to diffuse flows at this outlet.*

RESPONSE: Overflow discharge from the southern underground detention system has been rerouted to direct water away from the southern/southeastern property line. Additional outlet protection has been detailed, including a scour hole and level spreader.

9. *An Impact assessment from this discharge on the downslope shallow stormwater swale, located along rear property lines of homes on High Ridge Road, and its conveyance capacity may be required to assure no off-site residential impacts. Existing swale conveyance flows north along the rear property line of homes on High Ridge Road, then directly west between two homes (and in-ground pools) into a manhole. It receives stormwater run-off from the (2) treatment basins at the southern abutting Sea View Terrace subdivision.*

RESPONSE: Overflow discharge from the southern underground detention system has been rerouted to direct water away from the southern/southeastern property line. Additional outlet protection has been detailed, including a scour hole and level spreader.

10. *Application will need a stormwater management / maintenance plan and a narrative as to how the design meets the requirements of Section 25.6 of the Zoning Regulations and meets the definition of "Maximum Extent Achievable" for LID implementation and water quality renovation per the State Stormwater Quality Manual.*

RESPONSE: A Stormwater Management System Operation and Maintenance Plan has been provided as Appendix G of the Stormwater Report .

11. *A letter report regarding the on-site and adjacent wetland / vernal pool resource and potential project impacts to the wetland is recommended to accompany the application.*

RESPONSE: A Wetland Assessment Report from LEARN's expert, Dean Gustafson of All-Points has been provided under separate cover. The Report concludes that there are no proposed direct wetland or vernal pool activities and that the minor activities in the far ends of the upland review area will not adversely impact the wetlands or vernal pool. The Report makes some recommendations including vegetative enhancements in the upland review area all of which are accepted.

12. *Site plans should include a construction sequencing narrative identifying major site work phases, temporary construction stormwater control measures, time estimate for application of permanent seeding to stabilize competed phases and reduce extent of overall land disturbance, and when the stormwater treatment measures are to be completed and connected to the site drainage system.*

RESPONSE: Phasing and Construction sequencing are provided, see CS003.

13. *Temporary sediment traps may be necessary to reduce sedimentation impacts to down-gradient properties and the proposed permanent bio-swale. If proposed include size and typical detail in plan set.*

RESPONSE: The use of temporary sediment traps is contractor means and methods. The Contractor will be required to conform with the CTDEEP Construction General Permit. If they feel they need temporary sediment traps to satisfy the requirements, they should be provided.

14. *Clarify Soil Erosion Control Note #15.*

RESPONSE: The note has been revised to read: The contractor shall correct any omissions, errors, or field operations immediately and in accordance with the guidelines for soil erosion and sediment control.

15. *Clarify if rain gardens are proposed as noted on the narrative sheet.*

RESPONSE: There are no rain gardens proposed.

16. *If the pickle ball courts are remaining as part of the overall project site plan application, the limits of disturbance and extent of site grading and construction activity for this amenity must be shown on the overall site plan sheets and the grading and S&E control plan sheets. This is located within the upland review area of an inland wetland that is partially on the subject property and is an off-site vernal pool breeding area.*

RESPONSE: The pickleball court design has been submitted as a separate application package because the pickleball courts will be located on the portion of the site to be retained by the Town and will be owned and operated by the Town. A separate wetland assessment has been provided as a part of the pickleball court application.

17. *As noted, the site work will require registration for a CT DEEP General Permit for Construction Stormwater discharge.*

RESPONSE: Acknowledged. The project will be registered to the CT DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction prior to the start of construction.

TAB 10

SHIPMAN

Matt Ranelli
Phone: (203) 836-2805
MRanelli@goodwin.com

265 Church Street
Suite 1207
New Haven, CT 06510

May 2, 2025

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Jill Stevens
Director of Utilities
Waterford Utility Commission
15 Rope Ferry Road
Waterford, CT 06385

Re: Notice Pursuant To Conn. Gen. Stat. §§ 8-3i And 22a-42f Of Application For Determination Of No Regulated Activities Or, In The Alternative, Approval Of Regulated Activities Associate With Two Proposed New Pickleball Courts At 51 Danials Avenue, Waterford, Connecticut

Dear Director Stevens:

Pursuant to Conn. Gen. Stat. §§ 8-3i and 22a-42f, we are writing to inform you of an application filed on behalf of our client LEARN Regional Educational Service Center to construct two pickleball courts on property located at 51 Daniels Avenue in Waterford, Connecticut. The application was filed with the appropriate Waterford land use agencies and is available at the Waterford Town Hall, 15 Rope Ferry Rd, Waterford, CT 06385.

If you have any questions regarding this application or would like a courtesy copy, please contact me at (860) 251-5748.

Sincerely,

Matthew Ranelli
Matthew Ranelli

GMR:mm